

Disaster Risk Reduction Management: Basis in Crafting A 3-Year Strategic Plan for Pili National High School

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Abstract

This study determined the extent of Disaster Risk Reduction Management (DRRM) of Pili National High School (PNHS), Magallanes, Sorsogon. The study looked into the level of preparedness of PNHS in terms of the localized existing policies related to school safety and the status of implementation of PNHS on the three pillars of Comprehensive DRRM in Basic Education Framework along safe learning facilities, school disaster management, and DRR in education. The findings of this study guided the researcher in crafting a 3-year strategic DRRM plan for PNHS for the calendar year 2023-2025. The purposive sampling method was used in selecting the participants of the study. They are the members of the local DRRM councils of Magallanes and the school and district DRRM teams. They examined and observed the DRRM implementation of PNHS using the adapted comprehensive school safety monitoring checklist. Data gathered were statistically analyzed and a 3-year strategic DRRM plan for PNHS was crafted.

Keywords: Disaster Risk Reduction Management (DRRM), Safe Learning Facilities, School Disaster Management, Disaster Risk Reduction in Education, and Strategic DRRM Plan

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1. Introduction

Disasters are inevitable and their occurrence is unpredictable. It can happen anytime and anywhere, particularly in a vulnerable environment like our schools. Philippines is prone to many hazards/disasters either natural or man-made. On account of the numerous natural disasters such as earthquakes, volcanic eruptions, landslides, typhoons, etc., Philippines is among the top countries with the highest risks based on the World Risk Report 2018 (World Economic Forum, 2018). At present, Philippines is at its best in combatting COVID-19 pandemic. As the education of the country's students is slowly getting back on track, ensuring schools' safety from infectious diseases is one of its priorities.

The Department of Education (DepEd) through RA 10121 otherwise known as Philippine DRRM Act of 2010 urged school administrators to strengthen their school's preparedness in disaster. The implementation of Disaster Risk Reduction Management (DRRM) in basic education makes schools less vulnerable to disasters and lessens the risks for teachers and students. DepEd Order 37, s. 2015 or the Comprehensive DRRM in Basic Education Framework instructs the basic education sector to build resilience in schools by ensuring that quality education is constantly provided and promoted during disasters and/or emergencies. In this framework, the offices and schools of DepEd shall have institutionalized DRRM structures, systems, protocols, and practices. DRRM implementation in the basic education context operates under the four (4) thematic areas stipulated in RA 10121 namely, Prevention and Mitigation, Preparedness, Response, and Recovery and Rehabilitation. In order to provide specific guidance on the achievement of DepEd and National DRRM Council's priorities, the principles of the Comprehensive School Safety (CSS) Framework were adopted to ensure the complementarity of DRRM interventions for basic education. DRRM interventions are categorized using the three pillars of CSS, namely: Safe Learning Facilities, School Disaster Management, and DRR in Education. This DepEd Order supports the attainment of DepEd's three (3) education outcomes, namely: Access, Quality, and Governance (AQG) whose primary goals are to protect students and teachers, ensure continuity of learning, and promote risk reduction and resilience through education.

School as the students' second home needs to ensure that students are safe before, during, and after emergency events. If a calamity occurs during school hours, the school must take into account the hazards that the students are exposed to and act quickly to address it. In addition, schools can reduce injuries, deaths, and property damage by implementing emergency preparedness activities like developing plans, especially contingency plans, conducting drills, and educating students about hazards (Wang, 2016). Contingency planning is considered in RA 10121 as a unique management process with its own set of concepts, principles, and communication procedures during disasters. In 2021, through DepEd Memorandum 071, s. 2021 schools are instructed to create contingency plans for the expansion of face-to-face classes in the new normal. It presents the strategies and policy guidelines for the safe reopening of schools and preventive measures in case of COVID-19 resurgence in the community. Contingency plans are made to ensure learning continuity and safety of the students inside the school.

Students, as one of the vulnerable groups, must be equipped with the necessary skills and understanding in order to become more resilient in times of disaster. The creation of student-led watching and hazard mapping team

as stipulated in DO 23, s. 2015 strengthens disaster prevention, mitigation, and preparedness. It is one of the key strategies to address the vulnerabilities of students inside and outside the school. According to Kay (2013), it is imperative that the whole school community be actively involved in disaster preparation and in determining ways of protecting the school. Schools that have prepared their students for disasters can manage hazards well.

Pili National High School (PNHS), one of the secondary schools in the Schools Division of Sorsogon is geographically located, 123.95 longitude and 12.82 latitude east of the Philippines, making it susceptible to many hazards/disasters. With this, the need to create a strategic DRRM plan for PNHS is deemed necessary. This plan aims to address the primary needs of the school DRRM to ensure the safety of the school for students and teachers and serve as a guide towards resilience-building for PNHS in the next three years. According to Russell (2018), planning and preparation for disasters are ongoing processes that each school prioritizes in order to reduce the impact of disasters and other calamities and maintain school-wide safety for administrators, teachers, parents, and students.

On this light, this study examines the extent of DRRM implementation of PNHS through observation and evaluation by the members of the local DRRM councils in the municipality of Magallanes and school DRRM teams in order to effectively craft a 3-year quality strategic plan for PNHS. The study will look into the status of implementation of PNHS in terms of the localized existing policies related to school safety and on the three pillars of Comprehensive DRRM in Basic Education Framework along safe learning facilities, school disaster management, and DRR in education using the adapted CSS Monitoring Checklist from DO 37, s. 2015.

The researcher believes that the findings of the study may guide SDO Sorsogon in crafting a guided and well-prepared DRRM plan. The outcome of this study may also be vital in crafting the School Improvement Plan (SIP) of PNHS for 2023-2025. Furthermore, the result of this study may be used in conducting a more robust research design to further assess the extent of preparation and implementation of DRRM in educational institutions.

2. Literature Review

The researcher made an extensive search for the existing literature to find links with the present study. Since DRRM is a vast area, the researcher focused on specific aspects that give close support to the present study.

The Philippines, on account of the natural hazards including earthquakes, volcanic eruptions, typhoons, etc., is one of the top ten hazardous countries worldwide. Aside from the natural hazards, our country has high rates of man-caused disasters such as vehicular accidents, water-related incidents, fires, etc. These unavoidable events can cause serious risk, loss of life, property damage, and disruption of the social order and services to the communities affected (Ronquillo, 2020). In order to reduce, if not completely prevent casualties and damage to people and properties brought on by disasters or hazards, the adoption of the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015–2030 during the Third United Nations World Conference on Disaster Risk Reduction (DRR) was made.

The SFDRR 2015-2030 assesses and reviews the implementation of the “Hyogo Framework for Action (HFA) 2005–2015: Building the Resilience of Nations and Communities to Disasters” where Philippines is one of the 168 signatory countries. The framework supports communities and countries in planning and implementing policies, strategies, and practices to reduce the impact of natural hazards. This aims to lessen the risks by analysing the cause and effect of disasters. At the 2022 Global Platform on DRR, UNICEF Executive Director Catherine Russel quoted, “To meet the targets of the Sendai Framework by 2030, UNICEF is calling on the government and other stakeholders to empower all children and young people, so they are educated, prepared, resilient, and able to meaningfully participate in key decisions and actions”.

Disasters can happen anytime and anywhere and can have long-term implications to the affected areas, particularly in vulnerable environments like schools. During typhoon Haiyan (Yolanda) in 2013, students were affected by the ripple effects that the typhoon have on their education. School buildings were used as evacuation sites, instructional materials were lost or damaged, and class schedules were disturbed (Save the Children, 2016).

In order to mitigate the adverse effect of these disasters to schools, Department of Education (DepEd) urged school administrators to strengthen their school’s preparedness in disaster. RA 10121 otherwise known as Philippine Disaster Risk Reduction Management (DRRM) Act of 2010 quoted, “the need to adopt a disaster risk reduction and management approach that is holistic, comprehensive, integrated and proactive in lessening the socio-economic and environmental impacts of disasters including climate change, and promote the involvement and participation of all sectors and all stakeholders concerned, at all levels, especially the local community.” This Act prompted the development of the National DRRM Framework (NDRRMF) and National DRRM Plan (NDRRMP). Both the NDRRMF and NDRRMP foresee a country that has “safer, adaptive and disaster-resilient Filipino communities toward sustainable development” (Comighud, 2020). This act prompted the school authorities to strengthen disaster preparedness in schools by establishing the legal basis for their directives on disaster risk reduction. The implementation of DRRM in basic education helps reduce vulnerability and impact of disasters on schools particularly to teachers and students.

DepEd Order No. 37, s. 2015 or the Comprehensive DRRM in Basic Education Framework instructs DepEd

to establish institutionalized DRRM structures, systems, protocols, and practices. This order guides DepEd in building resilience in schools to ensure that quality instructions are constantly given even during disasters. Further, this supports the attainment of DepEd's three (3) education outcomes, namely: Access, Quality, and Governance (AQG). DRRM implementation in the basic education context operates under the four (4) thematic areas stipulated in RA 10121 namely, Prevention and Mitigation, Preparedness, Response, and Recovery and Rehabilitation.

In order to provide specific guidance on the achievement of DepEd and National DRRM Council's priorities, the principles of the Comprehensive School Safety (CSS) Framework are adopted to ensure the complementarity of DRRM interventions for basic education. DRRM interventions are categorized using the three pillars of CSS, namely: Safe Learning Facilities, School Disaster Management, and DRR in Education. The objectives of the framework are centered on protecting the students and teachers, contingency planning, protection of schools, and strengthening disaster prevention and resilience through information dissemination (DO 37, s. 2015). Since disasters are inevitable, disaster preparedness may reduce its effects on school, teachers and learners.

In schools, disaster preparedness training and workshop for teachers, students, and stakeholders are effective ways of raising awareness on school disaster management. According to King and Tarrant (2013), disaster preparedness may lessen the severity of possible damage and save lives, which can contribute for a fast and efficient recovery operation. Planning and preparation are processes that each school must prioritize in order to minimize the effects of disasters.

The issuance of DepEd Order No. 23, s. 2015 or the Student-Led School Watching and Hazard Mapping strengthens disaster prevention, mitigation and preparedness of students and teachers in schools. It is crucial to educate and equip students with the skills in preparing and managing disasters and/or emergencies. This DepEd order is one of the strategies for addressing the vulnerabilities of students by engaging them in identifying hazards and risks inside and outside of school. Moreover, Grant (2002) also suggests that strategically posting safety rules, installing firefighting equipment, evacuation exits, maintaining buildings, holding seminars on disaster awareness, involving child-to-child peer education, using songs, electronic and print media, action learning, and using science in educating about disaster risk management.

Developing contingency plans can be effective in reducing the impacts of disaster. R.A. No. 10121 recognizes contingency planning as a unique management procedure. According to Gubalane (2015), contingency plans are vital components of disaster risk reduction, but to be successfully implemented, citizens, infrastructure, emergency response system, and rehabilitation are needed. At present, basic education is severely impacted by the COVID-19 pandemic. DepEd's Basic Education-Learning Continuity Plan (BE-LCP) was created to ensure learning continuity by adjusting the curriculum, aligning the learning materials, and utilizing various Learning Delivery Modalities (LDM) (DO 012, s. 2020). During the time, DepEd, through Memorandum No. 71, s. 2021, instructed schools to create contingency plans for the implementation and expansion of face-to-face classes and transition to the new normal education. It presents the strategies and policy guidelines for the safe reopening of schools after the lockdown and in case of COVID-19 resurgence in the community.

Pili National High School (PNHS) conducts disaster preparedness and basic first-aid training for students and teachers. The school actively participates in the mandatory Nationwide Simultaneous Earthquake Drill (NSED) quarterly and follows minimum health protocols in combat of COVID 19 as the full face-to-face class progresses in the new normal education. As cited by Ronquillo (2020), schools should conduct drills and exercises frequently and should be taken seriously by the students and teachers as they teach them what to do during an emergency. Additionally, he confirmed that teachers are generally prepared for capacity building as a result of the activities, training, and simulation exercises that are conducted during earthquake drills. DRR training should concentrate on teachers and students in order to lessen the risk and develop their resilience not only to disasters but as well as on humanitarian crises.

Valuable insights were gained from the reviewed literature. They provided justifications for the accomplishment of this research.

The RA 10121 and the adoption of the Sendai Framework, the legal instrument and policy framework that guides the country, aim to reduce disaster risks and prevent the adverse effects of disasters through mitigation, prevention, and preparation by developing and applying strategies and policies. Schools as vulnerable places whenever a disaster occurs are mandated to strengthen disaster preparedness through the implementation DO 37, s. 2015. This DepEd order helps reduce the vulnerability and impact of disasters on schools, particularly to teachers and students through DRRM. Further, DO 23, s. 2015 prepares students for school emergencies and natural disasters through hazard mapping. Grant, 2002; Gubalane, 2015; and Ronquillo, 2022 stressed that emergency preparedness activities such as contingency plans, disaster trainings and mock drills, and disaster awareness activities, are proven effective in enhancing schools' resilience to disaster.

The aforementioned literature supports the present study in terms of the need to strengthen teachers' and students' disaster awareness through training, drills, and other DRR activities in order to minimize and/or prevent the effects of natural or human-induced emergencies at school. The need to create a well-guided DRRM plan based on the needs of the school is deemed necessary. The present undertaking and the reviewed literature were

interrelated for a number of reasons. All are aimed at attaining the DepEd's education outcomes and realizing the four thematic areas of PDRRM Act.

Despite the fact that many DRRM-related programs have been created, there are few studies on program awareness and application in educational institutions. Therefore, to bridge the gap in the existing literature, this study gives focus on the following: (a) assess the extent of implementation of PNHS in terms of the localized existing policies related to school safety and on the three pillars of Comprehensive DRRM in Basic Education Framework; safe learning facilities, school disaster management, and DRR in education, (b) guide in crafting a guided and well-prepared 3-year quality school improvement plan for PNHS that will serve as a guide towards resilience-building for PNHS in the next three years, and (c) strengthen disaster awareness and DRRM implementation in schools.

3. Research Objectives

This study determined the extent of Disaster Risk Reduction Management (DRRM) of Pili National High School (PNHS) as basis in crafting a 3 -year strategic DRRM plan for PNHS. Specifically, it answered the following questions: 1) What is the status of implementation of PNHS in terms of the existing policies related to DRRM?, 2) What is the status of DRRM implementation of PNHS in terms of: a) safe learning facilities, b) school disaster management, and c) DRR in education?, and 3) What strategic action plan may be proposed to enhance the DRRM of PNHS?

4. Materials and Methods

4.1 Participants

This study made use of purposive sampling method in selecting the participants of the study. The selected members of the Municipal DRRM Council (MDRRMC), Barangay DRRM Council (BDRRMC), District DRRM Team (DDRRMT), School DRRM Team (SDRRMT), and School Hazard-Mapping and School Watching Team (SHMSWT) who examined the DRRM of PNHS were the participants of the study. There were a total of 24 participants in this study. They were chosen since they have basic knowledge in terms of the DRRM implementation in the community and/or school. Further, they attended training, workshops, and orientations related to DRRM.

The respondents observed and evaluated the DRRM of PNHS using the adapted CSS Monitoring Checklist from DO 37, s. 2015. The results of their observations and evaluations become the basis in crafting a 3-year strategic action plan for PNHS. The evaluation process looked into the status of implementation of PNHS in terms of the localized existing policies related to DRRM and on the three pillars of Comprehensive DRRM in Basic Education Framework; safe learning facilities, school disaster management, and DRR in education. The names of the respondent were not revealed for confidentiality purposes.

4.2 Data Collection

This study adapted the CSS Monitoring Checklist – DRRM Monitoring Tool from DO 37, s. 2015 in determining the status of implementation of DRRM of PNHS. It served as the basis in crafting a 3-year strategic plan for PNHS. The monitoring tool was personally distributed to the respondents; the MDRRMC, BDRRMC, DDRRMT, SDRRMT, and SHMSWT who voluntarily participated to observe and evaluate the DRRM of PNHS using the tool. The details of the study and the instructions on how to answer the monitoring tool were explained to the participants to guide them in answering each criterion/indicator. The in-depth discussions of how the research questions were answered in the study are as follows:

To determine the status of the implementation of PNHS in terms of the localized existing policies related to DRRM, the first part of the DRRM monitoring tool along the key area, Enabling Environment was used. This contains 11 criteria or indicators which the participants assessed using the following scale of measurement: 1 -Not Implemented (NI), 2 – Partially Implemented (PI), 3 – Implemented (I), and 4 – Fully Implemented (FI). For a rating below 4, the respondents will give their remarks on each evaluation criterion. Statistical tools such as frequency count and simple mean were used in the gathered data.

The same scale of measurement was used to determine status of implementation on the three pillars of Comprehensive DRRM in Basic Education Framework, the evaluation form is divided along three key areas: 1) safe learning facilities, 2) school disaster risk management, and 3) DRR in education. If there are policies or activities that may help the researcher improve the DRRM of PNHS which are not included in the monitoring tool, the participants may write it in the comment/suggestion box at the end of the checklist.

The assessed evaluation forms by the respondents were retrieved immediately after they have completed their responses. Statistical tools such frequency count and simple mean were used in the gathered data. It was then coded, tallied and tabulated for final analysis and interpretation. Results were used by the researcher in crafting a 3-year strategic action plan for PNHS.

4.3 Data Analysis

The gathered data were treated statistically. The statistical tools include frequency count and weighted mean. To determine the status of implementation of PNHS in terms of the localized existing policies related to DRRM and the status of implementation of DRRM in terms of safe learning facilities, school disaster management, and DRR in education, a 4-point Likert-scale was used.

After the collection of the evaluation, a frequency count of the responses from the participants was prepared and organized. The mean for each evaluation criterion of the checklist was computed and interpreted. Interpreted results became the basis in crafting a 3-year strategic DRRM action plan for PNHS.

5. Results and Discussion

This study determined the extent of DRRM of PNHS as basis in crafting a 3-year strategic DRRM plan for PNHS. The presentation of data follows the chronology based from the specific questions that this study would like to answer. They are the following: 1) status of implementation of PNHS in terms of the existing policies related to DRRM, 2) status of DRRM implementation of PNHS in terms of the safe learning facilities, the school disaster management, and DRR in education, 3) strategic plan proposed to enhance the DRRM of PNHS? Tables were used for clearer presentation of the data gathered.

5.1. Status of implementation of PNHS in terms of the existing policies related to DRRM

The first part of the evaluation form discusses the existing DRRM policies based from the legal orders from the government and/or agencies that is being adopted/adapted by the school.

Table 1. Status of implementation of PNHS in terms of the existing policies related to DRRM

LEARNING COMPETENCIES	WM	DR
1. Adopted/adapted/localized existing policies related to DRRM/ CCA/ EiE in education/ school safety. R.A 10121 - Philippine DRRM System, DO 37, s. 2015 - Comprehensive DRR in Basic Education Framework, DO 21, s. 2015 - Information and Coordination Management Protocol, DO 23, s. 2015 - Student-led Hazard Mapping and SWT, DO 27, s. 2015 - Family Earthquake Preparedness Homework, RM 14, s. 2015 - Standardization of Region/Division/School DRRM Team, DO 23, s. 2015 - Student-Led School Watching and Hazard Mapping, DO 14, s. 2021 - Guidelines on Cancellation/Suspension of Classes, JMC 1, s. 2013 - Guidelines on Evacuation Center/Management, and DO 28, s. 2016 - Strengthening the Fire Safety and Awareness Program;	2.77	PI
2. Assigned a School DRRM Focal Person with designation paper/letter signed by School Head and PSDS;	4.00	FI
3. Formed School DRRM Team consisting of personnel from different offices/chairman; with defined membership and roles and responsibilities anchored in RM 14 s. 2015;	4.00	FI
4. School budget supports regular DRRM programs/ activities	4.00	FI
5. Integrated DRRM in the Enhanced-School Improvement Plan.	3.73	FI
6. Conducted student-led school watching and hazard mapping (DO 23 s. 2015) and involved students in DRRM planning.	4.00	FI
7. Incorporated results of student-led school watching and hazard mapping in the School DRRM Plan and Enhanced School Improvement Plan (E-SIP)	3.62	FI
8. Data collection and consolidation of programs and activities on DRRM, covering the 3 Pillars to monitor results and impact exist	2.31	PI
9. Rapid Assessment of Damages Report (RADAR) is submitted to Central Office, within 72 hours after the onslaught of a hazard in the area	3.73	FI
10. 100% completion rate of DRRM related questions in the EMIS/ EBEIS.	4.00	FI
11. School has partnerships that could be tapped to support its DRRM programs and activities including those after a disaster.	1.38	NI
Mean Score	3.41	I

Legend: WM – Weighted Mean DR – Descriptive Rating FI – Fully Implemented
 PI – Partially Implemented I – Implemented NI – Not Implemented

As shown in the table, the status of implementation of PNHS in terms of the existing policies related to DRRM along Learning Competency; (1) assigned a School DRRM focal person, (2) formed school DRRM team consisting of personnel with defined membership and roles and responsibilities anchored in RM 14 s. 2015, (3) school budget supports regular DRRM programs/ activities, and (10) 100% completion rate of DRRM related questions in the EMIS/ EBEIS gained a perfect Weighted Mean (WM) of 4 with a Descriptive Rating (DR) of fully implemented. The result also showed that the LCs (5) integrated DRRM in the Enhanced-School Improvement Plan (E-SIP), (7)

incorporated results of student-led school watching and hazard mapping in the School DRRM Plan and E-SIP, and (9) submitted Rapid Assessment of Damages Report (RADAR) to Central Office, within 72 hours after the onslaught of a hazard in the area with a WM of 3.73, 3.62, and 3.73, respectively.

The results showed that the school has formally designated a teacher who can monitor and supervise the implementation of DRRM inside the school and has allocated budget support for all DRRM related activities. Further, the school submitted up-to-date DRRM reports to the concerned DRRM offices. The goal of DO 23, s. 2015 which engages learners in identifying hazards and risks is a good strategy for raising awareness and enhancing the skills of students to manage possible disasters and/or emergencies. As stated by Campilla (2016), schools' administrators help in informing the school community groups regarding disaster mitigation. Therefore, the school must sustain and/or strengthen its governing school DRRM councils since they are the primary support of the DRRM of the school not only in mitigation activities but also in disaster prevention preparedness and in updating the DRRM status of the school.

The LC along; (1) adaptation of the existing policies such DepEd Orders, DepEd Memos, and etc. as well as (8) data collection and consolidation of programs and activities on DRRM, covering the 3 Pillars to monitor results and impact exist gained a WM of 2.77 and 2.31, respectively with a DR of partially implemented. This was a manifestation that the school failed to implement all policies including DO 27, s. 2015 or the family earthquake preparedness homework. Furthermore, the LC (11) partnerships that could be tapped to support its DRRM programs and activities gained the lowest WM of 1.38 which falls under the DR of not implemented.

The results showed that the school failed to have a tangible partnership with the stakeholders and other local DRRM councils of Magallanes although during training and even during and after disasters, their participations were active. According to Tuladhar et al. (2015), school DRRM members are responsible in reporting to the authorities the calamity victims so that they can receive the support that they need. Further, Dominguez (2014) suggested that the coordination of DRRM teams helps with disaster recovery and rehabilitation after a disaster. Thus, raising awareness on the three pillars through partnerships with the stakeholder and other DRRM agencies should be given priority.

In general, the status of implementation of PNHS in terms of the existing policies related to DRRM gained an average WM of 3.41 which has a DR of implemented. Taking into consideration the results mentioned, the school should strengthen the adoption/adaption of the government policies related to DRRM.

5.2 Status of DRRM implementation of PNHS in terms of the safe learning facilities, the school disaster management, and DRR in education

The second part of the evaluation form discusses the status of DRRM implementation of PNHS along the three pillars of DRRM. These include: safe learning facilities, school disaster management, and disaster risk reduction in education.

5.2.1 Safe Learning Facilities.

Table 2A below shows the result of the DRRM evaluation in PNHS along safe learning facilities.

Table 2A. Safe Learning Facilities

LEARNING COMPETENCIES	W M	D R
1. School buildings were been properly inventoried.	4.00	FI
2. School conducted risk assessment of buildings in coordination with Physical Facilities Coordinator and other support agencies.	4.00	FI
3. Unsafe school building were identified.	4.00	FI
4. School has taken appropriate actions to unsafe school buildings (e.g. upgraded, retrofitted, repaired, non-usage, etc.)	4.00	FI
5. Conducted regular inspection and maintenance of facilities	3.58	FI
6. Undertaken regular repair of classroom including facilities.	3.73	FI
7. Roles and responsibilities for maintenance are defined, documented and assigned.	3.65	FI
8. School head has identified classrooms/buildings to be used as an evacuation center in times of disaster.	4.00	FI
9. School heads are clear with the roles and function of the school in camp management vis-à-vis the LGU and DSWD as per JMC 1 s. 2013 "Guidelines on Evacuation Center Coordination and Management" and RA 10821 "Children's Emergency Relief and Protection Act" and its corresponding Implementing Rules and Regulations (IRR)	4.00	FI
Average Mean Score	3.88	FI

Legend: WM – Weighted Mean DR – Descriptive Rating FI – Low Mastery

As shown in the table, the status of DRRM implementation along safe learning facilities gained an average mean score of 3.88 which falls under the descriptive rating of fully implemented. It is evident in the table that all

learning competencies gained a rating ranging from 3.58 to 4.00 described as fully implemented.

The results showed that the school ensures safety of the teachers and learners by conducting regular inspections and undergoing repairs in order to guarantee the safety of everyone inside the school. As Dela Cruz (2016) suggested, public schools should come up with ways to reduce risks by monitoring and maintaining the safety of school structures. This notion is affirmed by Comighud (2020) in the findings of their study that schools are focused on disaster preparation, response, recovery, and rehabilitation management. Further, Campilla (2016) stated that more emphasis has been placed on disaster preparedness in order to reduce fatalities during natural disasters. These aim to lessen the number of casualties each time a disaster occurs. Therefore, considering the unpredictable occurrence of disasters, the school must conduct regular inspections and maintenance of its facilities in order to avoid the adversative effects of disaster inside the school.

5.2.2 School Disaster Risk Management.

Table 2B below shows the result of the DRRM evaluation in PNHS along school disaster risk management.

Table 2B. School disaster risk management

LEARNING COMPETENCIES	W M	D R
1. School has a Contingency Plan, i.e., Preparedness Plan turned into response actions when a disaster strikes.	4.00	FI
2. School has available, accessible and adequate first aid kit in every instructional rooms.	1.00	NI
3. School has at least 2 necessary and functioning equipment, in case of a disaster (e.g. fire extinguisher, handheld/base radio, generator, etc.)	3.38	I
4. School has identified spaces for putting up Temporary Learning Spaces / Shelters in the aftermath of disaster	3.00	I
5. School has ready resumption strategies and alternative delivery modes to ensure education continuity	4.00	FI
6. School has ensured that students completed the Family Earthquake Preparedness Homework Plan; and school has reported completion to Division Office and Central Office.	1.00	NI
7. School has established a school personnel tracking system/ protocol in the event of a disaster.	1.00	NI
8. School has trained personnel to administer first aid to students and personnel.	1.00	NI
9. School has psychosocial interventions for personnel and Students	1.46	NI
10. School has trained teachers and other personnel who could provide psychosocial support to students	1.46	NI
11. School DRRM Plan and SIP with DRRM integration were reviewed annually.	1.00	NI
Average Mean Score	1.99	PI

Legend: *WM* – Weighted Mean *DR* – Descriptive Rating *FI* – Fully Implemented
I – Implemented *PI* – Partially Implemented *NI* – Not Implemented

As shown in the table, the Learning Competency (LC) on school's contingency plan and ready resumption strategies and alternative delivery modes both gained a Weighted Mean (WM) of 4.00 which falls under the Descriptive Rating (DR) of fully implemented. This means that the school already implemented contingency plans which includes the learning continuity of the students in case a disaster occurs. Gubalane (2015) and Russell (2018) described contingency planning as a fundamental tool that each school prioritize in order to minimize the effects of disaster and ensure the safety of the school-community. This supports DO 37, s. 2015 which mandated DepEd schools to have established DRRM structure, system, protocol, and practice established for resilience-building in order to ensure that quality education constantly provided and promoted during disasters and/or emergencies. Thus, updating the contingency plans the school covering all types of disasters is needed to ensure the readiness of the school whenever a disaster strikes.

In terms of having functioning DRRM equipment such as fire extinguishers, handheld/ base radio, and generator, the responses had a WM of 1.99 implying partially implemented. Moreover, in terms of the available, accessible, and adequate first aid kit in every instructional room, a WM is 1.00 which fall under DR, not implemented is shown. This means that the DRRM materials for school disaster risk management is limited. Mamhot (2019) as cited by Comighud (2020) emphasized the importance of DRRM equipment (e.g., fire extinguishers, supplies, and necessary learning/ teacher/ school kits) on disaster awareness in schools. Therefore, installing functioning firefighting equipment, communication devices, and adequate safety kits in schools is necessary in school disaster risk management.

The learning competencies of establishment of a school personnel tracking system/ protocol in the event of a disaster, trained personnel to administer first aid to students and personnel, psychosocial interventions for personnel and students, and trained teachers and other personnel who could provide psychosocial support to students all gained a rating ranging from 1.0 to 1.46 with a descriptive rating of not implemented. This means that the school personnel are not trained in administering first aids and conducting psychosocial supports and

evaluations to students as well as the safety protocols in the event of disaster. As mentioned, disaster preparedness trainings and workshops for teachers, students, and stakeholders are effective ways of raising awareness on school disaster management. Therefore, school must prioritize school personnel trainings related DRRM. With properly trained personnel, the school can manage the disaster risks very well.

Also, school DRRM plan and SIP with DRRM integration should be reviewed annually. This competency gained a WM of 1.0 implying not implemented. In order to keep track with the development of DRRM implementation in the school, school DRRM plan and SIP should be reviewed annually for effective planning and preparation.

The status of DRRM implementation along school disaster risk management gained an average mean score of 2.09 which falls under the descriptive rating of partially implemented. School disaster risk management should be prioritized in order to minimize the effects of disasters.

5.2.3 Disaster Risk Reduction in Education.

Table 2C below shows the result of the DRRM evaluation in PNHS along disaster risk reduction education.

Table 2C. Disaster risk reduction in education

LEARNING COMPETENCIES	WM	DR
1. School has integrated key DRRM/CCA/EiE concepts in at least 4 subjects based on the national Curriculum Guide (Lesson Plan)	3.31	I
3. More than 75% of students are actively participating in various DRRM/ CCA/ EiE activities	4.00	FI
4. School has a DRRM/CCA/EiE capacity building plan for teachers and personnel	1.00	NI
5. School Head and personnel have received at least 3 DRRM/ CCA/ EiE trainings from division or region or partners	1.00	NI
6. At least more than 10 DRRM/CCA/EiE resource materials are available in the school	1.00	NI
7. Presence of DRRM corner, with updated IEC materials posted in it, in every classroom	4.00	FI
8. School carries out monitoring and evaluation to assess sustainable implementation.	1.00	PI
Mean Score	1.91	PI

Legend: *MPS* – Weighted Mean *DR* – Descriptive Rating *FI* – Fully Implemented
I – Implemented *PI* – Partially Implemented *NI* – Not Implemented

As shown in the table, the Learning Competency (LC); more than 75% of students are actively participating in various DRRM/ CCA/ EiE activities and the presence of DRRM corner, with updated IEC materials posted in it, in every classroom, both gained a Weighted Mean (WM) of 4.00 or fully implemented. This means that students actively participate in various school DRRM activities particularly in the conduct of the quarterly nationwide simultaneous earthquake drills and that the teachers are well informed about the importance of educating the students about disaster management by posting info graphs about DRRM including classroom and school evacuation plans.

The results also showed that the school has integrated key DRRM/CCA/EiE concepts in at least 4 subjects based on the national Curriculum Guide (Lesson Plan). This gained a WM of 3.31 or implemented. DRRM concepts are already integrated in some of the lessons in science and Disaster Readiness and Risk Reduction (DRRR) subjects.

As to the LCs; school has a DRRM/CCA/EiE capacity building plan for teachers and personnel, school Head and personnel have received at least 3 DRRM/ CCA/ EiE trainings from division or region or partners, and at least more than 10 DRRM/CCA/EiE resource materials are available in the school, a WM of 1.00 implying not implemented were shown. This means that the school does not have capacity-building plans for school personnel since they have not received any training from division, region or partners. Since teachers play a vital in educating and raising awareness on disasters inside the school, they should be given capacity buildings and training on DRRM. Moreover, the DRRM resource materials in the school are limited and should also be given emphasis.

5.3 Proposed Strategic Plan for School Year 2023-2025

The proposed DRRM action plan aimed to address the primary needs of the school DRRM in ensuring the safety of the school for students and teachers. According to Russell (2018), planning and preparation for disasters are ongoing processes that each school prioritizes in order to curtail the effects of emergencies and other hazardous situations and maintain school-wide safety for administrators, teachers, staff, parents, and students. The proposed action plan will serve as a guide toward resilience-building for PNHS in the next three years. It also aims to strengthen the DRRM of PNHS through programs, projects, and activities.

The action plan focuses on the four key areas which include; policies related to DRRM, safe learning facilities, school disaster risk management, and disaster risk reduction in education. The proposed action plan has six columns; the key areas, the objectives, the proposed programs/ projects / activities, the timeline, the source of fund,

and the expected output.

Table 3. DRRM action plan for Pili National High School - year 2023-2025

KEY AREAS	OBJECTIVES	PROGRAMS, PROJECTS AND ACTIVITIES	TIMELINE	SOURCE OF FUND	EXPECTED OUTPUT
Policies Related to DRRM	Adopt/ Adapt/ Localized existing policies related to DRRM in education/ school safety.	Symposium on R.A 10121 “Philippine Disaster Risk Reduction and Management System”, DO 37, s. 2015 “Comprehensive DRR in Basic Education Framework”, and DO 21, s. 2015 “Information and Coordination Management Protocol”	1st Quarter of the School Year (Yearly)	School Local Fund/ MOOE	Adopted/Adapted/ Localized policies on DRRM Activity Request/ Project Proposal Documentations
		Election of Student-led Hazard Mapping and School-Watching Team Accomplishment of Family Earthquake Preparedness Homework (FEPH) (DO 27, s. 2015) Reiteration of DO 14, s. 2021 or the guidelines on the cancellation/ suspension of classes during the School Parents-Teachers Association (SPTA) meeting Coordination with the barangay DRRM council the JMC 1, s. 2013 or the evacuation center/ management of the school.	1st Quarter of the School Year Year Round Quarterly Year Round	NONE NONE NONE None	Elected Student-led Hazard Mapping and SWT FEPH outputs Reported completion to Division Office and Central Office. Attendance Sheets / Documentations Minutes of the meeting Communication Letter/ Documentation Minutes of the meeting
	Organize school DRRM Team consisting of personnel from different offices/ chairmen with defined membership and responsibilities (RM 14 s. 2015)	Appointment/Election of school DRRM Team	First Quarter of the School Year (Yearly)	NONE	School DRRM Team Designation Memo/Letters

KEY AREAS	OBJECTIVES	PROGRAMS, PROJECTS AND ACTIVITIES	TIMELINE	SOURCE OF FUND	EXPECTED OUTPUT
	Conduct student-lead school watching and hazard mapping (DO 23 s. 2015) and involve students in DRRM planning	Risk Assessment: Student-lead school watching and hazard mapping Planning of school DRRM activities	First Quarter of the School Year (Yearly)	NONE	Risk Assessment result Plan of school DRRM activities
	Submit Rapid Assessment of Damages Report (RADAR) within 72 hours after the onslaught of a hazard in the area	Reports: RADAR 1 and RADAR 2	During and After Disaster/ Calamity/ Hazard	NONE	Submitted RADAR 1 & 1 to the Division DRRM Coordinator
	Create partnerships with local DRRM councils that could be tapped to support school DRRM programs and activities including those after a disaster	DRRM School and Community Partnership Program: Partnerships with local DRRM councils and organizations	Yearly	NONE	Activity Report Documentation
Safe Learning Facilities	Conduct risk assessment of classrooms/ buildings	PROJECT SEAL (Safe Environment for A better Learner): School risk assessment of buildings Taking appropriate actions to unsafe school buildings (e.g. upgraded, retrofitted, repaired, non-usage, etc.)	Quarterly	NONE	Building/ Classroom inventory form Documentations Analyses report

KEY AREAS	OBJECTIVES	PROGRAMS, PROJECTS AND ACTIVITIES	TIMELINE	SOURCE OF FUND	EXPECTED OUTPUT
	Identify classrooms/ buildings to be used as an evacuation center in times of disaster	Reiteration of the function of the school in camp management vis-à-vis the LGU and DSWD as per JMC 1 s. 2013 “Guidelines on Evacuation Center Coordination and Management” and RA 10821 “Children’s Emergency Relief and Protection Act” and its corresponding Implementing Rules and Regulations (IRR)	Yearly	NONE	Identified classrooms/ buildings to be used as an evacuation center in times of disaster
School Disaster Risk Management	Update school contingency Plans	Updating of school contingency plans and BE-LCP	Yearly	NONE	Updated school contingency plans
	Purchase functioning DRRM equipment (fire extinguisher, handheld/base radio, generator, etc.) and first aid kit in every classroom	Available, accessible and adequate first aid kit in every instructional rooms. Functioning DRRM equipment (e.g. fire extinguisher, handheld/ base radio, generator, etc.) Identifying spaces for putting up Temporary Learning Spaces (TLS) / Shelters in the aftermath of disaster Ready resumption strategies and alternative delivery modes to ensure education continuity	Include purchase in the school’s Annual Procurement Plan (APP)	School Local Fund/ MOOE	First Aid Kit in each classroom DRRM Equipments Identified TLS Well prepared learning modules
	Conduct trainings on basic first aid / psychosocial interventions for school personnel	Attend training on basic first aid and disaster management Conduct of psychosocial interventions for personnel and students	Yearly	School Local Fund/ MOOE	Certificate of completion/participation Documentation
Disaster Risk Reduction in Education	Integrate key DRRM concepts in at least 4 subjects based on the national Curriculum Guide (Lesson Plan)	Workshop training on the integration of DRRM across curriculum	Yearly	NONE	Lesson Plan Activity Request/ Project Proposal Documentation

KEY AREAS	OBJECTIVES	PROGRAMS, PROJECTS AND ACTIVITIES	TIMELINE	SOURCE OF FUND	EXPECTED OUTPUT
	Participate actively in various DRRM activities (e.g. Fire Drill, NSED and First-Aid: Enhanced multi-hazard drills in School) and DRRM capacity buildings	Active participation during Fire Drills, NSED and First-Aid: Enhanced multi-hazard drills DRRM capacity building plans for teachers and personnel DRRM trainings for teachers and personnel	Quarterly	School Local Fund/ MOOE	NSED Reports to Division/Central Office Documentation Project Proposals
	Purchase/update school DRRM resource materials and classroom DRRM corner	Available DRRM resource materials in school library Updated DRRM corners in every classroom	Yearly	School Local Fund/ MOOE	DRRM resource materials in the library Presence of DRRM corners in every classroom

6. Conclusion

Based on the findings of the study, the school implemented all existing policies related to DRRM however, the school lacks tangible partnership with the stakeholders and other local DRRM councils. Further, the DRRM implementation of PNHS in terms of the safe learning facilities is fully implemented which means that the school ensures safety of the teachers and learners by conducting regular inspections and undergoing repairs to guarantee the safety of everyone inside the school. Along school disaster risk management, the status of implementation is partially implemented which means that the school has limited number of DRRM equipment. Further, the school personnel lacks trainings related to DRRM. Further, the DRRM implementation along disaster risk reduction in education is partially implemented. Despite the school being active in DRRM activities and in information dissemination, the school lacks capacity-building plans for teachers. The proposed action plan focused on strengthening and maintaining school activities along the four key areas which include; policies related to DRRM, safe learning facilities, school disaster risk management, and disaster risk reduction in education.

7. Recommendation

In light of the findings and conclusions drawn, the study recommends that the school should strengthen the adoption/adaption of government policies related to DRRM. Sustaining and/or strengthening its governing school DRRM councils since they are the primary support of the school in disaster prevention preparedness. The school must conduct regular inspections and maintenance of its facilities in order to avoid the adversative effects of disaster inside the school. DRRM equipment, DRRM resource materials, and school personnel training related to DRRM should also be prioritized. With properly trained personnel, the school can manage the disasters well. Moreover, to keep track with the development of DRRM implementation in the school, school DRRM plan and SIP should be reviewed annually for effective planning and preparation. Further, an action plan that will serve as a guide towards resilience-building for PNHS in the next three years should be developed. The action plan should focus on the four key areas which include; policies related to DRRM, safe learning facilities, school disaster risk management, and disaster risk reduction in education. This will help strengthen the DRRM of PNHS through programs, projects, and activities. The result of this study may guide SDO Sorsogon in crafting a guided and well-prepared DRRM plan. The outcome of this study may also be vital in crafting the School Improvement Plan (SIP) of PNHS for 2023-2025. Furthermore, the result of this study may be used in conducting a more robust research design to further assess the extent of preparation and implementation of DRRM in educational institutions.

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