

Disaster Risk Reduction and Management Program Implementation in Carmen 2 District: An Assessment

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Abstract: Over the past few decades, the topic of disasters has always been discussed around the world. The schools are facing problems regarding the undesirable effects of disasters. The researcher took interest in how the schools of Carmen 2 District dealt with the pressing issue. The study focused on the program initiated by the Department of Education, the SDRRMP. A total of thirty (30) DRRM coordinators, physical facilities coordinators and school heads were selected as research participants. The study used the adopted survey questionnaires from the National Disaster Risk Reduction and Management (NDRRM) Plan. The study utilized the mixed method of qualitative type of research and descriptive-survey method. The weighted mean was used as a statistical tool in the study. The salient findings of the study were the following: The participants assessed their level of capabilities in the implementation of DRRMP with regards to human resources, material facilities, knowledge and education, policies, plans and procedures which were verbally interpreted as moderately implemented (MI); the respondents assessed the implementation of DRRMP in terms of prevention and mitigation, preparedness, response, and rehabilitation which were verbally interpreted as moderately implemented (MI); and the most prevalent challenges encountered by the school heads and teachers in the implementation of DRRMP are lack of DRRM teachers' training, lack of inventory, vulnerability and risk assessments of school buildings and infrastructures, unavailability of resources to implement DRRM plans, programs, and activities, unclear funding source to sustain DRRM plans, programs, and activities and lack of parents' engagement to support DRRMP.

Keywords: Capabilities, Disaster, Mitigation, Preparedness, Prevention, Rehabilitation, Response, Vulnerabilities.

I. INTRODUCTION

Disaster is a mostly unexpected event that severely disrupts the functioning of a community or society and causes human, material, and economic or environmental losses and most of the time exceeds the ability to recover or to cope using its resources. It occurs when a hazard impacts on vulnerable people (International Federation of Red Cross and Crescent Societies, 2011). The Philippines is exposed to disasters both natural and man-made due to its geography and geology or location in both the Pacific Ring of Fire and typhoon belt. Cyclones, volcanic eruptions, earthquakes, landslides, and flooding are just among the disasters and hazards that the country recurs to experience. Moreover, it has been ranked third (3rd) among 173 countries in terms of disaster risk World Risk Index 2012 released by the United Nations International Strategy for Disaster Reduction (UNISDR) (Gaillard, Liamzon, and Villanueva, 2012). Disasters and emergencies have been increasing all over the world. Today, technological advancement, acquiring knowledge and its application in the realm of action is regarded as the only effective way for preventing disasters or reducing its effects. Natural disasters and other emergencies can happen at any time, and when they happen at school, everyone should be prepared to handle them safely and effectively. Administrators, teachers, staff, parents, and students can work together to promote and maintain school-wide safety and minimize the effects of emergencies and other dangerous situations (J Educ Health Promot, 2019).

Philippine government has developed designs to counterbalance the effects of both natural and man-made disasters. The main intent of formulated laws and policies are to increase the resilience of vulnerable communities and the country against natural disasters and to reduce damage and loss of properties. In addition, R.A. 10121 otherwise known as the Philippine Disaster Risk Reduction and Management Act paved way to new plans and policies as to the execution of different measures and actions in all phases of DRRM. This provided a paradigm shift from reactive to pro-active, from top-down and centralized management to bottom-up and participatory disaster risk reduction process (RA 10121, 2010). Through this Act, the National DRRM Framework (NDRRMF) and National DRRM Plan (NDRRMP) were developed. Both the NDRRMF and NDRRMP foresee a country which has “safer, adaptive and disaster-resilient Filipino communities toward sustainable development”. Together with the paradigm shift is the creation of the four thematic areas namely, a) Prevention and Mitigation, b) Prepared-ness, c) Response, and d) Rehabilitation and Recovery. Each area has long term goals and activities which will lead to the attainment of overall vision in DRRM. According to the NDRRMF, resources invested in the four thematic areas must prioritize disaster prevention and mitigation, disaster preparedness and climate change adaptation to be more effective in attaining its goal and objectives (NDRRMF, 2011).

While the DRRM act provided a legal basis for its disaster risk reduction directives, the Department of Education (DepEd) issued DepEd No. 37, s. 2017 as the basis of the Basic Education Framework with a more comprehensive Disaster Risk Reduction Management. In this framework, the offices, and schools of DepEd shall have institutionalized DRRM structures, systems, protocols, and practices. Moreover, the impact of disasters always finds their way in schools through strong typhoons and massive flooding that ruins school properties. Thus, Philippines being prone to disaster warrant a closer look at its disaster-related policies that are currently in place (Catanus, 2018; Mamhot, 2019).

The DRRM Act mandates and legalizes the best practices of local communities that have been implementing effective DRRM in their respective areas. The DRRM team members shared the commendable practices implemented by several communities on disaster preparedness with the establishments such as schools and public offices. As stated in the Disaster Risk Reduction Resource Manual (Safer School Resource Manual, 2008), the Department of Education as the agency responsible for schools acknowledges that aside from providing primary education, the department is also responsible for providing safe teaching-learning facilities. It is also in charge of making a hazard-free environment for the school children. Caraga Region has also gained its share in disaster. It garnered national attention regarding vulnerability to disasters such as floodings, landslides, typhoons, earthquakes, and even to several man-made disasters like armed conflicts which all brought damages and destructions to the lives of people (DepEd Memo No. 87 s.2015).

Although numerous different programs have been developed, there are still very few studies on the program awareness and implementation in educational institutions. Thus, to fill in the gap in existing literature, this study aims to assess the disaster risk reduction and management program implementation in Carmen 2 District, Division of Agusan del Norte for S.Y. 2022-2023.

II. BODY OF ARTICLE

RESEARCH QUESTIONS

This paper determined the assessment of Disaster Risk Reduction and Management program implementation in Carmen 2 District, Division of Agusan del Norte for S.Y. 2022-2023.

It specifically sought to answer the following problems:

- 1) What is the level of capabilities of Carmen 2 District in the implementation of Disaster Risk Reduction and Management program with regards to:
 - 1.1 Human resources,
 - 1.2 Material facilities,
 - 1.3 Knowledge and education,
 - 1.4 Policies, plans and procedures?
- 2) What is the status of implementation of the disaster risk reduction and management program in terms of:

- 2.1 Disaster prevention and mitigation,
 - 2.2 Disaster preparedness,
 - 2.3 Disaster response,
 - 2.4 Disaster recovery and rehabilitation?
- 3) Based on the findings, what plan can be proposed to enhance the implementation of DRRM?

SCOPE AND LIMITATION

The study focused on the assessment of Disaster Risk Reduction and Management program implementation in Carmen 2 District, Division of Agusan del Norte.

The participants of this study were the administrators of Carmen 2 District. There are 10 school heads, 10 DRRM coordinators and 10 Physical Facilities coordinators who were administrators. To complete enumeration used to determine the participants in the study.

III. RESEARCH METHODOLOGY

a. Sampling

The study utilized the mixed method of qualitative type of research and descriptive-survey method. The qualitative design was used to elicit the compliance of the respondents based on Disaster Risk Reduction Management program implementation.

b. Data Collection

The study was conducted during the school year 2022-2023 at Carmen 2 District. The study utilized the adopted survey questionnaires from the National Disaster Risk Reduction Management (NDRRM) Manual to assess the Disaster Risk Reduction and Management program implementation in Carmen 2 District, Division of Agusan del Norte. For this, the researcher made a letter to the schools’ division superintendent to ask permission to allow the researcher to conduct the study to the participants with the use of survey questionnaire. Upon the approval, the researcher wrote a letter to the district supervisor to ask permission to allow the researcher to distribute questionnaires to the participants. Upon the approval, the researcher scheduled the administration of the questionnaire to the school heads, DRRM coordinators, and Physical Facilities coordinators during their break time. The administration of the questionnaire was scheduled in order not to disrupt the work of the teachers and school heads. They were given ample time to answer the questionnaire and after which were retrieved, tabulated, analyzed, and interpreted with the use of appropriate statistical tool.

c. Ethical Issues

To protect the privacy and welfare of the respondents’ opinions on the assessment of Disaster Risk Reduction and Management program implementation in Carmen 2 District, the researcher held the results of the study confidential. The responses of the participants were respected and were kept private for the purpose of confidentiality.

IV. DISCUSSION OF RESULTS

Assessment on the Implementation of Disaster Risk Reduction and Management Plan by the School Head, DRRM and School Facilities coordinator Respondents

Level of Capabilities of the Respondents

Table I: Level of Capabilities of the Respondents

Indicators	Mean	Verbal Description
Capabilities in the Implementation of DRRMP		
Human Resources	3.87	Moderately Implemented
Material Facilities	3.47	Moderately Implemented
Knowledge and Education	3.73	Moderately Implemented
Policies, Plans and Procedures	3.60	Moderately Implemented

Table I presented the data on the level of capabilities of Carmen 2 District in the implementation of Disaster Risk Reduction and Management program with regards to human resources, material facilities, knowledge and education, policies, plans and procedures. It presents the assessment of the school head, DRRM coordinator and Physical Facilities coordinator respondents on the implementation of Disaster Risk Reduction and Management Plan with regards to human resources, material facilities, knowledge and education, policies, plans and procedures. The respondents assessed that knowledge, innovation, and education garnered the next highest weighted mean among the indicators on the level of capabilities of the respondents. Hence, better understanding and education can assist people in finding ways to minimize the potential risks of a disaster. One way to minimize risk is planning. It is in educational planning where disaster awareness borrows the concept of starting with a vision that will bring change or benefit. The educational planner therefore develops a road map that will help bring the desired change.

Similarly, disaster awareness involves identifying activities to be undertaken within the topic of disaster risk management. Schools with proper disaster awareness manage the disaster risks very well. It is incumbent to have the entire school community directly engaged in learning about disaster preparedness and identifying solutions to protect the schools (Kay, 2013). Moreover, according to Grant (2012), disaster awareness in schools can be incorporated in institution through strategically posting safety rules, installing firefighting equipment, evacuation exits, maintain buildings, conducting seminars on disaster awareness and entailing child-to-child peer education, the use of songs, electronic and print media, action learning and using science education as means to introduce studies of disaster risk.

Policies, plans and procedures which then obtained the weighted mean of 3.6 got the third highest rank as to the respondents' level of capabilities to respond to disasters and prevent further risks. In line with this, there is a great need to assess whether learners and educators are aware of the safety plans and are well prepared for any outbreak of disasters (Mamogale, 2011). According to UNESCO (2010), preparedness plans are dynamic ventures which need to be reviewed, modified, updated, and tested on a regular basis. Active disaster preparedness includes developing comprehensive response plans, monitoring hazards threats, training emergency personnel, and training members of the communities at risk "to ensure the timely appropriate and effective delivery of relief" .Lastly, the area on material facilities being the lowest in rank seems to be the most crucial because it needs financial allocation to provide the needed equipment in the school contexts (Ardalan, 2015; Merchant, 2015). Public schools will eventually find difficulty in this area considering there is not enough fund to be allocated in DRRM program especially in the provision of needed DRRM facilities, equipment and materials as compared to other programs, activities, projects of the Department of Education (DepEd) as to access, quality and relevance, and governance (Sala, 2019).

Status of the Implementation of Disaster Prevention and Mitigation

Table II: Status of the Implementation of Disaster Prevention and Mitigation

Indicators	w \bar{x}	Verbal Description
1) DRRM and CCA (Climate Change Adaption) mainstreamed and integrated in national, sectorial, regional, and local development policies, plans and budget	3.43	Moderately Implemented
2) DRRM and CCA-sensitive environmental management	3.57	Moderately Implemented
3) Increased disaster resiliency of infrastructure systems	3.37	Moderately Implemented
4) Community based and scientific DRR-CCA assessment, mapping, analysis, and monitoring	3.33	Moderately Implemented
5) Communities have access to effective and applicable disaster risk financing and insurance	3.37	Moderately Implemented
6) End-to-End monitoring, forecasting and early warning systems are established and/or improved	3.60	Moderately Implemented
Composite Mean	3.45	Moderately Implemented

Table II presented the assessment of the school head, DRRM coordinator and Physical Facilities coordinator respondents on the implementation of Disaster Risk Reduction and Management Plan in terms of prevention and mitigation. It can be gleaned from the table that the assessment of the respondents for prevention and mitigation obtained an average weighted mean of 3.45 which means moderately implemented (MI).

This finding implies that school heads and teachers should actively plan, initiate, and undertake prevention and mitigation measures in the public schools. Vulnerability and risk assessment of the public-school buildings should be done periodically. The students, parents, faculty, and staff should be educated with the school prevention and mitigation plan. Steps to increase its extent of implementation should be planned and carried out. The full implementation of these steps can clearly spell out the big difference in averting the negative and adverse effects of an earthquake.

In the preparation stage, most schools in the four sample regions did not have emergency handling committees because they were not equipped with the requisite funding to allow their emergency handling committee to use the necessary expertise and skills for providing leadership in times of crisis. This absence of emergency management committees posed severe threats to students and teachers. However, some schools had emergency management committees that played the lead role in developing sound prevention and preparedness systems to minimise disaster impacts and handle such situations (Shah et al. 2020).

Awareness of disaster mitigation measures to reduce disasters can be created through education channels and increased capacity by applying specific science and technology and using counselling services with simulation techniques (Indriyan, 2011). This needs to be carried out through both formal and non-formal education (Rizaldy 2018). The emphasis on disaster mitigation involves awareness and capacity building, as well as physical development in facing the associated threats (Suarmika & Utama 2017). The purpose is to build a system that combines technology engineering with legal, administrative, economic, managerial, and educational aspects to secure development and social stability. The steps taken include developing scientific studies and utilising modern technology to create mitigation mechanisms following local conditions (Setiawan 2010; Susanto & Putranto 2016; Wibawa, Citra & Tika 2013).

One mitigation effort that is often applied involves establishing a disaster-safe school that requires three main pillars: safe learning facilities, school disaster management, and mitigation education (Ministry of Education and Culture 2015; UNISDR & Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector 2017; World Bank Disaster Risk Management 2017). Furthermore, the framework establishes essential principles that consider people with special needs. These policy guidelines and principles advocate for a two-track approach to risk reduction projects, including comprehensive accessibility, universal building design, non-discrimination, coordination, and collaboration across all DRR activities.

Status of the Implementation of Disaster Preparedness

Table III: Status of the Implementation of Disaster Preparedness

Indicators	Mean	Verbal Description
1) Increased level of awareness and enhanced capacity of the community to the threats and impacts of all hazards	3.33	Moderately Implemented
2) Communities are equipped with the necessary skills and capability to cope with the impact of disasters	3.43	Moderately Implemented
3) Increased disaster resiliency of infrastructure systems	3.13	Moderately Implemented
4) Developed and implemented comprehensive national and local preparedness policies, plans and systems	3.20	Moderately Implemented
5) Strengthened partnership and coordination among all key players and stakeholders	3.30	Moderately Implemented
Overall Mean	3.28	Moderately Implemented

Table III shows the assessment of the school head, DRRM coordinator and Physical Facilities coordinator respondents on the implementation of Disaster Risk Reduction and Management Plan in terms of preparedness. As shown in the table, the respondents assessed preparedness with an average weighted mean of 3.28 which means moderately implemented (MI).

This result implies that the teachers should be given more orientation to equip them with the preparedness measures as implemented by the school. Steps to be undertaken could be orientation and reorientation, practice, drills, proper information dissemination, and open channel of communication among stakeholders. The school should allocate funds to purchase and store an abundant supply of bottled water, food, and medicine in case of an earthquake. A culture of preparation should be continuously observed. Likewise, the implementation of these actions should be constantly evaluated and monitored.

However, students, faculty and administrators can prepare themselves for emergencies at school in several ways, from conducting regular, emergency specific drills to making sure the building’s infrastructure is up to code. When emergencies do happen, schools need to know how to respond appropriately and recover as quickly and effectively as possible (ASO Staff, 2022).

According to Indonesia (2006), preparedness planning is to ensure a rapid and efficient action when disaster occurs, taking into consideration the local disaster management system and adjusting it according to the local condition. It will produce several documents such as preparedness Standard Operating Procedure/SOP, contingency plan, and other supporting preparedness documents, including establishment of accurate early warning system that considers local context.

Mapping educational activities in various disaster-prone areas in Indonesia and supporting capacity building for education remain minimal. Moreover, a study conducted in various regions showed a lower level of preparedness in schools than the community (King et al. 2019). For vulnerable groups such as children with special needs, schools can help provide protection and simultaneous knowledge and skill improvement (Mcdermott, Martin & Gardner 2016), especially those in an inclusive setting (Sloman & Margaretha 2018). Disaster mitigation is closely linked to risk reduction activities before the disaster stage (Stough & Kang 2015), which are crucial because they are useful during and after the disaster (Peek & Stough 2010).

Based on the study of International Finance Corporation (2010), each school should establish and maintain an on-going School Disaster Management to oversee disaster risk reduction and preparedness. This may be the job of a pre-existing committee, sub-committee with a similar mission. This committee develops, adapts, implements, and updates the school disaster management plan. It will typically meet intensively at the beginning of each school year and monthly during the school year. It will encourage personal and organizational preparedness, guide mitigation work, assure two fire and building evacuation drills annually, lead one full simulation drill annually, evaluate the results, and adjust the plan accordingly. Ideally, the committee is empowered by and maintains formal links between school and disaster management authorities.

Status of the Implementation of Disaster Response

Table IV: Status of the Implementation of Disaster Response

Indicators	Mean	Verbal Description
1) Well-established disaster response and relief operations	3.23	Moderately Implemented
2) Adequate and prompt assessment of needs and damages	3.13	Moderately Implemented
3) Integrated and coordinated Search, Rescue and Retrieval (SRR) capacity	3.37	Moderately Implemented
4) Evacuated safely and on time affected communities	3.53	Moderately Implemented
5) Temporary shelter and/or structural needs are adequately addressed	3.03	Moderately Implemented
6) Basic social services provided to affected population (whether inside or outside ECs)	3.13	Moderately Implemented
7) Psychosocial needs of affected population addressed	2.47	Slightly Implemented
8) Coordinated and integrated system for early recovery	2.93	Slightly Implemented
Overall Mean	3.10	Moderately Implemented

Table IV revealed the assessment of the school head, DRRM coordinator and Physical Facilities coordinator respondents on the implementation of Disaster Risk Reduction and Management Plan in terms of response. As presented on the table, the respondents assessed the response with an average weighted mean of 3.10 which means moderately implemented (MI). The respondents assessed that these practices are moderately implemented.

It implies that the school should encourage active involvement of the parents and the community and build strong partnerships and linkages with the local or city government, emergency offices and Disaster Risk Reduction and Management Council. The faculty, staff and the members of the school disaster risk reduction task force should be more knowledgeable of their roles and functions by providing in-depth orientations, trainings, and workshops.

In the study of ASO Staff (2022), some natural disasters can be predicted, giving schools enough warning to evacuate or take other safety precautions, but others can happen unexpectedly or go through rapid changes that suddenly put a school

in danger. The first step schools should take in preparing for these types of emergencies is to assess the natural risks in their areas.

Besides the lack of teachers' preparation and education in the management process, another major problem was the occasional use of experience-based, immersive, and action-oriented learning activities (Apronti et al, 2015). Often, board games, disaster storybooks, poems, and songs are not utilized, particularly in developing countries where technology is not easily accessible. Raising awareness and passing theoretical knowledge on disaster prevention and response is insufficient. However, students need to be equipped with appropriate skills and competencies.

Status of the Implementation of Disaster Recovery and Rehabilitation

Table V: Status of the Implementation of Disaster Recovery and Rehabilitation

Indicators	Mean	Verbal Description
1) Damages, Losses and Needs Assessed	3.00	Moderately Implemented
2) Economic activities restored and if possible, strengthened or expanded	2.90	Slightly Implemented
3) DRRM and CCA elements are mainstreamed in human settlement	2.87	Slightly Implemented
4) Disaster and climate change resilient infrastructure constructed/reconstructed	3.17	Moderately 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	3.1	Moderately Implemented
Overall Mean	3.01	Moderately Implemented

Table V presented the assessment of the school head, DRRM coordinator and Physical Facilities coordinator respondents on the implementation of Disaster Risk Reduction and Management Plan in terms of rehabilitation and recovery. It can be gleaned from the table that the respondents assessed the rehabilitation and recovery with an average weighted mean of 3.01 which was verbally interpreted as moderately implemented (MI). The respondents assessed that these rehabilitation and recovery measures are moderately implemented.

This finding implies that the school should have a plan, scheme, or guidelines in the continuity of its operation, resumption and rehabilitation, provision of shelter, basic needs and support system to the evacuees, delivery of instruction through alternative modes, and assessment and monitoring of the effects and damages after an earthquake.

This School Disaster Recovery Plan has been prepared so that in the event of a disaster, all conceivable actions, which can be taken to ensure the safety and welfare of students and staff, will be implemented. Preparing staff, students, and parents with appropriate instructions and practice in how to act and react in case of an emergency will effectively minimize the problems that will arise in such a situation (Disaster Recovery Plan Template, 2019).

According to Alzamora, C. (2022), organizations can't always avoid disasters, however having disaster recovery plans and the preventative measures they include are essential for minimizing potential damage, quickly getting things back up and running, and most importantly preventing disasters in the first place. Disaster recovery plans and the preventative measures they include are essential for stopping disasters from occurring in the first place and although disasters may not always be avoidable, having a recovery plan helps to reduce the potential damage and quickly restore operations when one occurs.

The Extent of Compliance of the Respondents

The following are the responses of the school head, DRRM and Physical Facilities coordinator respondents on the compliance of the Disaster Risk Reduction and Management program implementation.

This section presents the extent of compliance of the respondents based on Disaster Risk Reduction Management program implementation. The most prevalent challenges/problems encountered by the school heads and teachers in the implementation of Disaster Risk Reduction and Management Plan are as follows: a) Lack of teachers' training for DRRM; b) lack of inventory, vulnerability and risk assessments of school buildings and infrastructures; c) unavailability of resources

to implement DRRM plans, programs, and activities; d) unclear funding source to sustain DRRM plans, programs, and activities; and e) lack of parents’ engagement to support DRRMP.

According to International Finance Corporation (2010), when education is interrupted or limited, students drop out, with negative and permanent economic and social impacts for students, their families, and their communities. Natural hazards are part of the context for educational planning. Whether it is annually recurring floods, a once-in-5- generations earthquake, the increasing severity of storms and cyclones, water shortages, or the slow onset of rising sea water levels, these known and expected hazards can be mitigated with the determined application of knowledge, education, and ingenuity.

Furthermore, the school is an effective platform in transferring information, knowledge, and skills to the surrounding communities. Therefore, the activities of disaster education in the school are effective, dynamic, and sustainable strategy in spreading out disaster education. The systemic, measurable, and feasible efforts to increase the capacity of school community will effectively reduce disaster risks in schools (Indonesia, 2006).

Generally, schools have limited time to implement DRR education, coupled with a lack of financial support from the government. Therefore, their awareness of this activity is important. A study on implementing disaster preparedness education in New Zealand primary schools discovered that one deterring factor that was often encountered was the lack of time to incorporate disaster-related subjects into classroom activities (Johnson et al. 2014). Amri et al. (2017) reported that two of the most important issues in the implementation process were personnel dedication and budget, while lack of funding also influenced DRR.

The results showed that the major problem in implementing mitigation education in schools is a lack of understanding among teachers and students about DRR and management, as also observed by Perwira (2016). Furthermore, the outreach results in the form of training, seminars, or field rehearsals showed different levels of teacher understanding of the socialisation material (Perwira 2016), which affected their teaching and learning activities. Many students were confused during the training because of their different understandings. Another problem is the lack of teachers’ capacity and expertise in integrating DRR into the curriculum (Wedyawati, Lisa & Selimayati 2017). Therefore, training teachers and students in DRR education are essential for statistically effective improvement. A positive relationship was discovered between the demographic variables of teachers’ knowledge and disaster management practices (Abozeed et al. 2019).

Proposed Enhancement Program for the Implementation of DRRM Program

I. Rationale

The result of the study on the assessment of the implementation of DRRM program conducted in all schools of Carmen 2 District showed that most of the respondents asked for DRRM trainings and workshops to increase the level of awareness of the community to the threats and impacts of all hazards, risks, and vulnerabilities.

II. Objectives

At the end of the enhancement program, the participants are expected to:

1. Enhancing capacities of communities reduce their own risks and cope with the impacts of all hazards.
2. Equip the community with the necessary skills to cope with the negative impacts of the disaster.
3. Decrease the number of preventable deaths and injuries.
4. Assist in the physical and psychological rehabilitation of persons who suffered from the effects of disaster.

DRRM Orientation and Trainings

Objectives	Topic	Learning Activities	Materials	Persons Involved	Budget	Expected Output	Time Frame
Day 1							
1. To avoid hazards and mitigate their	From Risk to Resilience: Assessing the Disaster	Orientations on DRRM implementation	LCD projector, paper,	Teachers, Stakeholders, and	Snacks P 1,500 and P 2,250	95%. Report of emergency drills and	Summer (School) Year

potential impacts 2. To establish and strengthen capacities of communities to anticipate, cope and recover from the negative impacts of disaster	Risk reduction and Management (DRRM) Implementation	Conduct Hazard Mapping Organize School Disaster Action Team Organize Taskforce/ committee member and officers.	pen	resource person	Total P 3,750	other exercises done.	June – September 2024
Day 2							
1. To provide life preservation and meet the basic subsistence needs of affected population based on acceptable standards during or after disaster	From Risk to Resilience: Assessing the Disaster Risk reduction and Management (DRRM) Implementation	Perform the different basic life support on standard first aid training on SDRRM safety precaution and prevention activities	LCD projector. paper, pen and demonstration materials	Teachers, Stakeholders, and resource person	Snacks P 1,500 and P 2,250 Total P 3,750	95% prepare and alert in case of emergency whether a natural calamity or man-made.	Summer (School) Year) June – September 2024
Day 3							
1. To plan how to restore and improve facilities of affected communities	From Risk to Resilience: Assessing the Disaster Risk reduction and Management (DRRM) Implementation	Write DRRM Contingency Plan	LCD projector. paper, pen, and manila paper	Teachers, Stakeholders, and resource person	Snacks P 1,500 and P 2,250 Total P 3,750	95% oriented of the different disaster response	Summer (School) Year) June – September 2024

V. RECOMMENDATIONS

Based on the results of the study, the following recommendations are hereby offered:

1. Intensify the implementation of the Disaster Risk Reduction and Management Plan.
2. An intervention plan should be formulated and executed to improve the implementation of Disaster Risk Reduction and Management Plan. It should be endorsed and recommended for funding for its implementation to the Schools Division Superintendent and the school heads.
3. A parallel study should be conducted by other researchers to verify if the same results will be revealed.

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PLANS FOR DISSEMINATION AND ADVOCACY

Carefully planned dissemination of results is increasingly recognized as essential to the research process. Planning for dissemination should begin months before the results are known. Advocates, members of community advisory boards and trial participants can help shape messages and dissemination strategies.

Activity	Objectives	Persons' Involved	Timeline
<p>1. Risk-Informed Plans, Policies, and Standards</p> <ul style="list-style-type: none"> - DepEd offices and schools implementing DRRM, safety, security, and protection plans, policies, and standards to support resilience and learning continuity. 	<p>Review existing plans, policies, and standards.</p> <p>Develop/enhance and disseminate risk-informed plans, policies, and standards for implementation</p>	<p>DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents</p>	<p>April 2023</p>
<p>2. Partnerships for Strengthening Resilience</p> <ul style="list-style-type: none"> - Creating the needs-based support from partners through systematic exchange of information, resources, and expertise in DRRM, CCA, and EiE. 	<p>Identify areas for partnerships with external partners on DRRM, CCA, and EiE programs.</p> <p>Participate in international events/conference.</p> <p>Establish a regular coordination mechanism, database, and protocol for organizing, sharing, and tracking information, resources, expertise, and best practices among external and internal partners.</p> <p>Undertake coordination on prepositioning of materials and interventions of preparedness, response, and rehabilitation and recovery.</p> <p>Identify areas for partnerships with relevant DepEd offices in connection with DRRM, CCA, and EiE</p>	<p>DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents</p>	<p>May to June 2023</p>
<p>3. DRRM Information System (DRRMIS) and Research</p> <ul style="list-style-type: none"> - The DepEd offices at all levels are providing schools, personnel, and learners with efficient, timely, and reliable interventions and support based on established IMs. - DRRM, CCA, and EiE policies and programs for 	<p>Create uniform templates to accommodate required data and provide feedback to the different DepEd offices and partners.</p> <p>Enhance data handlers':</p> <ul style="list-style-type: none"> ● Knowledge on existing protocols ● Capacity in data collection, management, and analysis ● Capacity in using data applications and software <p>Archive and store consolidated data in different formats to give easy</p>	<p>DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents</p>	<p>July to August 2023</p>

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<p>offices, schools, personnel, and learners are formulating using evidence-based research</p>	<p>access to different offices for administering interventions and future references.</p> <p>Conduct evidence-based research relative to DRRM, CCA, and EiE as basis for risk-informed policy and standard formulation and program implementation</p> <p>Analyze historical hazards data and official hazard maps to identify possible policies and programs in vulnerable areas</p> <p>Develop research questions and methodologies to identify trends and good practices in DRRM, CCA, and EiE</p>		
<p>4. Resilience Education</p> <ul style="list-style-type: none"> - DepEd offices and personnel at all levels are creating/ equipping with knowledge and skills on DRRM, CCA, and EiE and can share, implement, and mainstream in their areas of work. 	<p>Develop standardized DRRM, CCA, and EiE training manuals for DepEd personnel and learners at all levels.</p> <p>Conduct DRRM, CCA, and EiE trainings for DepEd personnel at all levels</p> <p>Provide a platform for DRRM Coordinators for supplemental learnings and addressing challenges in the implementation of DRRM, CCA, and EiE</p> <p>Participated in international and national DRRM, CCA, and EiE events.</p> <p>Facilitate DRRM, CCA, and EiE integration in the K-12 curriculum.</p> <p>Establish memorial days to ingrain deep consciousness of disasters among personnel and learners at all levels.</p>	<p>DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents</p>	<p>September to October 2023</p>
<p>5. Information, Education, Communication (IEC) and Advocacy for Resilience</p>	<p>Review existing IEC and advocacy resource materials on DRRM, CCA, and EiE</p>	<p>DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents</p>	<p>November to December 2023</p>

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<ul style="list-style-type: none"> - DepEd offices and personnel practicing a culture of safety and resilience through increased awareness on DRRM, CCA, and EiE - Government policies, programs, and services are informing of DRRM, CCA, and EiE needs and priorities of the basic education sector. 	<p>Develop/enhance and disseminate IEC and advocacy resource materials on DRRM, CCA, and EiE (needs-based consideration)</p> <p>Create a communication campaign on safety and resilience.</p> <p>Establish a library on IECs for DRRM, CCA, and EiE (hard and digital)</p> <p>Review and provide inputs/information to respective government agencies/offices regarding needs and priorities of the basic education sector on DRRM, CCA, and EiE</p>		
<p>6. Learning Continuity and Resilience Interventions</p> <ul style="list-style-type: none"> - Regions, divisions, and schools are planning to lead the return to normalcy and recovery of affected personnel, learners, and operations towards resilient development. 	<p>Provide interventions for the well-being of affected personnel and learners.</p> <p>Provide regions, divisions, and schools support and assistance, enabling early return to normal operations and recovery towards resilient development.</p> <p>Establish enabling mechanisms for region, divisions, and schools to locally manage their response, and rehabilitation and recovery needs and interventions.</p> <p>Establish a library on IECs for DRRM, CCA, and EiE (hard and digital)</p>	DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents	January to February 2024
<p>7. Monitoring and Evaluation on DRRMS Comprehensive School Safety Initiative</p> <ul style="list-style-type: none"> - Enhancing the development and implementation of policies and programs as result of institutionalized monitoring and evaluation system across all levels\ 	<p>Monitor progress of DRRMS comprehensive school safety initiatives</p> <p>Evaluate the outcomes and impact of DRRMS' comprehensive school safety initiatives</p>	DepEd Administrators, SDRRMC Committees, School Heads, Teachers, and Parents	March 2024

VI. CONCLUSION

After sharing the findings of my research titled "Disaster Risk Reduction and Management Program Implementation: An Assessment," The schools in our District implement several best practices and recommendations to improve disaster preparedness and enhance the effectiveness of the Disaster Risk Reduction and Management (DRRM) program.

1. Actionable Recommendations. Translate the research findings into actionable recommendations. We created a clear action plan based on the identified strengths and weaknesses of the DRRM program.

2. Teacher Training. Address the lack of teacher training by implementing a comprehensive training program for educators. We collaborated with the community in the planning and design of the training programs. Our municipal mayor together with the local authorities, emergency responders, and relevant organizations designed appropriate training methods, which may include workshops, seminars, practical exercises, and simulations. They tap some professional experts in the field of DRRM who can serve as trainers or facilitators. Partnerships can enhance the resources and expertise available for disaster preparedness and response.

3. Infrastructure Assessments and Upgrades. Our school conduct vulnerability and risk assessments of school buildings and infrastructure. We use these assessments to prioritize and implement necessary improvements to ensure the safety of students and staff during disasters.

4. Community Engagement. As school DRR coordinator, I develop strategies to actively engage parents and the local community in supporting the DRRM program. We organize workshops, meetings, and awareness campaigns to educate them about their role in disaster preparedness.

5. Emergency Response Drills. We implemented regular emergency response drills and exercises involving students, teachers, and staff. This will help improve preparedness and ensure everyone knows their roles during a disaster.

6. Curriculum Integration. We integrate DRRM concepts and education into the school curriculum across various subjects. This helps our students develop a strong understanding of disaster risks and preparedness from an early age.

By implementing these best practices, our school enhances its disaster resilience, creates a safer environment for students and staff, and contribute to the overall preparedness of the community. The findings from my research should serve as a valuable roadmap for these improvements and ultimately help protect lives and reduce the impact of disasters.

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