

School Readiness in the Implementation of Disaster Risk Reduction and Management (DRRM)

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Abstract:

This study aims to determine the school readiness in the implementation of Disaster Risk Reduction and Management (DRRM) at Aliaga National High School, District of Aliaga, Division of Nueva Ecija. The study was utilized a descriptive quantitative research design to established associations between the variables through the use of survey questionnaire. The respondents of the study were composed of school head, department heads, teaching and non-teaching personnel, parents and students with a total of 191. Additionally, the study was conducted during the Second Semester of S.Y. 2022-2023. Furthermore, a purposive sampling techniques was used in selecting the respondents of the study. Moreover, based on the results, the school was prepared and ready in the implementation of DRRM specifically during floods and typhoon but less prepared and ready during earthquake and pandemic. The study also found that the school was less implemented the DRRM services in terms of prevention and mitigation, preparedness and response but implemented recovery and rehabilitation. The school were challenged in the implementation of DRRM due to insufficient funds but they still implemented simultaneous disaster drill, annual building inspection, building rehabilitation and repair.

Keywords —Disaster Risk Reduction and Management, Earthquake, Flood, Implementation, Readiness, Recovery and Rehabilitation, Response, Preparedness, Prevention, Typhoon , Pandemic

I. INTRODUCTION

Readiness in Disaster Risk Reduction Management (DRRM) plays a crucial role to ensure safety of all. It is the implementation of plan and programs to control and reduce the effect of hazardous disaster such as typhoons, earthquakes, flooding and pandemic.

That is why being prepared and implemented well the plans and programs has major advantages over schools that do not. The level of effective implementation and preparedness might be solely dependent on DRRM plan.

The main reasons of DRRM preparedness in school is to ensure the safety of school personnel, teachers, staff and learners. That is why proper implementation of DRRM plans and programs is very important leading to increase awareness of all members of the community in DRRM protocols and to prepare them in potential disaster that may happen.

As stipulated in DepEd Order No. 50 series of 2011, in line with the Philippine Disaster Risk Reduction Management Act of 2010 (Republic Act 10121) states that empowerment of the DepEd personnel, offices, schools, and learners aims to ensure safety and protect learning continuity. Floods, typhoon, earthquakes and the recently

COVID-19 pandemic, though not always as destructive, are the deadliest and costliest of hazards.

Lack of preparedness and low level of DRRM implementation, the most terrible consequences are deaths and injuries in schools. 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 stability[1] When emergencies do happen, schools need to know how to respond appropriately and recover as quickly and effectively as possible.

The Disaster Risk Reduction Management Services (DRRMS) in the Department of Education is the focal and coordination unit for any emergencies and disaster hazards which is applying the plans, strategies, and policies to reduce and prevent disaster risk among communities particularly in the schools. Thus DRRM program set its goal, guidelines, and policy to address the risks and impacts of natural and human-induced hazards on the basic education sector.

Based on the proponents experiences and observation in the level of preparedness and implementation in DRRM was not properly implemented and less prepared due to various factors such as insufficient fund for DRRM programs, lack of skilled personnel during emergency, and improperly implemented plans and programs.

The school is not equipped enough to face this kind of phenomena, however, school heads, teachers, school personnel, and the whole community as well can work hand in hand to address challenges and difficulties in implementing plans and to increase the level of preparedness to reduce the risk of disasters. The study findings, summarized that the schools acknowledged the need to established school based DRRMS operation protocol and support system to ensure enabling environment for the learners and all school community personnel [2].

Thus, this study aims to determine the level of preparedness and implementation of the DRRMS plans in public secondary school at Aliaga National High School, Aliaga District, Division of Nueva Ecija.

Review of Related Literature

The collection of existing literature about the level of preparedness and implementation of Disaster and Risk Reduction Management in schools will provide the proponents of more relevant data on the concepts being comprehended.

As stipulated in DepEd Order No. 033, s. 2021, enclosed School-Based Disaster Preparedness and Response Measures for the Tropical Cyclones, Flooding and other Weather-Related Disturbances and Calamities, enclosed guidelines define what must be done by schools in order to safeguard learners, personnel and educational investments in times of calamities and emergencies, and the measures to be taken by the school division and regional offices and the central office to enable and support the school-based measures [3].

[4] A school with adequate plan for disaster risks management, which was prepared through a participatory technique and properly integrated into the policies and plans of the community as a whole has major advantages over schools that do not. The level of effective management of disaster risk might be solely dependent on the plan. Additionally, Administrators, teachers, staff, parents and students can work together and maintain school-wide safety and minimize the effects of emergencies and other risk situations [5].

Furthermore, the study revealed that the preparedness level of the school are not so well for prospective disasters, and there are significant differences among the views of the subjects [6]. In other words, the school principals were not so effective in achieving high level of preparedness and for prospective earthquakes.

Moreover, emergency preparedness plays a crucial role to prevent hazardous disaster. Schools is a place to help everyone to increase level of awareness and preparedness in every disasters. Planning activities like emergency drill, creating emergency response teams and educating all involve help them safe and secure. [7]. Additionally, planning and organizing emergency plan created well before the disaster strikes is the best way to battle against worry and fear. School disaster preparedness is developed to raise awareness on DRRM for all stakeholders in the education sector, both individually and collectively. Preparedness is a part of the effort to anticipate and manage disaster in order to reduce its impacts/risk [8].

Hence, there are five ways to bolster emergency preparedness and ensure the well-being of everyone involved in school. School need to develop an emergency operations plan, develop a crisis response team, develop communication plan, provide regular practice and trainings and partner with a safety expert. With that, the context of emergency planning, the incident response plan focuses on managing specific incidents or emergencies [9].

Another study revealed that among the five risk reduction management indicators, disaster preparedness, disaster management, disaster mitigation, response management and recovery management, it turned out that disaster preparedness has the highest mean denoting "Highly Practiced". The findings clearly manifest that the school administrators are more focused on the disaster preparation than having perform their roles in recovery management. It also appears that the level of disaster risk reduction management practices of school managers obtained an overall weighted mean of 4.20 denoting a descriptive rating of "Practiced". This only shows that the respondents comparably perform these skills. It can be said that the area on recovery management being the lowest in rank seems to be most crucial because it needs financial allocation for every victim of disaster. School administrators/heads will

eventually find difficulty in this area considering there is no allocated funds on their hands the given to the victims outright m[10]

Meanwhile, the results of the study pointed out school principals should carry the burden on addressing the need of properly practiced DRRMS to create a safe learning environment [8].

Disaster Risk Reduction and Management (DRRM) had overall impact to education sector and were analyzed from positive perspective of school-community-family linkages in four phases of response in mitigating impacts on educational programs and participants, preventing exacerbation program integrity and preventing disaster and risk reduction. The study concluding sections which explore the importance to educational governance, enhancement of community linkages, risk communication and citizen behaviour, and use of technology[2].

Objectives of the Study

This study aims to determine the level of readiness in the implementation of DRRM in Aliaga National High School.

Specifically, it sought to answer the following questions:

1. How may the level of readiness of the school in DRRM be described in terms of:
 - 1.1. earthquake;
 - 1.2. typhoon;
 - 1.3. flooding; and
 - 1.4. pandemic?
2. How may the level of implementation of DRRM in school be described in terms of:
 - 2.1. Prevention and Mitigation;
 - 2.2. Preparedness;
 - 2.3. Response; and
 - 2.4. Recovery and Rehabilitation?
3. What are the challenges that the school encountered in the implementation of DRRM?

4. What are the best practices of the school in the implementation of DRRM?

II. RESEARCH METHOD

This study used a descriptive quantitative research design to better describe the level of readiness in the implementation of DRRM in Aliaga National High School.

This research design used by proponents to establish associations between the variables that could find the right sample and sample size, design research instrument in accordance to the objectives of the study and keep the analysis at the forefront.

The respondents of the study had a total of 191 composed of school head, department heads, teaching and non-teaching staffs, parents and students at Aliaga National High School during the Second Semester of S.Y. 2022-2023, wherein the respondents were chosen using purposive sampling method.

In addition, the research instrument of the study, were personally developed survey questionnaire using several researches related as reference in the development.

Furthermore, to collect the needed data, the researchers asked permission to conduct the study from the School Principal at Aliaga National High School, under the Division of Nueva Ecija.

After approval, from the School Principal, the researchers would asked for the parents' consent for the involvement of students so that to notify and understand the importance and objectives of the study.

And all the data gathered were recorded, tabulated, tested and analysed with the used of excel tool.

III. RESULTS AND DISCUSSION

1. Level of Readiness in Disaster Risk Reduction Management (DRRM).

TABLE 1
LEVEL OF READINESS IN DRRM

Risk Disaster	Frequency	Percentage
Earthquake	22	11.52
Typhoon	61	31.94
Flood	98	51.31
Pandemic	10	5.23
Total	191	100

Table 2 shows the data on the level of readiness of school in risk disasters. As shown almost half 98 or 51.31% of the respondents were strongly agreed that the school are ready in disaster risk in term of flood. This was followed by 61 or 31.94% were ready in typhoon and only 10 or 5.23% of the respondents agreed that the school is ready in pandemic.

The result implies that the respondents were agreed that the school is ready in flood because majority of the school building are in high level areas and had second and third floor that served as an evacuation center. Hence, the school was found less ready in pandemic and earthquake based on the responses of the respondents. Because both are not predictable unlike typhoon and flooding, there are warnings and signs, that will immediately can prepare readiness ahead of time such as buying of foods, prepare emergency and first aid kits. According to McClaren (2020), emergency preparedness and readiness plays a crucial role to prevent hazardous disaster. Schools is a place to help everyone to increase level of awareness and preparedness in every disasters. Planning activities like emergency drill, creating emergency response teams and educating all involve help them safe and secure.

2. Level of Implementation of DRRM in School

TABLE 4
LEVEL OF DRRM IMPLEMENTATION

Level of Implementation of DRRM	Weighted Mean	Interpretation
Prevention and Mitigation	1.78	Less Implemented
Preparedness	1.75	Less Implemented
Response	1.69	Less Implemented
Recovery and Rehabilitation	2.55	Implemented
Overall Weighted Mean	1.94	Less Implemented

Table 2 present the level of implementation of DRRM in school. As shown, the overall weighted mean got 1.94 and interpreted as “Less Implemented”. The level of implementation of DRRM got highest weighted mean of 2.55 and verbally interpreted as “Implemented”; while prevention and mitigation got the lowest mean of 1.69 and verbally interpreted as “Less Implemented”.

The findings revealed that the level of implementation of DRRM in school was found less implemented. The school cannot immediately identify risks or threats because of poor monitoring and communication plan from the authorities who had expertise in risk disaster and to easily and immediately transmit data related to immediately respond to reduce and avoid hazards. On the other hand, the school can provide emergency and first kits to help to sustain evacuees’ needs.

According to Navigate360 (2020), there are five ways to bolster emergency preparedness and ensure the well-being of everyone involved in school. School need to develop an emergency operations plan, develop a crisis response team, develop communication plan, provide regular practice and trainings and partner with a safety expert. With that, the context of emergency planning, the incident response plan focuses on managing specific incidents or emergencies.

3. Challenges Encountered by the School in the Implementation of DRRM

Based on the data gathered, the school was challenged in the implementation of DRRM due to insufficient budget to disaster risks needs such as providing emergency equipment for rescues and to respond emergency hazards. They were also challenged in communication and coordination from the authorities such as LGUs, DRRM coordinators, Stakeholders and communities.

4. Best Practices of School in the Implementation of DRRM

The best practices of school in the implementation of DRRM are the following:

- a. Simultaneous Disaster Drill such as Earthquake and Fire Drill
- b. Annual Building Inspection
- c. Building Rehabilitation and Repair
- d. Annual Tree Planting Activities

IV. CONCLUSIONS

Based on the findings of the study, the school was found not ready in the implementation of DRRM specifically in earthquake and pandemic because both not predictable. Additional, the school was implemented less the DRRM due to insufficient budget to provide all disaster risk needs such as providing emergency and first aid kits. Furthermore, the school were challenged in communication and coordination to the authorities like LGUs that help us to support all DRRM program and activities.

The researchers may recommend that the school may keep the entire community well prepared by disseminating knowledge and information through providing announcements, giving leaflets and updating DRRM on how to be prepared before, during and after a catastrophe happens.

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