

# Perception On Disaster Risk Reduction Management (DRRM) Of Cortes, Surigao Del Sur

JESSIE CECELIA A. URBIZTONDO

Tigao National High School  
Department Of Education, Caraga Region  
nazdurayn@gmail.com

*Abstract* — Disasters brought by natural hazards are an issue of great concern in the whole world due to social, environmental, and economic impacts. With global warming, environmental degradation, increasing population density and poverty conditions, the occurrences of disasters are expected to rise. This study determined the perception of disaster risk reduction management (DRRM) of Cortes, Surigao del Sur as evaluated by three (3) select secondary schools in Cortes II District, Cortes, Surigao del Sur during the Academic Year 2019 – 2020.

*Keywords* — *DRRM Perception, DRR Management, Disaster Management*

---

## I. Introduction

Awareness in time of disasters known to be critical for many people remains unprepared. Disaster may strike in any place whether at home, in school, in church, in market, in the workplace or in the streets, wherever, learners are the most affected in case of these disasters (PDRRM, 2020). Natural and human-caused disasters cannot be prevented, but at least people can plan for disaster management. Promotion about enhancing skills and knowledge as a major instrument to cope with any eventuality is rampant. Also, the global and regional processes of UN assembly campaign Disaster Risk Reduction (DRR) Begins at School where initiatives have been taken worldwide (UNISDR, 2019). The cornerstone of disaster management policy in the Philippines dates to 1978 when Presidential Decree No. 1566 was enacted, which called for the strengthening of Philippine disaster control and capability and establishing the national program on community disaster preparedness (Grant, 2022).

According to Cardenas (2019), school is the second most important grooming ground for learners, where knowledge and skills are imparted. Hence, the Department of Education mandated the school to effectively implement the campaign aligned to its commitment on the Philippine DRRM Act of 2021. As, Section 14 of the Republic Act 10121 of the Philippine Disaster Risk Reduction requires DepEd, CHED, and Tesda to integrate disaster risk education in school curricula (DepEd, 2021).

In Cortes, Surigao del Sur, calamities brought massive destruction and crisis to the community. The Municipal Risk Reduction team was not able to respond immediately to the needs of the majority. The group affected were in the rural areas, engaged in agricultural farming; had low skills and had limited access to education, adequate food, health services, water and sanitation.

These people are also the most vulnerable to ill-health, economic dislocation, and natural disasters, which invariably exacerbate material poverty. Their knowledge regarding calamities, whether natural or human-made, affect everyone, especially the poor, children, women, and the elderly who have the least capability to deal with catastrophes (DOH, 2021).

Thus, the researcher being the School Coordinator on Disaster Risk Reduction Management (DDRM) is concerned on how to successfully lessen disaster risk as it becomes more complex. In this regard understanding of complete disaster planning strategies is vital. The study about the impact of the implementation of Disaster Risk Reduction Management (DRRM) program is important to assess the respondents' insights on such a spectrum. Further, the output of this study serves as the basis for information among stakeholders in ascertaining that the implementers have met the objectives of the program concerning community knowledge management.

### **Literature Review**

The Disaster Risk Reduction and Management Framework aims to uplift consciousness and knowledge between the national and local governments with the people on the country's DRRM goal. A national framework for DRRM is essential to guide national and local efforts in DRRM because it provides the overall set of priorities and delineates the fundamental elements in the country. The DRMM framework is designed to provide common direction towards addressing the underlying causes of vulnerability to help reduce and manage the risks to disasters. The DRRM framework will also show the DRR and DRM efforts are inevitably linked to the development process and not just merely a set of activities and should come together and contribute towards attaining sustainable development (NDRRMP, 2019).

For Martires (2021), a common structure is a multifaceted and lively set of associations amongst its performers interrelating with one another. Thus, R.A. No. 10121 recognizes the necessity to embrace a disaster risk reduction and management approach that is holistic, comprehensive, integrated and proactive in reducing the socio-economic and environmental influences of disasters counting climate change, and stimulate the involvement and partaking of all sectors and all stakeholders concerned, at all levels, especially the local community. Disaster risk reduction management program, aside from being multilevel, becomes also multi-relational. There are still various subsystems interdependent with each other within the social system of the community.

On the other hand, Andres (2022) quipped that teambuilding is a helpful technique to the multifaceted responsibility of disaster risk reduction management program. He believed that the subtle consequences are gained when persons work composed with an intelligence of promise to one alternative as well as to the society. This approach is like the social system model since he defined a team as organic – made up of components in the person of its members, but these come together to form a cohesive whole which is greater than the sum of its parts. He concluded that if

the team succeeds, they all succeed; if it fails, they all fail. He also emphasized that, in taking teambuilding as a management approach, one must be concerned with the innate social values each member has to minimize their input of efforts while maximizing their output of productivity.

In the introduction to the book entitled *Impact on the Implementation of Disaster Risk Resiliency Management Program*, De Leon (2019) stated that community-based development projects are participatory in nature. Thus, communication not only serves as the lifeblood of the organization, but it is also its major linkage to the organization's environment. Moreover, in Cardenas (2019) of the U.P. Department of Sociology deftly described the relationships which now exist in the so-called "culture of disasters." He said that adding to this complex tangle of social systems, social values, self-styled management concepts and ecosystems, Filipinos are only beginning to learn the rules of disaster risk reduction and management. Urban people, he reiterated, are less sensitive to the ecosystems. Beyond that, the researchers are not equipped to manage the problems in urban areas because the researchers do not have any experience dealing with them.

Tabios (2019) additionally clarified that to safeguard disaster risk reduction management program for the reply stage of disaster management. Communities often visible to dangerous climatic conditions and dangers can also improve by employing practices and methods that could endure the destruction forces of nature. For large scale community-based planning, long-term and sustainable programs should be developed in partnership with the local government and even private organizations to reduce poverty by providing affordable shelter, food, and water for resettled or relocated communities to reduce their disaster vulnerability.

## II. Methodology

The study utilized the descriptive method of research employing a quantitative approach. Standardized survey instrument from the concept of Disaster Risk Reduction Management (DRRM) Manual of the Department of Education (DepEd) was used in the study. Cortes District had five (5) secondary schools. Four (4) public schools namely, Felisberto Verano National High School, Burgos National High School, Tigao National High School, Matho Integrated Secondary School and one (1) private school, the Cortes Academy. Purposive sampling was used in choosing the teacher respondents of the study while the sample size for learners was guided by 50% of the total population. Descriptive statistics used were the weighted mean, while inferential statistics employed Pearson correlation  $r$  for variance set at 0.05 level of significance.

The sample of the research population comprises eighty-seven (87) teachers and eight hundred sixty-seven (867) learner-respondents. The researcher utilized complete enumeration for the LGU, NGO and PTA Officials. The study has a total of one thousand twenty three (1023) respondents. The table below presents the distribution of respondents.

**Table 1 Distribution of Respondents**

Schools	Sample (N)					Grand Total
	Teachers	Learners	LGU	NGO	PTA Officials	
Felisberto Verano National High School	13	201	7	7	7	235
Burgos National High School	25	220	5	5	5	260
Tigao National High School	32	320	7	7	7	373
Matho Integrated School	12	96	2	2	2	114
Cortes Academy	5	15	7	7	7	41
<b>TOTAL</b>	<b>87</b>	<b>867</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>1,023</b>

### III. Results and Discussion

#### Impact on the Implementation of the Program as to Funding

The table below highlights the outcomes on the impact of the implementation of disaster risk reduction management (DRRM) program. It further shows the results based on the respond of the respondents under study.

Table 1 presents the impact of implementation in terms of funding. The indicator “generally accepted accounting principles, procedures and standards are being employed in the use of funds” got a mean of 3.81 or well implemented rank as the highest of the 10 indicators while the indicator “in totality the school disaster preparedness budget for a calendar year was able to meet the needs of its program and activities” got the lowest mean of 2.11 or fairly implemented.

**Table 1. Impact on the Implémentation of the Program as to Funding**

Indicators	Mean	Adjectival Rating
Provision for a yearly institutional budget.	2.14	Fairly Implemented
The yearly institutional budget includes allotment for disaster preparedness management.	2.18	Fairly Implemented
The budget allocated for disaster management is equal to the needed operational costs.	2.26	Fairly Implemented
The budget provision for disaster management have fully presented and deliberated before it was implemented.	2.24	Fairly Implemented
The school made use of the allocated funds in order to finance the different related activity in disaster management.	3.67	Well Implemented
Generally accepted accounting principles, procedures and standards are being employed in the use of funds.	3.81	Well Implemented
The school as a whole solicits funds to augment the much-needed amount to support disaster preparedness plans and activities.	2.13	Fairly Implemented
Provision for the wise use of school’s budget related to disaster preparedness.	2.12	Fairly Implemented
Provision for the students to pay disaster management fee is being instituted.	2.12	Fairly Implemented
In totality the school disaster preparedness budget for a calendar year was able to meet the needs of its program and activities.	2.11	Fairly Implemented
Over-all Weighted Mean	2.48	Fairly Implemented

**Legend:** 4.20-5.00 – Very Much Implemented; 3.40-4.19 – Well Implemented; 2.60-3.49 – Implemented; 1.80-2.59 – Fairly Implemented; 1.00-1.79 – Not Implemented

An over-all weighted mean of 2.48 with fairly implemented was achieved. It implies that the funding of disaster risk reduction management had been used on appropriate program however provision for the wise use of budget related to disaster preparedness must be prepared. Thus, a good budget plan must be presented in detail through a yearly proposal. This clearly denotes that if the institution has no detailed activities for the program, naturally budget is not being prepared for that purpose, thus it eludes the basic fact of wise use of budget.

This finding is in line with the view of De Leon (2019) who found that disaster preparedness activities are not clearly laid down. It follows what the administration makes use of or did not include items in the yearly institutional budget. In totality, the funding is not given emphasis and concern in the issues of disaster risk reduction management program. Hence, endowment for information of different stakeholders in different institutions must be implemented. Moreover, as suggested by the Association of Training Institutions for Foreign Trade in Asia (2019), it was noted that there is a need for clear funding to all disaster management strategies of a program. The provision for orientation to all stakeholders of the program is done by experts in disaster risk reduction management.

### Impact of the Implementation of DRRM Program as to Services

Disaster risk reduction aims at analyzing and managing the causal factors of disasters. Proper implementation of the program as to services is vital in the success of every disaster risk reduction management. The impact of the implementation is hereby presented in Table 2.

**Table 2. Impact on the Implementation of the Program as to Services**

Indicators	Mean	Adjectival Rating
Assessed the personnel and material resources of the school community to undertake disaster risk reduction measures.	4.27	Well Implemented
Assessed the needs of the faculty and community in planning for the training on disaster risk reduction.	4.15	Well Implemented
Involved the teachers, community, and other stakeholders in the preparation of the disaster risk reduction plan.	4.17	Well Implemented
Coordinated with NGOs, INGOs, agencies and others stakeholders to assist in developing the disaster risk reduction program.	3.78	Well Implemented
Clearly identified in the school and community map safe places where the school and community can go in case of particular emergencies such as flood, earthquake, typhoon, fire, bombings, etc.	3.85	Well Implemented
Clearly identified in the persons and agencies to call for enhance in case of emergencies and how to conduct them and who to contact.	3.86	Well Implemented
Clearly defined the roles of the teachers and members of the organized disaster risk reduction group in case of emergencies.	3.94	Well Implemented
Included general guidelines of what to do before, during and after the different kinds of hazard impacts experienced in the location.	3.86	Well Implemented
Included in the plan the schedule of activities, like training drills, reinforcing buildings, repair and etc, to prepare the school and the school community for any eventuality.	3.92	Well Implemented
Disseminated the disaster risk reduction plan to the school. Community and other stakeholders.	3.89	Well Implemented
Over-all Weighted Mean	3.97	Well Implemented

**Legend:** 4.20-5.00 – Very Much Implemented; 3.40-4.19 – Well Implemented; 2.60-3.49 – Implemented; 1.80-2.59 – Fairly Implemented; 1.00-1.79 – Not Implemented

Table 2 depicts the impact of implementation of disaster risk reduction management regarding the services offered. Respondents had conducted different services related to actions that should be done during and after the disaster takes place periodically or as part of the calendar of activities. A mean of 4.27 or well implemented as the highest was obtained by indicator “assessed the personnel and material resources of the school community to undertake disaster risk reduction measures” while a mean of 3.85 or well implemented was achieved by indicator “clearly identified in the school and community map safe places where the school and community can go in case of particular emergencies such as flood, earthquake, typhoon, fire, bombings, etc.” as the lowest mean.

An overall weighted mean of 3.97 with an adjectival rating of well implemented was observed. This connotes that as much as possible the institution must have initiated activities related to the skills training and capability building of the different stakeholders for best services. It is clearly implied that services start within oneself through extending helping hand in times of disaster. Thus, proper service training that would be useful during an emergency is necessary.

Findings of the study justifies the suggestion of Journal of Global Business (2022) that aptly noted that the institutions continuity plans and manuals must be periodically reviewed to enhance their services in coping real disaster events using drills, simulations, and walk-through activities. Institutions must have tied up with the Local Disaster Risk Reduction Management Council as the functional arm of the local government in organizing emergency teams. Thus, services not only give emphasis and concern to the issues but rather they should manifest proper services to the community.

### **Impact of the Implementation of DRRM Program as to Facilities**

Facilities in the implementation of Disaster Risk Reduction Management (DRRM) promotes the activities oriented to reduce the vulnerability of new facilities by avoiding hazardous areas, designing for resistance, or operating with minimal exposure; and in terms of existing critical facilities. It also promotes activities related to strengthening and retrofitting vital systems. Strategies for existing critical facilities include relocation, strengthening, retrofitting, adding redundancy, revising operations, and adopting emergency preparedness, response, and recovery programs. Mapping critical facilities, comparing or combining that information with a multiple hazard map, and integrating both into project preparation improve decisions during the different stages of the development planning process. The use of the maps ranges from location decisions to criteria for developing construction standards.

Gleaning at table 3 presents the result on the impact of implementation of disaster risk reduction management program in facilities aspect. For indicator “the school provides room in times of disaster” registered a mean of 4.29 or well implemented as the highest while indicator

“operated on the “quick response standards” obtained the lowest score with mean of 1.92 or fairly implemented.

**Table 3. Impact on the Implementation of the Program as to Facilities**

Indicator	Mean	Adjectival Rating
The school provides rooms in times of disaster.	4.29	Well Implemented
Followed the guidelines for mitigation and preparedness, response, relief, and rehabilitation.	3.80	Well Implemented
Adapted the assessment and reporting forms and surveys to the problem and needs of the school and locality relative to disasters.	3.94	Well Implemented
Sought the assistance of the local government, the parents, NGOs, INGOs, and other stakeholders in preparing the school to withstand disasters.	3.97	Well Implemented
Established and maintained standing agreement with the NGOs, INGOs, communications, transportation and agencies that can give assistance before, during and after disasters.	3.95	Well Implemented
Documented and filed all the chronological events during a calamity for future reference.	3.93	Well Implemented
Equipped with the survival kits, equipment, materials, and supplies needed in times of calamities.	1.96	Fairly Implemented
Operated on the “quick response” standards.	1.92	Fairly Implemented
Identified exits and evacuation sites known to the school community.	3.89	Well Implemented
Undertaken provisions to ensure continuity of instruction	3.87	Well Implemented
Over-all Weighted Mean	3.55	Well Implemented

**Legend:** 4.20-5.00 – Very Much Implemented; 3.40-4.19 – Well Implemented; 2.60-3.49 – Implemented; 1.80-2.59 – Fairly Implemented; 1.00-1.79 – Not Implemented

An overall weighted mean of 3.55 with an adjectival rating of well implemented was achieved. This implies that facilities referring to the disaster preparedness approaches are increasingly essential elements of vulnerability reduction. Disaster management strategies should be associated with a policy trend that values the knowledge and capacities in formulating not only on coping and adaptation risk but also situating to a wider development capacity.

Findings justify the study of Ignacio (2019) noted that the need for conducting regular building inspection and maintenance to ensure compliance with government structural engineering and safety standards. It added developing timely and effective alert signals and communication system to quickly inform potential danger from specific natural hazards. Emergency planning for proper facilities should aim to prevent emergencies from occurring and failing. It should develop a good action plan to mitigate the results and effects of any emergencies that should be cyclical process, common to many risk management aspects. Moreover, the institution must have initiated activities related to skills training and capability building of different stakeholders that are being sheltered in the institution. Preparedness starts with an individual’s everyday life that involves items and training that would be useful during an emergency (Generalao, 2019).

### Impact of the Implementation of DRRM Program as to Technical Assistance

*Disaster preparedness* requires *technical assistance* for the development of *disaster preparedness* plans to respond to disasters of various kinds. The impact of the implementation in terms of technical assistance is presented in table 4.

**Table 4. Impact on the Implementation of the Program as to Technical Assistance**

Indicator	Mean	Adjectival Rating
Designed program and approaches for discerning administrators, faculty, staff, and students about disaster awareness.	4.05	Well Implemented
The institution had shown serious concern in disaster preparedness management issues.	4.02	Well Implemented
The institution had designed various programs and initiated activities purposely for disaster management.	3.91	Well Implemented
Utilizes community network to enhance disaster resilience and sustainability of the programs being designed.	3.93	Well Implemented
A dynamic and cohesive efforts have been exerted by the administrations in some activities such as workshops, seminars, conferences are being realized to raise the level of awareness in response to global realities.	3.99	Well Implemented
Policies had been institutionalized and advocacies are “reinforced” support in order to effectively and authoritatively achieve objectives of disaster preparedness.	3.89	Well Implemented
The institution has a shelter in place or an evacuation within the school area or outside community that free from obstructions and hazards.	3.92	Well Implemented
Available food, medical kit and supplies are stocked in the disaster management office in response to basic needs of victims in the actual disaster to happen.	3.94	Well Implemented
Anticipates future disasters and takes preventive and precautionary measure to build disaster-resistant and disaster-resilient community.	4.06	Well Implemented
In totality the school ensures unity of efforts among all stakeholders in the school system to respond to any disaster that may or may not happen.	4.06	Well Implemented
Over-all Weighted Mean	3.98	Well Implemented

**Legend:** 4.20-5.00 – Very Much Implemented; 3.40-4.19 – Well Implemented; 2.60-3.49 – Implemented; 1.80-2.59 – Fairly Implemented; 1.00-1.79 – Not Implemented

Table 4 presents the impact of disaster risk reduction management program regarding technical assistance. The respondents revealed that the indicators “anticipate future disasters and take preventive and precautionary measure to build disaster-resistant and disaster-resilient community” and “in totality the school ensures unity of efforts among all stakeholders in the school system to respond to any disaster that may or may not happen” has a mean of both 4.06 or well implemented. This manifests that the condition of disaster preparedness has complied with what is being prescribed. On the other hand, indicators “policies had been institutionalized and advocacies are “reinforced” support to achieve objectives of disaster preparedness effectively and authoritatively” obtained a mean of 3.98 or well implemented adjectival rating. An overall weighted mean of 3.98 with an adjectival rating of well implemented was observed. Results imply that all institutions have technologically equipped with policies and materials needed for disaster management. The technological assistance employed in every school in the conduct of its disaster



preparedness management exemplified the different gadgets that are visible in the campus, like fire extinguishers, communication alarm systems and alert signs.

The result posted on The Journal of Global Business (2022) connotes the need for technical assistance to ensure compliance with government policies that add on developing a timely and effective implementation of the program. It pointed out that the resources of every respondent in the conduct of disaster preparedness specifically preventive and precautionary measure differs. Disaster preparedness can be enhanced through strengthening the community capacities and improving the preventive mechanism according to Mathbor (2019). It is highly emphasized that knowledge on the levels of preparedness can inform disaster management process and well lead to a well-informed plans and decisions.

### Significant Relationship between the Profile of Respondents and DRRM

The significant relationship on the profile of respondents and the impact of disaster risk reduction management (DRRM) implementation is illustrated in table 4. As shown in the table the variables evaluated gained a significant and not significant conclusion.

**Table 5. Significant Relationship on the Profile and the Impact of DRRM Program**

Variables	Computed value	r	P-Value	Decision on Ho	Conclusion
Age	0.117		0.009	Reject Null Hypothesis	Significant
Sex	0.041		0.365	Failed to reject null Hypothesis	Not Significant
Position/ Grade Level	0.102		0.023	Reject Null Hypothesis	Significant
Number of Years in Experience	0.058		0.198	Failed to reject null Hypothesis	Not Significant
Relevant Trainings/Seminar Attended	0.082		0.046	Reject Null Hypothesis	Significant

#### Level of Significance < 0.05

The respond of the respondents in the variables “age” gained a computed r of 0.117 at 0.05 level of significance hence the decision is to reject the null hypothesis. It imply that age is significant with the impact on the disaster risk reduction management program. In the variables “sex” gained a p-value of 0.365. It is greater than the computed p value @ 0.05 level of significance the decision failed to reject the hypothesis. Results implies that sex is not in significant with the impact on the disaster risk reduction management program. In the variables “position/grade level” gained a p-value of 0.023. It is lesser than the computed p value @ 0.05 level of significance the decision to reject the null hypothesis. Results implies that position/grade level is not significant with the impact on the disaster risk reduction management program.

In terms of number of years in experience it gained a computed r of 0.058 with a decision failed to reject the null hypothesis. It imply that number of years in experience is not significant

with the impact on the disaster risk reduction management program. Also, the variables “relevant training/seminars attended” gained a p-value of 0.046; since p-value is lesser than 0.05 level of significance, it reject the null hypothesis. Thus, there is no significant relationship on the variables number of years in experience as tested on respondents profile and the impact of disaster risk reduction management.

In the variables age, position/grade level and relevant training/seminars attended; it show a significant relationship on the respondents profile and impact of disaster risk reduction management program. Result of the findings implies that profile and the impact of implementation has nothing to do with the two variables tested whilst in terms of the three variables there is a need to plan for proper dissemination of disaster risk reduction management program. The table further justifies that there is no significant relationship on the two variables tested while there is a significant relationship on the three variables tested.

It can be noted on the results from the research of UNISDR (2019) as noted that functionality of the program sets out the goals and specific objectives that delivered for reducing disaster risk together with related actions to accomplish based on the profile of the respondents. However, according to Balamir (2019), successful combination of the variables tested is needed. Disaster Risk Reduction Management (DRRM) should not be a stand-alone activity but instead, it should be integrated within the development planning and practice.

#### **IV. Conclusion**

The results of the respondents’ response serve as baseline data to improve the functionality of the program. The perception on disaster risk reduction management (DRRM) for prevention and mitigation, disaster preparedness and risk reduction, emergency response, rehabilitation and recovery are effective awareness through education and information. Finally, the areas of concern on the results of the findings and conclusions revealed that perception on disaster risk reduction management (DDRM) is effective and is seemed to be achieved based on the response of the respondents. Moreover, improvement on organization of disaster management group or committee and lack of disaster coordinating council at the school level needs to be addressed. Further, the study recommended to conduct enhancement trainings, seminars, and drills about disaster risk reduction to better improve the current perception on disaster risk reduction management (DDRM).

The areas of concern on the results of the findings and conclusions revealed that perception on disaster risk reduction management (DDRM) is effective and is seemed to be achieved based on the response of the respondents. Moreover, improvement on organization of disaster management group or committee and lack of disaster coordinating council at the school level needs to be addressed. Further, the study recommended to conduct enhancement trainings, seminars, and

drills about disaster risk reduction to better improve the current perception on disaster risk reduction management (DDRM).

### **V. Recommendations**

Based on the findings and conclusions, the succeeding commendations were prepared to expand the current perception on Disaster Risk Reduction Management (DRRM) and for future research.

The study suggests that the results of this study will be utilized by the School Administrators and different stakeholders in reorganizing or reformulating a comprehensive program in the implementation of disaster risk reduction management. Such a program shall be incorporated in the institutional development plan of the school. The program must be sustainable with an appropriate budget, personnel policy and technical support from the local government unit, national agencies on disaster, non-governmental organizations, and international organizations whose advocacies focused on disaster management.

The schools must take some steps in ensuring an excellence scheme in the implementation in the components of awareness, skills training, fire and earthquake drills, disaster management planning, revitalizing the different committees in disaster management, and updating its response policies to address the problems being encountered.

There is a need for the disaster management group/council to be organized by the administration coupled with clear functions and specific responsibilities that will take charge of the over-all planning, organizing, implementing, evaluating, and monitoring disaster management activities of the institution.

Conduct more training, seminars, and drills about disaster risk reduction. Information dissemination of leaflets, journal, caricature, cartoonist and the like are significant.

It is suggested that a replicate of this study be conducted using other respondents and variables to validate the findings of the study or to explore other salient dimensions of the topic regarding disaster risk reduction management (DRRM).

### **REFERENCES**

- [1] Andres, L. (2022). Bringing Youth Preparedness Education to the Forefront: A literature Review and Recommendations. Issue6. [Online]: Retrieved from <http://www.citizen/corps.gov> [2022, July 18].
- [2] Association of Training Institutions for Foreign Trade in Asia (2019). Living with risk: a global review of disaster reduction initiatives. Handbook for Disaster Risk Reduction Management. Geneva: Switzerland.

- [3] Balamir, R. (2019). Promoting community resilience in disasters: The role for schools, youth and families. 3rd Edition. U.S.A.
- [4] Cardenas, A. (2019). Disaster Risk Reduction Management. A Handbook. Department of Sociology. UP Diliman.
- [5] De Leon, P. (2019). Disaster Management and Critical Issues on Disaster Risk Reduction in the Philippines. Inter-nation Workshop on Emergency Response and Rescue (pp. 1-25).
- [6] Department of Education (2021). Disaster risk reduction in education in emergencies. A guidance note for education clusters and sector coordination groups. [Online]. Retrieved from: <http://reliefweb.in> [2021, Sept20].
- [7] Department of Health (2021). Vulnerability and Asset-based Approach to Disaster Risk Management. The International Journal of Sociology and Social Policy 24.10/11. 2021:1-48.
- [8] Generalao, A. (2019). An Assessment of factors influencing school disaster awareness and preparedness in public secondary schools. UP Diliman University. Manila.
- [9] Grant, N. (2022). Project Management Success for Post-Disaster Reconstruction Projects: International NGOs Perspectives. *Procedia Econ. Finance*. 2022, 18, 120–127.
- [10] Journal of Global Business (2022). Disaster risk reduction in education in emergencies. A guidance note for education clusters and sector coordination groups.
- [11] Ignacio, L. (2019). New Flash on Bagyong Basyang in Mindanao. *Philippine Inquirer*.
- [12] Martires, M. (2021). Concept Note: Formal and Informal Education for Disaster Risk Reduction: A Contribution for Risk RED for the International Conference on School Safety. [Online] Retrieved from: [www.riskred.org](http://www.riskred.org) [2021, July 11]. Practical Information on Crisis Planning: a guide for schools and communities.
- [13] Mathbor, A. (2019). Disaster Risk Management in Southeast Asia: A Developmental Approach. *Asian Economic Bulletin* 22.2. August 2019: 229-239. Singapore, Singapore.
- [14] National Disaster Risk Reduction Management Plan (NDRRMP). (2019) “Student strategies to avoid harm at school” (Department of Education, October 2010), NCES 95-203. Republic Act 10121 Section 14 of the Philippine Disaster Risk Reduction and Management Act of 2010.
- [15] Philippine DRRM Act of 2010. Section 14 of the Republic Act 10121 of the Philippine Disaster Risk Reduction.
- [16] Provincial Disaster Risk Reduction Management (PDRRM). (2020). “Philippine Disasters” 9 November 2020. [http://www.academia.edu/693831/Lessons\\_from\\_recent\\_Philippine\\_disasters](http://www.academia.edu/693831/Lessons_from_recent_Philippine_disasters).
- [17] Tabios, K. (2019). Earthquake Safety Activities for Children and Teachers. [Online] Retrieved from: [www.dodea.edu](http://www.dodea.edu) [2019, July 11].
- [18] United Nation International Strategy in Disaster Risk (UNISDR) (2019). A Handbook on Rethinking Disasters by Design, Disaster Prevention and Management