

# RESOURCE MOBILIZATION STRATEGIES ON DISASTER RISK MANAGEMENT IMPLEMENTATION OF PUBLIC SCHOOL TEACHERS

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**Abstract :** This study examined the relationship between resource mobilization strategies and disaster risk management implementation among public school teachers in District IV, Division of Valencia City, during the School Year 2025–2026. Anchored on Resource Mobilization Theory, the research focused on disaster preparedness, emergency preparedness, post-disaster recovery, risk mitigation, and safety risk awareness, as well as the implementation of disaster risk management in terms of enabling environment, safe learning facilities, school disaster management, and disaster risk reduction management. The study aimed to determine the level of both variables and the significance of their relationship. A descriptive-correlational research design was employed using an adopted questionnaire administered to public school teachers. Data were analyzed using mean, standard deviation, and Pearson Product-Moment Correlation. Findings revealed that both resource mobilization strategies and disaster risk management implementation were generally rated high, indicating that schools maintain established preparedness systems, safety measures, and coordinated disaster management practices. Moreover, results showed a significant positive relationship between resource mobilization strategies and disaster risk management implementation, suggesting that effective planning, stakeholder coordination, and resource utilization contribute to improved disaster preparedness and school safety. The findings highlight the importance of strengthening partnerships, training programs, and community involvement to enhance disaster resilience in schools.

**IndexTerms - Resource mobilization strategies; Disaster risk management; School preparedness; Disaster resilience; Public school teachers; Emergency preparedness; Risk mitigation; School safety.**

## INTRODUCTION

The increasing frequency and intensity of natural and human-induced hazards have made disaster risk management (DRM) a critical concern in the education sector, particularly in disaster-prone countries like the Philippines. Public schools serve as vital institutions not only for learning but also for ensuring the safety and resilience of learners and personnel. However, despite existing policies and frameworks, many schools still face challenges in effectively implementing disaster risk management programs due to limited resources, insufficient funding, and weak coordination mechanisms. In District VII, Division of Valencia City, Bukidnon, these challenges are evident in the varying levels of preparedness and response capacity among public school teachers. This situation underscores the need to examine resource mobilization strategies as a key factor in strengthening the implementation of disaster risk management in schools.

Globally, disaster risk management has increasingly emphasized the importance of resource mobilization as a strategic component in building resilient communities. Recent studies highlight that effective DRM requires the ability to identify, access, and utilize financial, human, and material resources across different phases of disaster management. Resource mobilization is recognized as essential in ensuring preparedness and timely response, particularly in education systems where schools act as community-based hubs for disaster mitigation and recovery. Furthermore, participatory approaches such as community-based disaster risk management stress the role of institutions, including schools, in mobilizing local resources and partnerships to reduce vulnerability and enhance resilience.

At the national level, the Philippines continues to strengthen its disaster risk reduction and management (DRRM) initiatives through policies aligned with Republic Act 10121 and the National DRRM Plan. However, studies reveal persistent gaps in implementation, particularly in resource allocation, training, and infrastructure support within schools. Public elementary schools, for instance, encounter difficulties such as inadequate facilities, lack of training, and limited financial support, which hinder the effective execution of DRRM programs. Despite government efforts, there remains a need to enhance preparedness and resilience, especially in the context of increasing climate-related disasters. These challenges highlight the importance of strengthening resource mobilization mechanisms at the school level.

Locally, in Bukidnon and similar contexts, research indicates that the level of DRRM implementation in schools is significantly influenced by teachers' capabilities, availability of resources, and institutional support. Teachers play a crucial role in operationalizing DRRM policies; however, their effectiveness is often constrained by limited access to resources, insufficient training, and lack of structured resource mobilization strategies. Studies conducted in local school settings demonstrate that while DRRM programs are generally implemented, their effectiveness varies depending on the adequacy of human, material, and financial resources available to schools. This suggests that strengthening resource mobilization strategies can directly improve the implementation of DRRM programs.

## NEED OF THE STUDY.

In this context, the present study aims to examine the resource mobilization strategies employed by public school teachers in District VII, Division of Valencia City, Bukidnon, and how these strategies influence the implementation of disaster risk management. By focusing on resource mobilization, this research seeks to contribute to the development of more sustainable, responsive, and context-based DRRM practices in public schools, ultimately enhancing the safety, preparedness, and resilience of the school community.

### 3.1 Population and Sample

The respondents of the study were all public-school teachers teaching in District VII, Division of Valencia City, Bukidnon. They were selected because they were directly involved in implementing school-based disaster risk management practices and in mobilizing available resources within their respective schools. As frontliners in the classroom and active participants in school programs, they possessed firsthand knowledge and actual experiences related to preparedness, response, and recovery efforts.

### 3.2 Data and Sources of Data

For The study employed a descriptive-correlational research design to examine the current practices of public-school teachers in relation to resource mobilization and disaster risk management in District VII, Division of Valencia City, Bukidnon.

This design was appropriate as it allowed the researcher to describe the existing conditions and determine the extent to which these practices were carried out in the school setting. It provided a clear and systematic way of gathering information without manipulating any conditions, ensuring that the data reflected the actual situation of the respondents. Furthermore, the descriptive-correlational design was used to determine whether a significant relationship existed between the practices of resource mobilization and the implementation of disaster risk management. Through this approach, the study was able to examine how these aspects were associated with each other based on the responses of the teachers. This design was considered suitable because it focused on identifying patterns and relationships within naturally occurring conditions, which aligned with the purpose and nature of the study.

### 3.3 Theoretical framework

The present study was anchored on the Resource Mobilization Theory (RMT), which was originally advanced by John D. McCarthy and Mayer N. Zald. This theory posited that the success of any organized effort depended on the ability to acquire, organize, and effectively utilize available resources. In the context of disaster risk management in schools, the theory explained that preparedness, emergency readiness, recovery actions, mitigation practices, and safety awareness had been influenced by how well schools accessed and mobilized human, financial, and material support. Recent studies affirmed that institutions with stronger resource mobilization practices demonstrated higher levels of disaster readiness and adaptive capacity, particularly in education settings where resource constraints were evident (Aldrich & Meyer, 2021; Le De et al., 2022).

## RESEARCH METHODOLOGY

The methodology This chapter presented the research design, participants, instruments, data gathering procedures, and statistical treatments used to examine resource mobilization practices and disaster risk management implementation among public school teachers in District VII, Division of Valencia City, Bukidnon.

### 3.1 Population and Sample

The study employed a complete enumeration approach, where all public-school teachers teaching in District VII, Division of Valencia City, Bukidnon were included as respondents. This procedure was used to ensure that every teacher within the defined population had the opportunity to participate, thereby eliminating the need for sampling selection and reducing the risk of bias associated with partial representation.

The use of complete count was considered appropriate because the number of teachers in the district was manageable and accessible for data collection. It allowed the study to capture a comprehensive view of the teachers' practices and experiences related to resource mobilization and disaster risk management. By including all members of the population, the findings reflected the actual conditions within the district and provided a more accurate basis for analysis and interpretation.

### 3.2 Data and Sources of Data

For The study employed a structured survey questionnaire administered to selected respondents from public schools to gather data on the resource mobilization strategies of school administrators and the implementation of disaster risk management. The responses were measured using a five-point Likert-type scale patterned after the attitude measurement technique developed by Likert (1932). This method allows respondents to express the degree of their agreement with each statement, thereby transforming subjective perceptions into numerical values that can be analyzed statistically.

To interpret the responses, the weighted mean of each indicator was matched with the corresponding descriptive equivalent based on the specified scale ranges. A mean score within 4.51–5.00 indicated Strongly Agree (Very High), 3.51–4.50 signified Agree (High), 2.51–3.50 represented Undecided (Moderate), 1.51–2.50 corresponded to Disagree (Low), and 1.00–1.50 denoted Strongly Disagree (Very Low). This scaling procedure enabled the researcher to clearly determine the level to which the identified

practices and conditions related to disaster preparedness and management were manifested in public schools. Consequently, the use of the Likert-based scale facilitated a systematic interpretation of the respondents' assessments regarding the implementation of disaster risk management and the mobilization of resources within the school context.

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The theory further suggested that coordinated efforts in preparedness and mitigation had strengthened institutional systems such as policy support, safe learning environments, and organized school-based disaster management structures. It had been emphasized that when schools effectively mobilized internal and external resources, they were more capable of establishing supportive environments, maintaining safe facilities, and implementing structured disaster protocols. Empirical findings showed that schools with collaborative networks, community partnerships, and sustained resource allocation exhibited more effective disaster management practices and safer learning conditions (Saito et al., 2021; Fernandez & Shaw, 2023). This indicated that the extent of resource mobilization directly shaped the capacity of schools to sustain comprehensive disaster risk management efforts.

### 3.4 Statistical tools and econometric models

This section elaborates the proper statistical for resource mobilization strategies on the implementation of disaster risk management which are being used to forward the study from data towards inferences. The detail of methodology is given as follows.

#### 3.4.1 Descriptive Statistics

Descriptive Statics has been used to find the maximum, minimum, standard deviation, mean and normally distribution of the data of all the variables of the study. Normal distribution of data shows the sensitivity of the variables towards the periodic changes and speculation. When the data is not normally distributed it means that the data is sensitive towards periodic changes and speculations which create the chances of arbitrage and the investors have the chance to earn above the normal profit. But the assumption of the APT is that there should not be arbitrage in the market and the investors can earn only normal profit. Jarque bera test is used to test the normality of data.

#### 3.4.2 Fama-McBeth two pass regression

The study employed a structured survey questionnaire administered to selected respondents from public schools to gather data on the resource mobilization strategies of school administrators and the implementation of disaster risk management. The responses were measured using a five-point Likert-type scale patterned after the attitude measurement technique developed by Likert (1932). This method allows respondents to express the degree of their agreement with each statement, thereby transforming subjective perceptions into numerical values that can be analyzed statistically.

##### 3.4.2.1 Model for CAPM

To interpret the responses, the weighted mean of each indicator was matched with the corresponding descriptive equivalent based on the specified scale ranges. A mean score within 4.51–5.00 indicated Strongly Agree (Very High), 3.51–4.50 signified Agree (High), 2.51–3.50 represented Undecided (Moderate), 1.51–2.50 corresponded to Disagree (Low), and 1.00–1.50 denoted Strongly Disagree (Very Low). This scaling procedure enabled the researcher to clearly determine the level to which the identified practices and conditions related to disaster preparedness and management were manifested in public schools. Consequently, the use of the Likert-based scale facilitated a systematic interpretation of the respondents' assessments regarding the implementation of disaster risk management and the mobilization of resources within the school context.

##### 3.4.2.2 Model for APT

The Pearson Product-Moment Correlation Coefficient ( $r$ ) was used to determine the significant relationship between resource mobilization practices and disaster risk management implementation. This statistical test measured the strength and direction of the relationship between the two sets of data. The interpretation of the correlation results was based on the computed  $r$ -values and corresponding  $p$ -values, where a significant relationship was identified when the  $p$ -value was less than the level of significance. The results showed strong and significant relationships across all areas, indicating that higher levels of resource mobilization practices were associated with improved disaster risk management implementation

### 3.4.3 Comparison of the Models

The next step of the study is to compare these competing models to evaluate that which one of these models is more supported by data. This study follows the methods used by Chen (1983), the Davidson and Mackinnon equation (1981) and the posterior odds ratio (Zellner, 1979) for comparison of these Models.

#### 3.4.3.1 Davidson and MacKinnon Equation

CAPM is considered the particular or strictly case of APT. These two models are non-nested because by imposing a set of linear restrictions on the parameters the APT cannot be reduced to CAPM. In other words the models do not have any common

variable. Davidson and MacKinnon (1981) suggested the method to compare non-nested models. The study used the Davidson and MacKinnon equation (1981) to compare CAPM and APT.

This equation is as follows;

$$R_i = \alpha R_{APT} + (1 - \alpha)R_{CAPM} + e_i \quad (3.5)$$

Where  $R_i$  = the average monthly excess returns of the stock  $i$ ,  $R_{APT}$  = expected excess returns estimated by APT,  $R_{CAPM}$  = expected excess returns estimated by CAPM and  $\alpha$  measure the effectiveness of the models. The APT is the accurate model to forecast the returns of the stocks as compare to CAPM if  $\alpha$  is close to 1.

### 3.4.3.2 Posterior Odds Ratio

A standard assumption in theoretical and empirical research in finance is that relevant variables (e.g stock returns) have multivariate normal distributions (Richardson and smith, 1993). Given the assumption that the residuals of the cross-sectional regression of the CAPM and the APT satisfy the IID (Independently and identically distribution) multivariate normal assumption (Campbell, Lo and MacKinlay, 1997), it is possible to calculate the posterior odds ratio between the two models. In general the posterior odds ratio is a more formal technique as compare to DM equation and has sounder theoretical grounds (Aggelidis and Maditinos, 2006).

The second comparison is done using posterior odd radio. The formula for posterior odds is given by Zellner (1979) in favor of model 0 over model 1.

The formula has the following form;

$$R = [ESS_0/ESS_1]^{N/2} N^{K_0-K_1/2} \quad (3.6)$$

Where  $ESS_0$  is error sum of squares of APT,  $ESS_1$  is error sum of squares of CAPM,  $N$  is number of observations,  $K_0$  is number of independent variables of the APT and  $K_1$  is number of independent variables of the CAPM. As according to the ratio when;

$R > 1$  means CAPM is more strongly supported by data under consideration than APT.

$R < 1$  means APT is more strongly supported by data under consideration than CAPM.

## IV. RESULTS AND DISCUSSION

### 4.1 Results of Descriptive Statics of Study Variables

Table 4.1: Descriptive Statics

*Significant Relationship between Disaster Preparedness and Disaster Risk Management Implementation*

Disaster Preparedness			
	r	p-value	Interpretation
Enabling Environment	.864	.000	Significant
Safe Learning	.881	.000	Significant
School Disaster Management	.857	.000	Significant
Disaster Management risk	.903	.000	Significant
Overall	.833	.000	Significant

The results indicate that disaster preparedness has the strongest relationship with disaster risk management ( $r = .903$ ,  $p = .000$ ), followed by safe learning facilities ( $r = .881$ ,  $p = .000$ ), enabling environment ( $r = .864$ ,  $p = .000$ ), and school disaster management ( $r = .857$ ,  $p = .000$ ). The overall correlation also shows a strong association ( $r = .833$ ,  $p = .000$ ). These findings suggest that stronger disaster preparedness strategies among school administrators are closely linked with improved implementation of disaster risk management practices in public schools.

The findings indicated that disaster preparedness was strongly associated with all aspects of disaster risk management implementation, particularly in strengthening overall disaster management practices and maintaining safe learning conditions. This implied that schools with well-established preparedness activities were more capable of creating structured systems, ensuring safety, and sustaining coordinated disaster responses.

Preparedness efforts appeared to influence not only immediate readiness but also the broader institutional capacity of schools to manage risks effectively. This interpretation was consistent with prior findings that emphasized the role of preparedness in enhancing institutional readiness and reducing vulnerabilities in school environments (Omodan, 2020; Valdez et al., 2022).

Table 12 shows the significant relationship between emergency preparedness and the implementation of disaster risk management in public schools across the dimensions of enabling environment, safe learning facilities, school disaster management, and disaster risk reduction management.

Table 12.

*Significant Relationship between Emergency Preparedness and Disaster Risk Management Implementation*

Emergency Preparedness			
	r	p-value	Interpretation
Enabling Environment	.655	.000	Significant
Safe Learning	.712	.000	Significant
School Disaster Management	.684	.000	Significant
Disaster Management risk	.736	.000	Significant
Overall	.810	.000	Significant

The data reveal that emergency preparedness is most strongly related to disaster risk management ( $r = .736, p = .000$ ), followed by safe learning facilities ( $r = .712, p = .000$ ), school disaster management ( $r = .684, p = .000$ ), and enabling environment ( $r = .655, p = .000$ ). The overall relationship remains significant ( $r = .810, p = .000$ ). These results indicate that effective emergency preparedness initiatives contribute to strengthening various aspects of disaster risk management implementation in schools.

The results showed that emergency preparedness was positively linked to all areas of disaster risk management, with stronger connections observed in overall disaster management and safe learning conditions. This suggested that schools with organized emergency systems, clear procedures, and accessible resources were better equipped to respond effectively during disaster situations.

The findings indicated that immediate response readiness contributed to improved coordination and operational efficiency within schools. This aligned with studies highlighting that effective emergency preparedness enhanced response capacity and minimized risks during critical incidents (Rahman et al., 2021; Soriano & Perez, 2023).

Table 13 illustrates the significant relationship between post-disaster recovery strategies and the implementation of disaster risk management in public schools in relation to enabling environment, safe learning facilities, school disaster management, and disaster risk reduction management.

Table 13.

*Significant Relationship between Post-Disaster Recovery and Disaster Risk Management Implementation*

Post Disaster Risk Recovery			
	r	p-value	Interpretation
Enabling Environment	.864	.000	Significant
Safe Learning	.881	.000	Significant
School Disaster Management	.857	.000	Significant
Disaster Management risk	.903	.000	Significant
Overall	.715	.000	Significant

The findings show that post-disaster recovery strategies exhibit the strongest relationship with disaster risk management ( $r = .903, p = .000$ ), followed by safe learning facilities ( $r = .881, p = .000$ ), enabling environment ( $r = .864, p = .000$ ), and school disaster management ( $r = .857, p = .000$ ). The overall correlation remains significant ( $r = .715, p = .000$ ). This implies that schools with stronger recovery planning and resource mobilization tend to demonstrate better disaster risk management implementation.

The findings revealed that post-disaster recovery was strongly associated with all dimensions of disaster risk management, particularly in overall management and safe learning conditions. This indicated that schools that prioritized recovery planning and resource allocation were more capable of restoring normal operations and maintaining continuity of education after disasters.

Recovery efforts appeared to reinforce the sustainability of disaster management practices by ensuring that schools could adapt and recover effectively. This interpretation was supported by studies emphasizing that structured recovery processes strengthened institutional resilience and facilitated long-term stability in school settings (Mutch, 2020; Dela Cruz & Garcia, 2022).

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