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## RESEARCH ARTICLE

### THE EFFECTIVENESS OF BDRRMO'S RESPONSE TO CALAMITIES IN BARANGAY JAGOBIAO, MANDAUE CITY, PHILIPPINES

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#### ABSTRACT

Disasters are either caused by natural or human-induced as well as various factors that influence the exposure and vulnerability of a community. This study intends to determine the level of performance of BDRRMO in Brgy. Jagobiao Mandaue, City, since Philippines is located along the boundary of major tectonic plates and at the center of a typhoon belt. This quantitative study utilized the descriptive approach of survey research that was used to describe, analyze, and interpret the data collected. The respondents of this study were members of the Barangay Disaster Risk Reduction Management Office (BDRRMO) of Jagobiao Mandaue City. The Barangay Public Safety Officer (BPSO) is included also as the respondent of this study, and resident of Sitio San. Lorenzo, San Jose, Sto. Niño, and Sto. Rosario. This study utilized a researcher-made questionnaire and used a 4-point Likert Scale that underwent a validation process from the research adviser to ensure the validity of the survey questionnaires. In the treatment of data, simple percentages determined the relative frequencies and percentages of the respondent's profile and weighted mean to ascertain the level of response of BDRRMO to calamities. The data revealed that the level of response of Barangay Disaster Risk Reduction Management Office on their job description as a first responder received a good rating in terms of Disaster Mitigation. They were able to attain a good rating from the respondents in terms of monitoring and visibility. In terms of Disaster Preparedness, the Barangay Disaster Risk Reduction Management Office received a good rating with regards to the training and capacity building of their personnel. The data also showed that the Barangay Disaster Risk Reduction Management Office received a good rating in terms of Disaster Response from the respondents. The BDRRMO got a good rating with regards to emergency response. The Barangay Disaster Risk Reduction Management Office obtained a good rating on Disaster Rehabilitation and Recovery in terms of having evacuation facilities for the affected families. The findings concluded that the level of response of the Barangay Disaster Risk Reduction Management Office meets the expected performance in implementing the four (4) thematic areas of disaster management. Moreover, the BDRRMO exhibited a good level of response in terms of Disaster Mitigation. This means that they were able to fulfill their duties in monitoring and visibility. In addition, the BDRRMO showed a good implementation of safety protocols and guidelines before calamities occur.

#### INTRODUCTION

Disasters are events that severely disrupt the function of a community that exceeds its limitations to cope with using its supplies. The cause of the disaster is either natural or human-induced, as well as various factors that influence the exposure and vulnerability of a community. A community whose population is vulnerable to poverty or other forms of socio-economic disadvantage sustains great damages by Disaster. Natural disasters can also have a significant negative impact over the long term on poverty and social welfare. The poor have limited savings and access to credit, so are not able to supplement their incomes following a crisis. This can drive households into "poverty traps" with negative health and social effects.

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Due to the geographical location of the Philippines, several typhoons hit the country. Hence, the heavily affected country brings up the loss of human life, extensive damage to property, and loss of livelihood. Typhoons have less impact on overall agricultural production at the national level, but it has a significant negative effect on rice production at the provincial level. On the other hand, typhoons Ondoy and Pepeng in 2009 has also a significant negative impact on the food security of the household in the affected areas, and households adapted to a variety of consumption or non-consumption techniques to cope with the effects of typhoons. (Mizutori, 2020), (Hallegatte and Przulski, 2010); (Israel & Briones, 2012, p. 35). Disaster risk reduction is at the core of the mission of the World Meteorological Organization (WMO). WMO, through its scientific and technical programs, its network of Global Meteorological Centers and Regional Specialized Meteorological and Climate Centers, provide scientific and

technical services. This includes observing, detecting, monitoring, predicting and early warning of a wide range of weather, climate and water related hazards. Over the past five decades, economic losses related to hydrometeorological hazards have increased, but the human toll has fallen dramatically. This is thanks to scientific advances in forecasting, combined with proactive disaster risk reduction policies and tools, including contingency planning and early warning systems in a number of high-risk countries (World Meteorological Organization, 2011). However, disaster response in Mandaue City has the responsibility to undertake rescue operations, provide immediate relief assistance, and set up and manage evacuation centers at the first instance of disaster occurrence under the Local Government Code of 1991. Section 4 of the Republic Act.10121 provides the development of policies and plans, implementation of actions, and measures on all aspects of disaster risk reduction management, including good governance, risk assessment, early warning signals, and preparedness for effective response and early recovery. (*Philippine Disaster Risk Reduction and Management Act, 2010*) Typhoon Odette was one of the worst and strong typhoons that Cebu Province, Cebu City, and Mandaue City encountered in December last year. Authorities estimate that Typhoon Odette damaged the region's infrastructure and agriculture by up to USD five 3 hundred forty-eight million (PHP 28 billion). The typhoon directly affected up to 3.6 million people, with approximately 76,000 households forced to stay in evacuation centers until December 24, 2021. As of January 1, 2022, the death toll has risen to 405 persons, with 82 still missing. Typhoon Odette wreaked havoc on Cebu City, with residential damages totaling USD 33.2 Million (PHP 1.7 billion); according to Mayor Michael Rama, some parts of the city are still without power and are unlikely to be repaired until the end of January 2022. The typhoon's devastation adds to the strain on an economy already reeling from the effects of the coronavirus outbreak. On June 1, 2021, flash floods brought by Tropical Storm Dante severely hit Brgy. Jagobiao.

Buddy Alain Ybañez, MCDRRMO head, said that the affected families were evacuated to their respective barangay gymnasium and given meals by the City Social Welfare and Services (CSWS). (Mongaya, 2022); (CDN, 2021). The unpredictability of calamities enables the Barangay Disaster Risk Reduction Management Office (BDRRMO) to provide community education and disaster preparedness assistance. They also conduct orientation that deals with what to do in times of calamities and essential things during typhoons and other natural disasters. Furthermore, this research aimed to determine the responsiveness of the Barangay Disaster Risk Reduction Management Office (BDRRMO) in Jagobiao, Mandaue City to calamities. The Brgy Jagobiao made one of the resolutions about natural disasters or calamities, which is about planning and budgeting. Since the barangay cannot stand alone in supporting its people through food supply in times of crisis. They need support from other stakeholders, particularly the DSWD and private sectors. Lastly, the researcher conducted this study to show the BDRRMO's role in responding to natural calamities or disasters. Since the Philippines is located along the boundary of major tectonic plates and at the center of a typhoon belt, its islands are regularly impacted by floods, typhoons, landslides, earthquakes, and the like. Moreover, the purpose of this study is to determine the level of performance of BDRRMO in Brgy. Jagobiao Mandaue, City and provide action plans such as

improving their evacuation plan and recovery plans to effectively respond to a disaster. Furthermore, the findings of this study will serve as the basis for implementing the action plans that will propose to the BDRRMO about which part of their response needs to improve. This study was anchored on the Protection Motivation Theory by Rogers (1975), This study was anchored on the Protection Motivation Theory by Rogers (1975), and The Protective Action Decision Model by Lindell et al. (2012). The Protection Motivation Theory by Rogers (1975) explained how individuals are motivated to react protectively toward perceived threats. This theory has four key elements: "threat appraisal," which includes assessing the severity of the danger and the likelihood (i.e., vulnerability) of the threat happening. Followed by "coping appraisal," which provides for consideration of the efficacy of the response, how difficult the answer is to carry out (e.g., response cost), which comprises "response efficacy," the belief that specific processes will reduce the danger, and "self-efficacy", an individual's idea of their ability to implement the required actions to reduce the threat. On the other hand, the Vulnerability Theory, and the role of government by Kohn (2014) believes that all people are vulnerable and prone to dependency (including chronic and traumatic), and as a result, the state has the duty to lessen, remediate, and make up for that weakness. Furthermore, the state must grant equal access to the "societal institutions" that distribute common benefits like healthcare, work, and security in order to fulfill its duty to address human vulnerability (Kohn 2014, p. 5). The Theory of Planned Behavior and Disaster Preparedness by Najafi et al. (2017) is a helpful framework for looking into the causes of behavior. The individual's purpose in undertaking a specific behavior is a vital aspect of the Theory of Planned Behavior. Three primary motivational elements influence choices. The first is the individual's attitude toward the activity, which refers to whether the individual views the behavior positively or negatively. The second predictor is a social component known as a subjective norm, which refers to the felt social pressure to engage in or refrain from the action. Lastly is the degree of perceived behavior control, which refers to the perceived ease or difficulty of performing the behavior.

The Protective Action Decision Model by Lindell et al. (2012) is a multistage model based on research findings on people's reactions to environmental risks and disasters. The PADM encompasses the processing of information acquired from social and ecological cues with communications sent to persons at risk by social sources using communication channels. The findings of this study on environmental hazards and disasters are consistent with theories on social influence, persuasion, behavioral decision-making, attitude, behavior relationships, protective action, and innovation processes when it comes to identifying helpful guidance on managing risk. Communications influenced long-term hazard adaptations and acute disaster reactions (Lindell, 2012, p. 328). Due to unpredictable behavior and sheer magnitude of certain typhoons, one way to assess the current situation would be through Loss and Damage mechanism. This mechanism explores both economic and non-economic losses and damages to get a holistic view of the impacts of disaster events on a nation (Granstrom, 2022). Roberts and Pelling (2020) take this mechanism and use it as a tool to explore opportunities for transformation within current DRRM frameworks. They argue that loss and damages may be a sign that current DRRM frameworks are not effective enough in preventing negative impacts.

Therefore, they illustrate three types of transformations that can occur because of loss and damage which are “transformation as adaptation, transformation as extension, and transformation as liberation” (Roberts and Pelling, 2020, p.758). The evidence gathered during the course of this research clearly points to positive outcomes for children as a result of the integration of DRR into education. While it was not always possible to document the specific outcomes, for example, in the two country case studies where disasters had not struck since the time of implementation, it was very clear that significant change has occurred at both the national and the local levels, which is leading to increased education and greater preparedness and resiliency among communities. As stated by Varona et al., (2017) in “Knowledge, Attitude and Practices on Disaster Risk Reduction and Management of The Barangay Officials of Baler, Aurora, Philippines” that Philippine government had increased its efforts to implement the disaster risk reduction management (DRRM) program as its answer to the frequent occurrence. The program is supported by two laws Republic Act 10121 or the Philippine Risk Reduction Management Act and Presidential Decree No. 1566, strengthening the Philippine Disaster Control Capability and Establishing the National Program of Disaster Preparedness. With these laws, it is believed that the impact of disaster is minimal, and the Filipinos are safer and more resilient. The laws emphasize the role of the local government officials from governors to mayors and barangay officials to be responsible and take the lead in their respective areas on matters related to Disaster Risk Reduction and Management. Effective implementation of the policies and programs requires the participation of the community for the society to make it invulnerable or resilient to disasters. Training on proper response during emergencies would help the barangays to be effective in disaster response. This implies that effective disaster preparedness will result in effective disaster response. Hence, successful response measures are an indication of successful preparations. (Cuya-Antonio, 2017, p.11) Disaster response and preparedness are the core functions of the Barangay Disaster Risk Reduction Management Office. The BDRRMOs will be most effective if they are performing their roles accordingly. Moreover, as prescribed by the law, they should give priority to all thematic areas: Disaster Prevention and Mitigation, Disaster Preparedness, Disaster Response, and Disaster Recovery for the benefit of the Barangays and the whole community as well. According to R.A. 10121, NDRRMP and NDRRMF already provided the essential activities that the BDRRMOs will perform. It is up to the people, particularly the barangays, to determine how they would perceive and apply the policies. (Villanueva et al., 2017), (Philippine Disaster Risk Reduction and Management Act, Sec. 12, 2010). The objective of this study is to determine the effectiveness of the response of the Barangay Disaster Risk Reduction Management Office during calamities in Brgy. Jagobiao, Mandaue City. The findings of this study served as a basis for the proposed action plan.

## METHODS

This quantitative study utilized the descriptive approach of survey research that used to describe, analyze, and interpret the data collected, which includes the respondent’s age, gender, civil status, and highest educational attainment, as well as the level of mitigation, preparedness, responsiveness, and recovery of Barangay Disaster Risk Reduction Management Office of Brgy. Jagobiao, Mandaue City, in terms of level of response to

natural calamities. This descriptive research served as a fact-finding strategy in which the survey questionnaire will also help as the primary data-gathering instrument in this study. The descriptive analysis includes a sufficient interpretation of the data collected. This study was conducted in the City of Mandaue. This City is highly urbanized in the Central Visayas Region, according to the 2020 Census, the total population of Mandaue City is 364, 116 of which come from 27 barangays in total. On the other hand, the particular place where this study was conducted in Barangay Jagobiao beside the Office of the Food and Drug Administration Satellite Laboratory. That has approximately 740,826.47 m<sup>2</sup> of lot area and comprises 17 sitios, including the villages, namely: Deca Homes, ISKP, Lalim, Plaza, San Antonio, San Jose, San Lorenzo, Sitio Dunggoan, Sitio Fatima, Sitio Immaculada, Sitio Lourdes, Sitio Roque, Sitio Sta. Cruz, Sta. Teresita, Sto. Niño, Sto. Rosario, and Villa Sollana. Its population as determined by the 2020 Census was 12,138, and this represents 3.33% of the total population of Mandaue City. According to the 2015 Census, the age group with the highest population in Jagobiao is 5 to 9, with 1,568 individuals. Conversely, the age group with the lowest population is 80 and over, with 71 individuals. Combining age groups, those aged 14 and below, consisting of the young dependent population, which includes infants or babies, children, and young adolescents/teenagers, making up an aggregate of 32.53% (4,452). Those aged 15 to 64, roughly the economically active population and actual or potential workforce members, constitute 64.15% (8,779). Finally, the aging dependent population consists of senior citizens, those aged 65 and over, a total 3.32% (454). Barangay Jagobiao is a flood-prone area, particularly the following sitios: Sitio San Lorenzo, San Jose, Sto. Niño, and Sto. Rosario. After the City Planning and Development Office (CPDO) finished its feasibility study on the nature of the flooded areas and interventions on engineering, social and environmental aspects to solve the flooding. It is found that Barangay. Jagobiao is one of the eight flood-prone barangays due to its poor drainage system (SunStar, 2020). The respondents of this study were members of the Barangay Disaster Risk Reduction Management Office (BDRRMO) of Jagobiao Mandaue City. There are 15 active members of the Barangay. Disaster Risk Reduction Management Office. The Barangay Public Safety Officer (BPSO) is included also as the respondent of this study, and residents of Sitio San. Lorenzo, San Jose, Sto. Niño, and Sto. Rosario. The respondents answer the questions about the level of response of BDRRMO during calamities in terms of mitigation, preparedness, responsiveness, and recovery. The researchers choose the BDRRMO and BPSO since they are the first responders during disasters. Meanwhile, the sitios mentioned are included since these are the flood-prone areas in Barangay. Jagobiao, according to the City Planning and Development Office (CPDO).

**Table 1. Distribution of Respondents**

Respondents	Population	Sample	Percentage
Barangay Disaster Risk Reduction Management Office (BDRRMO)	15	12	7.23%
Barangay Public Safety Officers (BPSO)	20	11	6.63%
These are the chosen sitio's under the Brgy. Jagobiao, Mandaue City since these areas are affected by floods due to the drainage system that needs improvement.			
A. Sitio San Lorenzo (Estimated Population)	100	22	13.25%
B. Sitio San Jose (Estimated Population)	150	33	19.88%
C. Sitio Sto. Niño (Estimated Population)	200	44	26.51%
D. Sitio Sto. Rosario (Estimated Population)	200	44	26.51%
TOTAL	685	166	100%

Table 1 shows the distribution of respondents from flood-prone areas wherein the majority of the respondents are the sitios under the Brgy. Jagobiao, Mandaue City has a total of one hundred forty-three (143) respondents, since these areas are mostly affected by floods due to drainage problems and twelve (12) are from the Barangay Disaster Risk Reduction Management Office (BDRRMO), eleven (11) respondents from Barangay Public Safety Officers (BPSO) with a total of 166 respondents. This study utilized a researcher-made questionnaire and used a 4-point Likert Scale that underwent a validation process from the research adviser to ensure the validity of the survey questionnaires. These research survey questionnaires consist of two parts: Part 1 was the respondent's age, gender, civil status, and highest educational attainment. The second part was the level of response of the Barangay Disaster Risk Reduction Management Office; in terms of mitigation, recovery, preparedness, and responsiveness. The researcher sent a transmittal letter to the Barangay Hall of Barangay. Jagobiao, Mandaue City, for the conduct of the study. Upon the grant of the request, the researchers then proceeded to distribute the researcher-made questionnaire that underwent a validation process from the research adviser and research statistician to ensure the validity of the survey questionnaires. After gathering data from the respondents, the researcher collected, tabulated, analyzed, and interpreted the data. Lastly, the data collected, tabulated, analyzed, and interpreted is validated by the panel of experts.

**RESULTS AND DISCUSSION**

This part presents the analysis and interprets the data gathered by the researcher to determine the level of response of the Barangay Disaster Risk Reduction Management Office on calamities in Brgy. Jagobiao, Mandaue City. The respondents in this research were the personnel of the Barangay Risk Reduction Management Office, the Barangay Public Safety Officer, and residents from Sitio San. Lorenzo, San Jose, Sto. Niño and Sto. Rosario. The researchers chose BDRRMO and BPSO since they are the first responders during calamities in Barangay. On the other hand, the sitios mentioned are included since these are the flood-prone areas in Brgy. Jagobiao, according to the City Planning and Development Office (CPDO). The presentation is separated into two (2) parts, the first part of which includes the profile of the respondents in terms of age, gender, civil status, and highest educational attainment. Meanwhile, the second aspect is the level of response of Barangay Disaster Risk Reduction Management Office on their job description as a first responder in Brgy. Jagobiao, Mandaue City in terms of mitigation, preparedness, response, and recovery. The respondents are composed of (12) twelve BDRRMO personnel, (11) eleven BPSO and (143) one hundred forty-three residents from the sitios stated above, a total of (166) one hundred sixty-six respondents. Table 2 below shows the age of the respondents in this study.

**Table 2; Profile of the Respondents by age**

Factors	Frequency	Percentage
Age		
18-25	12	7%
26-30	21	13%
31-40	55	33%
41-50	56	34%
51 and above	22	13%
Total	166	100%

As presented in table 2, many of the respondents are above 41-50 years old with a total frequency of 56 or 34% of the respondents. Followed by the age bracket of 31-40 years old with a total frequency of 55 or 33% of the respondents. Moreover, 51 and above was next to the age bracket of 31-40 years old with a total frequency of 22 or 13% of the respondents and it is followed by the age bracket of 26-30 years old that has a total frequency of 21 or 13% of the total respondents. While the age bracket of 18-25 years old has the lowest among all of the age brackets, with a total frequency of 12 or 7% of the total respondents. These findings found that older persons have a larger external locus of control than younger people. Moreover, it also implies that as people get older, they become more likely to believe that their life situations are beyond their control (Almazan et al., 2018).

**Table 3; Profile of the respondents by gender**

Gender	Frequency	Percentage
Male	111	67%
Female	55	33%
Total	166	100%

As reflected on table 3, 111 or 67 % of the respondents are male, and 55 or 33% are female. This implies that the majority of the respondents in this research are male. It reveals that men are more inclined than women to volunteer and participate in specific types of response activities, such as search and rescue (Fothergill, 1996, p. 12).

**Table 4; Profile of the respondents by civil status**

Civil Status	Frequency	Percentage
Single	44	27%
Married	118	71%
Widowed	4	2%
Total	166	100%

As presented on Table 4, shows the data of the respondents by civil status. Most of the respondents are married which consists of 118 out of 166 or 71% of the total respondents. Meanwhile, the respondents are single consisting of 44 out of 166 or 27% of the total respondents. Moreover, there are 4 widowed respondents out of 166, or 2% of the total respondents. It appears that a married person has a direct impact on how each of the family members acts both in preparing for disasters and crisis situations (Kirschenbaum, 2006, p.6).

**Table 5; Profile of the respondents by Highest Educational Attainment**

Highest Educational Attainment	Frequency	Percentage
Elementary Graduate	10	6%
High School Graduate	103	62%
College Undergraduate	42	25%
College Graduate	11	7%
Total	166	100%

As shown in Table 5, presented the data of the respondents by Highest Educational Attainment. Most of the respondents are High School Graduates, which consisted of 103 out of 166 or 62% of the total respondents. Followed by the respondents are College Undergraduates consisting of 42 out of 166 or 25% of the total respondents. While respondents that are College Graduates consist of 11 out of 166 or 7% of the total respondents. Moreover, there are 10 respondents that are Elementary Graduates out of 166 or 6 % of the total

respondents. According to the research findings, those with low socioeconomic status are more vulnerable in the face of disasters and likely to experience more serious effects after impact, from property loss, to homelessness, to physical and financial effects (SAMHSA, 2017, p.6).

**Table 6; Detailed data on Disaster Mitigation**

Indicators	Weighted Mean	Interpretation
DISASTER MITIGATION		
BDRRMO's monitoring and visibility?	3.03	Good
BDRRMO's vulnerability assessment?	3.12	Good
BDRRMO's implementation of safety protocols and guidelines before, during, and after calamities?	3.01	Good
Average Weighted Mean	3.05	Good

Based on the data provided in Table 6, the Barangay Disaster Risk Reduction Management Office has the highest rating in Disaster Mitigation in terms of vulnerability assessment, followed by BDRRMO's monitoring and visibility.

The implementation of safety protocols and guidelines before, during, and after had the lowest rating under Disaster Mitigation, but still the interpretation is good. Overall, the interpretation of the Barangay Disaster Risk Reduction Management Office in Disaster Mitigation is good. It reveals that any successful strategy for long-term disaster mitigation must be participatory in nature and connected to local levels of decision-making. Additionally, disaster mitigation that is sustainable is achieved when community planning and public participation are combined (Thomas, 1995).

**Table 7. Detailed data on Disaster Preparedness**

Indicators	Weighted Mean	Interpretation
DISASTER PREPAREDNESS		
BDRRMO's Disaster Risk Reduction Management community awareness program?	2.90	Good
BDRRMO's risk assessment in floodprone areas?	2.93	Good
BDRRMO Contingency Plan?	2.98	Good
Provision of BDRRMO emergency vehicles and equipment?	2.89	Good
Training and capacity building of BDRRMO personnel?	2.95	Good
BDRRMO's Early Warning System?	2.85	Good
Average Weighted Mean	2.92	Good

The data given in Table 7 shows that all of the subjects under the area of Disaster Preparedness have results that correspond to the interpretation of good. The Contingency Plan of the BDRRMO has the highest under the Disaster Preparedness.

On the other hand, the BDRRMO's Early Warning System has the lowest rating that based on the results gathered from the respondents of this study. It appears that appropriate planning and preparedness before disaster happens are essential to minimizing risks and the resulting damages. Individuals involved in the disaster preparedness efforts must be appropriately selected and trained (Collins, 2000).

**Table 8. Detailed data on Disaster Response**

Indicators	Weighted Mean	Interpretation
DISASTER RESPONSE		
BDRRMO's emergency response?	2.98	Good
BDRRMO's search and rescue performance?	2.90	Good
BDRRMO's Personal Protective Equipment (PPE) during disaster response?	2.78	Good
BDRRMO's performance particularly for injured persons?	2.84	Good
Average Weighted Mean	2.88	Good

Table 8 shows the data under the area of Disaster Response. The Barangay Disaster Risk Reduction Management Office's emergency response had the highest rating which was interpreted as good. While BDRRMO's Personal Protective Equipment (PPE) during disaster response had the lowest rating but was still interpreted as good. The researchers come up with this interpretation based on the data gathered from the respondents that the Barangay Disaster Risk Reduction Management Office of Barangay Jagobiao can accurately respond during calamities to fulfill their jobs as a first responder. Despite the fact that they lack Personal Protective Equipment (PPE), they dedicate themselves in serving the people. The findings of this study shows that better flood emergency response mechanisms help reduce potential secondary losses (Islam et al., 2016).

**Table 9. Detailed data on Disaster Rehabilitation and Recovery:**

Indicators	Weighted Mean	Interpretation
DISASTER REHABILITATION AND RECOVERY		
BDRRMO's Evacuation Facilities?	2.83	Good
BDRRMO's relief goods distribution?	2.76	Good
BDRRMO's infrastructures recovery program?	2.73	Good
BDRRMO's Community Counseling Program?	2.71	Good
Average Weighted Mean	2.76	Good

Table 9 showed the data of subjects under Disaster Rehabilitation and Recovery. The Barangay Disaster Risk Reduction Management Office's evacuation facilities had the highest rating which was interpreted as good. While BDRRMO's Community Counselling Program had the lowest rating yet is still interpreted as good among all other subjects in this area. According to research findings, rehabilitation and recovery plays a very important role in this preparation as it can address the longer-term needs and challenges that makes a community vulnerable, and it provides the opportunity to increase the capacity of the society to cope and reduce the risk of future emergencies and disasters (Philippines Ready to Rebuild, 2022).

As shown in Table 10, the area of Disaster Mitigation has an average weighted mean of 3.05 and is interpreted as good, which has the highest rating among the thematic areas of Disaster Management. This means that the Barangay Disaster Risk Reduction Management Office was actively taking proactive precautions before the disaster to eliminate or lessen the risks and effects of the disaster based on the data gathered from the respondents.

**Table 10. The level of response in terms of mitigation, preparedness, response, and Recovery**

The Level of Response of Barangay Disaster Risk Reduction Management Office On Their Job Description as A First Responder in Brgy. Jagobiao, Mandaue City		
Indicators	Weighted Mean	Interpretation
DISASTER MITIGATION	3.05	Good
DISASTER PREPAREDNESS	2.92	Good
DISASTER RESPONSE	2.88	Good
DISASTER REHABILITATION AND RECOVERY	2.76	Good
OVERALL	2.90	Good

On the other hand, Disaster Preparedness had an average weighted mean of 2.92 and interpreted as good, which means that the Barangay Disaster Risk Reduction Management Office had enough training and capacity building. Moreover, they were also able to evaluate the risk in flood-prone areas. Meanwhile, Disaster Response has an average weighted mean of 2.88 and was also interpreted as good. This also implies they were able to do their job as a first responder in responding to emergency situations and provide search and rescue operations. Lastly, Disaster Rehabilitation and Recovery had an average weighted mean of 2.76 and interpreted as good. It means that the BDRRMO provides enough evacuation facilities to the affected families and in giving of relief goods. All of the thematic areas are interpreted as Good; this presents that despite the calamities that the Barangay Jagobiao had encountered the Barangay Disaster Risk Reduction Management Office is still doing its job accordingly. It indicates there is a correlation between the occurrence of disasters and the acceptance of disaster management plans by communities. The interest in disaster management increases as disaster experience increases (Drabek, 1986). This study determined the performance of the Barangay Disaster Risk Reduction Management Office during calamities in Brgy. Jagobiao, Mandaue City. The findings of this study served as a basis for the proposed action plan. This quantitative study utilized the descriptive approach of survey research that used to describe, analyze, and interpret the data collected, which includes the respondent's age, gender, civil status, and highest educational attainment, as well as the level of mitigation, preparedness, responsiveness, and recovery of Barangay Disaster Risk Reduction Management Office.

## CONCLUSION

Based on the findings of the study, the following conclusions were drawn: The findings concluded that the level of response of the Barangay Disaster Risk Reduction Management Office meets the expected performance in implementing the four (4) thematic areas of disaster management. Moreover, the BDRRMO exhibited a good level of response in terms of Disaster Mitigation. This means that they were able to fulfill their duties in monitoring and visibility. In addition, the BDRRMO showed a good implementation of safety protocols and guidelines before calamities occur. It is also concluded that the level of response of the Barangay Disaster Risk Reduction Management Office in terms of Disaster Preparedness also meets the expected performance, particularly in the implementation of the Contingency Plan. Moreover, this also includes the early warning system and the risk assessment of flood-prone areas of Brgy. Jagobiao. Additionally, the respondents believed that the BDRRMO exhibited a good

response in conducting community awareness programs about disaster risk reduction management. Furthermore, the training and capacity building of BDRRMO also exhibited a good response from the respondents. The findings also concluded that the level of response of the Barangay Disaster Risk Reduction Management Office in terms of Disaster Response exhibited a good rating from the respondents. This means that they were able to do their job as a first responder during emergency response and on their search and rescue performance. Moreover, the BDRRMO exhibited a good level of response particularly in handling injured persons in applying first aid and having personal protective equipment (PPE) during disaster response. Lastly, the findings concluded that the level of response of Barangay Disaster Risk Reduction Management Office in terms of Disaster Rehabilitation and Recovery exhibited a good response in providing evacuation facilities. This also includes their infrastructure recovery and community counseling programs. Furthermore, the relief goods distribution of BDRRMO were also concluded as good.

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