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iJOINED ETCOR
P - ISSN 2984-7567
E - ISSN 2945-3577



The Exigency
P - ISSN 2984-7842
E - ISSN 1908-3181

Risk Assessment Among Women in Coastal Communities: Basis for Disaster Management Program

Virginia D. Natividad-Franco^{1*}, Maybelle N. Dela Cruz²
^{1, 2} Bulacan State University, Bulacan, Philippines
Corresponding Author email: virginia.franco@bulsu.edu.ph

Received: 19 April 2023

Revised: 19 May 2023

Accepted: 28 May 2023

Available Online: 03 June 2023

Volume II (2023), Issue 2, P-ISSN – 2984-7567; E-ISSN - 2945-3577

Abstract

Aim: The study assessed the risk among women in coastal communities and served as a basis for crafting a disaster management program. It likewise aimed to determine the community's current disaster management and identify problems encountered during a disaster.

Methodology: The study used sequential exploratory mixed methods. Mixed-methods research integrates qualitative and quantitative data in one study. It combined qualitative and quantitative methods to provide a holistic understanding of the topic under investigation. Barangay officials purposely chose the 40 women respondents to serve as women leaders during a disaster. It adopted a validated instrument from the GAD office of the university, and an interview guide question was used to determine the existing disaster management in the coastal communities, the status of women during a disaster, and the problems encountered when disaster strikes the place. Furthermore, descriptive statistics like mean and frequency were utilized, and thematic analysis was used for the results of the qualitative data.

Results: The study found that (i) they have a barangay disaster risk reduction management (BDRRM) team, and (ii) women in coastal communities greatly depend on the help of barangay officials when disaster strikes. (iii) regarding the problems encountered during a disaster, the following themes emerged, (a) lack of access to resources, (b) lack of decision-making power, (c) physical vulnerabilities, and (d) economic impact. Moreso, the seminar workshop was evaluated with a rating of 4.65, indicating that they strongly agreed with the indicators provided to achieve its goals. Lastly, a disaster management training program was developed and presented to the barangay officials.

Conclusion: Disaster management training ensures disaster preparedness, response, and recovery. It educates people and organizations on risk assessment, emergency planning, and response and recovery. Disaster management training helps people and organizations handle post-disaster issues. By ensuring resources, response, and recovery are efficient and effective, the training helps lessen disaster impacts.

Keywords: Disaster Management, Coastal Communities, Women, Risk Assessment

INTRODUCTION

Coastal communities are commonly attributed to lower geographic elevations and are often associated with higher population densities than inland neighborhoods. Unluckily, coastal counties are vulnerable to natural disasters (Bathi & Das, 2016). Hence, the Philippines is one of the most common disaster-prone regions (Reyes & Lu, 2017), where coastal communities are predominantly vulnerable to calamities and climate change (Barbier, 2015).

Disasters have gloomily affected human life since human existence. Individuals or societies can take many approaches to decrease and reverse their harmful effects (Abdul Waheed, 2013). These are frequently viewed as unforeseen events with a possible negative impact on companies (Omidvari, et al., 2015). According to research, early preparations for catastrophes can help save lives, lessen injuries, limit property loss, and maintain vital infrastructure, allowing communities to recover more rapidly. One strategy to alleviate the harmful effects of disasters is disaster education, which involves instruction on disaster risks, mitigation, and preparedness measures (Johnson, et al., 2014). It was indicated in RA 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010, "Uphold the people's constitutional rights to life and property by addressing the root



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causes of vulnerabilities to disasters, strengthening the country's institutional capacity for disaster risk reduction and management and building the resilience of local communities to disasters including climate change impacts".

Disaster risk is the possibility of adverse effects from catastrophes, such as fatalities, injuries, and damage to properties, operations, and services, as mentioned by Johnson (2014). Disaster risk management issues have received more and more attention in recent years, and using disaster risk management patterns in universities has become increasingly important (Omidvari, et al., 2015). They also stated that one of the most significant indices in considering disaster management systems is preparation. The index for foresighted disasters and proportionate preparedness for unforeseen disasters are essential when preparing for a catastrophe that entails mental rehearsal scenarios. Also, it equipped the organization with systems and procedures for appropriate and timely responses. Even if the risk is unavoidable, an efficient risk management program can lessen the impact of an accident (Omidvari, et al., 2015).

Thus, this study assessed women's potential risk during disasters. It is evident that during responses to catastrophes, the mainstreaming of gender is quite significant. The World Health Organization (WHO) underlines that gender roles dictate that women must assume a caretaker role in disaster situations and be responsible for those affected by disasters, particularly children, the elderly, and the disabled (Reyes & Lu, 2017).

At the time of a disaster, women are more at risk than men (Irshad, et al., 2012). Data from recent disasters worldwide show that the number of female victims in disasters is twice that of male victims (Hamidazada et al., 2019). Due to existing socio-economic, traditional practices, and cultural beliefs, disasters mainly affect women. Females have higher chances of suffering disproportionately from disasters (Zeeshan et al., 2019).

In disaster situations, women and girls have been affected more adversely than men and boys. The former suffer longer and experience violence or greater insecurity after a disaster (Lu & Reyes, 2015). Hence, gender issues are critical in disaster management (Reyes & Lu, 2017). Likewise, they are more likely to die in a disaster than other groups (Hamidazada et al., 2019). Women and children are among the weakest groups of vulnerable classes to the extent of human history (Reyes & Lu, 2017).

They have also been the first line of victims in a calamity in all areas of human history. Providing protection and attention to them strengthens and empowers them and causes a considerable decline in the ratio of damages (Reyes & Lu, 2015). As to Duta (2017), sufficient studies established that women are more vulnerable to disasters, while Becker-Blease et al., (2010) stated that children are more physically and psychologically vulnerable in emergencies. However, some articles indicated that children are more physically and psychologically vulnerable in emergencies (Becker-Blease et al., 2010).

Furthermore, Shakibmehr (2019) stated that women and children are also part of humankind's culture in today's world. The modifications in attitudes and the transformation of the international literature concerning humanity and human beings at the center of global attention are all products of such a delicate and intelligent look at social security. And the key issues contributing to women's vulnerability include lack of education, limited access to resources, economic conditions, and cultural issues (Hamidazada et al., 2019).

Women may do better under stress in catastrophe scenarios because they have built a psychological tolerance for the challenges they deal with daily. During calamities, this feature may offer women greater strength than men. Women are more resistant to depression than men because they deal with multiple problems daily. Disaster recovery is a lengthy process, and women adapt to post-disaster responsibilities faster and more effectively than males (Isik et al., 2015).

Disasters tend to exacerbate existing gender inequalities and vulnerabilities. Women may face unique risks, such as higher rates of sexual violence, limited access to healthcare and sanitation facilities, and increased caregiving responsibilities. As such, Dutta (2017) quoted the Hyogo Framework for Action 2000-2015: on Building Resilience of Nations and Communities to Disaster, which states that A gender perspective should be integrated into all disaster risk management policies, plans, and decision-making processes, including those related to risk assessment, early warning, information management, and education and training." Furthermore, Abenir et al. (2022) recommended a partnership with external development actors and vulnerable groups, including women, in disaster risk reduction.

Objective

The study's main goal was to help women in coastal communities prepare them for probable disaster causes, resulting in minimal hazards and destructions. Specifically, it sought to: determine the status of the existing disaster management team in the coastal communities, assess the current situation of the women in the coastal communities during a disaster, identify the problems women encounter in coastal communities during a disaster, conduct a



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P - ISSN 2984-7567
E - ISSN 2945-3577



The Exigency
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E - ISSN 1908-3181

disaster management training to help alleviate the disaster's effects on women's lives in coastal communities. Lastly, to develop a disaster management program for the women in the community.

Literature Review

Women in Coastal Communities

Coastal areas are right adjacent to the beach or water. Hajar et al. (2017) cited the fact that coastal communities live in hostile ecosystems and depend on coastal and marine resources. Coastal communities are, theoretically, people who live and work with ocean resources and depend heavily on seafood. Millions of women live in coastal areas worldwide and rely on coastal resources like fishing, aquaculture, and tourism for a living (FAO, 2018).

Coastal communities frequently depend on natural resources like fisheries, which can give the local population income and food security. Yet, these are particularly vulnerable to natural disasters such as hurricanes, cyclones, typhoons, and tsunamis. Women are often at greater risk during these events, as they may need help to evacuate or have additional caregiving responsibilities. They participate in various tasks involving the usage and administration of these resources (Corbett, 2007). Still, they are frequently disregarded, underappreciated, and ignored for their contributions (Harper et al., 2017). Women, adolescent girls, and children are more vulnerable to natural disasters (Alam & Rahman, 2014). They are susceptible or robust in connection to the environment and dominate the gender and disaster literature, with less focus on how these two concepts interact (Moreno & Shaw, 2018).

Women's limited access to resources (physical, financial, human, social, and natural) and unequal power relations play a crucial role in diminishing their ability to respond, not the fact that they are weaker (Bradshaw & Fordham, 2014; Smyth, 2009). However, Kang et al. (2021) stated that women are often considered vulnerable during disasters. But disasters now have disproportionately adverse effects on women due to social, environmental, cultural, and patriarchal power systems (Cutter, 2017). Likewise, Enarson & Chakrabarti's (2009) study has revealed that gender disparities, social norms, and power dynamics impact how women perceive disasters and the aftermath.

Disaster Management

Disasters such as floods, wildfires, earthquakes, and hurricanes devastate people, economies, and the environment. Disasters have devastating human, economic, and environmental effects (Drolet et al., 2015). According to Janice (2011), a disaster is a substantial disruption of a community's functioning that causes significant losses and consequences to people, property, the economy, or the environment beyond what the affected community may reasonably expect to handle on its own. Likewise, Isik et al. (2015) defined disasters as a result of resource shortages. Humans are the most valuable resource. Hence, disaster loss reduction depends on human resource availability. ISDR (2002) defined disaster as a significant interruption to society's normal operations that results in extensive losses and damages to people, property, or the environment beyond what the afflicted community may reasonably expect to recover from using its resources. Global climate change disproportionately affects socially vulnerable people, especially women, due to their geographic location and gendered socio-economic roles. Still, they are least suited to deal with its effects due to their economic and political disadvantage. Likewise, natural disasters kill more women than men or at a younger age (Figueiredo & Perkins, 2013). In addition, disasters often harm people differently by race, gender, and socio-economic level. It worsens gender inequality.

Although many studies show women's vulnerability, some have shown they can handle disasters. Mothers are more likely to respond to a tragedy because they worry about their children. Hence, women can respond to calamities uniquely (Kang et al., 2021). Gender influences catastrophe susceptibility and resilience in various ways. As noted previously, disasters hit the poorest communities hardest and marginalized and discriminated groups are most vulnerable to their harmful impacts. From infancy to old age, the life cycle connects with structural weaknesses. Gender identification determines a woman's or man's function in the family and society in all societies. Race, ethnicity, handicap, age, and social status also affect resilience (Drolet et al., 2015). Disasters affect women differently and hurt women more, according to research. The 2004 Indian Ocean Tsunami killed four women for every man. Social and cultural issues, such as women caring for dependents or disabled individuals, contributed to this. Hence, response planning must include women's needs (Tanner et al., 2018). Women in coastal communities usually sustain disproportionate losses from catastrophes. They may be more vulnerable to harm to their health, safety, and way of life due to gendered roles and societal standards. Ensuring their meaningful participation in disaster planning and decision-making and attention to their specific requirements in disaster response and recovery



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efforts is essential. It includes providing access to resources like food, water, and sanitary facilities, combating gender-based violence, and guaranteeing equitable access to aid and services.

Disaster management is preparing for, dealing with, and recovering from natural or man-made disasters such as earthquakes, floods, hurricanes, wildfires, terrorist attacks, and pandemics. Disaster management aims to enable the quick restoration of vital infrastructure and services while minimizing the adverse effects of disasters on people, property, and the environment. Isik et al. (2015) cited that disaster management requires risk prediction and resource optimization. It also describes modern disaster management as a fight that needs to understand potential hazards and risks linked with catastrophes and reasonable preventive approaches to prevent or reduce the damages from such dangers and risks before a disastrous event.

As part of disaster management, coastal communities must identify women leaders. As Tanner et al. (2018) stated, in disasters, women leaders identified and advocated for women's needs. All interviewees supported for more women leaders in local decision-making, and in the Philippines, women network leaders discussed how to spread these ideas to top decision-makers. Their research suggested including women in preparation programs by explicitly advocating gender equality. This will ensure that men and women prioritize it in work plans. Local and national advocacy for women in decision-making is needed. Likewise, Yamashita et al. (2019) mentioned that Japan has many mother and child health handbooks, which are helpful after a tragedy. Because pregnant women might be hungry and victims of domestic violence independent of disasters, the government should keep their addresses and phone numbers current. Similar actions helped women be prepared during disasters and manage well.

Conceptual Framework

The conceptual framework of the study is an IPO model as shown in Figure 1.

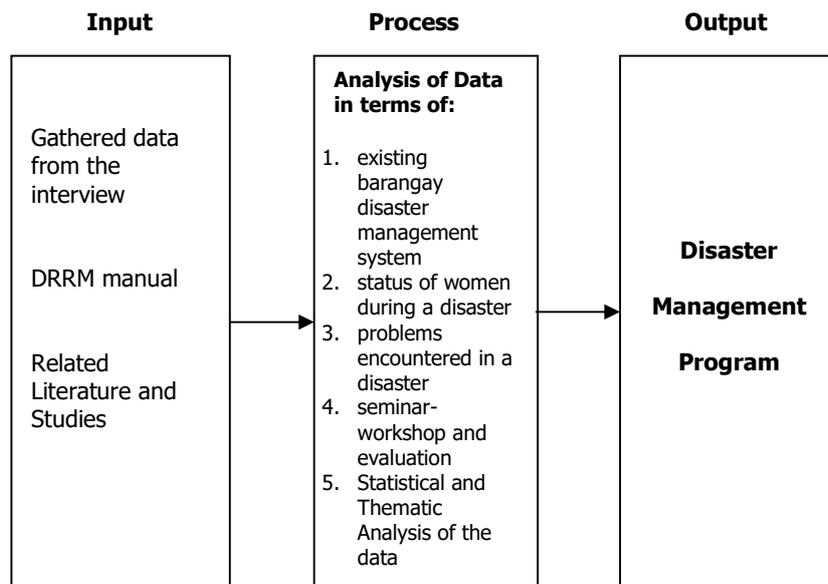


Figure 1. Conceptual Paradigm of the Study

The input phase includes the gathered data from the interview, disaster risk reduction management, and review of related literature and studies. In the process phase, the data collected from the interview gave the researchers an idea of the existing disaster management system in both barangays in coastal communities. The status of women during a disaster and the problems encountered during a disaster were also discussed. Furthermore, a seminar workshop was given to the participants to enhance their awareness of disaster management. The result was then analyzed using descriptive statistics and thematic analysis for the qualitative data. Lastly, a disaster management program was developed to help the women in the communities during a disaster.



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Assumption

The seminar workshop enhances the awareness of women in coastal communities during a disaster, making them ready to lead a disaster team.

METHODS

Research Design

The study used a sequential exploratory mixed methodology. Mixed-methods research integrates qualitative and quantitative data in one study (Halcomb & Hickman, 2015). By combining qualitative and quantitative methodologies, mixed methods provide a holistic understanding of the topic under investigation. (Scammon et al., 2013, quoted in Natividad-Franco & Dela Cruz, 2021). Quantitative research investigations focus on persistent questions or hypotheses, according to Molla (2019). Analyses employed standard statistical methods. Moreso, qualitative research also yields detailed topical data. Unlike the quantitative approach, this approach assumes one person can speak for a group (Rahi, 2017). Qualitative data typically has open-ended questions rather than predetermined answers. Mixed-methods research is used to combine qualitative and quantitative data into a single study. Hence, in a sequential exploratory mixed-methods, the qualitative phase of the study was conducted first, followed by the quantitative phase.

Respondents of the Study

The respondents of the study is the 40 selected women from the coastal communities of barangays Namayan and Caliligawan in the City of Malolos, Bulacan, Philippines. The barangay officials in both places purposely chose the respondents to serve as women leaders during disasters. The study took place during the 4th quarter of the year 2022.

Instrument of the Study

The seminar workshop was evaluated using a validated instrument by the Gender and Development Office of Bulacan State University. On the other hand, interview guide questions were used to determine the existing disaster management in the coastal communities, the status of women during a disaster, and the problems encountered when disaster strikes the place. The interview guide questions were checked and validated by the former Bulacan provincial head of DRRM (Disaster Risk Reduction Management) and other experts in the field. It includes questions on the needs of women during the disaster, as well as the problems encountered.

Data Gathering and Analysis

The researchers interviewed the participants to determine the current disaster management system, women's status during a disaster, and the problems encountered. Afterward, a seminar-workshop was conducted and evaluated if achieved goals were achieved. The data were tabulated using Microsoft Excel. The following descriptive statistics like frequency and mean, were used. On the other hand, the qualitative approach gathers in-depth information about a certain subject. This method relies on the idea that one person can speak for an individual's group sentiments, which the quantitative method disregards (Rahi, 2017). Thematic analysis was used, however, to examine the qualitative data. First, interview transcripts were read, and key phrases were extracted and categorized to form the initial codes. Lastly, the final themes were presented.

Ethical Consideration

The researchers asked permission from barangay officials to conduct the study. After approval, selected participants were chosen purposely. The study's main objective was discussed before proceeding with the entire study to acknowledge the participants' acceptance. Moreso, the researcher ensures that secure data deletion procedures are implemented for old files. It includes wiping or destroying the data securely, both digitally and physically, to prevent its recovery by unauthorized parties.

RESULTS and DISCUSSION

1. The Existing Disaster Management Team in the Coastal Communities.

Barangays Namayan and Caliligawan are two adjacent places connected by land located in the coastal communities of the City of Malolos, Bulacan. As per the focus group discussion with the barangay officials, both have



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their barangay disaster risk reduction management (BDRRM) teams, which are immediately responsive when there's a calamity in the area. However, during disasters, due to the vulnerability of coastal communities to natural disasters like flooding, typhoons, storm surges, and the like, the situation can be challenging in these places.

When disaster strikes, they are the ones who respond to the affected citizens in the community. Heavy typhoons and flooding are the usual disasters in these coastal areas. Coastal typhoons can be dangerous and difficult. Typhoon winds, rain, and storm surges can cause flooding, landslides, and infrastructural damage. Likewise, it can also affect mental health. Moreso, typhoons can knock out electricity and communications, making it hard to reach emergency services or loved ones. Evacuating during a typhoon can be difficult, especially for coastal residents who face floods and storm surges.

Hence, in addressing these problems, adequate disaster management, including evacuation plans, emergency shelters, and resources to support typhoon victims' physical and emotional needs, is needed. To ensure community viewpoints and needs are considered, catastrophe preparation and response must involve the community.

2. The Current Situation of the Women in the Coastal Communities during a Disaster.

Coastal communities often have unique cultural, economic, and environmental characteristics shaped by their proximity to the sea. Many coastal communities are strongly connected to the ocean and may rely on fishing and other marine industries for their livelihoods. Others may be popular tourist destinations known for their beaches, water sports, and scenic coastal views.

Currently, women in the coastal communities greatly depend on the help of the barangay officials when disaster strike. Disasters present particular difficulties and vulnerabilities for women living in coastal areas. They might be more vulnerable to exploitation, gender-based abuse, and the physical effects of disasters like flooding and displacement. Women may also have less access to resources and authority over decision-making, which might impede their capacity to respond to and recover from disasters.

Despite these difficulties, women in coastal communities frequently play crucial roles in response and recovery operations after disasters. They may play a significant role in supporting their families and communities through caregiving, civic engagement, and economic endeavors. To guarantee that women are supported and given the power to contribute significantly to developing more resilient and sustainable coastal communities, it is crucial to acknowledge and address women's unique needs and contributions in disaster preparation and response.

Moreso, the UN prioritizes gender equality and mainstreams it in all policies and activities (Akinsemolu & Olukoya, 2020). This goal is shown in Goal 5 of the Sustainable Development Goals (SDGs). Gender equality is essential to attaining the SDGs and creating wealthy, peaceful, and sustainable societies and the globe (Akinsemolu & Olukoya, 2020).

Thus, women in coastal areas must be prioritized during a disaster because of their social, economic, and cultural circumstances. However, prioritizing them requires community involvement, gender-responsive policies and practices, and collaboration among government, civil society, and international organization partnerships.

3. Problems encountered by women in coastal communities during a disaster.

Coastal communities are communities that are located near the coast or shoreline of an ocean, sea, lake, or other large body of water. These communities can vary widely in size and character and may include small fishing villages, beach resorts, urban centers, and port cities. Because of their proximity to the water, coastal villages frequently have distinctive cultural, economic, and environmental traits. Many coastal towns have a close relationship with the ocean, and they may rely on the fishing industry and other marine-related businesses for their livelihoods. Others can include well-liked vacation spots with beaches, activities in the water, and picturesque coastline vistas.

Hence, women in coastal communities encountered these problems during a disaster:

1. *Lack of Access to Resources.* Disasters may limit food, water, and medical supplies for coastal women. Gender, economic status, and cultural standards can cause this.
2. *Lack of Decision-Making Power.* During disasters, coastal women may not have equal decision-making power, limiting their ability to protect themselves and their families. Cultural norms that limit women's roles and responsibilities and the lack of women in decision-making bodies may cause this.
3. *Physical Vulnerabilities.* Women in coastal communities are more vulnerable to the physical impacts of disasters due to their reproductive roles, such as pregnancy and childbirth. In addition, women may have limited mobility and access to transportation, which can make it difficult to flee or access emergency services during a disaster.



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4. *Economic Impact.* Coastal women who depend on fishing or other marine-related jobs may suffer economic losses during storms. Income loss, food insecurity, and other economic issues can result.

4. Disaster management training to alleviate disaster's effects on the lives of women in the coastal communities.

Table 1
 Descriptive Measures of the Disaster Management Training Evaluation

No.	Indicators (Mga Batayan)	Mean	Verbal Interpretation
1	Expectations were met in the training/teaching conducted.	4.73	Strongly Agree
2	Knowledge learned in training/teaching will be used	4.67	Strongly Agree
3	The training/teaching objective of each subject has been met	4.60	Strongly Agree
4	The content of the training or teaching is well-organized and easy to follow.	4.60	Strongly Agree
5	Shared knowledge is helpful.	4.67	Strongly Agree
6	The training/coaching is tailored and up to date with our current needs	4.67	Strongly Agree
7	The trainer/instructor has sufficient knowledge of the subject	4.57	Strongly Agree
8	The quality of teaching/training is good	4.56	Strongly Agree
9	The trainer(s)/instructor(s) met the objective of the subject	4.71	Strongly Agree
10	The participation and interaction of the learners is encouraged	4.64	Strongly Agree
11	Free discussion or participation by trainees/students is permitted	4.71	Strongly Agree
12	Adequate time allotted for training or study conducted	4.64	Strongly Agree
13	There is ample time allotted for questions and discussion	4.60	Strongly Agree
Weighted Mean		4.65	Strongly Agree

As can be gleaned from the table, the weighted mean of the evaluation on the disaster management training is 4.65, with a verbal interpretation of *strongly agree*. The highest indicator is statement number 1; *Expectations were met in the training/teaching conducted*. It means that the trainer has given the desired outcome to the participants. On the other hand, the lowest indicator is statement 8, *The quality of teaching/training is good*, which got a mean of 4.56, where participants strongly agreed about it.

Disaster management training teaches how to prepare, respond, and recover from natural or man-made disasters. As stated by Lantada et al. (2020), disaster management training improves readiness and response, and recovery to limit disaster damage. Without competent disaster management, reaction and care are chaotic and ineffective. Disaster management begins with recognizing threats to communities, families, individuals, and hospitals. Although assessing catastrophe risks is difficult and involves a lot of work from governments and allied agencies, it is a crucial step in disaster management.

Proposed Disaster Management Training Program

Disaster management programs for coastal women ensure that disaster preparedness, response, and recovery actions reflect women's needs and vulnerabilities. Social, economic, and cultural factors put coastal women in greater danger during disasters.

No.	Activities	Objectives
1.	Capacity Building	<i>It aims to empower women to participate in disaster preparedness, response, and recovery.</i>



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	<p><i>This includes disaster preparedness, response, and recovery training for community women. First aid, rescue, and communication training may be included.</i></p>	<p><i>The program can help ensure that disaster response and recovery efforts address women's specific needs and vulnerabilities by equipping women with the knowledge, skills, and resources they need to participate in disaster management activities. This can lead to more effective and equitable outcomes for all community members.</i></p>
2.	<p>Women's Participation in Decision-Making</p> <p><i>This involves involving community women in disaster management planning and execution.</i></p>	<p><i>It aims to ensure women's equal participation in disaster management planning and implementation. Women's participation in decision-making ensures that catastrophe preparedness, response, and recovery initiatives consider their needs and perspectives.</i></p>
3.	<p>Rescue Mobilization</p> <p><i>This involves finding and acquiring disaster-related resources for community women. These may include emergency shelters, food, water, and healthcare.</i></p>	<p><i>It aims to ensure communities can properly respond to disaster victims' urgent needs. Rescue mobilization is essential to coastal disaster management programs for women and children because it ensures that vulnerable people, especially women and children, receive timely aid.</i></p>
4.	<p>Gender-Sensitive Risk Assessment</p> <p><i>A gender-sensitive risk assessment identifies community women's hazards and weaknesses. This will inform women-specific emergency preparations and response techniques.</i></p>	<p><i>It aims to identify and understand women and girls' disaster risks and vulnerabilities. Disaster management programs should include a gender-sensitive risk assessment to ensure that women's needs and views are considered in disaster preparedness, response, and recovery.</i></p>
5.	<p>Post Disaster Recovery Effort</p> <p><i>This helps disaster-stricken women recover. This may involve financial aid, infrastructure repair, and service restoration.</i></p>	<p><i>It aims to determine disaster-related hazards and vulnerabilities for women and girls. Gender-sensitive risk assessment ensures that catastrophe preparedness, response, and recovery actions consider women's needs and views.</i></p>

Conclusion and Recommendations

Disaster management training ensures disaster preparedness, response, and recovery. It educates people and organizations on risk assessment, emergency planning, and response and recovery. The current disaster management among women in coastal communities is relatively weak, for they merely depend on the men in their households. They were not that knowledgeable and aware of the significant contributions they could make to the community. Hence, they were given a disaster seminar workshop. This disaster management training helps people and organizations handle post-disaster issues. By ensuring resources, response, and recovery are efficient and effective, the training helps lessen disaster impacts. As crises evolve, disaster management training must be ongoing. So, individuals and organizations must be watchful and update their emergency plans and response strategies based on new facts. Moreso, disaster management training protects people, communities, and society. The disaster management training held among women in coastal communities helps them prepare themselves and be responsive when calamity strikes. A disaster management program for coastal women should prioritize women's participation and leadership, address their special needs, provide gender-sensitive information and communication, mobilize women's networks and resources, and promote economic recovery. These approaches can help disaster management programs protect women, empower them to lead recovery, and develop community resilience.



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Acknowledgment

The researchers thank the Gender and Development (GAD) Office of Bulacan State University for funding this study. So much thanks to the University President, Dr. Cecilia S. Navaserro-Gascon, and the GAD focal person, Dr. Remigio R. Musca, for allowing the researchers to lead the study. The researchers are also grateful to their families, colleagues, and friends for believing in their capacity.

REFERENCES

- Abdul Waheed, M.A., (2013). Approach to fire-related disaster management in high-density urban-area. In IEDC, 4th. International Symposium on infrastructure engineering in developing countries, (77): 61-69.
- Abenir, M. A. D., Manzanero, L. I. O., & Bollettino, V. (2022). Community-based leadership in disaster resilience: The case of small island community in Hagonoy, Bulacan, Philippines. *International Journal of Disaster Risk Reduction*, 71, 102797.
- Akinsemolu, A. A., & Olukoya, O. A. (2020). The vulnerability of women to climate change in coastal regions of Nigeria: A case of the Ilaje community in Ondo State. *Journal of Cleaner Production*, 246, 119015.
- Alam, K., & Rahman, M. H. (2014). Women in natural disasters: a case study from the southern coastal region of Bangladesh. *International journal of disaster risk reduction*, 8, 68-82.
- Barbier, E. B. (2015). Climate Change Impacts on Rural Poverty in Low-Elevation Coastal Zones (English), Policy Research working paper, no. WPS 7475. Washington, D. C.: World Bank Group.
- Bathi, J. R., & Das, H. S. (2016). Vulnerability of coastal communities from storm surge and flood disasters. *International journal of environmental research and public health*, 13(2), 239.
- Becker-Blease, K. A., Turner, H. A., & Finkelhor, D. (2010). Disasters, victimization, and children's mental health. *Child development*, 81(4), 1040-1052.
- Bradshaw S, Fordham M (2014) Double disaster: disaster through a gender lens. Hazards, risks and disasters in society. Hazards and disasters series. Elsevier, London, pp 233–251
- Corbett, M. (2007). All kinds of potential: Women and out-migration in an Atlantic Canadian coastal community. *Journal of Rural Studies*, 23(4), 430-442.
- Cutter SL (2017) The forgotten casualties redux: women, children, and disaster risk. *Glob Environ Change* 42:117–121
- Drolet, J., et al. (2015). Women rebuilding lives post-disaster: Innovative community practices for building resilience and promoting sustainable development. *Gender & Development*, 23(3), 433-448.
- Enarson, E., & Chakrabarti, P. D. (Eds.). (2009). *Women, gender and disaster: global issues and initiatives*. SAGE Publications India.
- FAO, F. (2018). *Agriculture Organization of the United Nations 2018 The state of world fisheries and aquaculture 2018—Meeting the sustainable development goals*. CC BY-NC-SA 3.0 IGO.
- Figueiredo, P., & Perkins, P. E. (2013). Women and water management in times of climate change: participatory and inclusive processes. *Journal of Cleaner Production*, 60, 188-194.
- ISDR (2002). Living with Risk: A Global Review of Disaster Reduction initiatives. United Nations, Geneva, Switzerland. Retrieved from: <https://tinyurl.com/4sya74ud>



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- Işık, Ö., Özer, N., Sayın, N., Mishal, A., Gündoğdu, O., & Özçep, F. (2015). Are women in Turkey both risks and resources in disaster management?. *International journal of environmental research and public health*, 12(6), 5758-5774.
- Hajar, S., Tanjung, I. S., & Yenni, E. (2017, October). Empowerment of Coastal Community Through Village Potential. In *International Conference on Public Policy, Social Computing and Development 2017 (ICOPOSDev 2017)* (pp. 297-299). Atlantis Press.
- Halcomb, E. & Hickman, L. (2015). Mixed methods research. *Nursing Standard: promoting excellence in nursing care*, 29 (32), 41-47.
- Hamidazada, M., Cruz, A. M., & Yokomatsu, M. (2019). Vulnerability factors of Afghan rural women to disasters. *International Journal of Disaster Risk Science*, 10, 573-590.
- Harper, S., et al., (2017). Contributions by women to fisheries economies: insights from five maritime countries. *Coastal Management*, 45(2), 91-106.
- Işık, Ö., Özer, N., Sayın, N., Mishal, A., Gündoğdu, O., & Özçep, F. (2015). Are women in Turkey both risks and resources in disaster management? *International journal of environmental research and public health*, 12(6), 5758-5774.
- Janice, K. I. M. A. T. H. I. (2011). *Disaster Preparedness In Public Secondary Schools In Githunguri District, Kiambu County, Kenya* (Doctoral dissertation, Master thesis, Kenyatta University).
- Johnson, V. A. (2014). *Evaluating disaster education programs for children: a thesis presented for the degree of Doctor of Philosophy in Emergency Management at Massey University, Wellington, New Zealand* (Doctoral dissertation, Massey University).
- Johnson, V. A., et al., (2014). Evaluations of disaster education programs for children: A methodological review. *International journal of disaster risk reduction*, 9, 107-123.
- Kang, M. H., et al., (2021). The social movement of an online community of mothers during a disaster: An analysis of the mom-café in Pohang, Korea. *International Journal of Disaster Risk Reduction*, 65, 102579.
- Moreno, J., & Shaw, D. (2018). Women's empowerment following disaster: a longitudinal study of social change. *Natural hazards*, 92, 205-224.
- Omidvari, M., Nouri, J., & Mapar, M. (2015). Disaster risk assessment pattern in higher education centers. *Global Journal of Environmental Science and Management*, 1(2), 125-136.
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.
- Reyes, D. D., & Lu, J. L. (2017). Gender dimensions and women's vulnerability in disaster situations: A case study of flood-prone areas impacting women in Malabon City, Metro Manila. *Journal of International Women's Studies*, 18(4), 69-88.
- Scammon, D. L., Tomoia-Cotisel, A., Day, R. L., Day, J., Kim, J., Waitzman, N. J., Farrell, T. W. & Magill, M. K. (2013) Connecting the Dots and Merging Meaning: Using Mixed Methods to Study Primary Care Delivery Transformation. *Health Services Research*, 48, 2181-2207.
- Shakibmehr, M. (2019). Protecting Women and Children under the Doctrine of Human Security (Focusing on Armed Conflicts and Climatic Changes). Science Arena Publications. Vol. 4 (3), 16-17.



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Smyth I (2009) Gender in climate change and disaster risk reduction, Manila, October 2008. Dev Pract 19:799–802

Tanner, L., Markek, D., & Komuhangi, C. (2018). Women's Leadership in Disaster Preparedness. Retrieved from: <https://tinyurl.com/2tbcz4rk>

Yamashita, K. et al., (2019). Vulnerability of pregnant women after a disaster: experiences after the Kumamoto Earthquake in Japan. *Prehospital and disaster medicine*, 34(5), 569-571.