

Disaster Risk Management Preparedness and Challenges of a Local Beach and Dive Resort in Southern Negros Occidental

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Abstract. Background: This study assessed the extent of disaster risk management preparedness of a local beach and dive resort in Southern Negros Occidental in terms of natural disasters and man-made disasters as assessed by local tourism key players and identified the challenges in the disaster risk management preparedness of the local Beach and Dive Resort and a proposed Disaster Risk Management Preparedness Action Plan based on the findings.

Method: The respondents of this study were the DRRM staff, Tourism Office Employees, Community Leaders, Tourists, and Beach and Dive Resort Personnel who were selected using quota sampling for tourists, and complete enumeration was utilized for DRRM Staff, Tourism Office employees, Community Leaders, and Beach and Dive Resort Personnel. This descriptive study utilized a researcher-made survey questionnaire to measure the extent of disaster risk management preparedness and challenges encountered by a local beach and dive resort.

Results: The data gathered revealed that the extent of disaster risk management preparedness of a local beach and dive resort in terms of natural disasters as assessed by local tourism key players was found to be of great extent in the typhoon, floods, earthquakes, and landslides in all stages of disaster preparedness (before, during, and after). In terms of natural and man-made hazards, the resort management disaster preparedness was found to be a great extent.

The need to develop a "culture on disaster risk management preparedness" of the community and the lack of communication/coordination among the stakeholders involved are the biggest challenges encountered by the tourism key players while preparing for natural hazards. While lack of

communication/coordination among the stakeholders involved is the most common challenge encountered while preparing for man-made hazards.

Conclusion: This study concluded that resort management needs to consider many factors in disaster risk management preparedness and the challenges they might encounter in preparing for hazards. To be adept with disaster risk management preparedness, the resort management needs to be abreast with the effective coordination and communication between tourism key players by developing a comprehensive directory of these key players that could help in an emergency. More importantly, the resort management must abide by the norms and standards set forth by the DRRM Act to ensure that tourists would perceive that the resort management has low risks.

Practical Value of the Paper: This paper has value in the locale of the study and the community. The findings of this study were used in the development of the disaster risk management preparedness action plan for a local beach and dive resort of Negros Occidental in the areas of natural hazards (typhoon/flood and landslide/earthquake) and man-made hazards (crime and terrorism and health threat events). Likewise, the findings of this study significantly contribute to the existing literature on the extent of preparedness of local beach and dive resorts in the different stages and types of hazards.

Keywords. disaster risk management preparedness, natural hazards, man-made hazards, descriptive research design, Philippines

1. Introduction

1.1. Background of the Study

A disaster is an unplanned event in which the needs of the affected community outweigh the available resources (Furin, 2018). Disaster risk management preparedness refers to planning how to respond to achieve a satisfactory level of readiness to respond to any emergency through programs that strengthen the technical and managerial capacity of governments, organizations, and communities (Srinivas, 2020). In addition, the scope of the disaster risk management preparedness measures the preparedness plans (Chartoff & Roman, 2022), emergency exercise/training (Skryabina et al., 2020), warning systems (Khankeh et al., 2019), emergency communications systems (Lowe, 2019), evacuations plans and training (Borthwick, 2015), resources inventories (Pan et al., 2017), and public information/education (Torani et al., 2019). Moreover, the importance of disaster risk management preparedness is to save countless lives, speed up people's recovery and save money (International Federation and Red Cross [IFRC], 2022).

Disaster risk management preparedness in tourism destinations is significant for social change, reducing disaster-induced fear and removing the adverse effect of crises on the lives of individuals and communities (Todman-Lewis, 2017). The outcome comprises improved safety for tourists, the improved willingness of people to travel, and better perceptions of tourist destinations. Furthermore, advantages of travel and tourism may be conceptualized and realized, such as employment possibilities in tourism and supporting industries, infrastructural advancements to

sustain travel and tourism products and services, and the capability to experience or emphasize the indigenous cultural heritage or traditions of a region or destination. Tourism destinations should consider mainstreaming risk reduction in post-disaster recovery that delivers on its promise consistently and has an established reputation for protecting its residents, businesses, and visitors against the effect of hazards (Mert, 2015).

In the Philippines, in the context of disaster risk management preparedness in beach and Dive resorts, the study of Mendez et al. (2016) states that the tourism industry needs deeper and more thorough planning and management, including Disaster Risk Management planning to improve their current situation. They also mentioned that the management of the resort should develop a comprehensive directory of the various governmental and non-governmental agencies that could help the people in an emergency. Orcullo (2020) mentioned that the beach resorts in Lianga Bay Municipalities, Surigao del Sur, Philippines, should provide training to promote security awareness and improve expertise among its members and constituents, including management and crew of beach resorts. A collaborative relationship must be established with other entities such as law enforcement, service providers, and telephone companies.

In Negros Occidental, the enactment of Republic Act 10121, otherwise known as the Philippine Disaster Risk Reduction and Management Act of 2010 (PDRRM), has laid the basis for a paradigm shift from just disaster preparedness and response to disaster risk reduction and management. Yusay and Caelian (2022) studied LGUs, and the Tourism Office needs to ensure that the Philippine Disaster Risk Reduction and Management Act is followed by all establishments, especially tourism destinations, i.e., beach and dive resorts, where it is more vulnerable to disasters. Moreover, they investigated the challenges encountered by the LGUs with the main conclusion that failure to provide personnel and financial resources to the DRRM office endangers the safety and general well-being of the population and poses great risks to lives and properties. Herrera Jr. (2021) investigated the level of implementation of disaster risk reduction and management in a flood-prone area in Talisay City, Negros Occidental. The result revealed a need for building a better linkage between the community leaders and their constituents.

Since disaster risk management preparedness implementation is vital to mitigate the risk, there are several studies in the Philippines conducted relevant to this; however, the locale was out of Negros Occidental, such as studies of Mendez et al. (2016) wherein the management of the Malapascua island, Daan Bantayan, Cebu should develop a comprehensive directory of the various governmental and non-governmental agencies that could help the people in an emergency. Borbon (2020) stated that the resort management in Batangas must have a disaster plan developed, implemented, and monitored before, during, and after the disaster. Orcullo (2020) reveals that destination managers participate with crisis teams in mock exercises to gain experience and develop personal crisis skills and awareness. This means that there are not enough empirical studies conducted in Negros Occidental that focus on the disaster risk management preparedness of a local beach and dive resort and the identified challenges while preparing for hazards.

This study aimed to assess the extent of disaster risk management preparedness of a local beach and dive resort in Southern Negros Occidental. Thus, the findings of the study may be utilized as the baseline for crafting a proposed Disaster Risk Management Preparedness Action Plan.

2. Literature Review

2.1. Disaster risk management preparedness in the tourism industry

The tourism industry, a driver of the global economy, is highly exposed to disaster risks (World Bank, 2020). The Sendai Framework for Disaster Risk Reduction (2015-2030) states the priority for national and local authorities to promote and integrate disaster risk management approaches throughout the tourism industry, given the often-heavy reliance on tourism as a key driver (United Nations World Tourism Organization [UNWTO], 2015).

Disaster risk management preparedness is essential to enhancing results and lessening effects in the tourism industry- a fundamental contributor to socioeconomic advancement and infrastructural expansion worldwide (Todman-Lewis, 2017). Tourism professionals may benefit from developing disaster preparedness plans, building rapport with disaster administrators and groups, and partnering with media to boost tourists' positive perceptions and travel behaviors.

The impacts of natural disasters in the tourism industry need deeper and thorough planning and management to improve their current situation. Government officials should develop plans before disasters occur. Also, they should establish good working relationships with private corporations and government agencies. The management of the island should develop a comprehensive directory of the various governmental and non-governmental agencies that could help the people in an emergency. Before disaster strikes, they make sure to know the names of government officials in case they need help (Mendez et al., 2016).

Orchiston and Higham (2016) emphasized the necessity of management and knowledge and for the efficacious cooperation and communication between agencies to deliver quick responses to disasters and during the event in developing and implementing marketing strategies to accelerate tourism to promote medium- and long-term recovery. This spotlights the vital implication of marketing-based initiatives for recovery and persevering to mitigate the indirect losses of tourism beyond the directly impacted disaster zone.

Tang (2016) stresses the importance of disaster management and green economy transformations designed to facilitate social justice and improve well-being alongside action demonstrating a commitment to the sustainable growth of the tourism destination. Together with the transformations as part of rural recovery procedures considering residents' lived experiences and their understanding of the place, there is also integration and production upon regional, social, environmental, and economic characteristics (Cradock-Henry et al., 2018).

The resilience and trust of companies in the tourist destination recovery, as well as collaboration among the interested parties, are all critical factors in the disaster management of destinations. These results also underscore the significance of green economy modifications to promote social justice and enhance well-being by showing a commitment to the sustainable development of tourist destinations (Estevão & Costa, 2020).

In a disaster-prone country like the Philippines, much is expected from the local governments, which are considered the core of a community. As cited in the same study, a local government unit (LGU) remains integral across phases – before, during, and after disasters – as mandated by the Local Government Code of 1991. The local government plays an integral role before, during, and after disasters because they have direct jurisdiction over their constituents and are also expected to know the community's needs (Domingo & Manejar., 2018).

Deconstruction of the special experiences of disaster-prone tourism destinations provides a more nuanced insight into the relationships between community knowledge and awareness of resilience needs and the role and impacts of tourism. This, in turn, facilitates an understanding of community tourism development in the face of contemporary changes in weather and climate (Tsai et al., 2016).

In the study of Brown et al. (2017), the ability of hotels/resorts to upgrade their disaster preparedness is very limited. Williams (2019) stated that the resort's objectives are that all employees are aware of potential threats to the resort that could harm people and property or disrupt business transactions, that all workers are informed of the resort's response plan, as well as their roles and obligations in the event of a disaster or a business interruption; and that the resort is a valuable community resource. The Resort should better prepare staff to understand and respond to potential threats to achieving this desired outcome. Better preparing Resort staff to understand and respond to potential threats is a great option to solve the immediate problem at Resort. A longer-term objective or solution would be for the Resort to become a resource for the community. Developing the Resort as a community resource could raise awareness of local threats while influencing other private-sector businesses to become more involved in their communities and, eventually, national response efforts.

The study conducted by Todman-Lewis (2017) on the techniques destination managers utilized for disaster preparedness to enhance destination ideas and lessen business disturbances specified three emergent concepts: (a) organizational leadership, (b) operational preparedness, and (c) strategic communication.

The relationships between stakeholders are diverse, but effective collaborations are vital in mitigating the hazardous impacts, enacting emergency planning, and restoring local communities when natural disasters happen (Jiang & Ritchie, 2017). Stakeholders in tourism industries may connect different actors of the affected destination by integrating individual actions, looking forward to strategies for coping with long-term destination recovery and sustainability of the resorts (Granville et al., 2016).

In the study of Fabeil et al. (2018), the most common crisis experienced by resorts was technology failure, followed by natural disasters and social threats. Moreover, the result yielded that those resorts frequently communicate well about the crisis to their guests and staff, especially in terms of the importance of disaster preparedness and measures. However, the practice of preparedness measures for disaster among resorts was still low (Razli et al., 2016).

Several activities, such as seminars, workshops, and conferences, are being implemented to raise awareness of failures at the resorts and their surroundings. The resort and its surroundings were ranked second to last, indicating a moderate level of preparedness when it comes to planning. This means that the resort management may have a disaster preparedness plan. However, it may be incomplete and in need of improvement. There is a need for a concrete plan to minimize the devastation caused by any disaster. This plan must be developed, implemented, and monitored before, during, and after the disaster (Borbon, 2020).

The following points illustrated the essential components of local disaster preparedness plans: Early warning systems; Evacuation and Sheltering; Mobilizing Emergency Personnel and Resources; Command and Control Functions; Communications Plan, Coordination, and Informing the Public; Risk Scenarios and Contingency Planning; Restoring Public Services; Records

Management; Planning for Recovery; and Plan Revision and Updating (United Nations Environment Program [UNEP], 2008).

2.2. Disaster risk management preparedness in natural hazards

Assessing risks for natural disasters is a critical approach to assessing the possible effect of the risks and taking some actions before they generate a tremendous loss of life and property (Genc, 2018). According to Mikulić et al. (2018), forest fires, floods, and earthquakes are natural disasters that significantly impact tourism and are not susceptible to precise forecasting.

Disaster risk management preparedness of the resort is likely contributed to its destination image. When travelers observe the preparedness of a destination for a potential natural disaster from the media or a post-disaster situation that cannot be handled effectively, the destination idea of this region is affected. This will adversely impact this destination's economy since travelers would be less likely to think about going to that place for tourist purposes. Earlier studies have indicated that when a destination image of a specific tourist spot is extremely low due to safety or stability problems, the potential for economic recoveries like new investments or visitors will drop (Walters et al., 2015).

Rittichainuwat et al. (2018) discovered that tourists' risk perception is connected to the occurrence frequency of natural disasters and destination specific. In contrast, the possibility of a natural disaster perception is significantly distinguished by the nearness of a dangerous area and the experience tourists have encountered in their lifetime. The risk perception is, therefore, closely related to the concept of destination image, which implies the overall attributes of a specific destination that include the extent that the destination can overcome a threat of natural disaster. Thus, Safety and security are important factors to tourists when choosing a destination and hotel. The first aspect tourists consider is protection from risks and hazards (Torralba & Ylagan, 2021).

Natural disasters may have long-lasting effects on the lives of people. Consequently, the tourism sector may be negatively affected due to decreased labor power and damage in tourism facilities or worsening destination image concerning bad management of crises. However, at the same time, tourist destinations may make the natural disaster crisis possible for future investment in the region by improving community support towards the region with well-organized crisis management. Therefore, disaster management is essential for many tourist destinations since it is unthinkable to say precisely when a natural disaster will occur and to what extent it will be effective (Genc, 2018).

The effects of natural disasters on the tourism industry necessitate more thorough planning and management to improve their current situation. Before disasters strike, the resort should make plans. They should also cultivate positive working relationships with both internal and external stakeholders. The island administration should compile a comprehensive list of all governmental and non-governmental organizations that can assist the people in an emergency; as a result of the study's findings, they hope to better understand how to improve the tourism industry in the province of Cebu (Mendez et al., 2016).

The study by Yamamura (2016) revealed that natural hazard occurrences contributed to participation in the community by increasing interaction among people and voluntary collective action due to an emergency. For this reason, the solidarity bonds within society get strengthened. Thus, there is a need for people to have training and exposure to drills and practice in preparation

for a natural hazard. Not just for the people or the community but the organizations and other offices coordinating to mitigate the risk. Orcullo (2020) reveals that destination managers participate with crisis teams in mock exercises to gain experience and develop personal crisis skills and awareness.

Tang (2016) concluded that various interested parties, residents, and external organizations operated together to expand further from simple reconstruction to harmonize tourism following the catastrophe of natural disasters.

In the study of Fabeil et al. (2018), the most common crisis experienced by resorts was technology failure, followed by natural disasters and social threats. Moreover, the result yielded that those resorts frequently communicate well about the crisis to their guests and staff, especially in terms of the importance of disaster preparedness and measures. However, the practice of preparedness measures for disaster among resorts was still low (Razli et al., 2016).

Both management and staff must be aware of potential emergencies. Having procedures in place ahead of time can help address a variety of workplace situations that may arise. Employee stress, anxiety, and overall fear are common during a disaster or crisis, and planning can help reduce them. An emergency plan ensures that employees have enough time to become acquainted with procedures and carry out all steps outlined in the plan. Constructing an emergency plan and planning ahead of time can help reduce property damage, prevent injuries, and even save lives (United States Department of Labor, 2015).

People should be provided training to promote security awareness and improve expertise among its members and constituents, including management and crew of beach resorts. Announcements must be made to aid in disseminating information on protective measures against existing or upcoming calamities. There should be guidelines on the effective use and combination of security tools for incident detection and prevention. A collaborative relationship must be established with other entities, such as law enforcement, service providers, and telephone companies (Orcullo, 2020).

Since successful planning requires the participation of both employees and management, it was anticipated that an educational presentation focusing on how management prepared the organizational plan, as well as how both employees and management implemented the plan, would keep improving participants' emergency planning knowledge (Renschler et al., 2016). The managers in the study of Renschler et al. (2016) were eager to make their employees available for the demonstration. These workplaces may have already had emergency plans and protocols in place, and management would be more at ease about participating in the presentation than those with poor emergency plans or none at all.

2.2.1. Typhoon/flood. Due to heavy rains and/or storm surges, flooding is a persistent problem in coastal areas (Toubes et al., 2017). Catastrophes like storm surges, floods, earthquakes, and typhoons can affect inbound and domestic tourism and the local tourism industry (Rosselló et al., 2020).

Implementing the Flood Directive by E.U. member states has resulted in a standard framework for flood risk management (Adamson, 2018). The main aim is to lessen a disaster's risk and effects. To reduce the extent of floods and their outcomes, actions (flood hazard and flood risk management) that cover distinct phases of the disaster should be incorporated. These stages

comprise mitigation, preparedness, response, and recovery. The first two stages concentrate on pre-disaster problems, while the latter answers the effects of disaster (Esposito et al., 2019).

In the case of the former, the primary objective is to deliver sufficient safeguard against the outcomes of the surge so that water does not detrimentally impact people and property. If, on the other hand, the priority is on emergency management, the major aim is not protection through modernization or the structure of a defensive system but the most beneficial feasible flood control, which consists of the protection of life and health and the decrease of the actual impacts of the flood during the rescue operation, transport efficiency about the evacuation of people and property, and the provision of resources and equipment for damage mitigation, safeguarding vulnerable establishments and equipment that may be a hazard to the environment during a flood, such as sewage systems, petrol stations, chemical plants, and so on, protecting public structures and buildings frequented by large numbers of people, and other activities specific to the region (Buczek & Nachlik, 2011; Borowska-Stefańska & Wisniewski, 2022).

Although most floods happen in the low tourist season, the investigation applies to tourism because infrastructure damage may be hard to fix during the busy season. Floods can also alter coast morphology or deteriorate beaches, resulting in the loss of quality certifications. Flood risks also need to be considered in planning to boost tourism in spring and autumn, when flooding risks are high (Toubes et al., 2017). Thus, Communities have the potential to function efficiently and adapt successfully in the aftermath of disasters.

Thus, community leaders must engage in mitigation and create organizational linkages. With this, the resort management shall prepare people to think about how to design and build the communities for typhoon/flood that ensures safety, health, and overall quality of life. To be effective, early warning systems need to have not only a sound scientific and technical basis (Mendez et al., 2016). Furthermore, the result of the study of Mendez et al. (2016) mentioned that there is a need to introduce new technologies to communicate risk information and a broad willingness to understand and use available information to inform appropriate action.

It is found that the choice of risk reduction measures hinges on the values underlying people's perspectives about the desired outcomes of specific measures and that the role of identity and meaning-making are still undervalued in decision-making processes in the event of typhoons and floods. It concludes that subjective capacities formed by cultural identities, knowledge, and trust coupled with a variety of factors of socioeconomic and political texture are important to understand local decision-making processes. The authors found that lively 'culture of risk memory', 'trust in scientific information and community as well as decision making of coastal authorities coupled with inclusiveness and participation of communities in formulating and implementing disaster risk reduction measures are prerequisites for successful collaboration and in turn, execution of disaster risk reduction measures (Martinez et al., 2020).

Coastal erosion and the risks associated with flooding have led to implementing contingency plans and beach sustenance activities. Awareness and preparedness for floods have been expanding. Weather forecasts on the coming of storms are increasingly factual, and earlier warning systems are in position (Toubes et al., 2017). Considering flooding risks became part of destination planning and adaptive actions related to crisis management. This will also demand that climate change effects be assessed in planning procedures considering the likelihood of extreme events, including flooding, under climate change scenarios. For investors, risk means an expense

for insurance, more resilient structures, lessened attractiveness for tourists, or cancellations in intense situations, which would mean loss of income in circumstances where infrastructure damage (e.g., roads) restricts visitation. Findings revealed moderate flooding in the area could be due to some inundation of structures and roads near the river and creeks. However, the municipality can adjust to flooding due to modernized maps of flood-prone zones and coastal habitats in danger. They also have access to flood forecasting communication and early notification. Moreover, the forest part of Barangays Uacon, Malimanga, Malabon, Pamibian, Taposo, and Luis have a low susceptibility to flooding due to the heightened elevation of these barangays in the forest or mountainous parts of the municipality (Paz-Alberto et al., 2021).

Results revealed that Barangays San Salvador, San Lorenzo, and Taltal were low vulnerability to flooding, while the barangays had a moderate vulnerability to flooding. The ultimate cause of flooding in the municipality happens when high tide connects with a high velocity of the river that crosses the municipality. However, Masinloc has flood rescue equipment for adaptation to flooding. The municipality has modernized maps and installed radio communication in every barangay for more rapid and efficient coordination. The situation and accessibility of infrastructure, accessibility of health care, human and social capital, and other institutional resources all contribute to the promptness and efficacy of adaptive ability (Paz-Alberto et al., 2021). The CRISIS (Characterizing Submersion Risks in Sensitive Sites) project has demonstrated the usefulness of an integrated and operational approach to coastal flood risk, not only in terms of studying hazards, stakes, and vulnerability but also in terms of crisis management, through the organization of crisis simulation exercises (Durand et al., 2018).

2.2.2. Landslide/Earthquake. A landslide is a downslope movement of soil and rock affected by gravity (Malamud et al., 2004 cited by Chen et al., 2017). The landslide vulnerability map of Masinloc, Zambales. Only Barangay Taltal had an average vulnerability to landslides due to higher values acquired for perceptiveness and orientation to landslides. In contrast, the rest of the barangays had a low vulnerability to landslides like Masinloc because the agricultural areas, houses, and locals are very far from the mountains, which are landslide-prone areas.

Moreover, no construction and charcoal-making activities are done in the forest of Masinloc. Its disaster plans are well-prepared and observed throughout the municipality. Moreover, building and road construction and clearing vegetation in the mountain expose the land, leading to landslides. However, the positive coping techniques of the indigenous people living at the foot of the mountain to deal with landslides included suitable farming methods, aid from the government, livelihood diversification, and employing indigenous proficiency in weather forecasting and preparedness (Paz-Alberto et al., 2021).

As front liners, local governments face the greatest challenge as they directly respond to natural hazards. A failure at the local level adversely affects the overall performance of the Regional and National DRRM Councils (Dariagan et al., 2021). The local governments were partially prepared with Systems and Structures that plan and implement DRRM measures. Meanwhile, Commission on Audit (COA, 2014) found a problem in the collaboration and coordination among the components of these local structures and systems. LGUs had designated evacuation centers, but there were no security posts, signs leading to evacuation areas, temporary shelters for livestock, and evacuation centers for prisoners.

The study of Lihui et al. (2019) aims to provide a theoretical understanding of the perception and responses of tourism managers towards damaging disasters in tourism destinations with high seismic risks. Their results revealed that disaster preparedness positively affects earthquake preparedness. However, the proposed paths from risk perception to disaster preparedness, risk perception to earthquake preparedness, and threat knowledge to earthquake preparedness were not statistically significant. Thus, results may provide references for policymakers in promoting crisis planning in tourism destinations with high seismic risks.

People should be provided training to promote security awareness and improve expertise among its members and constituents, including management and crew of beach resorts. Announcements must be made to aid in disseminating information on protective measures against existing or upcoming calamities. There should be guidelines on the effective use and combination of security tools for incident detection and prevention. A collaborative relationship must be established with other entities, such as law enforcement, service providers, and telephone companies (Orcullo, 2020).

2.3. Disaster risk management preparedness in man-made hazards

Safety and security are fundamental needs, especially since it has been demonstrated that tourists tend to avoid destination and accommodation structures with potentially high risks to their safety and security at the resort (Anichiti et al., 2021). In order to make sure that tourism continues to grow and generate revenue, all stakeholders should pay great attention to customers' safety and security.

In a tourism destination, stakeholders can include: the government (international, national, regional, and local); government departments with links to tourism; international, national, regional, and local tourism organizations; tourism developers and entrepreneurs, tourism industry operators; non-tourism business practitioners, and the community including local community groups, Indigenous people's groups, and residents (Saito & Ruhanen, 2017). Thus, the manager in general and managers of tourist accommodation units, in particular, need to assess safety and security needs by continuously monitoring the conditions and standards they provide (Anichiti et al., 2021).

The consequence of human activity has exceeded limits specified by the world's scientific forefront in some areas in which multiple occurrences over the last six decades have made it vital to reformulate the economic growth standards suggested by capitalism (dos Santos et al., 2020). The heartbeat of environmental commitment has grown as the current crisis has become more critical. It has let us witness the imprints humanity stops generating when it interrupts its normal activity in tourism (Leyva & Parra, 2021).

One of the identified man-made disasters in a resort is crime and terrorism. Thus, criminal activities against tourists remain significant in disrupting the tourism industry's economic success and constructing an undesirable image for tourists who spend large amounts of money to enjoy a trip or vacation (Njoloma & Kamanga, 2019). Such criminal activities as terrorism, crime, and fraud are present in the tourism industry (Santana-Gallego et al., 2016). Specifically, it includes the following: theft, prostitution, murder, and assault, among others (Cebekhulu, 2016). Thus, fear of crime is a complex construct related to psychological and social reactions to perceived threats of crime and victimization (Collins, 2016). The study of Saito and Ruhanen (2017) can enhance

understanding of how the various stakeholder groups interact, are coordinated, and how a destination's objectives can be more effectively achieved. Clarifying power in stakeholder collaboration and identifying key power holders also helps destinations mitigate potential disputes and create favorable conditions for collaboration and sustainable destination development (McComb et al., 2017).

Studies on man-made disasters that occur in a resort and their influence on the tourism industry, the most important impact of crime on a tourist destination is a bad image of the destination, which results in lower tourist demand. The effect of crime on the micro-level is visible in the influence it has on the behavior and attitudes of tourists, as well as their decision to visit or revisit a destination where criminal incidents occur (Matakovic & Cunjak Matakovic, 2019).

Another man-made disaster that could happen in a resort is a health threat event. Most recently, this man-made hazard has been highlighted by the COVID-19 global pandemic, in which the cessation of travel and tourism has jeopardized government revenues and the survival of firms and led to significant economic losses across the tourism value chain (World Bank, 2020). As regards public health, the establishments serve clean and practice proper food safety, while in terms of accessibility, it provides signage and brochures, and the location is accessible (Torralba & Ylagan, 2021).

In an accident or an acute medical event, every worker should have access to first aid, rescue, and emergency care (Descatha et al., 2017). Resort employees are confident in their ability to respond to a disaster; however, resort management does not provide continuous training to ensure that all employees are equipped and well-trained. There is a lack of emergency supplies available. Moreover, employees have direct access to the locks for convenience and equipment capability. Because most of the items and equipment in resorts are movable, resort employees may be able to move freely and effectively carry out their disaster plan, and the rescue team may be trained in their emergency rescue plan (Borbon, 2020).

Whereas initial findings indicate that noticeable sanitizing efforts (such as hand sanitizers at the entrance, staff wearing masks and gloves, and checking temperature upon entering), implementing social distancing, limiting the group of visitors served, more strict and frequent cleaning of high-touch surfaces in public areas that people constantly touch surfaces, which can quickly become contaminated with bacteria and picked up by others on their hands. Doorknobs, light switches, shared equipment, and training of employees in health and safety protocols, for example, are the most important safety precautions customers expect from a food establishment and a hotel (Gursoy & Chi, 2020). More causal and behavioral studies are needed to assess the (differential) effects of these organizational processes on the attitudes and behaviors of customers.

2.4. Challenges encountered by the tourism key players on disaster risk management preparedness

Stakeholders often face common challenges, such as the political hazard (Zheng et al., 2022), ineffective communication (El Khaled & Mcheick, 2019), culture (Appleby-Arnold et al., 2018), and imbalance of power and resources (Saito & Ruhanen, 2017). It is, therefore, crucial to study the experiences of local tourism stakeholders in considering the contribution of tourism to disaster processes and perceiving the interconnection with each other (Okuyama, 2018).

Promoting individual disaster preparedness is one of the most effective ways to reduce disaster risk. Effective disaster risk communication is widely known to motivate individuals to take

protective measures. Yu et al. (2020) indicated that individuals' preparedness levels could be increased if local officials regularly communicated disaster risk reduction knowledge to communities. That effect is stronger for individuals with higher levels of self-efficacy.

2.4.1. Political hazard. Just as a country's political system mediates disaster vulnerability, disasters can majorly affect political stability and legitimacy. Politicization occurs when disasters as events in the political landscape are taken over by actors for political causes (Horhager, 2015). Political choices, such as those about resource distribution, as well as socioeconomic institutions and power structures, influence the distribution of individual preparedness for natural disasters. Appleby-Arnold et al. (2018) mentioned how community cohesion is altered from a personal to a cultural value, which can potentially transform preparedness intentions into actual preparedness behavior.

2.4.2. Lack of communication/coordination. Deficiencies in the strategic and regional planning levels may cause resort or hotel casualties. Saito and Ruhanen (2017) mentioned that stakeholders often face common challenges, such as the complexity of the disaster-management process, ineffective communication, and imbalance of power and resources. In connection to this, the study of Solinska-Nowak et al. (2018) claimed that if the scale of the impending danger had been appropriately communicated and coastal residents had been evacuated to safer ground, fewer lives would have been lost during the different hybrid disasters that happened in all countries. Moreover, Keating et al. (2017) mentioned that despite the great advantages of early action and self-reporting, there is a relentless increase in exposure to assets such as floods, earthquakes, droughts, landslides, tsunamis, and other hazards. In addition to this hybrid disaster context, the United Nations International Strategy for Disaster Reduction (UNISDR, 2018) revealed a serious gap between science-based assessments, practice, and implementation; while many factors drive this, bridging the communication gap is a critical step.

Stakeholder collaboration is acknowledged as an essential part of tourism destination planning and management; however, not all destination stakeholders have the same level of power and influence in collaborative activities or decision-making, with some groups able to exert more influence over the process (Saito & Ruhanen, 2017). Moreover, in a collaborative arrangement, government authorities may exert coercive power through policy-making and implementation relative to the objectives of the resort or hotel (Airey, 2015).

2.4.3. Short of funds. According to Latan et al. (2018), an environmental system can be seen as initiatives that aim to lower the effect of processes on the environment through policies such as lowering energy consumption and waste, using sustainable resources, and enforcing an environmental management system for resorts and hotels. On one side of the tourism phenomenon is a solid demand to develop income and jobs. At the same time, another aspect of the same system seeks to minimize the results associated with negative impacts. This battle of opposites must reach the most in-depth origins of hotel companies to sustain an adequate equilibrium between growth and sustainability (Leyva & Parra, 2021).

Yusay and Caelian (2021) concluded that failure to provide personnel and financial resources to the disaster risk and reduction management office endangers the safety and general well-being of the areas and poses great risks to lives and properties.

2.4.4. Road accessibility. As the number of people affected by disasters grows, providing actionable information to limit the severity of these events in communities also escalates (Brown et al., 2017). Disastrous events can influence tourists' choices of destination; management of

destination image, disruption from extreme weather, and event impacts causing slow recovery may all affect tourism destinations negatively (Tsai et al., 2016). Travel risk and management perception are significantly associated with risk management, service delivery, transportation patterns, distribution channels, avoidance of overpopulated destinations, and hygiene and safety (Rahman et al., 2021). Furthermore, the findings of their study contribute to tourism crises and provide future research insights into the travel and tourism sector and response to change tourists' travel risk and management perceptions in the post-covid recovery period.

Societal well-being or safety measures lockdowns can control the spreading of infections (Mertens et al., 2020). This is considered a challenge to the developing tourism industry, resulting in an increased unemployment rate and affected community residents. Seabra et al. (2020) showed that terrorist attacks substantially impacted tourist arrivals and confirmed the existence of terrorism spillover, namely the substitution and generalization effects phenomena. The tourist destination may experience a downgrade in the number of visitors due to these man-made disasters, considered a challenge to the community wherein their economic status is affected.

Another recommendation from the study of (Lopez Jr et al., 2022) is to enhance the disaster risk and reduction management plan and strengthen the programs, projects, and activities to increase households' adaptive capacity and involvement toward disaster preparedness. Furthermore, crafting the disaster risk and reduction management plan must be treated differently according to the situation and location to address priority areas (Badajos & Caelian, 2019).

3. Theoretical Framework

This study theorized that a tourism destination's preparedness (before, during, and after) could enable them to manage how possible hazards will transpire. The disaster risk management preparedness of a tourism destination may mitigate the impact of a potential hazard according to the Theory of Planned Behavior by Ajzen (1991). Another theory anchored to the study is the theory of emergency management which tackle emergency to achieve the minimal effect on lives and economies (Ughulu & Ighabor, 2021).

These two theories are anchored in the study with the purpose of how the resort management deal with an emergency by having their disaster risk management preparedness action plan. The disaster risk management preparedness of a tourism destination may mitigate the impact of the potential hazard. By engaging the beach and dive resort personnel in training and seminars to enhance their capacity to respond to and recover from hazards, resort management may better control potential risks. Similarly, when a resort is well-prepared, visitors will feel comfortable and secure when visiting the area. Furthermore, the operation of the resort can be sustained if the resort management can meet the standards required by the local tourism office, local disaster risk reduction management office, and community leaders.

Relating theory to the present study, the theory of planned behavior and the theory of emergency management related to the study indicate the tourism destination's preparedness towards risk and standards set forth by the Philippine Disaster Risk Reduction and Management Act of 2010. Being capable of the resort management in performing the disaster risk reduction management preparedness plan constituted how they will react before, during, and after they are hit by a hazard or risk and how this can affect their challenges of being prepared.

4. Conceptual Framework

To better understand the relationship among variables, the concepts related to the study were discussed further.

This utilized a descriptive research study to determine the disaster risk management preparedness of a local beach and dive resort in Southern Negros Occidental as assessed by the different tourism key players in the areas of natural and man-made hazards and conduct a structured interview to extract the challenges experienced by the respondents in terms of preparing on the mentioned areas of disaster risk management.

The areas of Disaster Risk Management are anchored on the Philippine Disaster Risk Reduction and Management Act of 2010, which further aims to create, advertise and implement a comprehensive National Disaster Risk Reduction and Management Plan (NDRRMP). The conceptual paradigm of the study utilizes the respondents' extent of preparedness in terms of the areas of before, during, and after natural and man-made hazards. The respondents' preparedness in disaster risk management was measured in terms of extent, while the word count approach was used for the challenges experienced.

The Disaster Risk Management Preparedness Action Plan was then designed based on the results of quantitative methods and the insights from the tourism key players, such as DRRM Staff, Resort Management, and Community Leaders, which the resort and its community would utilize. Figure 1 illustrates the conceptual model depicting the flow of this study.

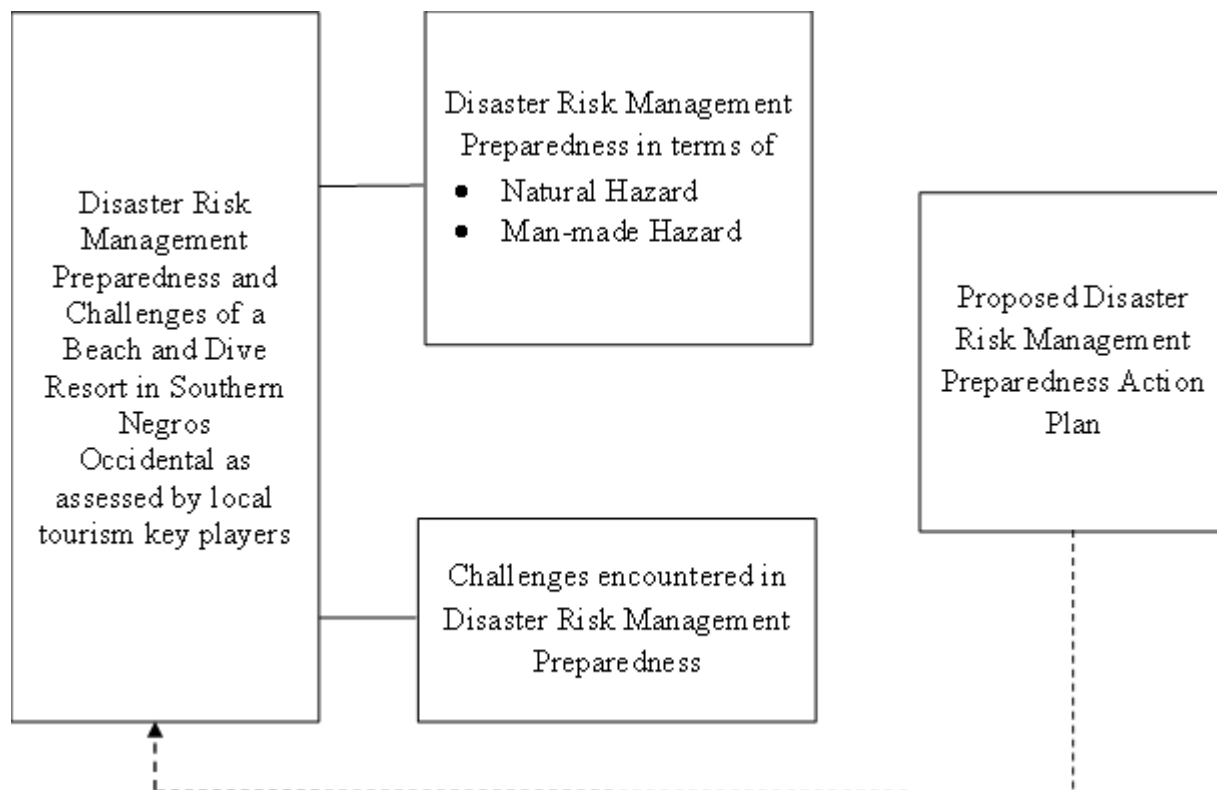


Figure 1: Conceptual Model

5. Research Methodology

5.1. Research Design

This study was anchored on a quantitative research design using a descriptive approach. A descriptive design collects information about variables without changing the environment or manipulating any variables, so they do not look at possible cause and effect (Drummond et al., 2022). This research design described data to characterize a phenomenon, circumstance, or population methodically. More specifically, it assists in answering the research problem's what, when, where, and how questions.

This design was appropriate in this study because it described the extent of disaster risk management preparedness of a beach and dive resort as determined by the tourism key players (Disaster Risk Reduction Management office staff, Tourism office employees, Beach and Dive Resort Personnel, Community Leaders, and Tourists) and the challenges they experienced while preparing for these hazards.

5.2. Respondents

The respondents of the study were the 87 local tourism key players, which included DRRM Staff, Tourism office employees, community leaders, beach and dive resort personnel, and tourists.

In determining the number of respondents for the survey, total enumeration was utilized for DRRM Staff, Tourism Office employees, community leaders, and beach and dive resort personnel. On the other hand, convenience sampling was used to obtain the number of tourist respondents. This non-random sampling relates to this study since the target respondents were identified through inclusion in the sample due to convenience, where 50 respondents were obtained since they were present during the actual conduct last May 2022.

Table 1. Distribution of Respondents.

Local Tourism Key Players	N	%
DRRM Staff	3	3.45
Tourism Office Employees	3	3.45
Community Leaders	11	12.64
Beach and Dive Resort Personnel	20	22.99
Tourists	50	57.47
Total	87	100

Note: Tourists were based on an average number of tourists from January to February 2022.

On the other hand, five participants were interviewed about the challenges encountered. Purposive sampling was used to determine the participant using the following inclusion criteria:

(1) beach and dive resort personnel who have the longest length of service (20 yrs.); (2) heads of office of the local DRRM and tourism office; (1) barangay captain as community leader; and (1) tourist who stayed for two nights and three days in the resort during the stay of the researcher in the resort for the interview.

5.3. Research Instruments

The study used a researcher-made questionnaire and structured interview. The researcher-made survey questionnaire is composed of three parts: Part I is the personal information of the tourism key players, part II is the extent of disaster risk management preparedness that pertains to indicators of before, during, and after Natural Hazards (typhoon/flood, and earthquake/landslide) and Man-Made Hazards (earthquake/landslide). Part III is the challenges encountered by a selected tourism key player while preparing for hazards.

The questionnaire was then subjected to a validity test using Content Validity Ratio (CVR) as part of rigorous checking of the items by ten (10) panels of experts, where two of whom are the head of the Local Disaster Risk Reduction Management Office (LDRRMO II) of Bacolod City. At the same time, eight of them are professionals in the field of hospitality management who have engaged themselves in different seminars and workshops, training, and symposium related to Hazards Identification Risk Assessment and Control (HIRAC) where they need this professional development in order for them to assist the safety and security of the students in the time of their shipboard training and hotel familiarization tour. The experts classified each item as "essential", "useful but not essential", and "not necessary". Only essential ratings per item were included in computing the Content Validity ratio per item. To ensure its validity, every item must surpass the Content Validity Ratio of 0.62 (Zeraati & Alavi, 2014). Otherwise, the item was discarded. Out of the 137 initially prepared questions, 109 were considered valid with a Content Validity Index of 0.90.

Then, these 109 validated test items underwent pilot testing with thirty tourists who visited beach and dive resorts in Sipalay City who were considered non-respondents of the actual study to ensure the instrument's internal consistency and should surpass Cronbach's alpha coefficient of 0.70 for reliability (Ahdika, 2017). The reliability result was found to be 0.92 and was considered reliable.

The researcher utilized an interview guide/protocol with three major questions for the structured interview. The interview process lasted almost 40 minutes with the identified tourism key players.

5.4. Data Collection Procedure

Before the actual conduct of the study, the data-gathering process began by asking for the resort's permission to conduct this study and a signed ethics clearance to approve the conduct. Afterward, the researcher asked permission from the respondents to participate in the study. Informed consent was sent to each respondent, so they would know their rights while answering the questionnaires. It was reiterated and emphasized to the respondents that their participation was voluntary and their identity would remain anonymous. Furthermore, they were oriented on the risk and benefits of the study; hence they can withdraw from participating anytime they feel uncomfortable in the process. The researcher administered the survey questionnaire through a face-to-face survey.

Before answering the actual research instruments, the identified respondents were advised about the study, specifically its purpose, scope, nature, and the parts of the questionnaire. They

were asked to put a tick on the corresponding column, corresponding to their chosen answer to every identified item.

After conducting the survey questionnaire, the researcher retrieved the data and subjected it to statistical analysis and interpretation.

For the actual interview, the researcher selected the respondents for the face-to-face structured interview on the challenges they experienced in the different areas of disaster risk management preparedness based on the selection criterion. After identifying the selected participants, the researcher asked the permission through informed consent, so they would know their rights while answering the interview. During the interview, the researcher asked the participants to have a recorded audio of the conversation if they adhered to it. After the interview, the recorded audio was closed and treated with confidentiality with respect to the respondents of the study. The information gathered was then transcribed, coded, and clustered.

5.5. Data Analysis Procedure

For the general statement that aimed to determine the extent of disaster risk management preparedness in the areas of natural and man-made hazards as assessed by DRRM Staff, tourism office employees, community leaders, beach and dive resort personnel, and tourists, mean and standard deviation were used.

On the other hand, the interview responses for challenges encountered were transcribed, coded, and clustered for descriptive analysis.

5.6. Ethical Considerations

The study upheld high respect for the protection, privacy, and confidentiality of the respondents and observed justice and transparency in its procedures to ensure ethical soundness.

5.6.1. Social value. The study addressed the problem of how the beach and dive resort could mitigate the potential damages of natural and man-made hazards through a locally crafted disaster risk management action plan. As Disaster Risk Management preparedness is a community-wide effort, residents could be aware of the current status of the beach and dive resort in terms of preparing for a hazard which would help them to assess how the resort can help them and how they can help the resort. Moreover, key tourism players could determine the strengths and weaknesses of the beach and dive resort in preparing for the hazards. The researcher formulated the disaster risk management preparedness action plan to mitigate the possible risk in the resort.

5.6.2. Informed consent. The respondents signed the informed consent form signifying their voluntary participation and the acknowledgment of all the terms of the study, including the purpose, procedure, possible risks and benefits, privacy and confidentiality, justice, participation, and withdrawal from the said undertaking. These terms were read and explained to them by the researcher, and they understood and agreed to them. This informed consent form is a formal agreement between the researcher and respondents on the things discussed during the recruitment for the study that the latter were properly informed and full consent was given without intimidation or excessive influence.

5.6.3. Vulnerability of the research participants. There was no vulnerability issue in the conduct of the study. The respondents are all of legal age and were given informed consent. More so, there would be no names of the participants and the resort to be mentioned in any parts of the study,

which may lead them to be vulnerable to cyberbullying because of the result of the study, especially for the resort employees who might be afraid to lose their job if negative results arise.

5.6.4. Risks and benefits. The study could directly or indirectly cause discomfort to the participants when answering the survey questionnaires, such as physical discomfort, mental inconvenience, emotional distress about the result, or frightened of being contacted with COVID-19, where the survey questionnaire lasted 20 to 30 minutes to finish. Since the researcher values the participants' safety and welfare as the highest priority during the study, to minimize risks, participants were allowed not to answer questions that made them feel any psychological or emotional distress. The researcher also ensures that the minimum health and safety standard of the Inter-Agency Task Force was strictly observed in the conduct of the study to minimize the risk of COVID-19. The findings were utilized in establishing the disaster risk management preparedness action plan to mitigate the hazards in the resort. The respondents of the study may benefit from the disaster risk management preparedness action plan to be aware of the possible risk and hazards in the resort.

5.6.5. Privacy and confidentiality. The researcher adhered to the Data Privacy Act of 2012, by which no personal data of the respondents was collected that could compromise their identity. All information to be gathered will be kept confidential and stored in safe and protected storage and will be disposed of by shredding after a given period or after the publication of this study.

5.6.6. Justice. The study observed total enumeration for the conduct of the survey while a fair selection of the participants based on the inclusion criteria set to gather the relevant and necessary data for the interview of the challenges encountered while preparing for the hazard. They were also identified based on their involvement, contribution, proximity, and dependability on the resort. The study ensured that all participants would be given equal chances to participate without age, gender, race, religion, or skin color prejudice. Moreover, reimbursement through souvenir gifts would be given to the respondents as a token of appreciation for participating in the study.

5.6.7. Transparency. The researcher declared that the conduct of the study is solely to contribute to the research society, and no conflict of interest has risen in the study. The researcher maintains constant and open communication with the respondents and other involved groups and individuals about the progress of the study. A published copy of the research paper will be given to the Disaster Risk Reduction Management Office, tourism office, barangay hall, and beach and dive resort on a request basis. Interested researchers and professionals could assess this paper through a journal on its publication.

5.6.8. Qualification of the researcher. The researcher has already undergone a research writing course (quantitative research methods) throughout her Master's degree. The researcher teaches a subject that includes risk management applied to safety, security, and sanitation for hospitality management students. Furthermore, the researcher attended the following seminars and training like the System Research Colloquium and Sharing Best Practices (2021); Seminar-Workshop on Statistical Analysis in research (2019); Hazards identification Risk Assessment and Control (HIRAC) Seminar Workshop (2019); and Basic Training in Personal Survival Techniques, Fire Prevention and Fire Fighting, Elementary First Aid and Personal Safety and Social Responsibility (2016). The researcher was under the guidance of a competent published researcher and peer reviewer.

5.6.9. Adequacy of facilities. The researcher clarified that no agency aside from a Beach and Dive Resort in Southern Negros Occidental could benefit from the conduct of this study, and the study

has no funding sources. The financial resources came from the fund of the researcher alone. Likewise, no facilities from either private or public institutions in return for favoring their results. In finding related studies, the researcher used the physical library and e-library services of the university, such as ProQuest, Philippine EJournal, and IG Publishing.

5.6.10. Community involvement. The study involved tourism key players in the following ways: DRRM Staff would be able to assess if the beach and dive resort was complying with the Disaster Risk Management Preparedness standards in compliance with the provisions of the Philippine Disaster Risk Reduction and Management Act. The Tourism Office would be able to determine if the beach and dive resort was fully prepared when the disaster occurred; hence, they need to secure that the beach and dive resort was safe for tourists and guests. Community leaders would be able to assess the capability of the resort in preparing for disasters, and they could be partners in mitigating disasters, especially in disaster response. Beach and Dive Resort Personnel would be able to assess the strength and weaknesses of the resort and how they could assist their tourist when a disaster happens. Lastly, tourists would be aware of the status of the beach and dive resort in terms of their preparedness for natural and man-made hazards; hence they could anticipate what the resort could offer when a disaster occurs. Moreover, these key tourism players could help design the Disaster Risk Management Action Plan suitable for the local beach and dive resort. Likewise, the output disaster risk management preparedness action plan was shared with the key local tourism players. Thus, feedbacking on the results was done to ensure that the output made by the researcher addressed the need of the local tourism key players, especially the beach and dive resorts.

6. Results and Discussion

6.1. Extent of Disaster Risk Management Preparedness in Natural Hazards

Table 2 shows the extent of disaster risk management preparedness in natural hazards of a local beach and dive resort in Southern Negros Occidental. When taken as a whole, the resort management performed a great extent of disaster risk management preparedness in Typhoon/Flood ($M=3.76$, $SD=0.85$) and Earthquakes/Landslides ($M=3.87$, $SD=0.81$). Likewise, in all stages of disaster preparedness (before, during, and after), the resort management showed a great extent of disaster risk management preparedness. However, comparing their mean score obtained, the extent of preparedness during typhoons/floods ($M=3.87$, $SD=0.89$) is higher than the extent of preparedness before and after typhoons/floods. In terms of earthquake/landslide, the extent of preparedness before ($M=3.89$, $SD=0.81$) is higher than the extent of preparedness during and after the earthquake/landslide.

The result implies that resort management can perform and follow the required standards, policies, and procedures as assessed by the tourism key players. Disaster risk management preparedness during a typhoon/flood is higher than disaster preparedness before and after. It indicated that the resort management needs to be more prepared during a typhoon/flood because they shall be more vigilant and act without panic. This could be attributed to them being non-complacent with their current preparedness. Hence, they need to level up their preparedness by developing a Disaster Risk Management Action Plan. In terms of earthquake/landslide, the result implied that resort management valued the importance of disaster preparedness before since this type of natural hazard is non-predictable. They need to be more prepared before an

earthquake/landslide strikes so that they have set the GO bag emergency kit and prepare the necessary action.

The result was supported by Williams (2019) stated that the resort's objectives are to make all employees aware of potential threats to the resort that could harm people and property or disrupt business transactions, that all workers are informed of the resort's response plan, as well as their roles and obligations in the event of a disaster or a business interruption. There is a need for a concrete plan to minimize the devastation caused by any disaster. This plan must be developed, implemented, and monitored before, during, and after the disaster (Borbon, 2020).

In addition, the result was substantiated by the findings of Mendez et al. (2016), which state that the management of the island should develop a comprehensive directory of the various key players to make sure that they know the names and contacts in case they need help.

Lastly, Genc (2018) stated that disaster management is an important strategy for many resorts since it is impossible to say when a natural disaster will happen and to what extent it will be effective.

Table 2. Extent of Disaster Risk Management Preparedness in Natural Hazards.

Variable	M	SD	Interpretation
Typhoon/Flood			
Before Typhoon/Flood	3.66	0.89	Great extent
During Typhoons/Flood	3.87	0.89	Great extent
After Typhoon/Flood	3.81	0.93	Great extent
<i>Whole</i>	3.76	0.85	Great extent
Earthquakes/Landslides			
Before Earthquakes/Landslides	3.89	0.81	Great extent
During Earthquakes/Landslides	3.87	0.83	Great extent
After Earthquakes/Landslides	3.84	0.86	Great extent
<i>Whole</i>	3.87	0.81	Great extent

Mean Scale: 1.00-1.80=Very Low, 1.81-2.60=Low, 2.61-3.40=Moderate, 3.41-4.20=Great, 4.21-5.00=Very Great

6.2. Extent of Disaster Risk Management Preparedness in Man-Made Hazards

Table 3 shows the extent of disaster risk management preparedness in man-made hazards of a local beach and dive resort in Southern Negros Occidental. The disaster risk management preparedness of the resort management in crime and terrorism (M=3.87, SD=0.81) and health threat events (M=3.78, SD=0.85) is a great extent. As to the stages of preparedness, the resort management performed the same extent of disaster preparedness as a great extent before, during, and after crime and terrorism, and health threat events. Specifically, the extent of disaster preparedness before crime and terrorism (M=3.89, SD=0.81) obtained a higher mean compared to the extent of preparedness during and after crime and terrorism. Meanwhile, the extent of disaster preparedness before health threat events (M=3.79, SD=0.88) performed high mean than the extent of disaster preparedness during and after health threat events.

In the extent of preparedness for earthquake/landslide, the result implies that resort management seeks the importance of having personnel who are assigned to move around to check the vicinity from time to time. It was attributed that the resort management giving value to its resort

image by securing that no one would be in unease stay in the resort. Likewise, resort management hopes the area is safe from crime or terrorism because they have emergency communication plan and security personnel and are aware of the warning or notification of a potential terrorist incident. Also, the resort management has its own emergency vehicle for fast transportation in emergencies like health threat events. In terms of health threat events, the result implies that resort management indicated observing and practicing the health and safety operation in the resort so as not to explode the possible risk it may have.

In support of the result of the study, safety and security are fundamental needs, especially since it has been demonstrated that tourists tend to avoid destination and accommodation structures with potentially high risks to their safety and security at the resort (Anichiti et al., 2021). In order to make sure that tourism continues to grow and generate revenue, all stakeholders should pay great attention to customers' safety and security. Brandrud et al. (2017) suggested the four elements necessary for the success of the Emergency Management System, which stated that successful response was based on multi-professional trauma education and team training. To enhance the strong and weak indicators of the resort management, it is deemed necessary for the resort management to have a quick response team in charge of checking the surroundings, planning possible shortest safety routes (Dulebenets et al., 2020), and evacuation procedures (Bonadonna et al., 2022).

Table 3. Extent of Disaster Risk Management Preparedness in Man-made Hazards.

Variable	M	SD	Interpretation
Crime and Terrorism			
Before Crime and Terrorism	3.89	0.81	Great extent
During Crime and Terrorism	3.87	0.83	Great extent
After Crime and Terrorism	3.84	0.86	Great extent
<i>Whole</i>	3.87	0.81	Great extent
Health Threat			
Before Health Threat	3.79	0.88	Great extent
During Health Threat	3.77	0.95	Great extent
After Health Threat	3.75	0.9	Great extent
<i>Whole</i>	3.78	0.85	Great extent

Mean Scale: 1.00-1.80=Very Low, 1.81-2.60=Low, 2.61-3.40=Moderate, 3.41-4.20=Great, 4.21-5.00=Very Great

6.3. Extent of Disaster Risk Management Preparedness as a Whole

Table 4 shows the overall extent of disaster risk management preparedness in Southern Negros Occidental as assessed by the local tourism key players. As a whole, the resort management performed a great extent of disaster risk management preparedness (M=3.82, SD=0.83). Meanwhile, in terms of natural hazards, the extent of disaster preparedness of the resort in earthquake/landslide is higher than the extent of disaster preparedness in typhoons/floods. Also, in terms of man-made hazards, the extent of disaster preparedness of the resort in crime and terrorism is higher than health threat events.

The result indicated that the resort management shows what they can perform to a great extent to whatever hazards may encounter. It simply means that resort management is still looking

positively for continuous improvement in disaster preparedness. In connection to continuous improvement of disaster preparedness, the resort management believed that disaster preparedness should follow thorough planning with a scientific basis. Specifically, the resort management indicated that they need to be more prepared for unpredictable hazards, such as earthquakes/landslides, so they will not be more complacent when it strikes. Like man-made hazards, the resort management seeks to have more time to value the importance of having security that checks the area all night and day to mitigate possible crime and terrorism.

As supported by the study of Hemachandra et al. (2021), a disaster management plan is supported with scientific information for assessing disaster risks for all hazards. An emergency plan ensures that employees have enough time to become acquainted with procedures and carry out all steps outlined in the plan. Constructing an emergency plan and planning ahead of time can help reduce property damage, prevent injuries, and even save lives (United States Department of Labor, 2015). Destination managers participate with crisis teams in mock exercises to gain experience and develop personal crisis skills and awareness (Orcullo, 2020).

Table 4. Extent of Disaster Risk Management Preparedness as a Whole

Hazards	M	SD	Interpretation
Natural hazards			
Typhoon	3.76	0.85	Great extent
Earthquakes/Landslides	3.87	0.81	Great extent
Man-Made Hazards			
Crime and Terrorism	3.87	0.81	Great extent
Health Threat Events	3.78	0.85	Great extent
As a whole	3.82	0.83	Great extent

Mean Scale: 1.00-1.80=Very Low, 1.81-2.60=Low, 2.61-3.40=Moderate, 3.41-4.20=Great, 4.21-5.00=Very Great

6.4. Challenges in the Disaster Risk Management Preparedness for Natural Hazard and Man-made Hazard

The respondents' challenges encountered in disaster risk management preparedness for natural hazards, man-made hazards, and other challenges.

6.4.A. Natural hazard

6.4.A.1. The need to develop a "culture on disaster risk management preparedness" in the community

Lain-lain ang kultura sang kada lugar, meaning as head of the office need gd maging firm sa kung anu ang target ta to mandate sa stakeholders sang beach and dive resort in times of hazard events, probably in every symposium and seminars na gina conduct sa ila resort relative to disaster preparedness. (Every place has its own culture, but as head of the office, I need to be firm on the target that is demanded by the stakeholders of the beach and dive resort in times of hazardous events, probably (to be) presented in every symposium and seminar conducted in the resort (s) relative to disaster preparedness). (Tourism key player 3, personal communication, May 19, 2022, lines 3-7).

Ang pag intindi sa kultura sang personnel sa beach and resort pati mga kumunidad sang Barangay. (Understanding the culture or beach and dive resort personnel even the community of Barangay). (Tourism key player 1, personal communication, May 19, 2022, lines 12-13).

6.4.A.2. The need to allocate more funds to disaster risk management preparedness

Attitude, kultura which is a substitute toward culture and limitation of funds. Talking about preparation, it doesn't mean that you really need to spend that much. Kay, in our case, we do not have enough funds nga mag mitigate. Ang pinaka importante is let that people know and to be aware sang ila lugar (beach and dive resort). (Attitude and culture, which substitute (culture) and the limited funds. Talking about preparation, it does not mean that you really need to spend that much. In case we do not have enough funds (s) to mitigate, the most important there is to let the people know for them to be aware of their area/place). (Tourism key player 3, personal communication, May 19, 2022, lines 17-20).

6.4.A.3. Political hazard (lack of succession plan when there is a change)

One of the greatest challenges is the political hazard. We may face calamities, pero ang pinakasakit is ang political hazard. Kung ndi ka ya mauyunan sang bag o nga mapungko pwede ka guid ya mapahalin which is indi mo mapadayun ang imo plano sa office. (One of the greatest challenges is the political hazard. We may face calamities but the most painful there is the political hazard. If you are not on the side of the current elected officials, you may be ousted from your position, and that means you will no longer have the chance to continue your plans for the office). (Tourism key player 3, personal communication, May 19, 2022, lines 48-52).

6.4.A.4. The need to improve road accessibility to manage natural hazards

Mabudlay ang mga public nga road sa place nga ini (beach and dive resort) bangud nga ara kita sa bukid kag coastal nga area. Ti kung sa tion sang natural hazard, kag may tendency ang road isa lang ang access wala na other route possible for emergency. Public roads in this place (beach and dive resort) are strenuous because we are in the mountainous and coastal areas. So, during natural hazards, there is a tendency that the roads are the only access (in and out of the area), and there may be no other possible routes for an emergency. (Tourism key player 2, personal communication, May 19, 2022, lines 7-9).

6.4.B. Man-made hazard

6.4.B.1. Individuals have personal religious beliefs on the effectiveness of the vaccine and the authenticity of the COVID 19 virus

May ara man ganie sa atun kis-a personal/religious belief nga ndi magpa vaccine kay butangan ka kuno sa virus. Subong amu na, hindi pa namun ma lambot lambot ang 70% nga vaccinated sa amun brgy. kag sa resort mismo Amu na ila nga pagpati mong, kay ti ila nga base sila sa resulta nga wala sang examine, may ara man na vaccinan gakatay, may ara man reason nga gin

anu sang vaccine ang ikamatay ya kuno. (Sometimes, there are personal/religious belief on vaccination, they refuse because they say, you are to be injected with virus. That is why we still can't reach the 70% vaccination rate of residents in our barangay and in the resort particularly. That is their belief and they base that from what they hear around, which do not have bases; especially those deaths related to vaccination). (Tourism key player 1, personal communication, May 19, 2022, lines 33-37)

6.4.C. Other Challenges

6.4.C.1. Lack of communication/coordination of the stakeholders involved

Ang pinaka budlay ang coordination. So sa coordination masulod man da sa communication. coordination and communication man. Coordination with the authorities in the resorts. Importante ang communication that time kay dugay2x lang daan naga change ang update. May ma alert level 1 tapos lain naman, ang mga protocol, kag rules. Communication dibah importante sa atun ang communication Ilabi nadi sa amun, ka budlay2x gd nadi ang communication, accessibility – ang access natun, electricity nadula, tubig (didtu lang na realiza nga ang mga tawo naga inum na sang tubig nga purified water, nagkala urot ang tubig, tapos didtu nagbalik naman kami sa bobon, then naglain amun tiyan. (Difficult for us is coordination. In coordination, communication is part of coordination. Coordination with the authorities in the resorts. Communication is important that time because there is a sudden change in the update of information. There are cases to be at an alert level 1 suddenly will change to another alert level and in terms of rules and protocols. Communication is important, right? Especially here in our area, it is so hard for us to have communication, have access – access in electricity, water). (Tourism key player 2, personal communication, May 19, 2022, lines 32-34).

After kami na inform sang DRRM natun nag conduct kmi dayun information sa kumunidad dala na ang resort nga ma aware sila. Ang problema kay ti wala nila ma eksperyensyahan ang amu tu ka baskug nga bagyo ti daw sa ka wala lang. after sang bagyo didtu na naguwa ang issue - problema nga bisan sa part namun indi kmi mabasol kay nainform namun sila. Bisan kami ganie wala mn nag ekspektar nga amu tu kabudlay gd. Amu na ang pinaka budlay para sa amun nga part ang magpa pati sa kumunidad ang importansya sang komunikasyon kag coordination. (After we were informed by the DRRM, we immediately conducted information dissemination in the community including the resort so everybody will be aware. But the problem was, they did not personally experience that strong typhoon yet, so it was not really a worry for them; after a strong typhoon, then came out issues and problems. We did our part of informing them, so they could not blame us. Even on our part, we did not expect that it would be that difficult. That is the most challenging for us, to encourage the community to believe in the importance of communication and

coordination). (Tourism key player 1, personal communication, May 19, 2022, lines 7-13).

The aforementioned challenges by tourism key players combating their preparedness before, during, and after phases of natural hazards wherein culture can drive the extent of challenge through disseminating information to the community. People think what they have practiced is better than what will come. This practice links with a lack of communication/coordination since tourism key players find what is best for the community; however, it is hard for them to impose the necessary action due to their culture. This indicated that lack of communication/coordination in the phases of preparedness before, during, and after crime and terrorism and health threat events may bear the extent of actions that tourism key players shall adhere to. Effective disaster risk communication is widely known to motivate individuals to take protective measures.

In support of the result, the study of Appleby-Arnold et al. (2018) revealed that community cohesion is altered from a personal to a cultural value, which has the potential to encourage the transformation of preparedness intentions into actual preparedness behavior. Furthermore, the findings highlight the ambivalent aspects of trusting behavior as a cultural norm, on the other hand and distrust in authorities based on experience and unmet expectations on the other hand. Individual preparedness levels can be increased if local officials regularly communicate disaster risk reduction knowledge to communities. That effect is stronger for individuals with a higher level of self-efficacy (Yu et al., 2020). Saito and Ruhanen (2017) mentioned that stakeholders often face common challenges, such as the complexity of the disaster-management process, ineffective communication, and imbalance of power and resource.

Overall, the great extent of disaster risk management preparedness of a local beach and dive resort, as assessed by the tourism key players, conforms to the theory of planned behavior and the theory of emergency management. Thus, it attributed that beach and dive resort preparedness enables one to manage how possible hazards will transpire. More so, the disaster risk management preparedness action plan may mitigate the impact of the potential hazard. The overall result analyzed that although the resort constituted to a great extent of disaster risk management preparedness yet it can still be improved by alleviating the weak points of the resorts in the suggested disaster risk reduction management action plan.

7. Conclusion

With the great extent result, it can be deduced that a local beach and dive resort performed necessary actions in accordance with the Philippine Disaster Risk Reduction and Management Act of 2010. It implied that the resort was able to mitigate the hazard which would provide safety of the personnel and tourists. It was suggested to the resort management to consider many factors in disaster risk management preparedness and the challenges they might encounter in preparing for hazards as reflected in the disaster risk reduction management action plan. Moreover, the challenges that the tourism key players encountered in disaster risk management preparedness for natural and man-made hazards were critical to the disaster risk management preparedness of a local beach and dive resort as these precluded them to have a very great extent of disaster risk management preparedness.

8. Limitations of the Findings

The researcher recognized a limitation in terms of the general findings of the study that a limited number of respondents were obtained during the actual conduct of the study in a local beach and dive resort. Hence, the limited number of respondents were subjected to the inclusion criteria that specified that tourists who were not minors were to voluntarily participate in the survey. Furthermore, the actual conduct of this study was done during a pandemic. Thus, the result may differ from a larger number in the way they perceived the disaster risk management preparedness of a local beach and dive resort.

9. Practical Application

This paper has value in the locale of the study and the community. The findings of this study were used in the development of the disaster risk management preparedness action plan for a local beach and dive resort of Negros Occidental in the areas of natural hazards (typhoon/flood and landslide/earthquake) and man-made hazards (crime and terrorism and health threat events). Likewise, the findings of this study significantly contribute to the existing literature on the extent of preparedness of local beach and dive resorts in the different stages and types of hazards.

10. Direction for Future Research

The findings may provide future researchers an avenue for a continuous search of the resorts in Negros Occidental with no disaster risk management preparedness action plan and assess the resort management resiliency on the hazards they experienced. Another study to be replicated requires a greater number of respondents and to be conducted in the different cities and municipalities of Negros Occidental to broaden its scope, as this was the limitation of this study. Furthermore, future researchers may focus their study on the resort personnel training needs in case of hazards.

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