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HOTEL TSUNAMI PREPAREDNESS IN THE COASTAL TOURISM DESTINATION

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ABSTRACT

This study aims to identify the condition of hotel industry post-tsunami and its preparedness in Anyer, Carita, and Tanjung Lesung area. This research was conducted for six months from April to September 2020. The method employed was a qualitative. The primary data of this study were acquired through observation, in-depth interviews, and questionnaires. The secondary data were collected through previous studies and the regional government policies. The data were analyzed in a qualitative analysis. This study showed that the hotels have not been applying tsunami-ready hotel before the disaster occurred. The absence of tsunami standard operational procedure is one of the biggest causes to the big number of casualties

Keywords: Coastal Tourism Destination, Hotel Tsunami Preparedness, Tsunami Ready Hotel

INTRODUCTION

Tourism activities must pay attention to the aspects of planning and disaster management (Brown et al., 2019). Disaster risk reduction needs to be integrated into tourism industry operating standards, integrating the tourism industry into the pre-disaster management cycle does not require major changes in the tourism industry's business strategies and procedures (Bernard et al., 2006; Brown et al., 2017). Disaster risk reduction in the tourism industry is one of the business goals that must be achieved, it also raises concerns about the sustainability of tourist destinations and the safety of tourists (AlBattat & Mat Som, 2013; Brown et al., 2017). The development of a tourism destination should not only focus on managing the area but also managing it in a disaster emergency (Rindrasih, 2015).

The impacts caused by the tsunami can be long-term and threaten human life and the tourism industry, including infrastructure, transportation, accommodation, and other elements of tourism. Thus, in planning and developing a tourist destination, tsunami preparedness is needed to minimize the impact of losses affecting the tourism industry, either directly or indirectly. Preparedness is the knowledge and capacity developed by governments, disaster professionals, communities, and individuals to effectively anticipate, respond to, and overcome disaster events (UNISDR, 2009). Preparedness includes the ability to understand and interpret tsunami early warnings, to organize evacuation measures and other actions to be taken to minimize the possibility of a loss of life and damage that may occur during a tsunami disaster, and to carry out timely and effective rescue procedures. Preparedness will improve response to the impact of the tsunami disaster, therefore, it requires standard operating procedures and routine checks of evacuation systems and plans (Kodijat, 2012).

Building tsunami preparedness must be incorporated into existing procedures, especially in tsunami-prone tourism areas. A tsunami alert hotel is a hotel that has established procedures, operating systems, and steps that must be taken in the face of a tsunami, starting from emergency response, evacuation during a disaster, and post-disaster recovery plans. All stakeholders (hotel management and staff) know how to prepare for, respond to, and recover from a tsunami disaster (Kodijat, 2012). Hotel becomes aware of the existing tsunami hazard conditions in its area, it can start building their capacity to increase preparedness. In reducing the risk of a tsunami disaster, preparedness can be done in structural and non-structural forms.

During the last decade, several natural disasters have affected tourism destinations in Indonesia, including an earthquake that hit the tourism area on Senggigi Beach, Lombok (Maryanti et al., 2019; Wahyuningtyas et al., 2020), an earthquake followed by a tsunami in Palu (Daswati et al., 2019), and Tsunami in the Sunda Strait that had an impact on tourist visits to the Tanjung Lesung tourism destination in the last two years (Wulung et al., 2019). These natural disasters are indicated by the location of Indonesia which is on the ring of fire, making it an area prone to tsunamis, earthquakes, and floods. Creating a link between tourism and disaster risk reduction is very important in a destination that is highly dependent on tourism activities (Becken & Hughey, 2013), especially safety for tourists who stay overnight in tourism destinations (AlBattat & Mat Som, 2013; Enz, 2009). Industry hotels cannot thrive in disaster-prone destinations (Reisinger & Mavondo, 2005). The tourism destination along the coast of the Sunda Strait, especially in the tourist areas of Anyer, Carita, and Tanjung Lesung, are very vulnerable to natural disasters (Wulung & Abdullah, 2021). This was proven by the Sunda Strait Tsunami disaster at the end of 2018.

The occurrence of the Sunda Strait Tsunami was triggered by high tidal waves and underwater landslides from the eruption of Mount Anak Krakatau. The disaster caused economic losses and caused domino effects such as the cancellation of tourist visits staying at the Sunda Strait coastal tourism destinations. To prevent disasters from occurring in supporting tourism activities, various ideas were embodied by stakeholders in the coastal tourism area of the Sunda Strait through an

understanding of disaster management in the hotel business. The success and failure of the business depend on the ability to provide a sense of security to the staying tourists (AlBattat & Mat Som, 2013; Brown et al., 2017; Ritchie & Crouch, 2004).

Several hotels in the Anyer, Carita, and Tanjung Lesung tourism areas are trying to reduce the risk of tsunamis through post-Sunda Strait tsunami mitigation and preparedness programs aim to make tsunami ready hotels so that they are expected to reduce casualties and other worst impacts in the event of future tsunami. Preparing will be much more effective than relying solely on the post-disaster recovery process in tourist destinations (Faulkner, 2001; Faulkner & Vikulov, 2001). A few researchers focused on the hotel business aspect in dealing with natural disasters. There is limited research related to hotel preparedness for natural disasters, especially in tsunami-prone areas. Therefore, this study aims to identify the condition of hotel industry post-Tsunami and its preparedness in Anyer, Carita, and Tanjung Lesung area.

METHODOLOGY

The approach used in this research is a qualitative research that focuses on the coastal tourism destinations of the Sunda Strait, especially in the tourism areas of Anyer, Carita, and Tanjung Lesung. The phenomenon discussed is the preparedness of the hotel business to reduce tsunami risk in the tourism areas of Anyer, Carita, and Tanjung Lesung. This research was conducted for 6 months from April to September 2020. The subjects of this study included hotel businesses in the tourism areas of Anyer, Carita, and Tanjung Lesung. The unit of analysis in this study focuses on non-structural preparedness which includes eight main indicators, namely tsunami evacuation maps, tsunami signage, tsunami evacuation routes, installing tsunami sirens, tsunami assembly points, tsunami education programs, collaboration with stakeholders, tsunami protection policies (Kodijat, 2012).

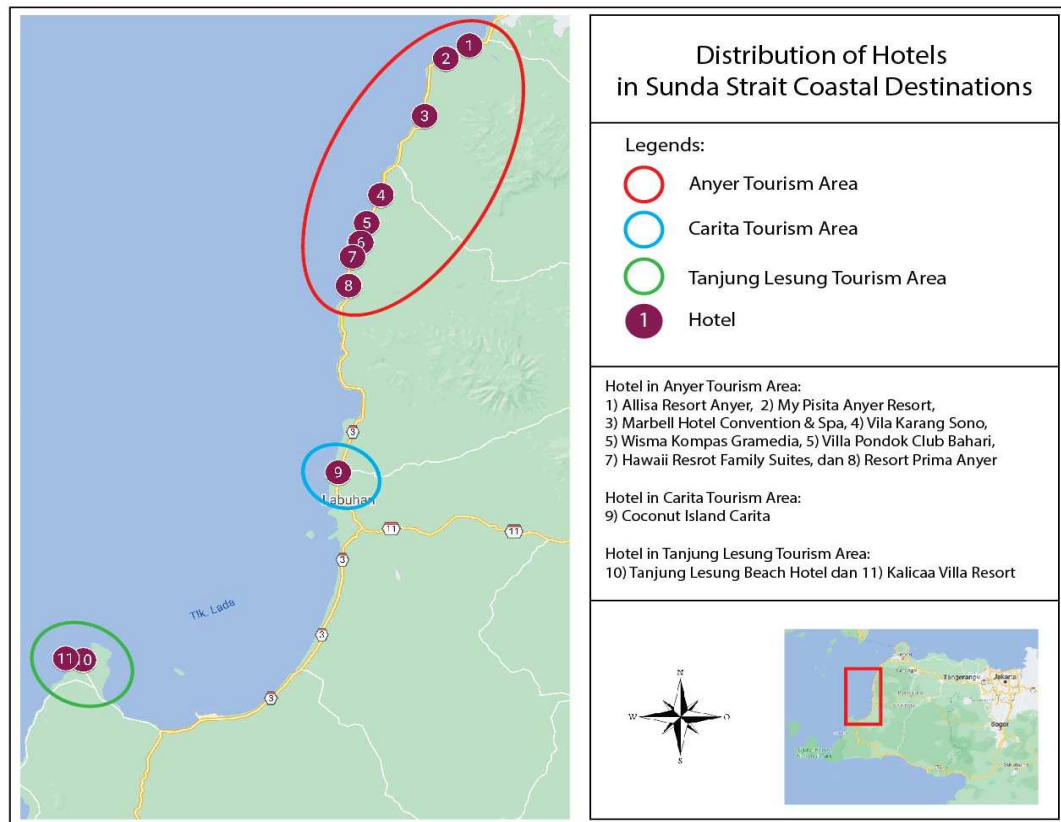


Fig. 1 Distribution of Hotels in the Research Area

This study uses primary and secondary data. Primary data collection was carried out through observation and interviews with eleven hotels in the Anyer, Carita and Tanjung Lesung tourism areas, including Allisa Resort Anyer, My Pisita Anyer Resort, Marbella Hotel Convention & Spa, Karang Sono Villa, Wisma Kompas Gramedia, Villa Pondok Club Bahari, Hawaii Resort Family Suites, Resort Prima Anyer, Coconut Island Carita, Tanjung Lesung Beach hotel, Kalicaa Villa Resort. Secondary data collection was carried out through desk studies on policy documents, libraries, and previous research related to hotel business preparedness and disaster risk reduction. This study uses qualitative data analysis methods to analyze tsunami risk reduction efforts undertaken by hotel businesses. Data analysis was carried out through the stages of data analysis before going to the field, data reduction, data presentation, and concluding.

RESULTS AND DISCUSSION

The Anyer, Carita, and Tanjung Lesung areas are located on the coast of the Sunda Strait which is the west coast of Java Island. Administratively, the Anyer is located in Serang Regency, while the Carita and Tanjung Lesung are located in Pandeglang Regency. The topography of the Sunda Strait coastal area is lowland ranging from 0-50 masl, while the morphology of the Sunda Strait is a lowland

morphology type. The average rainfall in the study area ranges from 261.83 mm with temperatures reaching 220C - 320C. In regional geology, the research area which is part of the Pandeglang Regency is included in the Bogor Zone. Types of rock in this area include alluvium, volcanic rock (volcanic eruption material), coral limestone, and mineral deposits (limestone/coral).

Post-Sunda Strait Tsunami Hotel Industry

The tourism areas of Anyer, Carita, and Tanjung Lesung have a relatively high potential for disaster among other tourism areas in Banten Province (Fauzi et al., 2020; Oktarini & Atmadi, 2020). The location is close to Mount Anak Krakatau which is crossed by the Ring of Fire, making the research area a Tsunami-prone area. It was recorded that in the last two centuries there were two tsunami events in the Sunda Strait area, namely in 1883 in 2018. Both eruptions resulted in tsunami waves that had an impact on society and the economy, especially in the tourism areas of Anyer, Carita, and Tanjung Lesung. Disaster conditions in the tourism areas of Anyer, Carita, and Tanjung Lesung are no longer the responsibility of the hotel industry, the governments of Pandeglang and Serang districts, and PT. Banten West Java TDC is the manager of the Tanjung Lesung tourism area, but it is also a joint responsibility involving other stakeholders including associations and local communities.

The level of tourist visits to Banten Province tends to be dominated by Serang and Pandeglang Regencies (Shandra Rama Panji Wulung & Abdullah, 2020). The existence of the Anyer tourism area located in the Serang Regency is one of the factors in the high tourist visits to Serang Regency, as well as the Carita and Tanjung Lesung tourism areas in Pandeglang Regency. The level of tourist visits to Banten Province in 2018 increased by 13.66 percent from 2017 which reached 15.3 million tourists, but the decline occurred in the post-Sunda Strait Tsunami at the end of 2018. The decline in tourist visits occurred during the Eid period in June 2019 amounting to -63.95 percent of the Eid period in 2018. The negative impact of the Sunda Strait Tsunami on the business of providing accommodation, namely on the coast of the Pandeglang Regency, including the Carita and Tanjung Lesung tourism areas. The Sunda Strait Tsunami has caused trouble for 69 businesses to provide accommodation in Pandeglang Regency.

The number of tourists staying in the Pandeglang Regency is not much different between star hotels and non-star hotels in 2017. In 2018 tourists tend to choose non-star hotels over star hotels. In Serang Regency, both in 2017 and 2018, tourists tend to choose star hotels over non-star hotels. In general, room occupancy rates in Pandeglang and Serang districts increased in 2018. Meanwhile, when the tsunami occurred, 10 percent of tourist visits were canceled and caused a decrease in room occupancy rates reaching 80-90 percent. The room occupancy rate after the Tsunami tended to decline until March 2019, reaching 42.42 percent. The average stay of tourists, which until March 2019 reached 1.24 days, is different from the previous year reached 1.48 days. Before the Tsunami, in December 2017 the room occupancy rate reached 56.65 percent, a decrease of around -9.89 percent from November 2018 reached 53.69 percent.

Table. 1

Room Occupancy Rates and Average Length of Stay of Travelers in Banten Province pre, during, and post-tsunami in 2017-2019 (in days)

	Pre-Tsunami				During Tsunami					Post-Tsunami			
	Oct		Nov		Dec			Jan		Feb		Mar	
	2017	2018	2017	2018	2017	2018	2019	2018	2019	2018	2019	2018	2019
Room occupancy rate (%)	47,81	50,24	21,33	53,79	57,65	51,95	51,96	51,49	49,92	58,68	53,31	62,40	42,42
Growth rate (%)		5,08		30,15		-9,89	0,02	12,77	-3,05	4,54	-9,15	8,28	-32,02
Average length of stay for tourists (hari)	1,42	1,25	1,43	1,37	1,33	1,37	1,34	1,53	1,29	1,52	1,40	1,48	1,24
Growth rate (%)		-11,97		-4,20		3,01	-2,19	0,66	-15,69	-6,75	-7,89	-1,99	-16,22

Source: Banten Tourism Office and BPS Banten

Post-tsunami occupancy rates and hotel management

Room occupancy conditions in the study area experienced a decline during and after the tsunami. The average room occupancy rate during the tsunami ranged from 0-60 percent in the Anyer tourism area, while in the Carita and Tanjung Lesung tourism areas the lowest room occupancy rates reached 0-10 percent. In contrast to the room occupancy rate in the same month in 2017 reached 90 percent. Cancellations of hotel bookings on the day of the tsunami reached 60-100 percent in the three coastal tourism areas of the Sunda Strait. The negative impact on room occupancy rates continued until March 2019 (after the tsunami) with an average occupancy rate of 30 percent. Overall, the Sunda Strait Tsunami hurt room occupancy rates on the coast of the Sunda Strait with the Tanjung Lesung tourism area having the worst negative impact, namely the absence of room occupancy during the Sunda Strait Tsunami on 26 December 2020 and an average of 10-30 percent level shelter after the tsunami (January - March 2019).

Table. 2

Percentage of Hotel Occupancy Conditions Pre, During, Post-Sunda Strait Tsunami, and Cancellation of Tourist Reservations

Tourism Area	Hotel	Pre	During	Post	Canellation
Anyer	Allisa Resort Anyer	60%	60%	40%	90%
	My Pisita Anyer Resort	80%	60%	30%	85%
	Marbella Hotel Convention & Spa	60%-80%	10%	40%	80%

	Vila Karang Sono	90%	0%	10%	100%
	Wisma Kompas Gramedia	50%-60%	10%	12%-30%	60%
	Villa Pondok Club Bahari	80%	0%	10%	100%
	Hawaii Resort Family Suites	80%-90%	60%	80%-100%	100%
	Resort Prima Anyer	40%-50%	5-10%	1-3%	100%
Carita	Coconut Island Carita	80%	10%	50%	100%
Tanjung Lesung	Tanjung Lesung Beach Hotel	70%-90%	0%	10-30%	100%
	Kalicaa Villa Resort	80%-90%	0%	10-30%	100%

The Sunda Strait Tsunami on the hotel industry also had an impact on physical damage and hotel operations. Of the eleven hotels that were used as research, on average, they experienced physical losses, starting from hotel facilities and infrastructure. There are two hotels in the tourism area of Anyer that did not get damaged by the tsunami, because of their location far from the center of the tsunami, these hotels are Allisa Resort Anyer and My Pisita Anyer Resort. One of the hotels that suffered the worst damage was the Hawaii Resort Family Suite. Its location close to the coast makes this hotel business 100% damaged, resulting in the hotel business being unable to operate and temporarily closed.

The Sunda Strait tsunami had an impact on hotel business operations, the Hawaii Resort Family Suites suffered the worst damage so it had to establish a policy to lay off its employees. While other hotels have several policies ranging from division of work time to reduce the number of employees, this is because the hotel is experiencing a financial crisis. After all, there are no tourist visits to stay overnight. Furthermore, an explanation regarding the physical condition and management of hotels in Anyer, Carita, and Tanjung Lesung can be seen in the following table.

Table. 3
 Percentage of Hotel Occupancy Conditions Pre, During, Post-Sunda Strait
 Tsunami, and Cancellation of Tourist Reservations

Tourism Area	Hotel	Infrastructure	Management
Anyer	Allisa Resort Anyer	The condition is quite good, there is no damage because the hotel business is located quite far from the tsunami center	The division of working time is divided into 15 days working in turns
	My Pisita Anyer Resort	The condition is quite good, there is no damage because the hotel business is located quite far from the tsunami center	Management conditions are stable
	Marbella Hotel Convention & Spa	It doesn't really have an impact on the hotel because it has a safe infrastructure	Management conditions are stable and employees continue to work
	Vila Karang Sono	The condition of the hotel is damaged	Management experienced a financial crisis and some employees were laid off

Tourism Area	Hotel	Infrastructure	Management
	Wisma Kompas Gramedia	The coast in the hotel area is damaged	For three months the employee was laid off
	Villa Pondok Club Bahari	The hotel foundations and gazebo facilities were badly damaged	<ul style="list-style-type: none"> • Stable management conditions • Activities to clean the hotel area
	Hawaii Resort Family Suites	100 percent of the hotel condition is damaged so it cannot function / be used again	All employees laid off
	Resort Anyer Prima	Minor damage to the room door and restaurant area	<ul style="list-style-type: none"> • Financial crisis due to hotel operations continuing to run, while revenue did not exist at the end of 2018 and 2019 • Reducing the number of employees by 30 percent
Carita	Coconut Island Carita	20 percent of the infrastructure is damaged, including waterpark fences, embankments due to their position close to the beach	Reduction of employees across all departments by 60 percent
Tanjung Lesung	Tanjung Lesung Beach hotel	Swimming pool, embankment and restaurant facilities are damaged	Management is stable, but some employees have been temporarily laid off
	Kalicaa Resort Villa	The gazebo and beach support facilities are damaged	Management is stable

Non-Structural Tsunami Preparedness in Hotels

The tsunami ready hotel that will be studied in this study focus on non-structural aspects. Based on the results of field observations, online interviews, and online questionnaires, the following are hotel efforts in non-structural aspects in realizing tsunami alert hotels in the tourism areas of Anyer, Carita, and Tanjung Lesung.

Table. 3

Non-Structural Aspects as Tsunami Preparedness Efforts in Hotel

No	Variabel Penelitian	Allisa Resort Hotel Anyer	My Pisita Anyer Resort	Hotel Marbella Anyer	Villa Karang Sono	Wisma Kompas	Villa Pondokk Club Bahari	Resort Prima Anyer	Coconut Island Carita	Hawaii Resort Anyer	Tanjung Lesung Beach Hotel	Kalicaa Villa Resort
1.	Tsunami evacuation maps are installed in every hotel room	V	-	V	-	-	-	-	V	V	V	V
2.	Tsunami Signage in the hotel area	V	-	V	-	-	-	-	V	V	V	V

3.	Stairs and emergency exit in every hotel building unit	V	-	V	-	-	-	-	-	V	-	-
4.	Tsunami disaster siren mechanism	V	-	-	-	-	-	-	V	V	V	V
5.	Tsunami assembly point	V	V	V	V	V	V	V	V	V	V	V
6.	The hotel has an educational program related to the Tsunami disaster and involves all hotel staff management	V	-	V	-	V	-	-	V	V	V	V
7.	Have an MOU with the disaster management agency	-	-	-	-	-	-	-	V	-	V	V
8.	Protection policies (compensation, insurance, etc.) for hotel staff and company assets	-	-	V	-	V	-	V	V	-	V	V

Hotels in the Sunda Strait coastal tourism destinations have not fully practiced tsunami ready hotels before the tsunami, there are only four hotels that almost fulfill the non-structural preparedness aspect, namely Hotel Marbella Anyer, Coconut Island Carita, Tanjung Lesung Beach Hotel, and Kalicaa Villa Resort. This is an important lesson for hotels on the coast to pay attention to non-structural preparedness for the comfort and safety of tourists and hotel employees. Hotels fail to implement tsunami preparedness due to lack of training and socialization of disaster risk reduction, this triggers a lack of knowledge and capacity of human resources for disasters. Hotel human resources are an important element in the non-structural aspects of tsunami preparedness, in addition to reducing disaster risk, they also provide comfort and security for staying tourists (AlBattat & MatSom, 2014; Kodijat, 2012).

CONCLUSION

The Sunda Strait Tsunami at the end of 2018 triggered hotels in coastal destinations to develop and implement the non-structural tsunami ready hotel concept. The absence of a tsunami standard operational procedure is one of the biggest causes of the big number of casualties. Tsunami preparedness efforts aim to provide safety and security for tourists and hotel employees, which in turn can provide hotel business continuity in the coastal tourism destinations of the Sunda Strait

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