Implementation of Faulkner’s Tourism Disaster Risk Management Framework in Pentingsari Tourism Village, Sleman, Yogyakarta

Anggita Swestiana

Tourism Studies Program, Faculty of Cultural Sciences, Universitas Gadjah Mada

Email: anggitaswestiana@gmail.com

Abstract

Tourism is one of the leading sectors in world global economic development which is highly affected by external phenomenon such as natural disaster. It becomes a major obstacle for tourism industries to reduce the damage given by the natural disaster happened in tourism destination, particularly in the Asia-Pacific areas. This area is known for most disaster prone in the world. One of the examples is in Indonesia which has an enormous number of volcanic mountains as a tourism destination. One of the tourism destinations which is endangered from volcanic mountain eruption is Pentingsari Tourism village in Special Region of Yogyakarta. It is located in Merapi Volcano disaster prone area II. This destination is affected by the secondary impact of Merapi volcano eruption and it influences the tourism activities. Moreover, it needs a certain approach to reduce the impact of eruption for the tourism sector.

This study analyzes the implementation of risk disaster management in Pentingsari Tourism village applying theoretical basis from Faulkner’s risk disaster management framework (2001). The research uses qualitative methodology by interviewing the tourism stakeholder in Pentingsari Tourism Village and disaster management of Sleman region. This research results a comprehensive analysis of how far Pentingsari Tourism Village implementing Faulkner’s tourism disaster risk management framework.

Keywords: Pentingsari tourism village, tourism risk disaster management framework, disaster management, Bill Faulkner, Merapi Volcano.

1. Introduction

Tourism is one of the most important sector for economic development in the world. According to World Travel and Tourism Council (WTTC), the total contribution of travel and tourism to world’s gross domestic product (GDP) was USD 7,613.3bn (10.2% of GDP) in 2016, and is forecast to rise by 3.6% in 2017, and it will rise by 3.9% pa to USD 11,512.9bn (11.4% of GDP) in 2027 (WTTC, 2017). Even tourism hold such important rule in economic development, it is also the most vulnerable sector to crises and disaster. (Pforr in Ritchie, 2009). This vulnerability happens since tourism industry depends and impacted by external factors such as environmental condition (Ritchie, 2009). If the crises or disasters occur to certain destinations, not only the tourists and community will be affected by the impact but also other sectors as well. (Mansfeld and Pizam in Ritchie, 2009). The tourism destinations which affected by disaster are usually located in Asia-Pacific nations. One of the examples is Indonesia, a nation located in Southeast Asia and has an enormous number of volcanic mountains as a tourism destination.

Merapi volcano is one of the most active volcanic mountains in Indonesia. Located in Special Region of Yogyakarta, it is famous as a tourist destination. It is also well-known as
Indonesia’s “Ring of Fire” with two until seven times of eruptions (Yuwono, JSE, 2012). In 2010, precisely on October 26th and November 5th, Yogyakarta experienced a huge disaster caused by Merapi eruption. This eruption noted as the biggest eruption in 138 years. According to National Development Planning Agency (BAPPENAS) in 2011, Merapi eruption caused severe damage in the Disaster Hazard Zone. Moreover, the economic deprivation in Yogyakarta reached 3.557 trillion rupiahs including the tourism sector.  

However, this experience gave no wariness towards the tourism destinations in the disaster hazard zone. In 2014, even the Merapi status increased from level I (normal) to level II (cautious), the tourism destinations in the disaster-prone zone were still open for visitors.  

One of the famous tourist destinations in disaster-prone area of Merapi Volcano is Pentingsari Tourism Village. According to disaster hazard zone map established by Geological Agency of the Ministry of Energy and Mineral Resources, Pentingsari Tourism Village is in Disaster hazard zone II which is potentially affected by the eruption of Merapi. It is affected by the secondary damage which are cold lava, poisonous gas, and falling rocks. Therefore, it needs serious attention because many people’s lives are at stake when disaster occurs.  

The effects of such disaster to tourism is important since it is also related to the existence of its destination, the safety for both managerial sector and tourists, the reputation of its destination and the economic sustainability. There are several efforts that were already done in the Special Region of Yogyakarta Planning Mitigation policy (2013-2017) and local communities to reduce the damage from Merapi eruption. Yet, the focuses given by both government and local community are in infrastructure and managerial safety. The procedure is lack giving disaster management in the tourism sector.  

It is important to understand that tourism sector needs a certain approach for coping with disaster since it includes tourists’ safety and business planning. According to Faulkner (2001) tourists have less knowledge about the place and unpredictable events that they are more vulnerable than the local community. Besides, strategies and protections for tourism business are also required. Usually, natural disasters could potentially cause direct impacts for tourism sector which can affect a considerable area. The problems can be safety issues for tourists, tourism infrastructures and facilities. (Zhang in Mistillis, 2006; WTO, 2005) and the sustainability of tourism destination.  

To cope with disaster, Faulkner (2001) divided the disaster management in several phases which are: 1) pre-event phase 2) prodromal phase 3) Emergency phase 4) Intermediate Phase 5) Recovery phase and 6) Resolution phase. Faulkner gives responses in each phase to cope with disaster occurrence. This research will focus in the Pre-event phase of Faulkner’s Tourism disaster management framework which known as tourism disaster risk management.  

The pre-event phase (disaster risk management) aims to reduce the impacts of disaster for certain tourism destination. This research focuses on assessing whether Pentingsari Tourism village already implements Faulkner’s tourism disaster risk management. This research aims to ensure that tourism destination in disaster hazard zone already implements risk management planning by Faulkner’s theory. Overall, the research questions pursued by this research are:  

1. Has Pentingsari Village implemented the Faulkner’s tourism disaster risk management theory?  
2. What are the obstacles faced by Pentingsari Tourism village if they implement the Faulkner’s tourism disaster risk management theory?

2. Theoretical framework  
Disaster Management can generally be used in many aspects such as in cultivation area or habitation. Disaster Management includes the sum of all activities, programs, and measures which can be taken up before, during and after a disaster with the purpose to avoid a disaster, reduce its impact or recover from its losses. There are three key stages of activities in disaster risk management
Tourism has also adopted the disaster risk management both in its academic and practical aspects (Faulkner, 2001; Zhang in Mistillis, 2006) with more complex and comprehensive issues such as tourist safety, reputation and business sustainability. It comprises broader aspects focusing not only on the effort to reduce disaster impacts in tourism but also for tourist’s safety and sustainability of tourism business.

Research about tourism disaster management conducted by Faulkner has a purpose of making certain framework, which gives a different perspective from former researchers. He reviews prior tourism disaster management which only focused in managing the sudden change but did not understand the entire aspect of the disaster itself. He established a comprehensive step-by-step method providing a model for developing specific tourism disaster management strategies. In his step-by-step method, Faulkner prioritizing tourist as the vulnerable object in disaster at tourism destination. He also considers education aspect for both tourism operator and tourist which is important for each step of tourism disaster management.

This study focuses on Faulkner’s Risk Disaster Management in the Pre-event phase that of disaster management is chosen regarding its prevention aspects prior to disaster. In this research, the main object is the tourism activities in Pentingsari Village. This village was chosen because this village has an enormous number of tourist arrival and it is in Merapi Volcano’s Disaster hazard zone. In 2010, when Merapi Volcano erupted, Pentingsari had several tourists visiting and it becomes one of experiences that makes them realize the need to know about disaster management for their tourism activities. The table below show the pre-event framework of disaster mitigation used by this research.

In the pre-event phase, risk assessment appears as a stake point in developing the strategic steps overcoming disaster impacts. Risk assessment step consists of three main elements which are:
1. Risk Assessment (Assessment of potential disaster, developing scenario of disaster genesis and potential impact)
2. Establishing Mitigation management which includes: Appoint disaster management team; Identify relevant public/private sector, establish coordination framework

<table>
<thead>
<tr>
<th>Place in disaster process</th>
<th>Elements of the disaster management responses</th>
<th>Principal ingredients of the disaster management strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-event</td>
<td>Precursors</td>
<td>a. Assessment of potential disasters and their probability of occurrence</td>
</tr>
<tr>
<td></td>
<td>a. Appoint a disaster management team (DMT) leader and establish DMT</td>
<td>b. Development of scenario on the genesis and impacts of potential disasters</td>
</tr>
<tr>
<td></td>
<td>b. Identify relevant public/private sector agencies/organisations</td>
<td>c. Develop disaster contingency plans</td>
</tr>
<tr>
<td></td>
<td>c. Establish coordination/consultative framework and communicate systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Develop, document and communicate disaster management strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Education of industry stakeholders, employees, customers and community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f. Agreement on, and commitment to, activation protocols</td>
<td></td>
</tr>
</tbody>
</table>

Source: adapted from Faulkner (2001)
3. Developing disaster contingency plan.

Assessing Faulkner’s disaster management framework in the research locus therefore will employ those three elements. Existing steps and efforts of the tourism village management will be assessed whether they implemented the pre-event disaster management mitigation strategies or not. The assessment includes assessing the potential disaster and strategies developed, efforts in mitigating disaster such as establishing disaster management team with comprehensive coordination and communication system, and the management’s efforts in developing disaster contingency plan.

The reason behind using this framework for Pentingsari Tourism Village is that Faulkner’s theory has comprehensive framework including the aspect of tourist and education as his consideration for creating his framework. Besides, his research became one of the references used by studies about tourism disaster management such as Ritchie (2009) and Mistilis (2006). This indicates that Faulkner’s theory qualified as a reference in this research.

3. Research methodology

This research uses the deductive method from Faulkner’s theory with qualitative approach. Qualitative research is commonly used in tourism-related research particularly in collecting data regarding community tourism activities and events as well as understanding problems and processes of tourism in community’s social aspects (Phillimore and Goodson, 2004). Moreover, qualitative analysis concerns in collecting rich details of information to understand a specific phenomenon (Cresswell & Poth, 2017).

In collecting the data related to the research, this research will use direct observation, interview and literature studies. Direct observation has been in several occasions in related site. To gain more comprehensive information, several interviews have been done with the management of tourism village, visitors, tour agencies and locals. Therefore, several literature studies are also used to gain more comprehensive information regarding research theme.

4. Research findings

4.1. Brief description of Merapi Volcano

Merapi Volcano is one of the active volcanoes that has a height of 80 m until ±2968 meter above sea level or can be converted into 3.079 meters high above Special Region of Yogyakarta. It is a Stratovolcano type with a horseshoe-shaped dome. It is also included in Java Island as “Ring of Fire” and considered as one of the most active volcanoes in the world. (Yuwono, 2012). In this location, there are many tourism attractions such as: National Park of Merapi Volcano, Tourism Area of Kaliurang, Merapi Lava Tour, Merapi Mountain Climbing Area.

The intensity of Merapi’s eruption increased in the 19th century. Meanwhile, in the 20th century, its intensity decreased yet it has more frequent eruptions. (Surono et al., 2012). According to Newhall et al (2000), the big eruption of Merapi volcano happens once in 100 years. A big explosion has an explosive characteristic with hot clouds range reaching up to 15 km. Last biggest eruption that recorded for 140 years was in 2010. On average, the peak of mountain activation happens every 2 to 5 years with high environmental density.

4.2. Pentingsari Tourism Village

In 2006, Economic Creative and Tourism in Indonesia have established a program known as “Pariwisata Inti Rakyat” which offered financial support for tourism villages in Indonesia for developing community’s economic self-sufficiency. Each village has a chance to be a part of national tourism development to increase the local community prosperity.

One of prominent tourism villages contributed to this program is Pentingsari Tourism Village. It has an excellent number of tourist arrival per year. It has been visited by 989 domestic and 9 foreign tourists in its opening year in 2008. The visitation number has always increased by year until Merapi Eruption in 2010. However, the eruption itself did not decrease the number of the tourists visiting this village. Tourist visitation
number has significantly increased from 2011 and reached the highest in 2012 by 30,389 domestic and 511 foreign tourists visitation. Presently, based on the data given in 2016 (until October 2016), there are 24,111 domestic and 293 foreign tourists visiting Pentingsari Village.

Pentingsari Tourism Village is located 12 km away from top of Merapi Volcano which is in Disaster Hazard Zone II. It has risk of secondary impact of Merapi’s eruption. This area is potentially affected by pyroclastic flow, volcanic ashes rain, volcanic rock rain, volcanic heat, volcanic lava flow, and volcano poisonous gas. It has a moderate risk level so the people need to be evacuated as soon as possible because when disaster occurs it can take their lives any time.

Before 2010, Pentingsari Tourism Village predicted the intensity of the future eruption. However, according to Doto Yogantoro, the head of Pentingsari Tourism Village organization, the disaster never bothered their livelihood. Moreover, he did not consider any disaster management for the village’s tourism activities when they established the tourism village in 2008.

“First, we were not aware that Pentingsari area is a disaster hazard zone. Second, we did not have any choice. After 2010’s eruption we started to consider to be friendly with such disaster”

They did not expect the experience happened in 2010 eruption. Doto Yogantoro explains when the eruption happened in 2010.

“There were 80 visitors at that day. They were students and they chose the live-in package for 7 days, but on the first day, the eruption happened. We did not expect we would evacuate them”

At that time, Pentingsari Tourism Village managerial team did not know that Merapi’s eruption would happen because the 2010’s eruption was unpredictable. The government also did not give any kind of warning to close their tourism activities.

Before the Merapi Volcano status increased to danger, based on the news and information from the parents of the students, the tour leader of student visitors started to question about Merapi Volcano condition. At the first time, there was an earthquake and then followed by volcanic rock rain and low intensity of cold lava. Realizing dangerous situation that will potentially damage their visitors, Pentingsari managerial team started a quick discussion about the situation with tour leaders. They finally decided to evacuate the tourists by bus to a shelter in Universitas Islam Indonesia (UII).  

After the eruption in 2010, Management of Pentingsari Tourism Village started to realize the importance of disaster management, because they live and have a business in disaster hazard zone. The management started to learn about disaster through workshops and training. They also joined Jalin Merapi communication forum. Moreover, they developed coordination with Regional Disaster Management Agency in Sleman Region to give them Standard Operational Procedure for disaster mitigation and to perform a workshop for the management. They established safety for tourists and emergency system.

The system of disaster regulation in Pentingsari is initiated by the BPBD and Volcanology Institution of Special Region Yogyakarta. These two organizations give information about spatial approach and education about disaster management. The decision will be communicated with local district government of Cangkringan and Umbulharjo before it is given to Pentingsari Tourism Village. There are also several non-government organization supports for developing disaster mitigation in the village including establishing communication system, volunteer, and research for helping the government.

In terms of infrastructure development, Pentingsari Tourism Village provides transportations for emergency rescue for the tourists such as trucks and cars. There are also

3) Interview with Doto Yogantoro, 15 November 2016 in Pentingsari Tourism Village
4) Interview with Doto Yogantoro, 15 November 2016 in Pentingsari Tourism Village
5) Interview with Doto Yogantoro, 15 November 2016 in Pentingsari Tourism Village
6) Interview with Hendi Hidayat and Agus OG (tour
disaster signs along the village area such as map of locations, lava mud flow sign, muster point, and direction to a refugee camp.

4.3. Implementation of Faulkner’s Disaster Risk Management Framework in Pentingsari Tourism Village

Pentingsari Tourism Village management recognized that they did not adopt any framework for their tourism disaster management. However, they were unconsciously already implementing several points of Faulkner’s disaster risk management. Below is the implementation of Faulkner’s Risk Disaster Management theory in their village.

4.3.1. Risk assessment

According to Faulkner (2001), risk assessment is an assessment of potential disaster situations that may occur to a certain place. Its relative probability of occurrence is an essential first step. This should involve an analysis of the history of natural disasters in the region, along with a scanning of the current environment and alternative scenarios. This step has several elements including the assessment of the potential disaster, development of scenario for disaster and development of disaster contingency plan for prodromal, emergency, intermediate and long-term phases. (Faulkner, 2001)

a. Assessment of potential disaster

Before 2010, Pentingsari Tourism Village did not expect that their area as a disaster hazard zone affected by the secondary impact. They expected that their village is in a safe place. In their opinion, before 2010, disaster institution could predict the amount of eruption, so that the eruption itself did not make significant damage to their livelihood. Moreover, the refugee shelters were built 10 km away from the peak of Merapi Mountain. They did not expect that the disaster area enlarged until 15 km from a peak of Merapi Volcano. After 2010 eruption, they considered the importance of risk assessment for their tourism village, because it gave the village big impacts to their business sectors such as homestay, rice field, and farm area.

The annual assessment of disaster’s frequency and amount has not been done by Pentingsari Tourism Village Management. Fortunately, they had some partnership with the governmental institution (BPBD, BPPPTKG) and a Non-governmental organization (Forum Jalin Merapi). Hence, these institutions help them in predicting their next move and handling the disaster situation in the future. Moreover, they are also aware of natural signs of eruption such as migration of Merapi’s forest animals and the changing of temperature.

b. Scenario for disaster

Pentingsari Village follows the procedure of BPBD for disaster scenarios. They are integrated for all area in Umbulharjo Regions. In the tourism sector, they have disaster scenarios which are:

1. Development of communication system with disaster-related governmental institution and NGO.
2. Following the signs from government disaster institutions.
3. Communicating Merapi Volcano condition, its disaster potential and mitigation efforts with Tour Leader.
4. When Merapi status increases to ‘watch’ status, Pentingsari Tourism Village management will start to pack up their important documents, transportation system, communication system, first aid kit and emergency kit.
5. When Merapi Volcano status increases to ‘warning’, they will close all the tourism activities, and evacuate tourists and themselves.
6. Giving a quick briefing about evacuation and early emergency rescue guideline to tourist.
7. If evacuation is needed, the Pentingsari Tourism Village management will prioritize tourists’ safety first.

8) Interview with Tri Widiyanto, 6 December 2016 in Pentingsari Tourism Village
9) Interview with Hendi and Agus OG (tour guide of Pentingsari), 17 November 2016 in Pentingsari Tourism Village
The scenarios for emergency response are performed in 2010. After that, the scenario has never been performed. Since there only once they performed scenario for disaster, the effectiveness of the scenario cannot be measured.  

c. Disaster contingency plan  
The fundamental objective of disaster and contingency planning is business continuity to keep the operations running, providing professional services, maintaining client confidence, maintaining regular cash flow, and similar strategic activities for survival (Duitch, 1998). Faulkner (2001) divides contingency plan into 7 steps, which are: identify possible impact and groups at risks; assess community and visitor capability to cope with impact; articulate the objective of individual (disaster specific) contingency plan, and identify action necessary to avoid or minimize impact at each stage; design priority for each phase (prodromal, emergency, intermediate and long-term); ongoing review and revision in the light of experiences; changes in organization structure and environmental.  

In Pentingsari Tourism Village, the contingency plans are not specifically established, but it naturally occurred after 2010’s eruption which became their starting point to learn more about the disaster and its management. Therefore, Pentingsari Tourism Village management is aware of their area’s disaster impacts potential. They also understand that their area is affected by the secondary impact of the eruption.  

In the capability of management to cope with disaster, they already have enough skill due to the training and workshop were given by BPBD or Non-government organization. It is also supported by their recognition of location and improvement of adaptation level. However, the capability of tourists to cope with disaster remains unknown since there are no data or training about disaster management for tourists. In December 2016, some tourists from High school 1 Angkasa Jakarta were interviewed about their knowledge of Merapi Volcano and how to cope with disaster.  

From 4 interviewed students, 2 of them admitted that they did not understand how to cope with sudden hazard.  

“Of course, I would freak out and frightened but I would go to the mosque and wait for instruction.” 

Two interviewed tourists admitted that they did not know about the Pentingsari Tourism Village located in disaster hazard zones of Merapi Volcano. They did not understand about disaster hazard zone as well.  

“Hazard zone area is a place where the soil shiftily and near to the mountain, so if a disaster happened we have to move far away from this location.”  

The information about the disaster are not frequently given to the tourists. It is important to know that the tourists have different backgrounds and knowledge, and they must be aware of the disaster and how to cope with it.  

Even the risk disaster management plans have been established, it will be different from the main plan when the disaster occurs. The important points are to articulate the disaster contingency plan and provide plan B if the plan A does not work when a disaster occurs. Pentingsari Tourism Village did not provide plan B back then. They admitted that they only followed the instruction from the higher institution. They also did not design priority for each phase (prodromal, emergency, intermediate and long-term). Despite there were several missing points, they always review their experiences of 2010’s eruption and try to increase their awareness and management for disaster.  

4.4. Post-disaster analysis  
In post-disaster phase, Pentingsari Tourism Village will close their tourism activities for rehabilitation and reconstruction for a half year and then make next strategies for marketing disaster-based
tourism. They built post-disaster tourism as an attraction for tourist, so they can feel the “vibe” of experiencing Merapi Volcano disaster.

4.4.1. Mitigation

a. Disaster Team Management (DMT)

Disaster Team Management (DMT) built by the certain organization to respond to disaster phenomenon. In the case of Merapi Volcano, there are several DMTs from government and Non-government organization (NGO). Those are Tim Reaksi Cepat (TRC) and Tim Komando Tanggap Darurat from BPBD in regional level; and Taruna Siaga Bencana (Tagana) and Indonesian Army Forces in national Level. However, in Pentingsari Tourism Village management, they did not consider establishing more DMTs since the other one have already been fulfilling their needs for emergency rescue. Even if Pentingsari Tourism Village has a security division, its function is not to handle the mitigation processes following the disaster occurs. They consider of having DMT for their management will cause troubles for another DMT and adding another regulation, which is not integrated to another regulation.  

“In our internal organization, there are security divisions but they are not related to disaster division. Many of them also join DMT such as Tagana, the one we got information about the disaster from. Even if we know the standard operational procedure, we still do not know what to do when a disaster occurs.”  

DMT itself was built to organize mitigation based on standard operation when a disaster occurs. For instance, because Pentingsari did not have their own DMT, in an emergency state, the decision maker was given to the leader of the organization (Doto Yogantoro) or tour guides in the field when the disaster happened. This situation happened in 2010’s eruption where the decision maker was the leader of an organization to rescue the tourists.  

Even if there are no DMT, the members of Pentingsari Tourism Village management are also members of other DMTs such as Radio Antar Penduduk Indonesia (RAPI) and Tagana. Moreover, RAPI and Tagana also have helped them to cope with disaster before they established their own DMT.

b. Identify public/private sector

Identification in public and private sector has a function to know the capacity and capability of the disaster impacts and how to minimize the level of damage from Merapi Eruption. In general, the level of its identification is handled by district government, BPDB, and TAGANA. Those of institutions identify human resources (age, sex, population, etc), natural resources (farm animal, agriculture) and infrastructure (business area, water resources, building, etc). However, the identification is not specific for the tourism sector.

Pentingsari Tourism Village management also identifies their public and private sectors for their business and tourists rescue such as transportation, first aid kit, documents, and their tourist’s personal data. Moreover, the management follows the command from higher institutions.

c. Establishing coordination framework

Coordination between Pentingsari Tourism Village and another institution, either government or non-government organization were already established before the eruption in 2010 but, their awareness for coordination increased when 2010’s eruption occurred. Pentingsari Tourism Village management followed the procedure given by the government. However, they were still passive in responding to a disaster for tourism sector. They still did not consider that tourism has a different approach for coping with disaster.

For effectiveness, Pentingsari Tourism village management involves the members of disaster NGO and volunteer into their management. It helps them to communicate and receive information about regulations, workshops

14) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
15) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
16) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
17) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
and Merapi’s condition.  

d. Establishing communication system
A communication system in Pentingsari Tourism Village was established after Merapi Volcano eruption in 2010. They built communication system by radio. However, it was shut down due to the lack of membership to operate this radio system. Nowadays, their communication system depends on other local radio community known as Forum Jalin Merapi and RAPI which share news and information about the condition of Merapi Volcano.

“Communication is important for us. We have an early warning system in Merapi and can be monitored from HT. We can see the frequency of Merapi from this technology. We do not check it every day, we leave it to the Government. We just received the information from communities.”

Hendi Hidayat, as a tour guide, explains the work of their communication system through Handy Talking (HT). They use this equipment to share information regarding Merapi’s condition and where the disaster may occur. Moreover, they also receive the information from RAPI or Tagana members from HT.

e. Education for management and tourist
Since BPBD has a program for training and workshop for local communities in Merapi Volcano, Pentingsari Tourism managerial has enough skill about mitigation and emergency rescue. Moreover, they also can identify Merapi Mountain condition and how to react when disaster occurs since they live in disaster prone area for a long time. Hence, tourists from different backgrounds who come for leisure purpose did not familiar with sudden hazard. They need to identify the location, absorb the information, and adapt to certain condition to understand about disaster. Moreover, they inevitably need explanation from tourism managerial to cope with disaster.

Pentingsari Tourism Village management acknowledges the low capability of tourists to cope with disaster. Doto Yogantoro, the leader of Pentingsari Tourism Village management admits those risks of being in the hospitality business in the disaster area. He explains the experience in 2010 when they had to choose to rescue themselves or the visitors. They did not close the business because there was no command from the government to close the business. The command to close the business happened when the radiuses of disaster started to enlarge from 5 to 10 km from a peak of Merapi Volcano. Ironically, even if Pentingsari Tourism Village is in 12 km away from the peak of Merapi Volcano, the tour leader realized its condition from media.

“The visitors started to question the condition of Merapi, we still tried to persuade them, ensuring that they would be safe but, they did not understand and started to freak out”

At that time, the management started to discuss the condition and chose to evacuate the tourists to a refugee shelter in Universitas Islam Indonesia (UII), in Pakem, Special Region Yogyakarta.

“There were 80 persons, we tried to save them (tourists) first. We had the responsibility as a hospitality business. We needed to make them feel safe first. That’s the risk in the tourism business.”

After their experience in 2010, they try to give explanation and information to the tourists. They give them basic information about Merapi and emergency rescue in the beginning of activities. However, since the explanation and information are given inconsistently, some of them are not aware of the explanation and information.

They consider giving more information and education to the tourists via other media such as leaflet or website. As residents, they think that education for tourists is very important because

18) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
19) Interview with Hendi Hidayat and Agus OG (tour guide of Pentingsari), 17 November 2016
20) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
21) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
tourists cannot identify the area, and do not understand how to react when a disaster happens.

“There were several tourists who started to cry or passed out when a small earthquake occurs. There were also some people who took the lead without knowing the procedure. It was unnecessary because they were not in the management.”22

The tour guide named Hendi Hidayat and Agus O.G give an explanation about tourists' reactions in an emergency. The tourists tend to get more panic and difficult to handle due to confusion and anxiety. Several tourists also decided to react spontaneously without following the safety procedure.23

f. Commitment from active protocol
Commitment from the active protocol is an important element to be considered. Disaster risk management needs a team to commit to the procedure of emergency rescue. Pentingsari Tourism Village management highly commits in the procedure of emergency rescue and tourist safety. Their principal in hospitality develops their awareness to prioritize the lives of visitor than themselves. 24 Moreover, to cope with disaster and another unexpected hazard, they provide insurance for the tourists in cooperation with Jasa Raharja. 25

However, the awareness of an integrated system of tourism disaster risk management and its sustainability still need to be developed. They tend to be inconsistent in giving the information to tourists since there are no eruption or signs of eruption for 4 years after 2010’s eruption.

Commitment itself should come not only from Pentingsari Tourism Village but also all the stakeholders involved in tourism activities such as travel agencies, media and the most important is the local regional government.

22) Interview with Hendi Hidayat and Agus OG (tour guide of Pentingsari), 17 November 2016
23) Interview with Hendi Hidayat and Agus OG (tour guide of Pentingsari), 17 November 2016
24) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
25) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village

4.5. Obstacles Experienced by Pentingsari Tourism Village in Implementing Faulkner's Disaster Risk Management Framework.
Risk assessment is a focal step in tourism disaster risk management. It has a function to scan the current and emerging environment and alternative scenario (Faulkner, 2001). In identifying the risk, the certain places need to acknowledge the history of the disaster itself from the documents or from prior experience. It determines the next procedure and contingency plan for coping with disaster. These elements are fulfilled by Pentingsari Tourism village management cooperated with BPBD and Non-government organization. They identify the risk based on documents provided by government and their prior experiences. In this phase, there are no obstacles experienced by Pentingsari Tourism Village managerial.

In Scenario for disaster, Pentingsari Tourism Village follows the scenario given by BPBD and conducted scenario for disaster for their tourism business. The management established the tourism disaster scenario based on experience in 2010 but, they did not document the disaster scenario hence it does not fulfill the standard operation of disaster scenario. Moreover, this caused by the lack of understanding in the managerial sector about the disaster itself. Since 2010, there are no Merapi eruptions which make them reluctant to make a scenario for disaster. Besides scenario for disaster, they also did not have any disaster contingency plan. It caused by the less knowledge about disaster correlation with tourism business. In this phase, the obstacles experienced are the less knowledge and understanding about tourism disaster management, these focal obstacles affect their lack of urgency to establish the scenario for disaster and disaster contingency plan.

4.5.1. Mitigation
Pentingsari Tourism Village management’s awareness and understanding about disaster management still disassociate them from tourism business. Several management members acknowledge the importance to understand the disaster management for tourism, yet the rest still consider that tourism does not need a certain approach to coping with disaster. This misunderstanding can be seen on their passiveness
Anggita Suestiana - Implementation of Faulkner’s Tourism Disaster Management

In mitigation process.

Pentingsari Tourism Village does not face any obstacles in identifying private and public sectors, establishing coordination framework, committing with active protocols and communication system. By the coordination with other institutions such as BPBD and Tagana, those steps were properly handled. Yet, they still face a lot of obstacles in establishing disaster management team and education for tourists.

In establishing Disaster Management Team (DMT), Pentingsari Tourism village managerial think that making DMT for their tourism business can disturb another DMT procedure and regulation. Yet, DMT in tourism business also has difference approach from another DMT because DMT in tourism business concern about tourist’s safety and tourism-related materials that need to be protected from disaster. It is contradictory with the commitment given by the managerial. Pentingsari Tourism Village understands their priority of emergency rescue. They place tourists as their priority to save. Yet, they claim that they do not need another DMT for their tourism business because there are enough DMTs to help them to cope with disaster. This misunderstanding is caused by their lack of knowledge about the difference between DMT for general and DMT for tourism.

Pentingsari Tourism Village gives less knowledge to tourists about the safety procedure for coping with Merapi Volcano’s eruption. They are inconsistent in giving the safety procedure to tourist. Hence, there are several tourists who do not get the information about the disaster and indeed do not know how to cope with it.

For example, a case of local tourists from Angkasa I Jakarta Highschool who are students. They did not know that Pentingsari Tourism Village is in disaster prone area. They also did not get any information about the emergency rescue. The information they received were only the basic information about the tourism sites. Moreover, when they asked about the safety procedure in an emergency, they did not know the procedure as well as how to react when disaster occurs. On the other hand, tourists from High school 8 of Yogyakarta were given the safety procedure and knew how to cope with disaster. They also had the information about Merapi Volcano and aware with its condition and the consequence as the tourists in disaster prone area.

Pentingsari Tourism village needs a strategic approach to reduce the damage from the disaster. The management also needs to give a more comprehensive education as well as information regarding disaster mitigation to every visitor visiting their village. Even the tourists are acknowledged about the disaster happened in Merapi before, but their behavior is still unpredictable since they did not familiar with the location.

Another obstacle comes from media. The management admits that media roles are important in pre-event and post-event of disaster. Media gives benefit in giving the up-to-date information about the Merapi situation. Yet, when the disaster occurs, media can be a backfire to their business. It is because the media tend to give overblown information when a disaster occurs to their audiences.

“For prevention, media helps us from its information, but when the disaster happens, their motive changes. Bad news, good news. Bad news gives them good impressions and a big benefit for them”.

The problems above influence their consistency, commitment, and sustainability of disaster risk management. Even the awareness established, the need to understand the disaster risk management are a focal point for taking the next level of disaster risk management. Indeed, 2010’s eruption experience was the stake point for local tourism stakeholders contributed to tourism development in Pentingsari Tourism Vilage to understand the correlation between tourism and disaster but, since there are no eruptions afterward, their urgency to learn about disaster management and their consistency to educate tourists decreases.

26) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
27) Interview with Salsabila Nafisah (Tourist from SMA 8 Yogyakarta) in
28) Interview with Doto Yogantoro in 15 November 2016 at Pentingsari tourism village
5. Conclusion

In mitigating the tourists when disaster happens, Pentingsari Tourism Village management began to realise the need to develop strategic steps of disaster mitigation after Merapi’s eruption in 2010. They started to acknowledge the risk of being a tourism destination in disaster prone area. In managing the impact of the disaster, Pentingsari Tourism Village follows the procedures given by BPBD and supported by communication system from non-government organizations such as RAPI and Forum Jalin Merapi. However, the procedure given by BPBD is a general disaster management procedure. It does not specifically cover tourism sector in Pentingsari Tourism Village and they do not have any archived document about disaster management. Hence, it is difficult to assure whether they have certain disaster risk management for their tourism sector.

Pentingsari Tourism Village disaster assessment is supported by BPBD and Non-Government Organization. This coordination also produces scenarios or guideline for disaster but there is no standard guideline for its operation. In mitigation step, Pentingsari Tourism Village already fulfills the coordination framework, communication system, and commitment from active protocols yet they do not have any disaster team management. However, the management regularly gives information and education to the tourist regarding disaster potentials and strategic steps to react when it happens for the tourists.

Faulkner’s disaster risk management implementation is still difficult to be fulfilled in the case of Pentingsari Tourism Village caused by no documentation of its management. It is very important for tourism village to document all their disaster management from pre-event to post-disaster. Hence, in implementing Faulkner’s Disaster Risk Management, Pentingsari Tourism Village needs several recommendations. These recommendations are made to help Pentingsari Tourism Village to cope with disaster in their tourism sector business. Besides, there are focal obstacles faced by Pentingsari Tourism Village for implementing Faulkner’s disaster risk management. Those are awareness and understanding about disaster management. The problems above influence their consistency, commitment, and sustainability of disaster risk management such as giving education to tourists.

For risk assessment phase, Pentingsari Tourism village managerial needs to transcribe their scenario for disaster as standard operation system in emergency rescue. Moreover, they need to develop disaster contingency plan as it is necessary for alternative emergency planning if a disaster occurs to sustain tourism business plan. In Mitigation phase, Pentingsari Tourism village needs more concern in establishing disaster management team (DMT) for tourism and education for tourists that will help the managerial in an emergency state and for educating the community about tourism disaster management. Pentingsari Tourism Village management should also improve the disaster education and information to tourists. Presently, they have done verbal education but it could be improved by providing more appropriate information using other media such as leaflet, poster, sticker or tutorial for emergency rescue even providing online information through their website.

This study investigates the implementation of Faulkner’s disaster risk management; however, it does not cover the effectiveness of its implementation. Thus, this study can be further investigated by assessing its effectiveness. This research only uses the deep interview to gain information. Direct or indirect observation in pre-phase risk management will improve this investigation.

References


Internet references:


