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Original Article

Disaster Communication in Local Governments Karangasem Regency, Bali Indonesia to Realize Sustainable Tourism

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Abstract:

This research aims to examine disaster communication In Karangasem Regency Bali Indonesia to realize sustainable tourism. The development of quality tourism is very necessary for national economic development, considering that tourism makes a major contribution to the economy of a country, especially in Bali which is an ODTW in Indonesia. Karangasem Regency has great potential in developing sustainable tourism. This study uses a qualitative descriptive method with a case study approach. The research location is in Karangasem Regency, Bali. The data were collected through in-depth interviews with relevant stakeholders and the government officials such as the Tourism Office and Regional Disaster Management Agency (BPBD) of Karangasem Regency. The secondary data of this research is sourced from policy documents, disaster risk communication guidelines, and disaster incident reports The results of the study show that disaster communication in Karangasem Regency Bali is carried out by BPBD Karangasem in collaboration with the community and tourism managers to convey disaster information to the community and tourists. However, it is necessary to improve coordination between the Tourism Office and BPBD and increase tourists' understanding of disaster risks to support the realization of sustainable tourism.

Keywords: Disaster Communication; Sustainable Tourism; Karangasem.

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Introduction

Over the past 20 years, there have been several large-scale disasters that have also hit several tourist destinations in Indonesia. Disasters bring destruction but also provide opportunities for social reorganization and revitalization (Lin et al., 2020). Therefore, the massive development of tourism areas needs to prepare good disaster communication and mitigation models. So that it has consequences for prevention and can minimize the risk or potential impact of losses and victims due to disasters.

Each region or tourist destination is required to have a disaster-resilient

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tourism development plan that is analyzed based on the vulnerability of their respective areas. Communication plays an important role in increasing the effectiveness of disaster information and encouraging trust in the authenticity of locally based disaster information (Gultom, 2016). Two-way communication is needed between all parties involved, adjusted to the context of the local community (Purworini et al., 2021). Therefore, the government and disaster management centers must be able to maximize the role of the community in disaster management efforts (Le Roux & Van Niekerk, 2020).

Information and communication barriers are the main difficulties to be overcome in the context of disaster preparedness. Product creation, image enhancement, local knowledge enrichment, and more importantly, human relationships, all contribute to sustainable tourism development outcomes (Chan et al., 2020).

Information management among stakeholders is fundamental to effective disaster mitigation and response operations (Rochim et al., 2020). Mitigation can be divided into two main types, namely structural mitigation and non-structural mitigation. Structural mitigation involves physical measures aimed at reducing the impact of a disaster, such as the use of technological approaches and the development of infrastructure to minimize its effects. On the other hand, non-structural mitigation includes measures related to policies, scientific advances, and community capacity building through emergency planning (Wulan et al., 2016).

Coordination between disaster stakeholders such as government agencies, humanitarian agencies and other institutions is essential to ensure effective disaster relief efforts (Moorthy et al., 2018). Therefore, the development of disaster communication and mitigation models in the future has the potential to help policy makers develop and deliver more effective messages to protect the community (Bergeron & Friedman, 2015). In this case, especially for communities in potential tourism areas. If disaster mitigation efforts involve various institutions and community components, the approach that needs to be known, understood and implemented with humanitarian principles is the system approach. This approach is a synergistic and integrated effort from the institutions assigned to handle disasters and other supporting institutions, so that they can become a strong teamwork in implementing disaster risk reduction efforts (Budi HH, 2012).

Literature Review

Communication plays an important role during a disaster. The results of Puji Lestari et al (2020) research show that disaster communication is an important element in disaster risk reduction, both in knowing the threat of disaster, the needs of victims, and various disaster risk evaluations (Lestari et al., 2020). According to Seeger and Sellnow (2019), communication is an inseparable element in risk and disaster management. This includes monitoring risks in the environment, planning an effective response to risks and disasters to handling situations when disasters occur, and learning from the disaster experience.

Based on research conducted by Moorthy et al (2018), disasters present various communication challenges, including obstacles in communication between victims and the community outside, as well as communication between emergency responders and various related agencies. Moreover, people affected by disasters and living in the area may face difficulties in managing their behavior (Moorthy et al., 2018). Therefore, each stage of disaster management requires different types of information and different approaches to disaster communication (Mehta et al., 2017). Information management among stakeholders in natural and human-induced disasters is fundamental to effective disaster mitigation and response operations. Efficient information exchange is a critical component of disaster response and relief

operations. This is based on the idea that accurate and timely information must be available before, during, and after a disaster (Rochim et al., 2020).

Another impact of disasters is the risk to the development of an area that has the potential for tourist attraction. Several studies have shown that tourists tend to be very sensitive to destinations that can endanger them (Lo et al., 2011; Pizam et al., 2004; Williams & Baláž, 2013). Therefore, disaster risk is considered a major factor that can influence individual tourists' decision-making when choosing a tourism destination. The level of risk perceived in the minds of individuals will influence and determine the competitiveness of a destination (Y. Liu et al., 2019).

Quality tourism development is essential for national economic development, considering that tourism makes a major contribution to a country's economy. As stated by Hassan Ananzeh et al., (2021) in their research, sustainable tourism is a continuous process and requires continuous monitoring of impacts, introducing preventive measures and/or necessary improvements whenever necessary to uphold sustainability. Increasing focus on quality tourism services can encourage sustainable development and prevent environmental degradation (Hassan Ananzeh et al., 2021). Especially in the context of Indonesia, the Quality Tourism approach is very necessary to encourage efforts to develop sustainable tourism by considering the potential for disasters in several tourist areas. Because the Quality Tourism approach can accelerate structural reform of the tourism sector and contribute to the development of quality tourism (Tang, 2022).

Travelers act based on the communication and depend on their level of trust in the source of information. Trust is at the heart of effective risk and disaster communication from the government. In an era of rapidly developing communication ecosystems, the importance of understanding how to build and maintain trust is the most important thing to do so that the government can become a primary source of information that can be trusted (B. F. Liu & Mehta, 2021). Trust is part of the basic knowledge for the formation of beliefs. These beliefs in the next stage become considerations for determining attitudes and behaviors, including disaster-resilient attitudes and behaviors (Lestari et al., 2016).

Methodology

This study uses a qualitative descriptive method with a case study approach. The research location is in Karangasem Regency, Bali, an area that is both a major tourism destination and prone to natural disasters, particularly volcanic eruptions from Mount Agung. Data were collected through in-depth interviews with relevant stakeholders and government officials, such as representatives from the Tourism Office and the Regional Disaster Management Agency (BPBD) of Karangasem Regency. These interviews aim to explore perceptions, strategies, and experiences related to disaster risk communication in the tourism sector. Secondary data were obtained from various sources, including regional policy documents, disaster risk communication guidelines, tourism development plans, and official disaster incident reports. The validity of the data is ensured through triangulation of sources, comparing information across interviews and documents to identify consistencies and discrepancies. Data were analyzed using thematic analysis, allowing the identification of recurring patterns and themes related to how disaster risk communication is designed, delivered, and received within the local tourism context (Sugiyono, 2013). This research utilizes a conceptual framework that integrates theories of disaster risk communication, disaster management, and sustainable tourism development. This framework provides a lens to understand how local governments implement risk communication strategies to ensure safety, resilience, and continuity of tourism in disaster-prone areas.

Results and Discussion

Disaster Risk Communication Models of Local Governments in Karangasem Bali Indonesia

Karangasem Regency, located in Bali, Indonesia, also has great potential in nature and cultural tourism. However, this potential is also accompanied by the risk of natural disasters such as volcanic eruptions and earthquakes. In an effort to implement effective disaster communication in the context of sustainable tourism, it is important to identify the supporting and inhibiting factors, which arise due to the geographical and cultural conditions in Karangasem Regency. Sustainable tourism development is one of the most important aspects for Karangasem Regency in Bali. However, in facing the potential risk of natural disasters that can impact the tourism sector, the Karangasem Regency Government has implemented a series of strategic actions to support effective disaster communication. In this context, it is important to explore the policies that have been implemented by the local government to ensure the safety of tourists and local residents, while maintaining the continuity of tourism as a very vital source of economy.

The Karangasem Regional Disaster Management Agency (BPBD) has a special role in disaster management and providing information related to disaster management efforts. On the other hand, the Tourism Office is involved in conveying disaster-related information to tourism visitors, although its involvement is still limited. In addition, BPBD Karangasem also received support from community groups such as Pasebaya and the Disaster Resilient Tourism Village (Dewata-tana) group. BPBD was also active in socializing disaster risks through disaster emergency response simulation activities carried out in several schools and offices before the eruption of Mount Agung on September 22, 2017. However, after the incident, simulation and socialization activities became more routine, with simulation schedules carried out unexpectedly and increased preparedness (Nurjanah et al., 2023).

Mount Agung, which has a height of 3,142 meters above sea level, is the highest peak on the island of Bali and is located in Rendang District, Karangasem Regency. Mount Agung is categorized as a type A volcano, indicating that it has experienced at least one eruption since 1600 AD. One of the distinctive features on the slopes of Mount Agung is Pura Besakih, a highly revered temple complex in Bali. As a type A volcano, Mount Agung is characterized by its large and deep crater, which sometimes emits smoke and water vapor. Topographically, this mountain has a long peak and ends in a circular crater, although there is a striking sharp cone, which is the location of Pura Besakih. Geographically, Mount Agung is located at coordinates 08 ° 20'30 "south latitude and 115 ° 30'30" east longitude (Indra, 2018). Since the early 1600s, Mount Agung has recorded several significant eruptions, including in 1710-1711, 1808, 1821, 1843, 1963, 2017, and the most recent in 2018. The 1963 eruption was the most significant, occurring after a long period of about 120 years of inactivity.

Karangasem Regency, which is located near Mount Agung, has a total of 78 villages. According to the disaster-prone map issued by the Center for Volcanology and Geological Disaster Mitigation (PVMBG) and the Ministry of Energy and Mineral Resources (ESDM) of the Republic of Indonesia, there are 28 villages included in the Disaster-Prone Area (KRB). These 28 villages are located within 6-12 kilometers from the peak of Mount Agung, divided into 6 villages in KRB III, 16 villages in KRB II, and 6 villages in KRB I. Meanwhile, 56 other villages in Karangasem Regency are outside the disaster-prone area. From the results of field research, the mechanism for implementing disaster communication by BPBD Karangasem is regulated through the Standard Operating Procedure (SOP) of the Disaster Management Operations Control Center (PUSDALOPS) and the Early Warning System, as seen in Figure 1.

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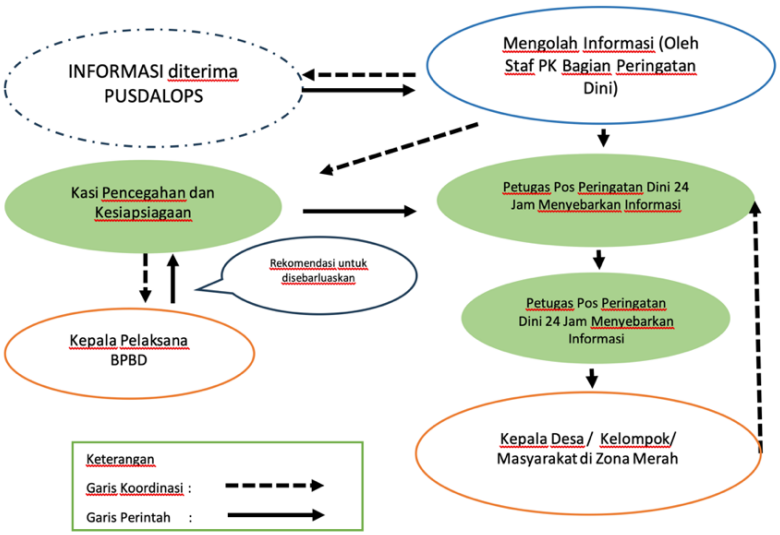

Figure 1. Model Komunikasi Bencana BPBD Kabupaten Karangasem Bali

Initial information is received from the Disaster Management Operations Control Center (PUSDALOPS) through the Early Warning System tool. Then the BPBD Early Warning Information Processing section forwards it to the Head of Prevention and Preparedness who then reports to the Head of BPBD. Furthermore, the Head of BPBD provides considerations and recommendations to disseminate information to the public. The process of disseminating disaster information to the public in two ways, namely conveying it to the Head of Prevention and directly giving orders to the 24-Hour Early Warning Post Officers to disseminate information to the Early Warning Team at the Sub-district level, and then conveying it to the Village Head / Community in the Red Zone.

One of the main supporting factors for the implementation of disaster communication in the context of sustainable tourism in Karangasem is the high level of Local Awareness of Disaster Threats. The local community in Karangasem Regency has a deep understanding of disaster risks such as the eruption of Mount Agung. This awareness helps in the dissemination of information and evacuation instructions more smoothly. Because basically the community and religious leaders have a key role in disaster communication (Yudarwati et al., 2022).

In addition, the Commitment of the Regional Government is also a significant supporting factor. The Karangasem Regency Government has a strong commitment to sustainable tourism development, providing a policy basis that supports the integration of disaster communication and tourism planning. The development of Technology Infrastructure in Karangasem Regency also makes a positive contribution. The availability of information and communication technology that continues to grow in this region facilitates the dissemination of disaster information more efficiently through better internet access and telecommunications networks.

In addition to supporting factors, there are also inhibiting factors that can interfere with the implementation of disaster communication in the context of sustainable tourism in Karangasem. One of them is the potential conflict between tourism objectives and security efforts. Sometimes, efforts to increase the number of tourists can conflict with disaster mitigation measures, such as rapid evacuation plans when there is a threat of disaster. Then, the complexity of culture and language in Karangasem Regency is also a challenge. This regency has cultural and linguistic diversity, so disaster communication messages must be adjusted to this diversity so that they can be understood and accepted by all levels of society.

The lack of understanding of tourists regarding disaster risks in Karangasem Regency is another factor that needs to be considered. Tourists who come to this area

may have limited understanding of disaster risks, which can hinder the response to evacuation warnings and instructions. Finally, budget and resource limitations are also obstacles that need to be overcome. Investment in training, technology, and infrastructure is needed to improve disaster communication capabilities.

Overall, Karangasem Regency has great potential to develop sustainable tourism, but is also faced with the challenge of natural disasters that require effective disaster communication. Supporting factors such as public awareness, government commitment, information technology, and cross-sector cooperation play an important role in its implementation. Meanwhile, obstacles such as potential conflict of destinations, cultural complexity, lack of understanding of tourists, and limited resources need to be managed wisely.

By integrating disaster communication with careful sustainable tourism planning, Karangasem Regency can better prepare for disaster challenges, while maintaining the attractiveness of tourism and the safety of all parties. The implementation of effective disaster communication in the context of sustainable tourism in Karangasem Regency is a crucial step in maintaining safety and attractiveness of tourism. Supporting factors such as local awareness, government commitment, access to technology, and community involvement are pillars in this effort. Meanwhile, challenges such as alignment of goals, cultural dynamics, limited access to information in remote areas, and understanding of foreign tourists need to be addressed wisely. By combining the strengths of various stakeholders, Karangasem Regency can achieve sustainable tourism goals that are in line with effective disaster mitigation measures.

Conclusion

Karangasem Regency has great potential in developing sustainable tourism. However, Karangasem Regency, Bali is faced with the risk of natural disasters that need to be managed properly through effective disaster communication. Karangasem Regency, disaster communication is carried out by BPBD Karangasem in collaboration with communities and tourism managers to convey disaster information to the community and tourists. In order to achieve sustainable tourism, there needs to be collaboration, coordination, and cooperation between all stakeholders involved, including local governments, communities, and tourism managers so that sustainable tourism can be realized in Bali, Indonesia.

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