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Analysis of Disaster Resilience Governance in Pancoh Tourist Village, Yogyakarta

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ABSTRACT

Mount Merapi, an active volcano, poses constant threats to the surrounding communities. Pancoh, a village located 9.6 km away, has embraced resilience efforts in response to the eruption in 2010. This research aims to explore the community's preparedness, disaster risk management strategies, and investments in disaster risk reduction, focusing on the development of sustainable ecotourism. A qualitative descriptive approach was employed for this study. The research findings reveal that resilience initiatives in Pancoh Tourism Village commenced after the 2010 eruption of Mount Merapi. Disaster risk management is achieved through the promotion of sustainable ecotourism. The research concludes that Pancoh Tourism Village has made commendable progress in building resilience since the Mount Merapi eruption in 2010. The integration of sustainable ecotourism, community involvement, and investments in disaster risk reduction showcases a holistic approach to mitigating the impact of volcanic disasters.

INTRODUCTION

Indonesia holds the 12th position among 35 countries with the highest susceptibility to disasters. World Bank data suggests that over 40% of Indonesia's population faces the imminent threat of such risks. (Faradiba, 2022). Natural disasters are unpredictable natural phenomena that cannot be precisely anticipated (Emosda & Fadzlul, 2014), Natural disasters that have the potential to occur in this area include earthquakes, tsunamis, volcanic eruptions, floods, landslides, and tornadoes. These disasters can harm various sectors, such as the economy, tourism, social culture, and others (Dholina Inang Pambudi, 2021). In the Special Region of Yogyakarta, there is Mount Merapi, which stands at an elevation of 2,980 meters and is the most active volcano in the region. In 2010, Mount Merapi experienced its largest eruption, causing extensive damage surpassing the scale of the five previous eruptions. The eruption resulted in the loss of 354 lives, and injuries to

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240 individuals, and forced 47,486 people around Mount Merapi to evacuate. Villages in the Special Region of Yogyakarta also suffered damage, including 2,636 heavily damaged houses due to the eruption of Mount Merapi. (Febriyan, 2017) (Wahyuni & Sakir, 2020). According to the Minister of Energy and Mineral Resources Regulation, Number 11 of 2016 on the Designation of Geological Disaster-Prone Areas, a Volcanic Disaster-Prone Area (KRB) is defined as an area that has been affected or identified as potentially threatened by volcanic eruption hazards, whether directly or indirectly. There are three zones of disaster-prone areas (KRB), namely: 1) KRB III (High-Risk Zone): This zone is frequently hit by pyroclastic flows, lava flows, volcanic bombs, toxic gases, or rock falls. It is not recommended to build permanent settlements or use the land for commercial purposes in this zone; 2) KRB II (Medium Risk Zone): This zone is potentially affected by pyroclastic flows, possibly lava flows, rock projectiles, rock slides, or heavy ash fall. This zone is usually located on the slopes and foothills of volcanoes and along the lahar channels; and 3) KRB I (Low Risk Zone): This zone is potentially affected by lahar or lahar floods, and possibly by the expansion of pyroclastic flows. If the eruption becomes larger, this zone may be covered by ash fall and rock projectiles. This zone includes areas prone to lahar or floods, especially those along rivers or near valleys or downstream areas that originate from the peak (Rafie, 2022).

The National Disaster Mitigation Agency (BNPB) designates Sleman Regency as a Disaster-Prone Area (KRB) III, encompassing the Pakem, Turi, Tempel, Ngemplak, and Cangkringan Districts. (Fatmawati dan Rahayu, 2016). Pancoh Tourist Village, situated within the Turi Subdistrict at an altitude of 700 meters above sea level and approximately 9.6 kilometers away from Mount Merapi, is exposed to the risk of volcanic eruption. The map of disaster-prone areas in Sleman Regency can be viewed in Figure 1.

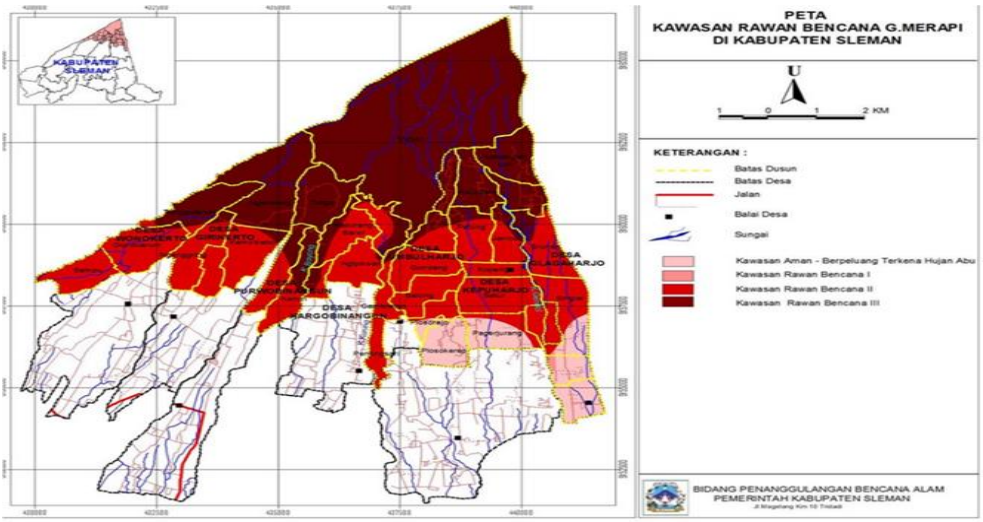

Figure 1. Map of Mount Merapi Disaster Prone Areas, Sleman Regency

The potential dangers resulting from a volcanic eruption include a land area of 7,904 hectares being affected, with 37,882 people exposed, physical infrastructure valued at 141.7 billion, an economic impact of 557 billion, and environmental effects covering 157

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hectares. (BNPB, 2023). The eruption cycle can occur in the short term every 2-5 years, the medium cycle happens every 5-7 years, the long cycle occurs approximately every 10-15 years, and the extended cycle takes place after a resting period of 30 years. Therefore, Mount Merapi is likely to erupt again, posing a threat to the lives of people in disaster-prone areas. Hence, prioritizing Disaster Risk Reduction (DRR) is necessary to minimize the potential hazards following a disaster. Article 6, letter a of Law Number 24 of 2007 concerning disaster management mandates that the government's responsibility in disaster management, namely Disaster Risk Reduction (DRR), and the integration of DRR with development programs, implies that the government is accountable for addressing disaster risks that can be harmonized with development programs based on disaster mitigation. Disaster management through development aims to provide understanding to the community and strengthen resilience in facing disasters, emphasizing the essential need for mainstreaming DRR through both structural and non-structural development to ensure the community's survival (Isdarwati, 2019) (Zulaeha et al., 2022)

The 2015 World Conference on Disaster Risk Reduction resulted in the adoption of the Sendai Framework for Disaster Risk Reduction 2015-2030. This conference endorsed four priority actions as follows: (1) Understanding disaster risk, (2) Strengthening disaster risk governance to manage disaster risk, (3) Investing in disaster risk reduction for resilience, and (4) Enhancing disaster preparedness for an effective response and building back better in recovery, rehabilitation, and reconstruction (Erlyn Erawan Psy.D, 2015). The efforts to reduce disaster risk are undertaken by considering various aspects, including sustainability and the participation of all elements within the community (Pahleviannur, 2019). When a disaster occurs, the capability of an entity, individual, or group to navigate through a crisis during the disaster and the subsequent recovery and improvement process varies. (Amir, 2021), (Panitia Nasional GPDRR, 2022). Psychological research findings indicate that the overall resilience of Indonesians is still low. They exhibit limited ability to cope with stress and tend to struggle in overcoming traumatic conditions. (Pratiwi & Wadianto, 2021).

Findings from the study on the Adaptation Capacity and Resilience of Communities Confronting the Eruption of Mount Merapi indicate that communities face significant vulnerability during volcanic eruptions. Nonetheless, these communities demonstrate a notable ability to adapt through creative learning grounded in knowledge and experience, propelled by social networks. The communities can attain resilience and adjust to alterations with a substantial adaptive capacity. (Dillashandy & Panjaitan, 2019). The study on Community Preparedness in Dukun Village, Dukun Subdistrict, Magelang Regency, a Disaster-Prone Area (KRB) III in Disaster Management, concludes that residents are aware of residing in a disaster-prone area. Currently, the majority of families have participated in preparedness awareness campaigns; however, there is still a lack of understanding regarding disaster risk reduction and preparation. (Margono Margono et al., 2019). The research on the Disaster Management of the West Aceh District Disaster Management Agency (BPBD) concludes that Suak Ribe Village, Johan Pahlawan Subdistrict, which was affected by a tornado in 2021, has not received rehabilitation and reconstruction efforts from the government. This is attributed to the government's assessment that the disaster was not excessively severe and limited budget availability. (Rahmah & Ikhsan, 2022). Based

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on these findings, community resilience to disasters is crucial, and the government's role in disaster mitigation, rehabilitation, and reconstruction requires effective management. The objective of this research is to understand the governance of resilience in Pancoh Tourist Village post-Mount Merapi eruption. This study is expected to enhance knowledge about disaster mitigation and improve the resilience of the local community to the potential hazards of Mount Merapi.

METHOD

This research employs a descriptive qualitative approach through a case study in Pancoh Tourist Village. Qualitative research is descriptive in nature and tends to employ an inductive approach to analysis, emphasizing the subjects' perspectives in the research process and meaning derivation (Fadli, 2021). With this approach, we can understand and analyze the management of community resilience in Pancoh Tourist Village in reducing disaster risks. The research is located in Pancoh Tourist Village, Turi, Sleman, Yogyakarta. The focus of this study is to describe and analyze the governance of disaster resilience in Pancoh Tourist Village. The subjects of this research are the managers of Pancoh Tourist Village. Data collection is carried out through interviews, observations, documentation, and direct on-site investigation by the researcher. The interview process involves asking prepared questions to the respondents. The observation process entails directly witnessing the efforts made by Pancoh Tourist Village by recording incidents on-site. Documentation involves reviewing incidents in the field, exploring literature from various sources, and examining reports held by the managers, which are then compiled in the form of written or graphical representations for the studied research and literature review. The researcher analyzes field findings by supplementing existing data if any presented data is deemed incomplete according to the research focus (Firman, 2018).

RESULTS AND DISCUSSION

The 2010 eruption of Mount Merapi marked the starting point in raising awareness about the importance of environmental conservation. Pancoh Hamlet has a spring as a water source used for drinking water needs in Yogyakarta Province. This spring needs to be preserved for environmental sustainability and disaster risk reduction preparedness. The concept introduced by Pancoh Tourist Village is ecotourism, representing a form of sustainable tourism. Resilience governance is conducted through enhanced understanding, strengthening disaster risk governance, investing in disaster risk reduction, and improving disaster preparedness.

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Understanding Disaster risks

Understanding disaster risk involves a series of efforts to mitigate disaster risk, encompassing both physical development and raising awareness as well as enhancing the ability to cope with the threats of disasters. Information obtained from interviews with NT and IJ informants indicates that:

> "From the beginning, with the guidance of NGOs and UGM, we chose ecotourism for Pancoh as it falls within the water catchment area. It is expected that the water ecosystem, fish, and nature will be preserved, maintaining groundwater for optimal utilization."

> "Originally, the idea came from the NGO that provided assistance post the 2010 eruption for approximately two years. The development of the village's potential into a tourist destination faced confusion regarding the chosen theme. Considering the high consequences of ecotourism, we hesitated, and then we discussed whether to opt for a tourist village or ecotourism. Eventually, we decided on ecotourism."

The psychological situation experienced by the victims of the volcanic eruption necessitates support and reinforcement. Based on the information provided by the informants above, the motivation to overcome the disaster emerged when accompanied by NGOs, academics, and support from the local government, leading to the idea of developing ecotourism. This psychological condition aligns with the statement that the risk of disasters from a psychological perspective is an individual's feelings. Feelings are a psychological condition obtained through cognitive processing in the form of knowledge. The knowledge acquired by individuals about disasters creates both positive and negative feelings. In psychological studies, it is found that individuals tend to exhibit stronger responses to disaster victims on an individual level compared to large-scale events (Etkin, 2016), (Heryana, 2020). The informant's account above aligns with the findings of this study. The 2010 eruption of Mount Merapi prompted the Pancoh community to become aware of the vulnerability of their living environment to disasters. This hamlet has managed to rise and transform into a tourist village with the assistance of the Rural Technology Development Institute (LPTP) and in collaboration with the Ministry of Environment and the Center for Tourism Studies at Gadjah Mada University (UGM). By exploring various potentials within Pancoh Tourist Village, which can be developed into attractive tourist attractions, the village aims to draw visitors (Endiyanti & Sarwadi, 2021). Environmental concern has become crucial as a preventive measure in disaster-prone areas. The presence of ecotourism activities in the tourist village is expected to instill a high level of environmental awareness, ensuring that both the local community and tourists share a common mission in preserving and conserving the environment (Purwanto, 2017). According to informant Sh, the process of conveying disaster risk awareness to tourists is conducted through nature conservation activities. The tree planting process can be observed in Figure 2(Jadesta, 2023). One of the activities that must be carried out in ecotourism is tree planting. This activity is not only beneficial for the environment but also easy to implement. Tree planting can help address the increasingly severe global warming issue. Trees can absorb sunlight and convert it into energy through the process of

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photosynthesis. By planting trees, we can increase the forest area in Indonesia and raise awareness among the public about the importance of preserving forests and the environment (Nurwiyoto et al., 2023).

> "For guests staying more than 1 night in Pancoh, we impose a conservation fee of 15 thousand per person. In addition to tree planting, we allocate funds to release endemic birds here, such as the hornbill, and release nilem fish into the river."

Figure 2. Tree Planting

Informant Nt states that the level of community awareness in preserving the environment to reduce disaster risks has been implemented.

> "In general, our environment is well-organized and clean; the community becomes accustomed to things that are beautiful, clean, orderly, and safe because the homestay owners must be consistent in keeping it clean."

This is reinforced by the statement from informant Ij and Hs

> "There is a community cleaning activity every Thursday, and a joint cleaning effort to clean the streets is conducted every two weeks."

The informant's statement explains that the community's behavior to reduce disaster risks has become part of daily social life. The tourist village management also disseminates natural conservation activities, such as tourist attractions, through social media platforms like Instagram and Facebook.

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Figure 3. Pancoh Ecotourism Village Instagram

The disaster mitigation socialization packaged within this tourist attraction aligns with promoting a safe culture program (anticipatory towards natural disasters) to build community awareness through social media (Siregar, 2017).

Disaster Risk Management

Disaster risk management is a process aimed at reducing the negative impact of disasters on humans and the environment. This process involves various steps, ranging from identification, analysis, evaluation, to the control of disaster risks. It also encompasses efforts to enhance the preparedness, resilience, and recovery of communities affected by disasters. Disaster risk management needs to be carried out in an integrated, participatory, and sustainable manner (Paidi, 2012). Thus, disaster risk management can contribute to achieving sustainable and inclusive development.

The concept of sustainable tourism is a characteristic embraced by Pancoh Ecotourism Village. Community-based ecotourism relies on the involvement of the local people in managing the tourist attractions. This approach has several advantages. First, the attractions are usually small-scale, which makes them more compatible with the community's values and capacities. Second, the community has a sense of ownership and responsibility for the tourism resources. Third, the community benefits directly from the tourism revenue as the main stakeholders. To achieve community-based ecotourism, it is essential that the local people participate actively in tourism planning and decision-making. (Kaharuddin et al., 2020). Informant Ij's statement regarding the management of ecotourism is not yet optimal.

> "Due to our hiatus between the establishment in 2012 and the period towards 2014, the community eventually experienced boredom. In the past, there was no loyalty, meaning the community lacked commitment to seek partnerships, promote, and lobby the tourism department."

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> "To sustain it, there are still some issues. In my opinion, every organization in the village should have one person who is fully responsible. Actually, I only ask for three components: capability, willingness, and time. These friends need guidance and training to lead. If there is no one leading the way, the journey ahead will still be unstable. The mindset of young people is also different from the older generation."

Based on that statement, ecotourism management is still dominated by the management as well as the founder. The involvement of the younger generation is not yet active and still requires guidance and leadership training with the requirement of willingness, capability, and the readiness to allocate time. This finding is consistent with the research results of Rohani and Irdana, indicating that one of the challenges faced by Pancoh Ecotourism Village is the limited involvement of the younger generation in tourism management. Most actively involved are the senior members, such as fathers and mothers, who also serve as tour guides. However, the younger generation has the potential to develop this ecotourism-concept village. Unfortunately, they often prefer to work or study outside the village, leading to difficulties in regenerating the management of the tourist village. The head of the Pancoh tourist village management hopes for efforts to increase the interest and knowledge of the younger generation regarding the tourist village so that they can contribute to maintaining the sustainability and development of tourism in their village (Rohani & Irdana, 2021).

The next disaster mitigation management activity involves managing cow waste and waste processing. The processing of biogas from cow manure becomes one of the educational tourism activities. Visitors are invited to observe the biogas production process through containers or digesters. According to the statement of Informant Hj, two buckets of animal manure can produce LPG gas for one day. The findings of this research are also in line with studies on Straw as a raw material for biogas, which has good prospects in China. Dry methane fermentation is suitable for large-scale biogas production from agricultural waste. The central supply model can promote biogas development in rural China and enhance the value of biogas residue as commercial fertilizer (Chen et al., 2014). Biogas can also be efficiently used to generate electricity. Despite different raw materials, agricultural waste has the potential to produce renewable energy to address energy shortages.

Figure 4. Processing Livestock Waste

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Meanwhile, waste management is conveyed by the informant Sh, Ij, Nt as follows:

> "If we talk about waste management, we used to have it, starting from organic and non-organic waste. However, it has been inactive for a long time because those who manage it lack people. As for the waste craft, it is still ongoing in Mr. Andri's or Mrs. Dasiah's place because they are the ones who taught it. But for the processing, we still have it even though it's not active."
>
> "If in the past, we had the Ngudi Asri waste bank collaborating with the Handayani waste bank, but over time, it turned out that the waste banks were not consistent. Eventually, we slowly withdrew. So, we sorted out the recyclable waste for sale. The community was enthusiastic, but the money didn't come through, so the community stepped back again. Although we already have the building for waste management, it's well-maintained but not in use. So now, when the activities are over, the waste is burned."
>
> "There is a waste bank, but it's stagnant because our waste used to be collected by a district-level waste bank owned by individuals recommended by the environmental or sanitation department to carry out these activities, but the money is unknown. Before 2017, each hamlet was provided with a waste warehouse of the same size and budget, but now it's idle, so the money is wasted."

Based on the statement from the ecotourism village manager, waste management was initially handled by the Waste Bank, and there was a storage warehouse obtained from the Environmental Agency before 2017. Initially, the community was involved in waste sorting because it generated income, but the management faced obstacles as the collaboration did not go as planned, leading the community to revert to the habit of burning waste. Based on field observations, the level of community participation in various programs in Pancoh Ecotourism Village is still low. These programs include waste management and livestock waste utilization for biogas production. The main factor contributing to the low participation is the busy schedules of residents, whether attending college or working.

The carrying capacity of ecotourism is the natural ability to tolerate human disturbances and preserve the authenticity of natural resources. The level of the natural ability to tolerate and create a natural environment is measured by the approach of the ecological potential of visitors. The ecological potential of visitors is the natural ability to accommodate visitors based on the type of activities in a particular tourism destination. This potential is considered by calculating the natural ability to tolerate visitors so that the authenticity of nature remains preserved. Social carrying capacity has a maximum limit on the use of the area; this is done to reduce discomfort and dissatisfaction among users.

Informant Nt further explains about environmental management to address disaster risks. In our region, there are also groups assisting in tourism, such as POKDARKUN (Community Awareness Group) and POKDARLING (Environmental Awareness Group). However, cases of embezzlement of waste funds have led to their discontinuation. Each hamlet has been provided with a waste warehouse of the same size and budget, but they

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are currently not utilized. Only crafts made from waste continue to exist and serve as educational tourism.

Figure 5. Disaster Preparedness Training

The Village Tourism Manager also organizes disaster preparedness training attended by the youth organization (karang taruna). This activity aims to foster awareness of the potential disaster risks that may occur at any time. Participants are also expected to be able to prepare for their needs and reduce the risks resulting from disasters. According to the research on the Social Capital of the Jalawastu Community in Building Social Integration with the Local Government, the formal structure in the Jalawastu traditional community is under the authority of the Ciseureuh Village government, led by a village head. The Jalawastu region is also considered one of the hamlets informally led by a traditional leader. This dynamic influences individuals within the community (Kusuma et al., 2022). Similarly, research on community-based landslide risk reduction will be effective when conducted with a clear design concept and strong participation from the community and relevant stakeholders (Akhirianto, 2017)

Investing in Disaster Risk Reduction

One way to enhance community resilience to disasters is by engaging in proactive planning and investing in disaster risk reduction based on accurate risk assessments. This can save costs in the long run, as it can prevent or reduce losses associated with disasters that may impede sustainable development. The investment made in Pancoh Tourism Village involves a conservation fee imposed on every visitor. According to Informant Ij:

> "For children living in, there is a conservation fee of IDR 15,000 per person for tree planting, environmental cleanliness of the river, and fish stocking."

To preserve natural resources, the ecotourism managers implement a policy limiting the number of visitors. According to Informant Sh, this aligns with the principles of ecotourism, prioritizing environmental protection without compromising the quality of the tourist experience. The management has set a maximum quota of 500 visitors or 2 guest groups

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per day, depending on what is more feasible. The management acknowledges that the available funds are still very limited to enhance investment. The efforts made so far are limited to natural resource management by constructing reservoirs as water reserves and implementing the provision of drinking water for the community, managed through a profit-sharing system with the neighborhood business entity.

CONCLUSION

The governance of resilience in Pancoh Tourism Village has improved since the eruption of Mount Merapi in 2010. Disaster risk management extends beyond volcanic eruptions as Pancoh Tourism Village develops ecotourism attractions. Understanding disaster risks is implemented through environmental conservation programs, cultural preservation, and economic enhancement via tourist attractions. Conservation programs include maintaining the quantity and quality of water sources through tree planting, the distribution of Nile tilapia fish, and protecting rivers from waste and pollution. Another program focuses on preserving endangered species like the hornbill bird, waste management, and litter control. Investments in disaster risk reduction involve the provision of conservation funds, amounting to 15 thousand units of the local currency, charged to each visitor. Recommendations from this research highlight the need for the development of standard operating procedures for disaster mitigation, increased active community participation, especially involving the younger generation in leadership, and the management of waste, livestock, and agricultural byproducts.

REFERENCES

Akhirianto, N. A. (2017). Konsep Desain Pengurangan Risiko Bencana Longsor Berbasis Komunitas. *Jurnal Sains Dan Teknologi Mitigasi Bencana*, *12*(1). https://doi.org/https://doi.org/10.29122/jstmb.v12i1.3698

Amir, S. (2021, September 27). Kerentanan Pandemi dan Paradoks Resiliensi. *Media Indonesia*. https://mediaindonesia.com/kolom-pakar/435585/kerentanan-pandemi-dan-paradoks-resiliensi

BNPB. (2023). *Info Grafis Peta Potensi Bahaya Indonesia*. BNPB. https://inarisk.bnpb.go.id/infografis

Chen, Y., Hu, W., Feng, Y., & Sweeney, S. (2014). Status and prospects of rural biogas development in China. *Renewable and Sustainable Energy Reviews*, *39*, 679–685. https://doi.org/10.1016/j.rser.2014.07.119

Dholina Inang Pambudi. (2021). Pengurangan resiko bencana berbasis masyarakat di Sesar Kali Opak, Jogotirto,Berbah, Sleman. *Seminar Nasional Pengabdian Kepada Masyarakat*, *0*(0), 851–858. http://www.seminar.uad.ac.id/index.php/senimas/article/view/5118/1166

Dillashandy, N. A., & Panjaitan, N. K. (2019). Kapasitas Adaptasi dan Resiliensi Komunitas Menghadapi Bencana Erupsi Gunung Merapi. *Jurnal Sains Komunikasi Dan Pengembangan Masyarakat [JSKPM]*, *2*(5), 617–626. https://doi.org/https://doi.org/10.29244/jskpm.2.5.617-626

Emosda, L., & Fadzlul. (2014). Mengkonstruk Pemahaman Masyarakat Peduli Bencana Alam Banjir. *Jurnal Pengabdian Masyarakat*, *29*(3), 21–29.

Journal of Social Politics and Governance (JSPG) Vol.5 No.2, Desember 2023, pp. 186-198
P-ISSN : 2686-0279 --- E-ISSN : 2685-8096

Endiyanti, S. R., & Sarwadi, A. (2021). Pengelolaan Ekowisata Di Desa W isata Pancoh , Turi , Sleman , Yogyakarta. *Cakra Wisata Jurnal Pariwisata Dan Budaya*, *22*(2), 34–46. https://jurnal.uns.ac.id/cakra-wisata/article/view/55209

Erlyn Erawan Psy.D. (2015). *Kerangka Kerja Sendai untuk Pengurangan Risiko Bencana*.

Etkin, D. (2016). *Disaster Theory: An Interdisciplinary Approach to Concepts and Causes*. Oxford: Elsevier Ltd.

Fadli, M. R. (2021). Memahami desain metode penelitian kualitatif. *Humanika*, *21*(1), 33–54. https://doi.org/10.21831/hum.v21i1.38075

Faradiba, N. (2022). Kenapa Indonesia rawan Bencana? *Kompas.Com*. https://www.kompas.com/sains/read/2022/05/24/163400923/kenapa-indonesia-rawan-bencana-

Firman. (2018). *Analisis Data dalam Penelitian Kualitatif*. Research Gate. https://www.researchgate.net/publication/328675958_Analisis_Data_dalam_Penelitian_Kualitatif

Heryana, A. (2020). *Risiko Dalam Bencana* (Issue January).

Jadesta. (2023). *Desa Wisata Ekowisata Pancoh*. Kemenparekraf RI. https://jadesta.kemenparekraf.go.id/desa/66254

Kaharuddin, K., Pudyatmoko, S., Fandeli, C., & Martani, W. (2020). Partisipasi Masyarakat Lokal dalam Pengembangan Ekowisata. *Jurnal Ilmu Kehutanan*, *14*(1). https://doi.org/https://doi.org/10.22146/jik.57462

Kusuma, W. J., S, S., Samidi, R., & Asrawijaya, E. (2022). Modal Sosial Masyarakat Jalawastu Dalam Membangun Integrasi Sosial Dengan Pemerintah Daerah. *Journal of Social Politics and Governance (JSPG)*, *4*(2), 79–86. https://doi.org/https://doi.org/10.24076/jspg.v4i2.876

Margono Margono, Amin, M. K., & Astuti, R. T. (2019). Kesiapsiagaan Masyarakat Di Desa Dukun Kecamatan Dukun Kabupaten Magelang Kawasan Resiko Bencana (KRB) III dalam Penanggulangan Bencana. *Wiraraja Medika Jurnal Kesehatan*, *9*(2), 12–26. https://doi.org/https://doi.org/10.24929/fik.v9i2.784

Nurwiyoto, Irwandi, Hidayat, T., Hartati, M. S., Syahfitri, J., & Nopriyeni. (2023). Konservasi Lahan Ekowisata Melalui Penanaman Bibit Seribu Pohon di Desa Wisata Penembang Kabupaten Bengkulu Tengah. *Setawar Abdimas*, *02*(02), 83–93.

Pahleviannur, M. R. (2019). Edukasi Sadar Bencana Melalui Sosialisasi Kebencanaan Sebagai Upaya Peningkatan Pengetahuan Siswa Terhadap Mitigasi Bencana. *Jurnal Pendidikan Ilmu Sosial*, *29*(1), 49–55. https://doi.org/10.23917/jpis.v29i1.8203

Paidi. (2012). Pengelolaan Manajemen Risiko Bencana Alam Di Indonesia. *Jurnal Ilmiah Widya*, *29*(321). https://www.neliti.com/publications/218658/pengelolaan-manajemen-risiko-bencana-alam-di-indonesia

Panitia Nasional GPDRR. (2022). *Komitmen Indonesia Membangun Resiliensi Berkelanjutan*. BNPB. https://bnpb.go.id/berita/komitmen-penuh-indonesia-membangun-resiliensi-berkelanjutan

Pratiwi, R. S., & Wadianto, G. K. (2021). Ternyata Resiliensi Orang Indonesia Tergolong Rendah: Apa Artinya? *Kompas.Com*. https://lifestyle.kompas.com/read/2021/07/10/160407820/ternyata-resiliensi-orang-indonesia-tergolong-rendah-apa-artinya

Journal of Social Politics and Governance (JSPG) Vol.5 No.2, Desember 2023, pp. 186-198
P-ISSN : 2686-0279 --- E-ISSN : 2685-8096

Purwanto, S. (2017). Ekowisata Sebagai Upaya Pengelolaan Pariwisata.Berkelanjutan (Studi Kasus Desa Wisata Pancoh). *Peran Geografi Dalam Pengelolaan Sumberdaya Wilayah NKRI Di Era Teknologi*.

Rafie, B. T. (2022). Inilah Kawasan Rawan Bencana Gunung Api di Indonesia, Penting untuk Tahu. *Kontan.Co.Id*. https://caritahu.kontan.co.id/news/inilah-kawasan-rawan-bencana-gunung-api-di-indonesia-penting-untuk-tahu.

Rahmah, S., & Ikhsan. (2022). Manajemen Bencana Dalam Penanganan Pasca Bencana BPBD Kabupaten Aceh Barat. *Journal of Social Politics and Governance (JSPG)*, *4*(1), 24–37. https://doi.org/10.24076/JSPG.2022v4i1.776

Rohani, E. D., & Irdana, N. (2021). Dampak Sosial Budaya Pariwisata: Studi Kasus Desa Wisata Pulesari dan Ekowisata Pancoh. *Jumpa*, *8*(1), 128–151.

Siregar, N. (2017). Implementasi Making Aceh Safer Through Disaster Risk Reduction In Development (DRR-A) Project Oleh United Nations Development Programme (UNDP) Dalam Upaya Mengurangi Resiko Bencana. *EJournal Ilmu Hubungan Internasional*, *5*(3), 775–788.

Wahyuni, H., & Sakir. (2020). Mainstreaming Disaster Risk Reduction (DRR) in Disaster Prone Areas Of Sleman Regency. *Jurnal Aristo (Social,Politic, Humaniora)*, *09*(1), 131–150.

Zulaeha, M., Ariany, L., Dwifama, A. H., Falmelia, R. A., & Ridhani, M. S. (2022). Mitigasi Bencana Perspektif Kebijakan Publik Dalam Penanggulangan Bencana Banjir Di Kalimantan Selatan. *Prosiding Seminar Nasional Lingkungan Lahan Basah*, *7*(April), 150–159.