

PREPAREDNESS OF ELEMENTARY SCHOOL COMMUNITY IN FACING VOLCANIC ERUPTIONS IN BANYUMAS REGENCY

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Abstract: Disasters are inevitable, but people can prepare themselves to minimize the impact of these disasters. Disaster risk reduction measures are particularly necessary to minimize the risks associated with volcanic eruptions. By minimizing threats and vulnerabilities, individuals at risk can reduce the potential for disaster. Preparedness is a process aimed at anticipating disasters. This observation aims to assess the knowledge and actions taken for emergency response planning in elementary schools, specifically in response to volcanic eruptions in Banyumas Regency. The research methodology employed was descriptive and qualitative. The analysis of existing research on the importance of disaster preparedness in schools has shown positive results. The individuals involved demonstrate an understanding of the knowledge and attitudes necessary for emergency response plans in the event of a volcanic eruption.

Keywords: school community preparedness, volcanic eruption

INTRODUCTION

Indonesia is a country prone to disasters due to its geographical position. It sits at the intersection of three tectonic plates, with over 128 active volcanoes and approximately 150 rivers flowing through densely populated areas (Febriana et al., 2015). The presence of volcanoes in Indonesia is a result of its location at the convergence of four tectonic plates: the Indian Ocean and the Asia-Pacific, Australian, and continental plates (Nugroho, 2018).

Indonesia comprises numerous islands, from Sabang to Merauke, where active volcanoes are frequently found. These active volcanoes pose a significant risk of eruption. Due to these conditions, disasters can occur in various regions of Indonesia, threatening the lives, properties, and safety of people residing in mountainous areas, especially those living near volcano slopes.

Volcanic eruptions can occur at any time and pose a danger to the safety of the population. People living near mountainous regions, such as near Mount Slamet, are aware of this situation. Mount Slamet is the tallest active volcano in Central Java Province, known for its significant volcanic activity. Administratively, Mount Slamet covers the districts of

Pemalang, Banyumas, Brebes, Tegal, and Purbalingga, including several settlements in the surrounding areas (Nugroho, 2018).

One area close to the slopes of Mount Slamet is the Baturaden sub-district. Kalipagu hamlet is a village located in the Baturaden sub-district. Kalipagu is the highest village in the Baturaden sub-district and is situated near Mount Slamet, as can be observed on the map. Banyumas is a regency that has a regional disaster management agency (BPBD) within its jurisdiction because the Baturaden sub-district is prone to disasters. Among the potential disasters in Banyumas regency is volcanic eruptions, mainly due to Mount Slamet, which is the second-largest active volcano in Java after Mount Semeru in Lumajang, East Java.

Indonesia faces a serious challenge in disaster management, as the efforts to mitigate and reduce disaster risks remain weak. There is a lack of awareness and participation in disaster risk reduction, especially among schools. In the event of a disaster, there are not only significant material losses but also loss of lives. Students living in disaster-prone areas need to receive disaster preparedness and mitigation education.

Children are particularly vulnerable to disasters, which may be attributed to various factors in their surroundings that make them unprepared. The importance of expanding disaster awareness, especially among elementary school children who are unaware of what to do during a disaster, should be promoted (Zhou et al., 2020). This is crucial for their future well-being.

Dealing with volcanic eruptions cannot be done suddenly; it requires pre-disaster preparations through a process called disaster management. One essential aspect of preparation is ensuring the proper development of human resources. Human resources play a crucial role in achieving successful disaster management outcomes, as they possess the knowledge needed to minimize casualties during a disaster, both at the individual and group levels.

According to Article 1 of Law No. 24 of 2007 on Disaster Management, a disaster is defined as "an event or series of events that threaten and disrupt the order of life and livelihoods, resulting in human casualties, environmental damage, property losses, and psychological effects." Based on this definition, an event is considered a disaster if it causes significant damage, disrupts the lives and activities of the population, results in loss of life, and exceeds the local community's capacity to respond.

Preparedness is the effort to anticipate the occurrence of disasters. According to Sutton and Tierney (as cited in Dondon, 2013), preparedness involves active protection activities implemented before and during a disaster, through short-term and long-term solutions. According to (Adiwijaya, 2017), the meaning of preparedness differs among individuals. Being

prepared means planning activities to react in the event of a disaster. Preparedness is also understood as being in a state of alertness for emergencies, disasters, or crises to minimize the adverse effects. Preparedness is a determining factor in reducing disaster risks and should be implemented and emphasized from an early stage (LIPI-UNESCO, 2006; (Hasan Basri et al., 2019)).

Given the high threat of disasters, preparedness in handling them becomes crucial. However, the level of preparedness among the population for natural disasters in Indonesia is considered insufficient. For example, the eruption of Mount Merapi in Yogyakarta in 1994 resulted in sudden lava flows through the Turgo Valley, primarily due to the main threat of pyroclastic flows and their associated accidents and illnesses (Afik et al., 2021).

The initial step in volcano disaster management is to understand the nature of the disaster, enabling the selection of appropriate actions for disaster management before, during, and after the event. Disaster communication is a critical activity that should be prioritized and implemented for the population residing in disaster-prone areas. The government and relevant stakeholders need to prepare the population in these areas to effectively cope with disasters through the dissemination of initial information on disaster-related issues.

RESEARCH METHOD

The method used in this observation is qualitative research. According to Saryono (2010),(Los, n.d.), qualitative research is useful for understanding, discovering, and describing characteristics and social effects that cannot be measured or explained through quantitative approaches. Lexy J. Moleong (2005:6) states that qualitative techniques aim to understand the experiences perceived by subjects, including attitudes, perceptions, motivations, and so on. This understanding is comprehensive within the field of linguistics and the specific context experienced, utilizing various natural methods. Qualitative observation can be understood as a method that utilizes descriptive information in written or spoken form from the individuals and actors involved.

In this study, qualitative observation is used to explore the preparedness of elementary school communities surrounding Mount Slamet before a volcanic eruption. The context includes insights, preparedness configurations, preparedness planning, and alertness systems. The research was conducted in Kalipagu Village, Baturaden District, Banyumas Regency. The observation is carried out based on information obtained from the Regional Disaster Management Agency (BPBD) of Banyumas Regency, which indicates that the village falls within the disaster-prone zone with a radius of less than 8 kilometers from Mount Slamet.

RESULT AND DISCUSSION

Based on the data collected by the researcher at Kalipagu Elementary School in Ketenger Hamlet, Baturaden Sub-district, this observation focuses on the preparedness of the elementary school in Kalipagu, Ketenger Village, Baturaden Sub-district, to deal with volcanic eruptions. Specifically, it examines the aspects of knowledge and attitudes in the emergency response plan.

Preparedness at Kalipagu Elementary School in facing volcanic eruptions is assessed in terms of knowledge and attitudes in the emergency response plan.

1. Knowledge Aspect

Schools play a crucial role in educating students about disasters. Knowing about natural disasters and volcanic eruptions is essential for students to understand how to handle disasters and develop a preparedness mindset. Schools serve as a support system to provide knowledge and understanding of disasters to students.

One of the factors that influence disaster preparedness is knowledge. According to (Mais, 2015), knowledge is crucial for future life. Knowledge and skills gained through experience are valuable information for disaster management (Gunawan, 2015). Knowledge plays a primary role in public education, training, preparedness, and evacuation routes (Vinnell et al., 2021).

The knowledge and awareness of the school principal, teachers, and elementary school students regarding volcanic eruptions influence their character and concern to be vigilant and prepared in the event of an eruption. The school principal, teachers, and students understand that the school is located in an area prone to volcanic disasters, particularly Mount Slamet, which is an active volcano that could erupt at any time. This statement is supported by the interview with the class teacher (GK1).

Despite being located in a disaster-prone area, the school has never conducted disaster preparedness socialization because there has been no socialization from the local Regional Disaster Management Agency (BPBD) for schools. This phenomenon is reinforced by the statement of GKIV and is consistent with (Nirmalawati, 2022).

Students are provided with information about disasters and the importance of disaster preparedness. Consistent with the explanation above, (Sari et al., 2022) ,

mention that the necessary knowledge can be imparted to students through classroom lessons. This is explained in the Social Studies lessons for grades 4, 5, and 6. Teachers explain and provide examples of what should be done in the event of a volcanic eruption. While disaster mitigation is not specifically taught in the school, teachers explain evacuation methods and the activities that must be carried out in the event of a disaster in Social Studies education. These findings are in line with Article 1, paragraph 6 of Government Regulation No. 21 of 2008 concerning Disaster Management. The lack of specific disaster mitigation education leads to a low level of student's knowledge about disasters. This phenomenon highlights the need for specific efforts to enhance students' understanding of natural disaster mitigation. In line with (Try et al., 2022), children need to be informed about disaster preparedness and mitigation in schools. This phenomenon is supported by the Indonesian Child Protection Law No. 23 of 2002, which recognizes education as a crucial aspect of disaster risk reduction activities.

In general, students, after being interviewed, demonstrate that they understand what a volcano is, and how it erupts, and they are aware that Mount Slamet near their school is an active volcano that can erupt. This is consistent with (Nirmalawati, 2022), where the average students have an understanding of Mount Slamet being an active volcano.

According to the students, the signs of a volcanic eruption include the emergence of hot lava, fire, and dangerous hot rocks. Kalipagu Elementary School has not received specific disaster training, but from the interviews, it is mentioned that some teachers have participated in disaster management training conducted by the local village government regarding volcanic eruptions. This is supported by the responses from GK1 and GKIV.

It is essential for students living in disaster-prone areas, most of whom reside in those areas, to learn about disasters not only for their school education but also for their future and their role in society. Therefore, continuous disaster awareness campaigns, training, and simulations are needed in schools, conducted by institutions, organizations, or agencies responsible for disaster management (Nugroho, 2019). The supports the idea that training and preparedness are crucial aspects and key preparations. Disaster drills and exercises are important in reducing the impact of natural disasters in the present and future.

The goal of disaster education is to increase disaster awareness among elementary school students and to instill a readiness mindset and character so that they are always prepared to face disasters. This ensures that elementary school students quickly understand the urgent activities that must be carried out during and after a disaster.

It can be said that the observed students and teachers have a good understanding of volcanic eruptions and their mitigation. However, to ensure the continuity of this knowledge for future generations, regular socialization and training by responsible authorities are still needed. This observation is consistent (Mojokerto, 2018).

2. Attitude Aspect

Schools are where almost all children gather to learn, making them suitable places to prepare them for disaster management through socialization and other activities at school.

The results of interviews at Kalipagu Elementary School regarding the attitudes to be taken during a disaster show that the school community is aware of the actions to be taken in the event of a volcanic eruption. If a disaster occurs, they are instructed to follow the government's instructions and remain calm. This was stated by GKIV, "The attitude to be taken is to remain calm, meaning not to panic but to stay alert and contact relevant authorities, for example, contacting the local Regional Disaster Management Agency (BPBD)." The safest activity during a disaster, according to them, is to save oneself and gather at the designated evacuation point.

Their vigilance regarding volcanic disasters is good, considering that they live in a disaster-prone area. This was mentioned by the library keeper, "Yes, we must always be vigilant because we never know when it will erupt." This statement aligns with the research conducted by researcher (Nirmalawati, 2022) and (Rini & Sudarsono, 2013), which emphasizes the importance of vigilance for people living in disaster-prone areas.

When signs of an impending eruption appear, they prepare themselves and essential items for evacuation to a safer location. This is consistent with (Nirmalawati, 2022), (Hafida, 2019), and (Gunawan, 2015), as they state that in the event of a disaster, it is necessary to seek refuge in a safer location.

Students express sadness when there is a volcanic eruption. They mention that in the event of a disaster, the essential activity is to evacuate and ensure the safety of their peers and families. SW2, SW3, and SW4 stated that it is important to "care about the safety of their friends and family." This aligns with the findings (Nirmalawati, 2022), as they mentioned informing their friends and family to ensure their safety and to be able to gather together in a safe place.

Based on the observation results, it is evident that the elementary school community, including the principal, teachers, and students, understands the necessary activities to be taken before and during a disaster. These activities include evacuation, seeking refuge, and coordinating with relevant institutions.

It can be concluded that the observed students in the school have a moderate level of understanding regarding volcanic disasters and their mitigation. However, regular education and training programs conducted by relevant authorities are still needed to ensure the transfer of this knowledge to future generations. This observation aligns with (Pawestriana, 2016).

In conclusion, the knowledge related to the mitigation or preparedness for the dangers of a Mount Slamet eruption is generally at a moderate level among the observed elementary school community.

CONCLUSION

Based on the observations and discussions provided, it can be concluded that the observation conducted on the preparedness of elementary schools in the Baturaden District to face volcanic eruptions indicates that in terms of human resources, including knowledge and attitudes in emergency response plans, the knowledge and attitudes of the principal and teachers at SD N Kalipagu in dealing with disasters are considered good. The principal and teachers are aware of the school's location in a disaster-prone area and understand the necessary attitudes and actions to be taken before and during a disaster. In terms of student knowledge, it can be classified as moderate, as most students have knowledge related to disasters, particularly volcanic eruptions. However, there is a lack of disaster mitigation training and socialization or simulations due to insufficient involvement of relevant stakeholders.

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