

Local wisdom to mitigate volcano eruption in Sugihwaras village Kediri

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Local wisdom to mitigate volcano eruption in Sugihwaras village Kediri

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Abstract

Natural disasters always occur in Indonesia which certainly cause casualties or losses. One of the disasters that has occurred several times and caused many fatalities is the eruption of Mount Kelud in Kediri, East Java. But with this disaster, it turns out to build the culture of the people who live around it commonly called local wisdom.

The purpose of this study is to 1) Analyze the wisdom of local communities to mitigate volcanic eruptions; 2) Analyzing the efforts made by the community as a form of mitigation of volcanic eruptions. Approval of qualitative research, snowball sampling technique sampling, data collection techniques using observation techniques, interviews and documentation and data validity techniques using triangulation techniques is made.

Keywords: Local Wisdom, Volcano Eruption, Disaster Mitigation.

Introduction

Natural disasters are events caused by nature (natural disaster) or by human actions (man made disaster) that pose a threat to humans. This threat will become a disaster if the community has a lower level of capability or capacity compared to the level of the hazard⁷. Therefore, Indonesia cannot avoid the disasters that have happened to it and education about disaster in society is very much needed, education is an effective way to shape people's behavior in facing disasters⁶. Disaster education plays an important role in saving people from disaster⁵. So in this context, disaster education must be applied more deeply to the general public to improve community disaster knowledge.

According to earth experts, natural disasters are basically ordinary natural phenomena that will occur periodically in a region of varying magnitude. Therefore, the existence of a disaster is always everywhere and at any time and inevitably leads to material and immaterial losses for people's lives³. To reduce the impact of disasters, the community has a culture that has been carried down for generations.

Culture is the result of community knowledge which is a social creature, therefore culture is produced through experience through the process of learning from interactions with the environment. One form of culture is reflected in local wisdom especially in disaster-prone areas such as the

slopes of Mount Kelud-Kediri. This local wisdom is very influential on the level of community capacity¹. The existence of local wisdom Larung Saji in the community of Sugihwaras Village is a form of mitigation or an effort made by the community to reduce the risk of a volcanic eruption, because mitigation will usually arise when the community has experienced it so that they have experience and knowledge when a disaster occurs. Mitigation is very necessary to reduce the risk of disaster or the impact of the disaster.

Disaster mitigation is an action taken before a disaster occurs with the aim to reduce or eliminate the impact of disasters on society and the environment. The purpose of mitigation is to reduce the likelihood of risk, reduce the consequences of risk and the transfer or distribution of risk distribution.

Disaster mitigation is an effort made to prevent disaster or reduce the impact of disasters⁴. Mitigation programs must refer to two stages, namely before and after a disaster occurs. For pre-disaster programs, there must be disaster management and what must be done is disaster mitigation and planning. After the disaster medical or technical assistance is provided for disaster victims⁸.

Based on some of the opinions above, it can be concluded that disaster mitigation is a series of efforts made by humans to adjust the situation to the environment. These efforts are made to reduce the impact or danger that can be caused by disaster. Mount Kelud is one of the active volcanoes in East Java which often erupts in the form of explosive eruptions. Pyroclastic flow deposits and pyroclastic fall are the main constituents of the body of the fire mountain. Lava flow and lava dome are only found at the peak and the eruption center. Lava domes around the peaks from older to younger move in a clockwise direction¹⁰. The Gunung Kelud complex contains at least seven lava domes, both at dome around the eruption center (peak) and inside eruptions such as: Umbuk, Kramasan and Banana⁹.

Based on table 1, the last eruption of Mount Kelud occurred on February 13, 2014 at 22.50 WIB. Although the eruption did not cause casualties, vomiting of volcanic material was up to 17 km. The worst eruption was when it first happened, namely in 1586 which caused most of deaths.

Kelud volcanic activity is included in the category of volcanoes with periods of eruption or eruption with a difference of a long time that is more than 10 years, the last one occurred in 2014. Finally, eruption of Mt. Kelud was not too severe.

Table 1
Mount Kelud Disaster Occurrence

S.N.	Time of eruption	Impact	Victim
1	1586	Not recorded	>10.000 persons
2	22-23 May 1901	Hot clouds and ash rain to Pekalongan	Not recorded
3	20 May 1919	Hail of rock and ash to Bali and Blitar	5.160 persons
4	31 August 1951	Hujan batu sampai Margo Mulo, hujan abu sampai ke kota Bandung	157 persons
5	26 April 1966	Lava overflowed	210 persons
6	10 February-13 March 1990	5 km radius oans cloud, ash distribution up to 1.700 km, 500 damaged houses and 57,3 million cubic ,eters of volcanic material	32 persons
7	5 November 2007	Form a lava dome with a width of 100 m	
8	13- February 2014	Volcanic ash up to 17 km and ash to Bogor	

Source: Lestari et al²

Kelud volcano has a type of mixed eruption that eruption can be effusive or weak and sometimes also explosive or terrible. In the 90s, there was a very large eruption that caused many casualties. Until now, Mount Kelud is still active. The disaster that occurred made people on the slopes of Mount Kelud make countermeasures. One thing that can be done is to record and remember, the events in the mind script to be passed on to the next generation. As a society that has local wisdom, these events are manifested in symbols contained in tradition.

The tradition in this montex is carried out by all the slopes of Mount Kelud for the sake of mutual interest. Local wisdoms are finally manifested in the form of traditions / ceremonies which are carried out every year in the allotted time. In this case the substance is offering to the ancestors or natural authorities, while the form of equipment or offerings needed comes from the agricultural products of the slopes of Mount Kelud. In this regard, their aim is to prevent future disasters from occurring.

Methods

The location of this research is in Sugihwaras Vil¹⁰, Ngancar District, Kediri Regency, East Java Province. This research approach uses a qualitative approach to explain in detail the findings in the field. Informants in this study⁵ are determined by snowball sampling techniques and data collection techniques using observation techniques, interviews to get primary data and document⁷ tion to get secondary data and data validity techniques in this study using triangulation techniques.

Results and Discussion

Local Wisdom of the Community: The local wisdom that exists in the Kelud Mountain community is the Kasada ceremonial tradition which is commemorated every Kasada month which is the 7th day for worship to the guard of Mount Kelud known by the people of Kediri as Lembu Suro. The community believes that by holding the Larung Saji ceremony, it will reject the reinforcements which in the past were cursed by Lembu Suro. Larung Saji's ceremonies were

held in two places, namely near the Kelud volcano and the other beside the Japanese-era tunnel which is still being passed to reach and see the Kelud volcano. The offerings that were brought during the ceremony were 10 cones and complete contents such as side dishes of chicken, yellow rice, fried noodles, chili sauce, lempur and others. The ceremony begins with song singing from the story of Lembu Suro and Dewi Kilisuci.



Figure 1: Larung Saji's Ritual

Source: Kediri.kab.go.id

Other local wisdom that is still believed by the slopes of Mount Kelud is that they believe that if they damage or cut down trees in Mount Kelud, they will get a big disaster like a volcano will erupt.

Community efforts in disaster mitigation: Some of the efforts undertaken by the community in disaster mitigation include the construction of river water canal waterways and the existence of a disaster response community. The construction of a river canal water channel, during the Dutch East Indies colonial era when Mount Kelud erupted in 1919, was made to drain and reduce the volume of crater lake water. When Mount Kelud erupted again in the following years, 1951-1990 mitigation efforts continued to be carried out by repairing and building damaged tunnels. Disaster response communities also established a disaster response community in which these communities make efforts to reduce disaster risks such as the presence of the Anchor Kelud radio.

Jangkar Kelud is interpreted as "jangkane kawula redi kelud", jangkane means desire, Redi Kelud is Mount Kelud. So, in general the Kelud Anchor means the wishes of the Kelud Mountain community. This communication radio is able to deliver precise and fast information to the public, so that the community has the ability and knowledge about the Mount Kelud eruption disaster.

Conclusion

The community of Mount Kelud slopes still holds the wisdom of Larung Saji, which is offered to Lembu Suro; this activity is carried out every year because it is for the sake of public safety. The community believes that through local wisdom, the people on the slopes of Mount Kelud can reduce the impact of disasters. In addition to local wisdom, the Kelud Mountain slope community also made other efforts such as the construction of river water canal waterways and the establishment of disaster response communities such as the Kelud Anchor.

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