AWARENESS OF EARTHQUAKE DISASTER INFORMATION BY TEENAGERS IN PAGAR ALAM CITY

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Abstract. Pagar Alam is a disaster-prone area because this area has a volcano that can be active at any time. Conditions and information about the activities of Mount Dempo are very important for the entire community to know as a form of anticipation if an earthquake and eruption occur. The media is a part of the process of disseminating disaster-related information. However, it turns out that not all people in Pagar Alam City have concerned know this. So in the process of disaster mitigation experiencing difficulties. This research was conducted by distributing google forms to teenagers in Pagar Alam City, namely high school/vocational high school students. The goal is to find out if they have the initiative to find out about disaster information in their area. And categorize what media are the references in obtaining news about the disaster. With the uses and gratification theory as well as a disaster mitigation approach, the results obtained are that most of the youth in Pagar Alam know that they live in disaster-prone areas. Facebook is the most common reference in providing information about disasters that occur and they have enough initiative to seek further information about disasters, especially earthquakes. The Pagar Alam City Regional Disaster Management Agency (BPBD) as the party responsible for disaster management has been widely known by the people of Pagar Alam City, only those disaster mitigation activities that should be part of their duties are not felt by the majority of the community.

KEYWORDS: Awareness; Teenager; Earthquake; Pagar Alam.

INTRODUCTION

Pagar Alam City was formed based on the Law of the Republic of Indonesia No. 8 of 2001 concerning the Establishment of the City of Pagar Alam dated June 21, 2001 (State Gazette of the Republic of Indonesia of 2001 No. 88, Supplement to the State Gazette of the Republic of Indonesia No. 4115). Administratively, it has 5 districts and 35 sub-districts with an area of 633.66 km2 covering North Pagar Alam District, South Pagar Alam District, North Dempo District, and Central Dempo District, and South Dempo District.

Geographically, Mount Dempo is located at 04º02' south latitude and 103º08' east longitude with the nearest town, namely Pagar Alam. Pagar Alam is included in Lahat Regency, South Sumatra Province (Sujadi, 2020) with an altitude between 600 m to 3,195 masl (Mount Dempo) (Alam, Monograf Kota Pagar Alam , 2019). The condition of the soil in Pagar Alam City is mostly latosal and andosol types with characteristic undulating to hilly ground surfaces. Of course, this type of land is very fertile, making Pagar Alam City a producer of fruits, and vegetables and one of the agribusiness sub-terminals in South Sumatra. (Alam, Kondisi Geografis Kota Pagar Alam, 2022)

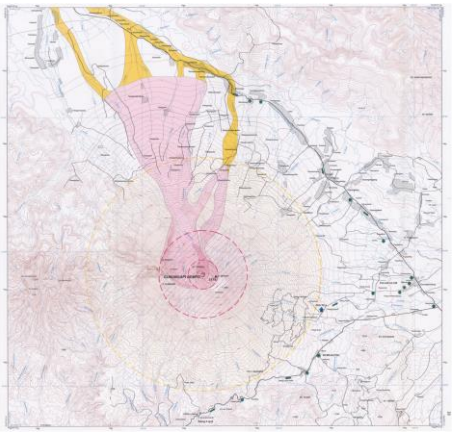
The existence of Mount Dempo is of course a marker that Pagar Alam City is included in a city that has a lot of potential in agriculture, fisheries, mineral resources, plantations, and tourism. But there is another side where the potential for disasters is also caused by volcanic activity, such as earthquakes, landslides, and others. Mount Dempo is one of the active volcanoes seen in the following historical records:

The Eruption History

Table 1. The history of the eruption of Mount Dempo

Year	Description
1926	Mount Dempo shows activity in the form of noise (the sound of falling water). It is estimated that in this eruption some of the crater water was thrown out.
1934	On the afternoon of January 24, there was ash rain on the Gunung Dempo plantation, which resulted in most of the tea leaves being exposed to ash like drops of lime water. When it dries, the tea leaves become damaged and cannot be harvested.
1936	On November 26 – 27, there was a rain of muddy ash in the northwest of the tea plantations. Followed by sulfur rain for more than hours followed by a roar 3 times.
1939	On January 30 at 09.30 there was a continuous sound and flash of light from the top of Mount Dempo. On the evening of February 7, there were 2 thunders. The next day, at 07.30, a small amount of smoke appeared. The activity of Mount Dempo stopped on February 21.
1959	-
1974	Sulfur rain from the crater of Mount Dempo. Daily Gala 1974. P.2 (Bandung)
2006	In September, there was activity from September 17-21, which was marked by the appearance of continuous earthquake tremors with amplitude reaching 17mm and white smoke 50-100m thick. At that time the volcanic earthquake was felt to reach 200 events /day. On September 25 there was a phreatic eruption. One day later the status of Mount Dempo rose to level 2 (alert).
2008	27 December recorded one Deep Volcanic earthquake (VA) and two Deep Tectonic earthquakes (TJ) On December 28, there was one Deep Volcanic Earthquake (VA) and one gust earthquake On December 30 recorded five gusts (HB), one local tectonic earthquake (TL), two distant tectonic earthquakes (TJ) 31 December recorded 1 deep volcanic earthquake (VA) and one gust earthquake (HB), two Deep Tectonic earthquakes (TJ)
2009	January 1, there was an earthquake eruption at 10:51
2022	7 January Upgraded Mount Dempo status, from Normal level I to level II (alert) On January 15, there have been two Distant tectonic earthquakes (TJ) with an amplitude of 6-7 mm, and tremors with an amplitude of 0.5-1mm.

Source: (Suprapto, 2012)



Picture 1. Volcanic Hazard Map of Dempo Vulcano South Sumatera Province
By R.D Hadisantono, S.Rizal., Pujowarsito, Purwoto & c. Patria 2008 (Suprapto, 2012)

The activity of Mount Dempo when in a disaster condition certainly causes anxiety and often results in casualties. BNPB draws a picture of the areas that are included in the herd exposed to the Mount Dempo disaster and records the number of people who are victims:

Table 2. Population Data Exposed to Mount Dempo Eruption

No	Kabupaten / Kota	Kecamatan	Luas Kec. (Ha)	Luas Kec. Terpapar (Ha)	Luas Kec. Terpapar (%)	Penduduk Kecamatan			Penduduk Kec. Terpapar			Jumlah Desa Terpapar
						Laki-Laki (Jiwa)	Perempuan (Jiwa)	Total (Jiwa)	Laki-Laki (Jiwa)	Perempuan (Jiwa)	Total (Jiwa)	
KRB 3												
1	LAHAT	JARAI	1.962	15	0,76	888	778	1.666	7	6	13	1
TOTAL			1.962	15	0,76	888	778	1.666	7	6	13	1
Radius KRB 3(jiwa)			4.598									

No	Kabupaten / Kota	Kecamatan	Luas Kec. (Ha)	Luas Kec. Terpapar (Ha)	Luas Kec. Terpapar (%)	Penduduk Kecamatan			Penduduk Kec. Terpapar			Jumlah Desa Terpapar
						Laki-Laki (Jiwa)	Perempuan (Jiwa)	Total (Jiwa)	Laki-Laki (Jiwa)	Perempuan (Jiwa)	Total (Jiwa)	
KRB 2												
1	LAHAT	JARAI	1.962	43	2,19	888	778	1.666	21	18	39	1
2	PAGAR ALAM	PAGAR ALAM UTARA	1.849	6	0,32	1.461	1.408	2.869	4	4	8	1
TOTAL			3.811	49	1,29	2.349	2.186	4.535	25	22	47	2
Radius KRB 2(jiwa)			5.086									

No	Kabupaten / Kota	Kecamatan	Luas Kec. (Ha)	Luas Kec. Terpapar (Ha)	Luas Kec. Terpapar (%)	Penduduk Kecamatan			Penduduk Kec. Terpapar			Jumlah Desa Terpapar
						Laki-Laki (Jiwa)	Perempuan (Jiwa)	Total (Jiwa)	Laki-Laki (Jiwa)	Perempuan (Jiwa)	Total (Jiwa)	
KRB 1												
1	LAHAT	JARAI	1.717	13	0,76	737	664	1.401	5	5	10	1
TOTAL			1.717	13	0,76	737	664	1.401	5	5	10	1
Radius KRB 1(jiwa)			17.336									

Source: (Suprapto, 2012)

This note becomes a study material for the government and of course for the community to be more careful and increase awareness of activities that are a sign that Mount Dempo is increasing.

THEORETICAL REVIEW

Media as a Source of Information in Disaster Communication

Mass media is an important part of being prepared for a disaster. With its mass and effective nature, it is proven that the media can be a provider of information on preventive measures, evaluations, and equipment when a disaster occurs. The information conveyed by the media aims to minimize the risk of disaster and serious damage. (Sutopo Purwo Nugroho, 2019)

Living harmony with risk refers to human efforts to recognize the character and nature of nature. (Sutopo Purwo Nugroho, 2019). It starts with knowing whether the environment in which we live is included in a disaster-prone zone. Recognizing the nature of nature starts from understanding the dynamic process, the period of occurrence, and the impact. Communication becomes the basis and encourages the community to participate in preventing, reducing, and recovering from the impact of disasters so that disaster risk management is more optimal. (Dian Tamitiadini, 2019)

Mount Dempo, which is an active mountain, should also be of great concern to the people living around the area. The people of Pagar Alam city should be aware of the risks that can result from these mountain activities. All levels of society should obtain sufficient information about disaster mitigation.

The Uses and Gratification Theory

Explain that individual differences cause audiences to search for, use, and respond to media content differently due to various social and psychological factors among audiences. (McQuail, 2010) Audiences are judged to know their needs and are responsible for the choice of media that can meet their needs. (Morissan, 2013). In line with what was conveyed by Blumer and Kart, the basic assumptions of uses and gratification theory are (1) the audience is considered active, (2) the process of mass communication has many initiatives, and (3) the mass media must compete with other sources to satisfy their needs, (4) many goals of mass media selection are concluded from the data provided by audience members, (5) the assessment of the cultural meaning of the mass media must be suspended before being examined first by the orientation of the audience. (Blumler, 1974).

RESEARCH METHODS

This research is quantitative research which is intended to see the extent of public awareness of Pagar Alam City, especially teenagers, about information about the Mount Dempo disaster. The research focused on adolescents at the SMA and SMK levels as a sample. This category was chosen with the assumption that school-age adolescents most often interact with information sources, both mass media, print media, and social media. In addition, teenagers are the second most consumed party in spending their time-consuming on media (Haryanto, 2021). Frequent interaction with information sources is expected to be a channel of information to the family, the environment, and the community. (Mulyana, 2008) Data collection was carried out by distributing questionnaires in the form of Google form to high school/Vocational high school teenagers in Pagar Alam City by random sampling as many as 100 teenagers to find out how their level of awareness was of information about disaster-prone zones disaster mitigation.

RESULTS AND DISCUSSION

The intended respondents consisted of high school / vocational students in Pagar Alam City.

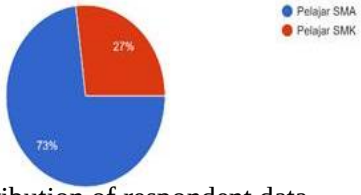


Chart 1. Distribution of respondent data

Chart 2. Respondent data knows about the disaster area
and the duration of the earthquake

As much as 60.3% of the youth of Pagar Alam City know that they live in disaster-prone zones. However, there are still 39.7% who are not aware of the condition of the environment in which they live. This is interesting because the following data shows that 44.4% of these teenagers have experienced more than five earthquakes in a year. The frequency of these earthquakes is considered quite frequent and is a sign that the area they live in has a high potential for disaster. So it is quite strange if there are still people who are not aware of this condition.

Research continues on information about the media that is a reference for information for young people in Pagar Alam City related to the earthquake. Of course, this is related to the uses and gratification theory where the results are:

Chart 3. Respondent data regarding disaster information reference and follow-up information searches

Facebook is the most used reference for teenagers in Pagar Alam City to obtain information about earthquakes caused by the activities of Mount Dempo 34.9%. Followed by Instagram at 31.7%, then the BNPB website at 15.9%. This data shows that there has been a shift in the media that has become a reference for information for teenagers. In the past, television media and newspapers were the main sources for people to seek information, now these media are very little used as information references. The concern for most of the youth towards the earthquake is shown by seeking further information about the event by searching other, more competent sources of information such as the Regional Disaster Management Agency (BPBD) of Pagar Alam City. On their official Instagram website, information about the disaster that occurred in the city of Pagar Alam is quite updated.

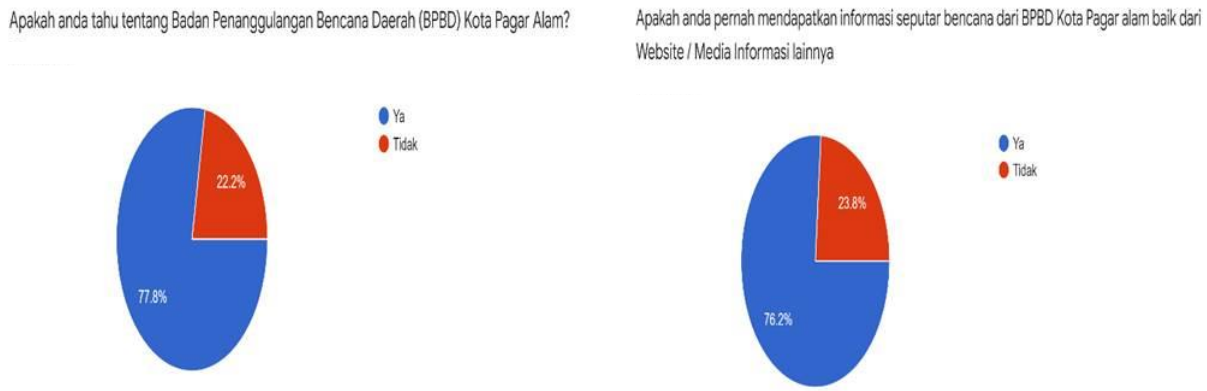


Chart 4. Respondent data about BPBD Pagar Alam City

BPBD Pagar Alam City is one of the official references for the community when a disaster occurs. This institution plays an important role in the process of information dissemination, prevention measures, and incident evaluation. BPBD performance determines the quality of disaster management in a location.

Chart 5. Respondent data on disaster mitigation socialization

However, the results obtained from respondents regarding one of the functions of BPBD, namely disaster mitigation, have never been or are not known by most of the youth of Pagar Alam City. This can be an input for the Pagar Alam city government and BPBD to conduct periodic and comprehensive socialization directly in the form of simulations. Not only relying on mass media as the main media for disaster mitigation socialization to the community. To minimize the impact of losses caused by the activities of Mount Dempo.

CONCLUSION

In the end, all elements involved in the disaster awareness process, both the government and the community, must understand the principle of being friends with disasters (Lestari, 2018). Because by making disaster something that you don't have to worry about excessively, it will make it easier to go through because all parties are aware and feel responsible. By the philosophy of dealing with disasters, the first is to keep the community away from the threat of disaster (hazard), the second is to keep the disaster away from the community, the third is to be friends with disasters and the fourth principle is to cultivate local wisdom. (Sutopo Purwo Nugroho, 2019). Pagar Alam has local wisdom which is closely related to disaster mitigation.

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