
**ANALYSIS OF COMMUNITY OF PREPAREDNESS IN FACING FOREST FIRE
AND PEATLAND IN SINGKAWANG CITY**

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ABSTRACT

This research in detail aims to improve the preparedness of the community and the school community in the face of the disaster of forest and peatland fires in Singkawang City. The level of community preparedness was obtained from the questionnaire score to measure preparedness and was strengthened by interviews with people who experienced the impact of the forest fire disaster, in 2018 in North Singkawang District. The target to be achieved in this study is a policy in the form of attitudes, countermeasures and systems that will be implemented so as to shape the attitudes of the community in preparedness in the face of forest fires and peatlands which will then be implemented in Senior High School 6 Singkawang. The method used is Mixed-method, a form of combination research that combines quantitative and qualitative approaches focuses on data obtained from questionnaires and reinforced by interviews. The sampling technique uses purposive random sampling technique. The results of the study show that the number of people who are ready to deal with disasters is 36.35%, while those who are unprepared have a greater percentage of 44.44% and the rest from the community are categorized more ready at 19.19%. The results of interviews known as community groups and organizations designed to anticipate fire disasters in Singkawang City. However, activities led by the neighborhood unit have not been able to be carried out optimally, due to the limited facilities and infrastructure available.

Keywords: Preparedness, Forest Fires, Peatland

A. INTRODUCTION

Indonesia is the third largest country that has the largest tropical forest in the world and ranks first in the Asia Pacific region, with a total forest area of 133.6 million hectares until 2013 the natural forest cover in Indonesia was 82 million hectares or 46 percent of the land area in Indonesia (Forest Watch Indonesia, 2011). The percentage of natural forest cover to the total land area cannot describe the condition of the carrying capacity of the forest on the real land. Forests have various benefits

in life, directly or indirectly, namely timber producers, other natural needs and as climate regulators, groundwater, soil fertility, these are forest benefits for living things. Wealth the forest makes Indonesia the world's lung and is quite significant in influencing world climate change. The percentage of natural forest cover to the total land area cannot describe the condition of the carrying capacity of the forest on the real land. Singkawang City which is located in a peatland area has a risk of forest fires and

may occur if it enters the dry season, because the climate and temperature are increasing. Singkawang City is included in the high zone with (score 178) based on the district / city disaster risk index (IRBI, 2013). The data confirms that the risk of disasters occurring in the city of Singkawang is high, so that to prevent losses and casualties caused by peat fires, readiness of the people living in the peatland area is needed. Forest fires occurred on August 14, 2018 in Naram sub-district, North Singkawang sub-district on the STKIP road in Singkawang, where peat forest fires also occurred which until now hotspots are still burning, there have been many efforts carried out by firefighters Singkawang City and assisted by TNI / Polri, therefore proper handling is needed so that the disaster fires can be prevented and do not occur again. So that in this study an analysis of community preparedness data was conducted in the face of forest fire disasters in peatland areas by analyzing community attitudes, emergency response efforts and disaster warning systems in North Singkawang District. It is expected that after analysis of data obtained from the community can increase efforts that community preparedness in the face of forest and land fire disasters in the residential areas where they live, as described in the above

statement lies the author to conduct this research with the title "Analysis of Community Preparedness in Facing Fire Forests and Peatlands in Singkawang City".

B. MATERIALS AND METHODS

This research was conducted in North Singkawang District, throughout the community as the main research subject. This research is a study Mixed Method, to get accurate results in understanding the problems of this study. This study uses a method or design concurrent embedded because in this study we used quantitative data obtained from the questionnaire of preparedness research more dominant while the qualitative data obtained from interviews and public statements as complementary or support quantitative data that had been obtained, with the aim of analyzing community preparedness in the Singkawang Utara District in the face of forest fires.

C. RESULTS AND DISCUSSION

This study relates to community preparedness in Singkawang Utara Subdistrict, where in September to November a peatland forest fire disaster occurred. The results of this study provide information related to research by directly plunging the field to the community by providing questionnaires

and interview sheets for community preparedness research in the face of the disaster of peatland forest fires in Singkawang City. Questionnaire that has been validated by experts so that it has been feasible to be distributed to the public for research. The research was conducted together, but the weight of the method was different, because this study used larger quantitative data and qualitative data as supporting data.

1. The results of the research questionnaire analysis

a) Community Preparedness Indexs

Table 1. Community Preparedness for peatland forest fires

No	Index & Preparedness Value	Community Amount	(%)
1	Very Ready (80-100)	12	12,12
2	Ready (65-79)	24	24,24
3	Almost Ready (55-64)	19	19,19
4	Less Ready (40-54)	21	21,21
5	Not Ready (< 40)	23	23,23
Total		99	100

Source: Research, 2019

The table above explains that the community in the category "Ready" Occupies the highest number, 24 people or around 24.24%. However, for people who are not ready, there is also an amount that is almost equal to the "Not Ready" community, which is around 23.23%, and for the community that has the "Very Ready" category from the table above, it is only about 12.12%.

b) Community Attitudes

Based on the preparedness index calculation, the attitude of the community in North Singkawang Village in the face of peatland forest fires is known as the preparedness index value of 64 and is included in the category "Almost Ready". So the need for action from the government and related disaster agencies such as BPBD / SAR Team for provide counseling or socialization so that it can provide education (Education) for the community in improving community preparedness in the face of forest fire disasters in Singkawang City.

c) Community Emergency Mitigation Measures

Efforts to address community emergencies in the face of disasters in peatland forest fires in Singkawang City which have been shown in the calculation of the preparedness index formula above are 62 so that they fall into the category of "Almost Ready". The index results on the parameters of the community emergency response efforts must be increased again, because for now the community's efforts are only almost ready, so that community preparedness increases, the efforts and efforts of community disaster education must also be socialized from the city government or members in the field of

disaster to the community Singkawang City.

d) Early Warning system

The disaster warning system found in the research area shows a preparedness index of 54 and is included in the "Less Ready" category. Based on the results of the study obtained Disaster warning system in Singkawang Utara Village, wherein 2018 there had been a catastrophic forest fire and had caused material losses to burn one of the classes at Singkawang Public High School and smog which caused losses to the community in terms of health. The disaster management system that is less prepared, it can also cause a low level of community preparedness, because each parameter is mutually supportive and can improve preparedness if disaster emergency warning systems, infrastructure and systems are good.

e) Research Implementation at SMAN 6 Singkawang

This study also took place at Senior High School 6 Singkawang, which in 2018 was affected by the forest fire disaster and burned 1 classroom room which certainly hampered the learning process and other activities. Student preparedness in facing the disaster of peatland forest fires in this study, as follows:

Table 5.4 Research Implementation Results in Singkawang High School 6 Students

No	Index & Preparedness Value	Community Amount	(%)
1	Very Ready (80-100)	6	27,3
2	Ready (65-79)	8	36,4
3	Almost Ready (55-64)	5	22,7
4	Less Ready (40-54)	0	0,0
5	Not Ready (< 40)	3	13,6
Total		22	100

Source: Research, 2019

Based on table 5.4 it is known that 86.4% of students are ready in facing the disaster of peatland forest fires but there are still 13.6% of students not ready to face peatland fire disasters. This also explains if in one class there are 22 students then there are 19 students who have high preparedness and as many as 3 students who have low preparedness. The situation also explained that the preparedness of students at SMAN 6 Singkawang had been good but the need for improvement so that knowledge and attitudes in order to improve student preparedness. The implementation of this research is to provide learning in the classroom by providing direct learning to students regarding preparedness in facing the disaster of peat forest fires that occur almost every year in their school area, so that through learning to find out the improvement of student preparedness in this study also using research questionnaires provided is

expected to enrich insight and increase students' knowledge in acting during a forest fire disaster.

2. The results of the community interview analysis

The results of qualitative data analysis using interview techniques to find out more in detail about community preparedness in the face of the disaster of peat forest fires in Singkawang City. Interviews were conducted with the head of the Working Group (Working Group) of the community, Chair of the neighbourhood, the Head of the Village Head in Singkawang Utara District provided very helpful information in this study, especially on community preparedness. The results of the interviews conducted in this study, to Ms. Nurhayati (25 years) who have lived and settled in Naram Village for > 10 years of work as Laboratory Staff, (interview on March 10, 2019) said that:

"The potential for disasters that occur in the city of Singkawang that have occurred in Singkawang Utara, namely a land fire disaster occurred in the Singkawang STKIP campus area and SMAN 6 Singkawang. From September to November 2018, the fire took place over a period of a week and there were classes which were burned, giving rise to thick smog and harming the community, students and students who passed the road. For the team involved in assisting the actions of TNI members and the SAR team so that the fire can be extinguished immediately. "

In addition, the resource person or other respondent was Mr. Amran (44 years). The employer lived in the Kelurahan for > 10 years (interview on the 2nd April 2019) states that:

"The potential for disasters that have occurred in Singkawang City and has been experienced by Mr. Amran is a disaster of drought, smog and flooding. In 2004 there were floods and in 2018 there were forest fires and smog. The duration of the fire disaster is around a month to two months in 2018. The losses suffered by many plantations are damaged, it is difficult to move because the roads are covered with smog until there has never been any counseling about disasters".

Another speaker from Setapak Besar Village and has occupied the area for > 10 years, Eko Febriyansyah (21 years) Student, (interview on April 8, 2019) stated the answer that:

"The potential for disasters that occur in the area or Singkawang City is a fire disaster forest and occurred at the end of last year 2018. The forest fire disaster occurred at night, allegedly there were residents who burned land to open land and because natural events at that time had entered the dry season which was characterized by lack of rainfall and high-temperature rise . The fire occurred for a long time because the fire was difficult to tame, so Eko suffered the most losses, namely health (breathing) became disturbed, air pollution became unclean / polluted, and short visibility due to thick smoke. Local residents along with the parties who helped during the disaster and on time so that they did not take casualties. "

Tinah (66 years) Housewife, lives in Sungai Bulan Village as the next resource person, (interview on March 20, 2019) states that:

"The potential for disasters that occur in Singkawang City is a forest fire disaster, because the North Singkawang District which is still a beautiful forest has a dry season. Forest fires result in disturbed community activities such as driving visibility, the emergence of smog-causing people to experience respiratory problems, which is certainly bad for health. In addition, the eyes are sore, coughing is accompanied by a mild headache. The forest fires occur around 3 months in 2018, precisely September to December. Fires occur at night and in the morning show a thick smog. So it is very disturbing to breathe, especially during the daytime when the temperature is scorching."

Other speakers as Mr. Sahiri as Head of the Working Group, also Chair of RT 002, Setapak Kecil Village (interview on 28 March 2019) revealed that:

"The potential for forest fires occurred in Singkawang Utara Village in 2018, a fire disaster that was more severe than in previous years. He also said that, every year there had been a fire disaster, so the Setapak Kecil Village Head formed a working group. The working group was formed and had obtained permission from superiors so that groups dealing with forest fire disasters already existed, and they also collaborated with the Regional Disaster Management Agency (BPBD) who routinely patrolled North Singkawang, but these activities were rarely carried out if there were no - fire signs. The working group was also invited to

the Singkawang mayor's office in 2018 to conduct such counseling. However, there are a number of things that they (the Working Group) complain about are the lack of more attention to the facilities and infrastructure they have submitted such as water pumps to extinguish fires if at any time there is a fire disaster if they are provided they can handle them while waiting for the fire department to arrive and this can also be used as education for its citizens, because Mr. Sahiri can explain and discuss together with residents in the area".

D. CONCLUSIONS

The conclusions in this study obtained the results of the study explained that community preparedness in dealing with the disaster of peatland forest fires for community attitudes, community emergency response and community warning systems in the face of disasters of peatland forest fires in Singkawang City fall into the category of "almost ready and unprepared" which each value / community preparedness index, namely 64.62 and 54 so that it is known that the people in Singkawang City have low preparedness so that the community also experiences material and health losses due to the haze that arises during the forest fire disaster.

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