Analysis Of Way Halim Community Preparedness Post-Flood Disaster Perspective On The Implementation Of Disaster Mitigation Management: 24 February 2024

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Abstract

Currently, the city of Bandar Lampung is facing a quite serious problem, namely the Flood Disaster which hit on February 24, 2024. Bandar Lampung has a diverse topography, ranging from lowlands, and beaches, to hilly areas with a height of 0-500 meters above sea level. Almost every year Bandar Lampung experiences the same problem, namely flooding in various sub-districts, one of which is the Way Halim sub-district. Floods are water that overflows and cannot be accommodated by rivers or absorbed by water catchment areas. Floods are also a disaster that can disrupt community activities. Bandar Lampung has a relatively high risk of flood disasters. Therefore, efforts need to be made to overcome the flood disaster. This research aims to analyze the preparedness of the community in the Way Halim subdistrict, Bandar Lampung after the flood disaster. This research uses an approach to community perceptions regarding preparedness in implementing disaster mitigation management. Preparedness in facing flood disasters can help communities plan actions that can be taken when floods strike. Community in Way Halim sub-district is moderately prepared for disasters. Lack of training and outreach, results in a lack of focus during disasters. Proactive steps such as early warning systems, community education, and infrastructure development are crucial for enhancing preparedness in facing flood disasters.

Keywords: *floods, mitigation, preparedness.*

I. INTRODUCTION

Way Halim District is an area in Bandar Lampung City, Lampung Province. This area is one of the sub-districts affected by flooding on February 24, 2024. Way Halim sub-district has a cooler climate than other sub-districts, and it rains more often. Overall, the topography of Way Halim includes relatively low plains with some hilly areas. In the lowlands, the soil consists of layers of gray soil and red clay, while in hilly areas, the structure and layers of the soil mainly consist of white stone. According to BPS data, in 2018 the population in Way Halim District reached 63,805 people.

Based on geographical conditions, Way Halim District is at latitude -5.37930 and Longitude 105.27560. Way Halim District has an area of 683H, which is divided into 6 subdistricts, including Perumnas Way Halim subdistrict, Way Halim Permai subdistrict, Gunung Sulah subdistrict, Jagabaya I subdistrict, Jagabaya II subdistrict, and Jagabaya III subdistrict.

Jagabaya I and Jagabaya 3 sub-districts are areas affected by flooding. Even the building at SDN 1 Jagabaya 1 school was submerged in water to a height of more than 1 meter. Besides the schools affected, dozens of residents' houses were also flooded. This year's flooding is more severe and the water depth is higher. With the disaster that befell the Way Halim community, good regulations regarding disaster preparedness are needed.

Flooding is defined as the inundation of a place due to the overflow of air that exceeds the air removal capacity of an area and causes physical, social, and economic losses. Flooding is a seasonal threat that occurs when air overflows from existing channels and inundates the surrounding area. Floods are the most frequent and most detrimental natural threat, both from

a humanitarian and economic perspective.

According to the Indonesian Ministry of Health's Health Critical Center (2018), there are five types of floods, namely:

1. Flash Floods: Dangerous floods that can carry anything and cause severe damage, usually caused by deforestation and often occur in mountainous areas.
2. Water Floods: General floods that occur due to overflowing rivers, lakes, or ditches due to high-intensity rain.
3. Mud Flood: Flood that comes from underground and contains dangerous materials and gases that affect the lives of other creatures.
4. Rob Flood (High Tide Sea Flood): Flood caused by sea water hitting coastal areas.
5. Cileunang Flood: Flood caused by heavy rain that could not be accommodated.

Disasters can result in significant material losses for affected communities. In Indonesia, disaster management is governed by the Indonesian Republic Law number 24 of 2007. The government has issued regulations on how to handle victims of natural disasters. The impact of disaster events can be felt across various fields, including the economy, health, socio-cultural and political aspects. Natural disasters can result in significant economic losses for the population, particularly due to property loss or damage..

High and continuous rainfall can have a significant impact on society, one of which is the occurrence of flood disasters. It is crucial to understand that the first few seconds when a disaster strikes play an essential role in minimizing further damage. The community should have a thorough understanding of all disaster management steps, so they can act quickly and appropriately. The Republic of Indonesia's Law Number 24 of 2007 on Disaster Management defines preparedness as a series of activities aimed at anticipating disasters through efficient organization and appropriate steps.

There are five parameters that are used to measure preparedness towards disaster risk, which are: (1) knowledge and attitudes towards disasters, (2) policies and guidelines, (3) emergency plans to deal with disasters, (4) disaster warning systems, and (5) the ability to mobilize natural resources. To reduce disaster risk, communities make efforts to increase preparedness in the face of flood disasters. Active community participation is very important in this regard. One of the most basic forms of community participation in disaster management is individual preparedness at the community level. This includes being prepared before, during, and after a disaster occurs..

Figure 1. Flood that occurred at Urip Sumoharjo Way Halim Hospital

The floods that hit the Way Halim District not only resulted in physical losses that affected the local economy, but also had a negative impact on the health of the population. To minimize the losses suffered by the community in the Way Halim area, it is important to ensure that the community is prepared to face such disasters. Adequate preparation and readiness are crucial to dealing with the aftermath of disasters. This study was conducted to assess the preparedness of the Way Halim community in dealing with flood disasters and to analyze their perceptions regarding strategies to anticipate such disasters.

II. MATERIALS AND METHODS

The research method used in this research is quantitative descriptive using survey calculations. In quantitative descriptive research, describing and explaining something studied, and drawing conclusions from phenomena that can be observed using numbers.

In conducting this research, data is needed in the form of primary data, namely knowledge community about flood disasters, and community preparedness for flood disasters. Secondary data, namely physiographic data and population data in the research area. Data collection in this research was carried out using interview and recording methods documents, and documentation methods which are then analyzed using descriptive methods with qualitative and quantitative analysis. flood disaster preparedness.

The data collection method used is literature study, which involves analyzing articles from various sources such as journals, books, and other documents that outline theories and information relevant to past and current contexts. Next, the library is arranged in an organized manner based on topics and required documents.

This study was conducted to collect data and information about flooding in the Way Halim area. The research team carried out short interviews with the local community of Way Halim in the Jagabaya area, who

were affected by the flood. We also distributed questionnaires to the surrounding community through Google Form and conducted direct surveys in areas affected by the flood. The questionnaire contained questions about the community's response to flood disasters, their knowledge about flood disasters, and mitigation measures related to flood disasters.

III. RESULTS AND DISCUSSIONS

A. Bandar Lampung Flood Infographics

According to the results of the previous analysis of the journal, various flood hazards have been identified in each sub-district of Bandar Lampung City.

Causes of Floods in Bandar Lampung

The flooding in the city of Bandar Lampung is triggered by disturbances in the natural balance caused by human activities (BPBD Kota Bandar Lampung, 2019). Based on survey results, there are still some communities that are indifferent to the environmental conditions. Some residents still dispose of waste in the river channels despite the presence of public waste disposal sites. From an environmental perspective, over the past ten years, the development of Bandar Lampung City has been perceived as rapid and has undergone significant changes. The impact of urban development has resulted in changes in land use from undeveloped land to developed land, making the environment vulnerable to flooding disasters due to the decreasing amount of water infiltration. The flooding occurring in the Way Halim sub-district is due to high rainfall intensity over a prolonged duration, causing water to overflow as it cannot be contained anymore, resulting in floods.

In the research area of the Way Halim sub-district, precisely at the intersection of Tidore and Ternate streets, there is a point where flooding occurs in the area. The increasingly frequent floods have led residents to consider relocating from the area to places less prone to flooding. This has caused some concern among the residents regarding the recurring flood cases. In addressing this issue, the community has requested that the river in the area be dredged deeper, as it has become too shallow, causing the river to overflow when rainfall increases. The occurrence of floods in this area is also due to the community's reluctance to be environmentally conscious, such as dumping waste into the river despite signs warning against it. Upon further observation, it was found that not only household waste but also bamboo stalks, wood, and branches are extensively dumped into the river, causing obstruction to the river flow and resulting in increased flooding reaching residential areas.

B. Analysis of Way Halim Community Preparedness

a. Respondent characteristics

There were 20 respondents affected by the flood in the research area in Way Halim Jagabaya sub-district. The research questionnaire was created in the form of distributing questionnaires via form and direct interviews regarding flood disasters that are often experienced by the Way Halim community.

The highest number of respondents obtained from survey results using Google Forms and direct interviews was in the 19-21 year age group, 13 people (65%), and the lowest number of respondents was 2 people in the 34-40 age range and 2 people in the 50-62 age range. as many as 5 people. This data shows that people of productive age will be more active in increasing their knowledge of disasters and making efforts to increase preparedness in facing flood disasters.

b. Community Knowledge

A survey was conducted among the Way Halim community in the Jagabaya area. The survey aimed to determine the community's knowledge of flood disasters and their awareness of the natural disasters that affect their area. The survey had 20 respondents. Out of these, 3 people had low knowledge, 6 had medium knowledge, and 11 had high knowledge about flood disasters. This indicates that the community's knowledge regarding the flood disaster that hit their area is in the very good category.

However, despite this level of knowledge, there are still a considerable number of people who ignore their surroundings and throw rubbish in river basins. This was revealed during interviews with several communities.

c. Pre-Disaster Preparedness

The results of interviews with the people of the Way Halim sub-district show that the community's preparedness in facing disasters is in the medium category. Apart from that, the absence of disaster training, disaster outreach, and disaster education means that the community is not focused when a disaster

occurs. At the location of the flood disaster, there was also no media found, be it posters, disaster-prone maps, or pamphlets containing calls for action to overcome the disaster. In Way Halim District, there are no buildings that function for disaster management, so it can be said that readiness is still lacking.

d. Disaster Preparedness (Emergency Response)

Disaster Preparedness (EmeIt can be explained that the condition of community preparedness during emergency response (when a disaster occurs) is classified as moderate. Based on information from sources, some people immediately saved valuable items such as home furniture, electronic equipment, and securities. Apart from that, when the flood occurred, 13 respondents, or 65% answered that they did not evacuate, and 7 people, or 35% of the community answered that they evacuated. urgency Response).

e. Post-Disaster Preparedness

According to a survey conducted in the Way Halim community, their preparedness for flood disasters is moderate in terms of both mitigation and early warning. Out of the respondents, 10 people suggested cleaning the river after a flood, 5 recommended disposing of rubbish properly, 3 suggested building infrastructure and educating the community, and 2 people didn't know what to do. It's important to improve the community's preparedness level to effectively face any future flood disasters in the Way Halim sub-district.

f. Strategy for Anticipating Flood Disasters

The community has developed a strategy to prevent flooding in their area. This includes protecting the surrounding environment by refraining from throwing waste into ditches or rivers, which can block water channels, and keeping the river flow clean for smooth water flow during rainy seasons. The community also believes in dredging the river bed and deepening the river to allow proper channeling of heavy rainfall. Additionally, they advocate for early warnings and educational measures to educate the community on preventive measures.. Research on community preparedness for disasters is crucial for effective disaster management. Disaster management is a systematic effort that aims to handle all disaster events quickly and accurately to minimize casualties and losses.

IV. CONCLUSIONS

The preparedness of the community in the Way Halim sub-district in facing disasters shows a moderate level. Although some measures have been taken to anticipate floods, such as environmental conservation, the lack of training, outreach, and education results in a lack of focus when disasters occur. Additionally, the absence of media and specialized infrastructure for disaster management indicates that preparedness still needs improvement. Proactive steps, such as early warning systems, community education, and appropriate infrastructure development, are crucial to enhancing community preparedness in facing flood disasters in the future in the Way Halim sub-district.

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