FLOOD DISASTER MITIGATION IN SONE DISTRICT, TANAH BUMBU REGENCY, SOUTH KALIMANTAN AS A SOURCE FOR LEARNING IPS CLASS VII

Susanti

1 SMPN 3 Kintap, Indonesia

ABSTRACT

Flood disasters that occur in Satui District almost occur every year, in 2019 there were six villages affected by flooding in Satui District, the purpose of this study was to find out the causes of floods that occurred in Satui District, and the efforts of the government and the community in minimizing the risk of loss in dealing with floods, flood disaster or better known as disaster mitigation. Mitigation activities include preparation before a disaster occurs, handling when a disaster occurs, evacuating residents affected by floods, and socializing disaster mitigation after a flood which can be socialized through social studies education that specifically discusses social issues. This study uses a qualitative approach. Data collection techniques include; interviews, observations and documentation of data analysis starting from reduction, presentation, and verification. The results of the study illustrate that the flood disaster that occurred in Satui District, Tanah Bumbu Regency is caused because it is a lowland if high rainfall will cause flooding, the government's efforts in implementing mitigation have not been maximized so it is necessary to disseminate information to the community by making flood disaster mitigation a learning resource for social studies class. VII junior high school level.

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1 Corresponding author.
E-mail addresses: susantifira@gmail.com
Susanti Susmindari/ Flood Disaster Mitigation In Sone District, Tanah Bumbu Regency, South Kalimantan As A Source For Learning Ips Class VII

PRELIMINARY

Indonesia changed its status to a developed country in 2020. The decision of Uncle Sam, the United States of America, which declared Indonesia from a developing country to a developed country, had the effect of two coins. One side of Indonesia loses its privilege as a developing country where when a disaster occurs, developed countries will pay attention to it. On the other hand, Indonesia must be ready when it is said that it is a developed country with its ability to deal with and cope with disasters, because its geographical and astronomical location is very vulnerable to disasters such as earthquakes, tsunamis, landslides, cyclones, forest fires, volcanic eruptions, tidal waves and floods. (Kompas, Indonesia Becomes a Developed Country, 2020).

Satui sub-district is part of the administrative area of the Tanah Bumbu district, South Kalimantan. There is a lot of coal in Satui, so there are also many coal mines in Satui sub-district. Mining activities themselves in the 2000s were very busy, both legal and illegal. The problem is that illegal mines carry out mining activities without following existing regulations. In the end it causes natural damage which is one of the causes of flooding.

Kodoatie (2013) floods can be influenced by the characteristics of the watershed (DAS) in the form of landform, elevation, soil type, and slope. Flooding can also be defined as the flow of water on the ground surface that is relatively high and cannot be accommodated by drainage channels or rivers, so that it exceeds the river body and causes inundation or flow in amounts that exceed normal and result in losses to humans (Wardhono et al. 2012). The increase in rainfall intensity can encourage flooding, the increase in rainfall is influenced by the factor of increasing global temperature which has an impact on the acceleration of the hydrological cycle.

In 2017 there were also floods, namely June 20 to June 21 2017 at 06.00 WITA (Basarnas data) flood-affected villages, among others, Sungai Danau Village: 1,643 families, Sinar Bulan Village: 1,010 families, Satui Timur Village: 104 families, Sejahtera Mulia Village : 35 HH, Jombang Village: 102 HH (Land of Spices, 2017). In 2018 there were also floods but not as big as the previous year. Based on these natural phenomena, researchers are very interested in researching the causes of flooding and what efforts are made by the community and government in reducing flood risk or also called flood disaster mitigation in Satui District, Tanah Bumbu Regency.
In addition to reducing flood risk, this study also aims to analyze the results of flood disaster mitigation research as a learning resource for class VII. Basically, the source of teaching requires teaching materials, teaching materials directly run for the continuity of the learning process which in relation to learning resources and also learning media which are both very important to support learning activities, effectiveness in the learning mechanism is largely determined from readiness in the teaching and learning process Therefore, teaching materials have a very important influence on teaching activities (Hidayat, 2014).

RESEARCH METHODS

This research was conducted using qualitative and descriptive research methods because the subjects studied were flood-affected communities in Satui District, Tanah Bumbu Regency. Research with a qualitative approach is research that uses a scientific background with the intention of interpreting the phenomena that occur and is carried out by involving various existing method (Moleong, 2013). Steps of work to describe an object and phenomenon in a narrative writing. The location taken in this study is Satui District, Tanah Bumbu Regency. Especially in Sungai Danau Village, the researcher chose the location of Sungai Danau Village, Satui Subdistrict because this area is indeed an area that is prone to flooding every year, and Sungai Danau is an area that is quite affected, namely there are 13 RTs that experienced flooding in 2019.

Primary data in this study selected purposively and the sampling is snowball sampling (Sugiyono, 2010). Sources of data were obtained through face-to-face interviews between researchers and informants, as well as direct observation of objects related to disaster management in Satui District. Secondary data in this study were obtained from non-human data sources as supporting data such as documents, pictures, archives (Moleong, 2013). Data were obtained from Satui District government agencies, affected villages, the Tanah Bumbu Regency BPS website and the websites disaster by the Regional Disaster Management Agency (BPBD) Tanah Bumbu Regency. Complete information acquisition.

The main instrument in this study is the researcher himself as a "key instrument" because the researcher makes his own set of observation tools, interview guidelines, and documentation assessments that are used as general guidelines in the recording process (Sugiyono, 2010). Researcher identify and assign the right informants who have a lot of information to reveal the research focus. After the informants are determined based on the focus, the unit of analysis and
the types of data to be disclosed in the research matrix are determined based on the research focus, then developed with data collection techniques. In the data collection stage, the researcher carried out the data collection process that had been determined based on the research focus that had been previously determined. In this stage the researcher has also determined the informant as the primary data source.

Researchers conduct interviews semi-structured. It aims to obtain more in-depth and clear information about the problems to be studied and in its implementation will be more free than structured interviews.

Research conducts triangulation in order to check data from various sources in various ways and times. So that there is triangulation from sources/informants, triangulation from data collection techniques and time triangulation, this is done to determine the suitability of information and reality obtained from informants (Moleong, 2013). Data analysis technique used interactive analysis model from Miles and Huckerman with main stages; data collection, data reduction, data presentation and conclusion drawing/verification.

![Image 1. Image Model of Data Collection Techniques and Data Analysis Interactively. Source: Miles & Huberemen (1992).](image)

**RESEARCH RESULTS AND DISCUSSION**

Floods in Satui District, especially in Sungai Danau Village, have occurred since ancient times, because it is a lowland, so that when high rainfall causes water from the mountains to flow to lowlands, coupled with the occurrence of high tides, it also triggers water discharge on the riverbanks.

Before 2012 the flood that occurred in Satui Subdistrict was only a small flood with a water level of approximately 0.5-meter to 1 meter, but after mining activities where mining activities caused the forest to be deforested which had not yet been reclaimed, the former mining
activities left explosions. flooded by water has not been followed up by the government or the company, this has resulted in erosion and sedimentation in the Satui river.

Mitigation in flood disasters is divided into two types, namely structural mitigation and non-structural mitigation. Structural mitigation is an effort to reduce disaster risk through physical development and technical engineering of disaster-resistant buildings (Sugiharyanto et al., 2014).

1. Structural Mitigation of Flood Disaster in Satui Subdistrict, Tanah Bumbu Regency.

Non-structural mitigation is an effort to reduce risk by modifying human behavior or natural processes without requiring a technical structure. This method is known as human efforts to adapt to nature (man adapts to nature), (Geography, 2019). Structural mitigation of flood disasters in Satui District is only carried out inside the river body (in-stream), such as:
   a. There is a river normalization carried out on a speed river of 2 km
   b. There is a flood detector to provide early warning of flood disasters
   c. There is an annual tree planting program in collaboration with coal companies in Satui District, Tanah Bumbu Regency. Meanwhile, activities such as outside the river body (off-stream) do not yet exist, for example, the construction of dams, canals, and embankments does not yet exist, counseling on flood disasters and official or programmed flood disaster mitigation has never been carried out.

2. Non-Structural Mitigation of Flood Disasters in Satui District, Tanah Bumbu Regency.

Non-structural mitigation is an effort to reduce non-physical disaster risks such as policies, community empowerment, institutional strengthening, awareness (Sugiharyanto et al., 2014). Handling disaster risk, non-structural mitigation is more sustainable because it provides security in the long term. Disaster risk reduction through local wisdom is a form of non-structural mitigation. Local wisdom that applies in a community has a positive impact on the community in dealing with and responding to disasters that come (Wibowo et al., 2012). Local wisdom is the extraction of various experiences that are hereditary from ancestors or previous people who have experienced disasters (Marfai, 2012: 50). Non-structural mitigation of flood disasters in Satui Subdistrict, Tanah Bumbu Regency that has been implemented by the Government, Private Companies and the Community is as follows:
   a. Before the flood
      1) The government prepares a flood disaster task force
      2) Early notification of flood disaster through mosques
      3) Residents build houses with local wisdom, so that minimize flood hazard
   b. When the Flood
1) There is a refugee post 
2) The government, residents and coal companies work hand in hand in providing assistance to flood-affected residents by providing logistical assistance 
3) Making a communal kitchen 
4) Distributing groceries 
5) Turn off the electricity 
6) Together with volunteers evacuating residents 
7) After the flood 
8) Clean the river by dredging the river in collaboration with the government and private companies 
9) Repairing facilities and infrastructure damaged by floods carried out by the government, private sector and citizens. 
10) The government prepares clean water after a flood to help residents affected by the flood

3. Flood Disaster Mitigation Analysis in Satui Subdistrict, Tanah Bumbu Regency as a Learning Resource for Social Studies Class VII

From the results of the study, it can be concluded that disaster mitigation needs to be conveyed to children from an early age to high school level. Mitigation has so far been very rare socialized by teachers to students even though disaster mitigation is very necessary to educate children/students to reduce risk during a disaster. Disaster mitigation can be inserted in almost all subjects, such as social studies, science, religion, and even Indonesian. From the conclusions above, the researcher makes flood disaster mitigation in Satui District a learning resource for social studies class VII, especially SMPN 3 Kintap.

In the subject of Sociology science in class VII, social studies subjects are in chapter II, namely Social Interaction and Social Institutions, flood disaster mitigation as a learning resource can be inserted when the teacher explains about social interaction, that humans are social creatures where humans cannot live without the help of people. The flood victim evacuation activity was explained by the teacher to students as evidence that humans cannot live without the help of others and is a social interaction activity. Chapter III with materials Human Activities in Meeting Needs can be related to flood disasters, production activities such as mining if not managed properly will cause disasters, human desire to fulfill their needs will have an impact on flood disasters and distribution activities can be exemplified by distribution of logistical assistance when
a flood disaster occurs. History Science in class VII social studies subjects is found in chapter IV, namely the material. In this chapter, flood disaster mitigation can be given when explaining that humans in ancient times lived (nomadic) or moved to move, where ancient humans looked for a place to live close to rivers, they also made simple houses on trees to avoid being attacked by wild animals and also anticipated when the river water overflowed, so humans from ancient times had simple disaster mitigation in order to reduce the risk of flood disasters.

CONCLUSION

The cause of flooding in Satui District, Tanah Bumbu Regency is because it is a lowland, so that when high rainfall causes water from the mountains to flow to lowlands, coupled with the occurrence of high tides, it also triggers more and more water discharge on the riverbanks, mining activities also trigger more flooding. the high water level of the current flood disaster, the livelihoods of the community that force residents to stay on the banks of the river also trigger flooding due to the dumping of household waste into the river.

Structural mitigation of flood disasters in Satui District is only carried out in the river body (in-stream) such as the normalization of the river which is carried out in the 2 km speed river, the existence of a flood detector to provide early warning of flood disasters, the existence of an annual tree planting program in collaboration with coal companies, located in Satui District, Tanah Bumbu Regency. Meanwhile, activities such as outside the river body (off-stream) do not yet exist, for example, the construction of dams, canals, and embankments does not yet exist, counseling on flood disasters and official or programmed flood disaster mitigation has never been carried out.

Non-structural mitigation of flood disasters in Satui District, Tanah Bumbu Regency that has been carried out by the Government, Private Companies and the Community before the flood occurs is that the government prepares a flood disaster task force, early notification of flood disasters through mosques, residents build houses with local wisdom, in order to minimize flooding. flood hazard. When floods occur, the government prepares evacuation posts. The government, residents and coal companies work hand in hand in providing assistance to flood-affected residents by providing logistical assistance, Building public kitchens, distributing basic necessities, turning off electricity, Together with volunteers evacuating residents, and after the flood, carrying out river clean-up activities by dredging rivers in collaboration with the government and private companies,
This research on flood disaster mitigation in Satui Subdistrict, Tanah Bumbu Regency was inserted as a social studies learning resource for class VII SMPN 3 Kintap. The results of the analysis of all grade VII social studies chapters, namely Geography, Sociology, Economics, and History, can be inserted into flood disaster mitigation. With this flood disaster mitigation research, students can apply how to deal with disasters, especially flood disasters which are very close to the environment of students who live in lowlands.

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