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Disaster Management Based on Geo-literacy

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Abstract. The large number of casualties and physical and material losses are opaque protests of the bad management of disasters in Indonesia. The impact of natural disasters in Indonesia should have been minimized and avoided considering that Indonesia is a disaster-prone country because it is located at the confluence of the three major plates of the world and is the ring of fire. The community is not familiar with the condition of the environment where they live is a major factor in the many casualties and losses due to disasters. By introducing people to geographic literacy, people can get to know the environment and manage disasters properly. This article will discuss the role of geographic literacy relating to understanding the community's environment that can help manage disasters in pre-disaster, emergency response, and postdisaster actions in Indonesia.

1. Introduction

The location of Indonesia to cause Indonesia cannot be separated from disaster. but many people are not aware of the situation. 1,134 incidents of disasters occurred (as of May 26, 2018) with fatalities reaching 124 dead and missing, 777,620 affected and displaced, and approximately 19,000 housing units and public facilities damaged. Most disasters occur (BNPB, 2018). Disasters that often occur include floods, landslides, and tornadoes. Recorded up to November 2016 there were 54 flood events, 73 tornado events, and 69 landslide events that caused losses. Disasters that occur are the impact of unresolved environmental problems that cause disasters. Disasters cannot be prevented by humans but the damage that occurs can be reduced by increasing the ability of the community to deal with disasters and improving the ability of the environment to accommodate the components in it (capacity). The value of environmental capacity can increase if the management is appropriate. Environmental management is carried out by the community as an element that occupies a space and is more familiar with the environment. Geography literacy makes it easier for people to get to know the surrounding environment. By utilizing local knowledge and / or culture (local wisdom) it is hoped that it can build a disaster conscious culture as a form of disaster management.

2. Discussion

2.1 Geography Literacy in Disaster Management

Geographical literacy is simply defined as geography literacy, namely decision making based on geographical understanding. The National Geographic Society (2009) says that "geo literacy is the ability to reason about earth systems and interconnections to make farreaching decisions". [1] explains that "geo-literacy enables people to be away from choices that will be costly themselves and others".



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Furthermore Edelson also added that - "the term in the field of geography education is combined with interconnections and implication". Interaction, in principle in the form of an understanding of the relationship between the natural environment and humans, meaning that various human attitudes and behavior will affect the existence of the natural environment. Interconnection is an understanding of one place with other places having similarities and differences in interrelated geographical characteristics. Implication, is the right decision-making based on geographical conditions. Geography Literacy, is a person's insecurity about space, including it can indicate the location of a place, as well as sensitivity to the existence of the environment. If applied in disaster management, geography literacy can help people understand their environment so that environmental management to reduce disaster risk can work well.

Disaster management activities are activities that are not independent, but are related to various aspects of community life and require a multi-disciplinary approach. The legislation that is used as a reference also covers cross-sectoral legislation. In other words, actually disaster management activities are carried out by sectors, while the activities of disaster management institutions are mostly coordinating activities carried out by the sector. Community knowledge about the environment can be used as a reference in determining the policies to be taken regarding disaster management.

2.2 Disaster Management Based on Geographic Literacy

The number of disasters that occurred and caused fatalities and large property losses in Indonesia, indicates that disaster management in Indonesia is far from what was expected. During this time, disaster management is considered not a priority and only comes from time to time, even though we live in areas that are vulnerable to disaster threats. Therefore, understanding of disaster management must be understood and controlled by all circles, both government, community and private.

Disaster management based on geography literacy can be applied through several examples of the following actions, namely: (1) Activities in the pre-disaster stage are very important because what has been prepared at this stage is capital in the face of disaster and post-disaster. Examples of flood disasters are community actions related to geography literacy by not making river banks as vital places such as settlements but used as green open spaces. Another simple activity is not to throw garbage in the river. This activity is a form of interaction aspect which means the ability of the community to recognize their environment. The interconnection aspect that can be applied is realizing that flood disasters are damage that occurs in a watershed system and are interrelated between upstream, midstream, and downstream of the watershed. The form of the implication is that together with other sectors to determine policies in watershed management, (2) Activities when a disaster occurs is carried out immediately in the event of a disaster. To overcome the impacts, especially in the form of rescue of victims and property, evacuation and evacuation. Geography literacy is needed in the evacuation process and determine the area or safe point as a refuge. In addition, in an emergency the distribution of aid was also divided based on the scale of the damage that occurred so that the assistance that came in could be appropriate, right on target, right to benefit, and efficient. , by re-functioning of infrastructure 16 and facilities in its original state. At this stage, what needs to be considered is that the rehabilitation and reconstruction to be carried out must meet disaster rules and be adjusted to the carrying capacity of the environment.

3. Conclusion and Recommendation

From the description above, it can be seen that the weak point in the Disaster Management cycle is at the pre / pre-disaster stage, so this is what needs to be improved and improved to avoid or minimize the impact of the disaster. One way to improve the ability of the community to recognize the environment through geographic literacy. With a good understanding of the environment, the community is wise in managing the surrounding environment so that natural disasters that occur due to environmental damage can be minimized. Geography literacy helps the community in prevention, mitigation, preparedness and alertness actions to reduce the impact caused by disasters.

References

- [1] D. C. Edelson, “Geo-literacy: Preparation for 21st Century Decision-Making,” *National Geographic Education*, 2011.