

Empowerment of Rural Communities in Disaster Mitigation in Walidono Village

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Abstract: *It is important for every member of the community to have knowledge and understanding of disaster issues, community participation is the most important role in activities to deal with tornado disasters which are based on the knowledge and abilities possessed by the community. As a result of the tornado disaster, people suffered incalculable damage, for example loss of property, livestock, agricultural crops and plantations. Walidono Village is one of the villages in Prajekan subdistrict, Bondowoso Regency that was affected by the tornado. So the aim of this activity is to increase knowledge about various handling problems related to environmental damage, mitigation and disaster management that often occur in Walidono Village. The method used is in the form of socialization/counseling regarding environmental damage and disasters. Based on the results of this activity, participants were able to understand the impact of environmental damage, disaster mitigation and post-disaster can run smoothly and need further approaches so as to open participants' insight and mindset in understanding the environment.*

Keyword: *Community empowerment, Village, Disaster Mitigation*

1. INTRODUCTION

Indonesia is a country prone to natural disasters (Rahmat et al., 2021; Utama et al., 2020; Widha et al., 2021). Indonesia, with its geographic and social conditions, is potentially prone to disasters, both caused by natural events such as earthquakes, tsunamis, landslides, volcanic eruptions, floods, tornadoes and droughts, as well as those caused by human activities in the processing of resources and the environment (for example forest fires, environmental pollution, transportation accidents, industrial accidents, and acts of bomb terror) as well as conflicts between community groups (Monardo, 2020; Ketaren et al., 2023).

Indonesia is an archipelagic country located in the tropical region. This situation makes Indonesia vulnerable to tornadoes, due to unstable air movement and significant temperature differences around the archipelago. Apart from that, human influence can also worsen the conditions that cause tornadoes. Illegal logging, changes in land use, and air pollution are some of the factors that can influence the occurrence of tornadoes. Ecosystem imbalance and environmental damage due to human activities can accelerate weather changes and increase the risk of tornadoes.

Law Number 24 of 2007 concerning disaster management defines that a disaster is an event or series of events that can result in human casualties, loss of property, psychological impact, as well as environmental damage caused by natural and/or non-natural factors or by acts of humans who threaten and disrupt human lives and livelihoods. Disaster management is needed as an effort to avoid and reduce the possibility of danger to society. Disasters that arise due to danger in vulnerable communities, where the community is unable to overcome the dangerous situation. As a result of flood disasters, humans suffer incalculable damage, for example loss of property, livestock and crops (Herlina et al., 2022).

Natural disasters that occur are not only caused by natural factors but are also influenced by socio-cultural factors such as an increase in population which then widens residential areas so that they are no longer in line with the existing environmental carrying capacity. Community habits in utilizing land potential that are not in accordance with conservation principles also influence land or natural conditions that have the potential for disasters (Moitaa et al., 2019). Various efforts have been made to respond to disasters. This effort is usually referred to as mitigation (Aprisari, 2021). Mitigation according to Law Number 24 of 2007 is a series of efforts to reduce disaster risk, both through physical development and awareness and increasing capacity to face disaster threats.

The geographical location of Bondowoso Regency makes it vulnerable to natural disasters, one of which is tornadoes. The characteristics of the area which is surrounded by hills and mountains causes frequent cyclones in the Bondowoso area so that most of the area (50.76%) is prone to cyclones, namely the Cerme, Wonosari, Prajekan, Wringin, Pakem, Curahdami and Grujungan sub-districts. So, with this vulnerability to disasters, efforts are needed which are expected to provide knowledge about various problems handling related to mitigation and management of disasters that often occur in Bondowoso Regency, especially in Walidono Village where tornadoes occurred at the beginning of this year.

2. METHODS

The approach offered in this community service activity is all the processes required in planning and implementation. The activities carried out are in the form of socialization/counseling regarding potential disaster material in the village area. Community service activities are carried out in several stages including pre-activity stages, implementation stages, and post-implementation stages. The pre-activity stage begins with an initial survey, forming an activity implementing committee, making proposals, carrying out the licensing process, observing problems regarding disaster-prone conditions in Walidono Village, making activity invitations to Walidono community groups. The implementation stage is carrying out socialization, namely understanding the disaster and the post-implementation stage. Monitoring and evaluation is collected from data on participant attendance and the ability of group members to participate in activities. Direct observation during socialization by observing the interaction between participants and presenters and the activity of participants in the event.

The post-implementation/evaluation stage is carried out by assessing the increase in knowledge through pre-test and post-test evaluations related to the socialization/counseling material carried out. Activities are carried out using analytical descriptive methods. Evaluation was carried out to determine participants' responses to the implementation of this service activity. Evaluation is carried out on the level of understanding and participation of activity participants.

3. RESULTS AND DISCUSSION

In the initial stage, researchers involved in implementing the activities, consisting of lecturers and students, conducted initial studies by visiting and interviewing the Head of Walidono Village. Some findings in the field and interview results include:

- a. There was a tornado disaster in Walidono Village on the 18th January 2024.
- b. The tornado disaster caused damage to 202 houses and other buildings.
- c. There are limitations in society regarding knowledge about disasters
- d. The Walidono Village community needs an understanding of disaster issues

Efforts to increase community capacity From the findings above, efforts that can be made are by holding outreach/counseling about increasing mitigation capacity and disaster management efforts. There are several stages carried out, namely pre-activity stages, stages implementation of activities, and post-activity stages.

1. Pre-Activity Stage

In the pre-activity stage, researchers coordinate with partners, create a schedule for implementing disaster outreach and preparation in the field. The target of socialization activities is the community of Walidono Village. The division of tasks for each writer includes:

- Coordinating with the Walidono Village community
- Prepare letters and collect activity documentation
- Make a schedule of events in the field
- Prepare a schedule for socialization/counseling events
- Prepare attendance list
- Activity Documentation
- Prepare tools and materials for socialization/counseling events
- Checking the required equipment

2. Activity Implementation Stage

At the implementation stage, the activity is the implementation of the initial survey stage. Implementation stages include:

- a. The opening event presented an overview of all the activities that would be carried out starting from the initial survey, pre-activities, implementation and post stages. implementation/monitoring.
- b. The material presented included environmental damage, understanding disasters, disaster management, tornado mitigation, tornado control efforts.

The activity was carried out at the Walidono Village Hall with 25 participants as community representatives and lasted for 120 minutes. The activity ran smoothly, the participants were very enthusiastic. At the end of the presentation of the material, there was also a question and answer session and many participants asked questions about the material that had been presented. Barriers to outreach activities are inadequate supporting facilities such as LCD projectors, microphones, etc. So when providing the material there was a little difficulty even though they had been helped using brochures. The aim of the training is for participants to understand disasters, especially the root of the problem as a

trigger for tornado disasters. After being given socialization/counseling, the Walidono Village Community understands disaster mitigation and post-disaster.

3. Post-Implementation Stage

At the post-implementation stage, an evaluation was carried out taking into account various responses and input from the Walidono Village Community. Apart from that, evaluations are also carried out to improve the implementation of socialization activities in the future so that the output of activities in the form of increasing public awareness of disaster mitigation will be better. At this stage, outdoor activities are carried out with the aim of getting closer between the participants and the activity team.

4. CONCLUSIONS

Activities carried out in an effort to increase understanding of disasters and increase the capacity of the community, especially the Walidono Village Community, in understanding disaster mitigation and post-disaster can run smoothly and require further approaches so that they can open the participants' insight and mindset in understanding the environment.

5. RECOMMENDATIONS

Community empowerment in disaster preparedness is a process that aims to increase community capacity and ability to face and respond to disasters more effectively and efficiently. The aim of this empowerment is so that communities become more independent and can actively participate in mitigation, emergency response, recovery and post-disaster reconstruction efforts.

A better understanding of the value of disaster preparedness and mitigation among community members can be achieved. Community members can learn more about potential hazards and steps they can take to mitigate them through workshops, training sessions, and outreach programs.

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