The Level of Community Preparedness Towards Landslide Disasters in Sridadi Village, Sirampog District, Brebes District

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***ABSTRAK**: Penelitian ini bertujuan untuk mengetahui hubungan pengetahuan dengan kesiapsiagaan bencana longsor pada remaja di Kecamatan Sirampog, Jenis penelitianini adalah penelitian kuantitatif,Jenis data yang diperoleh dalam penelitian ini adalah Data Sekunder, yaitu data yang diperoleh dari studi kepustakaan terhadap berbagai macam bahan bacaan yang berkaitan dengan objek kajian dalam penelitian ini antara lain berupa jurnal, artikel dan karya-karya tulis dalam bentuk media internet.Analisis data yang telah terkumpul dalam tahap pengumpulan data perlu dilihat terlebih dahulu. Hasil penelitian menunjukan Model kesiapsiagaan masyarakat dalam pengurangan risiko bencana longsor di Desa Sridadi telah dilaksanakan pada kegiatan praktikum yang dipadukan dengan kegiatan pencegahan. Model kesiapsiagaan dirancang dan dilaksanakan oleh dan untuk masyarakat, sehingga lahir dan tumbuh murni berdasarkan pemikiran dan kesepakatan warga masyarakat. Kegiatan-kegiatan pada model awal dilakukan oleh masyarakat yang tergabung dalam suatu Tim Kerja Masyarakat. Kegiatan yang dilakukan diantaranya sosialisasi melalui penyuluhan kebencanaan dan pemasangan rambu rawan longsor, penanaman pohon, dan perbaikan saluran drainasse. Bencana tanah longsor di Desa Sirampog kabupaten brebes adalah masalah yang serius di beberapa daerah di Indonesia, karena kejadiannya selalu meningkat dari tahun ke tahun. Desa Sridadi adalah salah satu diantara Kecamatan Sirampog yang merupakan wilayah dengan tingkat kerentanan menengah-tinggi terhadap bahaya gerakan tanah/tanah longsor baik dilihat dari kondisi geografis, topografis, dan klimatografis*.

***Kata kunci**: Penanggulan Bencana,Kesiapsiagaan,pengetahuan*

***ABSTRACT**: This research aims to determine the relationship between knowledge and landslide disaster preparedness among teenagers in Srampogi District. This type of research is quantitative research. The type of data obtained in this research is Secondary Data, namely data obtained from literature studies of various kinds of reading materials related to the object. The studies in this research include journals, articles and written works in the form of internet media. Analysis of the data that has been collected in the data collection stage needs to be seen first. The research results show that the community preparedness model in reducing the risk of landslides in Sridadi Village has been implemented in practical activities combined with prevention activities. The preparedness model is designed and implemented by and for the community, so that it is born and grows purely based on the thoughts and agreements of community members. The activities in the initial model were carried out by the community who were members of a Community Work Team. Activities carried out include outreach through disaster education and installing landslide prone signs, planting trees and repairing drainage channels. The landslide disaster in Sirampog Village, Brebes Regency is a serious problem in several areas in Indonesia, because its occurrence always increases from year to year. Sridadi Village is one of the Sirampog Districts which is an area with a medium-high level of vulnerability to the dangers of land movement/landslides both in terms of geographic, topographic and climatographic conditions.*

***Keywords**: **:** Disaster Management, Preparedness, knowledge*

INTRODUCTION

Landslide disasters are a serious problem in several areas in Indonesia, because their occurrence always increases from year to year. Areas that fall into medium to high ground movement vulnerability zones are areas that are vulnerable to ground movement if triggered by high rainfall. Thus, the risk of a landslide disaster will be higher. Thus, the risk of a landslide disaster will be higher. Sridadi Village is one of the Sirampog Districts which is an area with a medium-high level of vulnerability to the dangers of land movement/landslides both in terms of geographic, topographic and climatographic conditions. (Ichwan Muis & Khairil Anwar, 2018) The series of disasters experienced by Indonesia, in particular in recent years, there has been a growing awareness of society's vulnerability and precariousness. It is felt that the reactive attitude and disaster management patterns implemented are no longer adequate. There is a need to develop a new, more proactive, comprehensive and fundamental attitude in responding to disasters.

Disasters are grouped into three types, namely natural disasters, non-natural disasters and social disasters. Indonesia is a country that has three types of disasters. Natural disasters that occur in Indonesia include earthquakes, tsunamis, volcanoes, land movements, floods, drought, erosion, abrasion, and extreme weather and extreme waves. Non-natural disasters include technological failures, epidemics and disease outbreaks. Meanwhile, social disasters include social conflict and terrorism.(*Gema Publica*, 2015)

Natural disasters as a natural phenomenon can occur at any time, anywhere and at any time, so they can cause material and immaterial losses to people's lives. In Law no. 24 of 2007 concerning Disaster Management, a disaster is an event or series of events that threatens and disrupts people's lives and livelihoods caused by either natural factors and/or non-natural factors or human factors, resulting in human casualties, environmental damage, property loss. , and psychological impacts (Republic of Indonesia, 2007). Meanwhile, natural disasters are disasters caused by events or a series of events caused by nature, including earthquakes, tsunamis, volcanic eruptions, floods, droughts, hurricanes and landslides. Based on the definition above, a potential disaster is a situation or natural condition that allows a disaster to occur. For example, unstable soil conditions with steep slopes are areas that are prone to landslides. If extreme weather occurs in the form of high rainfall, landslides are likely to occur. Increased rainfall is positively correlated with soil moisture before a landslide occurs (Sulistyo, 2016)

The low level of scientific literacy skills is because science learning has not facilitated the optimal development of scientific literacy skills and there are gaps in how education is treated. Learning is more focused on cognitive aspects rather than thinking skills and does not involve competency abilities or processes in acquiring scientific knowledge. This makes students less responsive to problems and developments that occur, especially related to natural phenomena (Suryaningrum et al., 2021)

The natural morphology of each area forms a flat plane or has elevation differences between one place and another, thus forming a slope. This difference in elevation under certain conditions can cause slope failure, so an analysis of slope stability is needed, as well as the application of required slope reinforcement. Analysis of slope stability and suitability of slope strengthening methods to prevent landslides has a very important role in planning civil constructions. Original land that is not always in accordance with the desired planning, for example unfavorable soil properties, slopes that are too steep, cutting hills or other conditions that require embankment, causes landslides. So a more accurate slope stability analysis is

needed, application of suitable slope reinforcement to obtain stable slope construction in accordance with the required safety requirements(Sinarta, 2014)

Landslides occur due to ground movement as a result of the movement of masses of soil or rock moving along the slope or outside the slope due to gravity. The gravitational force imposed on sloping lands exceeds the lateral breaking force that the disaster occurred, including preparedness and long-term risk reduction measures. (Putra & Podo, 2017)

Motivation about learning through words or visual and verbal stimulation concludes that visual stimulus produces better learning results for tasks. such as recalling and connecting facts and concepts. Verbal stimuli provide better learning results if the learning involves sequential memory. Learn by using dual senses, sight and hearing.

The aim of this research is to determine the impact of the Landslide Disaster on the social economy of the people of Sirampog District, to find out the estimated value of economic losses due to flooding in Sirampog District and to find out the perception of the people of Sirampog District regarding the Landslide Disaster. The impact of landslides from an economic perspective is seen from the destruction of homes and their equipment. Apart from that, the landslide disaster also disrupted the community's economic activities because the main road and alternative roads were damaged.

The aim of disaster management is to provide protection to the community from the threat of disaster, harmonize existing laws and regulations, ensure the implementation of disaster management in a planned, integrated, coordinated and comprehensive manner, respect local culture, build public and private participation and partnerships, encourage enthusiasm mutual cooperation, solidarity and generosity and creating peace in the life of society, nation and state. Disaster Management according to Law no. 24 of 2007 is divided into 3, namely pre-disaster, during a disaster and post-disaster.

Community-based disaster management is an effort made by the community regarding disasters which is carried out in an organized manner. They use their own resources to prevent, reduce, avoid and recover from the impacts of disasters. As we know, there are several terms for organizations which are community or community-based disaster management organizations (Yayasan IDEP., 2007)

METHOD

The method used in this study is quantitative method. This research method is based on the philosophy of positivism, used to examine certain populations or samples, sampling techniques are generally carried out randomly, data collection using research instruments, quantitative / statistical data analysis with the aim of testing hypotheses that have been determined (Fitria & Barseli, 2021)

The type of data obtained in this study is Secondary Data, which is data obtained from literature studies on various kinds of reading materials related to the object of study in this study, including journals, articles and written works in the form of internet media. Analysis of data that has been collected in the data collection stage needs to be seen first, if it is not complete immediately. The purpose of data processing is to simplify all collected data and present it in frequency array. The research here is used to obtain the level of community preparedness for landslide disasters in Limbangan Village, Sirampog District, Brebes Regency.

RESULT AND DISCUSSION

A.Community Preparedness Level

Preparedness is an effort made to anticipate the possibility of disasters in order to avoid casualties, property losses and changes in people's living

systems. Preparedness is a series of activities carried out to anticipate disasters through organizing and through appropriate and effective steps (Law of the Republic of Indonesia No.24 of 2007. Preparedness is actions that enable governments, organizations, societies, communities and individuals to be able to respond to a disaster situation quickly and effectively. Included in preparedness actions are the preparation of disaster management plans, maintenance and training of personnel(Fitriadi et al., 2017)

Preparedness also aims to ensure that the resources needed to respond in a disaster event can be used effectively in times of disaster and know how to use them (Fitriadi et al., 2017). Preparedness is an active protective activity that is carried out in the event of a disaster and provides short-term solutions to provide support for long-term recovery(Dr. Hj. Sri Rahayu Pudjiastuti, 2019).

This research shows that overall the community in the research area has made good preparations, various preparedness carried out by the community in dealing with landslide disasters has been considered very effective in dealing with andslide disasters. The level of preparedness in the community is considered high, but it still needs to be considered from some people who live far from the center, because people who are far from the center claim that they still have very little assistance from the government, even so community preparedness is high in facing landslide disasters.

The results obtained show that the level of community preparedness in Sridadi Village, Sirmpog District, Brebes Regency can be categorized as high in dealing with landslide natural disasters, the readiness of residents to face landslides includes the high ability to recognize disasters that have the potential to occur in the neighborhood, the ability to recognize signs of disaster and awareness to manage a disaster-friendly living environment. Community preparedness in facing landslide natural disasters will have a positive impact, namely preventing damage to houses, plantations, roads, and reducing the number of casualties.

Actions to reduce the impact of landslides on individuals and communities are carried out with information and education, so that to improve landslide preparedness will be more effective through education, therefore understanding of the sources of danger and potential disasters to the community should be intensified by organizing education and training, distributing brochures, pamphlets, so as to increase public awareness of disasters. The implementation of this can be done by utilizing the role of the head of the family in their respective homes. Preparedness is a series of activities carried out to anticipate disasters through organizing and through appropriate and effective steps (Law of the Republic of Indonesia No.24 of 2007).

Based on the results of research, community knowledge about landslide disasters in Sridadi Village is categorized as moderate. However, when viewed from the average score obtained by each hamlet is quite varied, it is influenced by demographic conditions, namely the characteristics of respondents, which are viewed from the level of education and age of the population. The level of education affects people's knowledge. The higher the level of education, the higher the knowledge possessed. The results showed that the level of education of the community in Sridadi Village was more elementary school graduates as much as 40% with education categorized as relatively low. In addition, the age factor also affects the level of knowledge of the community, the older the level of knowledge of the community will increase. The results showed that the age of the people in Limbangan Village was the most 29% aged 40-44 years, the age of which was classified as productive. The following is a map of community knowledge about the landslide disaster in Limbangan Village.

B,Community Preparedness Against Landslides

The community preparedness model in reducing landslide risk in Sridadi Village has been implemented in practicum activities combined with prevention activities. The preparedness model is designed and implemented by and for the community, so that it is born and grows purely based on the thoughts and agreements of the citizens of the community. Activities in the initial model are carried out by communities who are members of a Community Work Team. Activities carried out include socialization through disaster counseling and installation of landslide-prone signs, tree planting, and repair of drainage channels. For details, you can see the initial model chart below:

Model Development Plan

The sustainability of the development of activities is quite reasonable. This is because there are still many needs felt by residents in an effort to reduce the risk of landslide disasters. In addition to raising citizen awareness, efforts to increase capacity through preparedness are important points that underlie the sustainability of model development. The implementation of direct activities involving community members can influence the mindset and attitude of residents to continue and support the implementation of the next activity. Planning in the development of the initial model was carried out with people who were directly involved in previous activities, namely in the implementation of practicum and community members, especially community leaders, youth, and religious leaders. The preparation of activity plans carried out with the community is carried out to encourage community participation in community preparedness efforts in disaster risk reduction so as to maximize the achievement of the desired goals. Based on the results of the community meeting, upon participatory consensus deliberation, steps were agreed on in community preparedness efforts to face landslide disasters in their areas with activity plans, namely: Establishment of Disaster Management Group, Activation of rice withdrawal, Bank account creation, Creation of evacuation routes and gathering points, creation of disaster management group posts, creation of early warning systems, procurement of facilities and disaster infrastructure, and disaster simulation training.

Implementation of the developed model

Social workers in their interventions carry out various activities. The activities carried out together with the community are:

Community organizing through the formation of Community Group Disaster

Community organizing activities by forming disaster management community groups aim to be a forum for disaster management efforts, so that disaster management efforts can be well coordinated. The target of this activity is the general public, where they have an interest in the formation of this KMPB. Involving the community has a goal so that disaster management can be carried out independently by the community.

In the process of forming the Disaster Management Group, the results obtained were the formation of a group which was later named the Nyalindung Disaster Management Community Group (KMPB), which was taken from the name of the village with a total of 35 members. After KMPB Nyalindung was formed and coordinated with the Village Government, the village head, who also acts as the protector of KMPB, legalized it through the Decree of the Head of Sridadi Village on February 25, 2024.

Activation of perelek rice withdrawal

Perelek rice is a form of local wisdom that has been lost in the Sridadi Village area. Based on the residents' proposals, the withdrawal of perelek rice was carried out again. This activity is not only a form of KMPB group development, but also as a preparation of funds for disaster victims if one day occurs. The collected rice will be

sold and the money from the sale will be managed by KMPB. The rice withdrawal is carried out once a week, by assigning KMPB members to the withdrawal.

Bank account creation

The creation of a bank account is intended as a place to store money from the withdrawal of perelek rice and financial assistance from parties who provide assistance. In creating a bank account, it is agreed that for opening a savings account, the closest bank to the location of Sridadi Village is Bank BRI. The Bank Account was opened in the name of the Nyalindung Disaster Management Community Group.

Creation of evacuation routes and gathering points

The installation of evacuation routes was carried out after an inspection of the territory. Environmental inspection is carried out by KMPB in areas that are considered prone to landslides. The evacuation route is made of permanent material, namely from *"accliric"* material so it is expected to last for a long time. Evacuation routes were installed on every corner of the alley and village road as many as 2 pieces and two gathering point signs. The location of the gathering point is agreed on a large area and easy to reach by residents, namely the location of the RT 4 Kampung Limbangan area.

Creation of disaster management group posts

The establishment of the post is intended as a monitoring place and disaster information center in Limbangan Village, Sridadi Village so that access to information becomes easy. The post is a place for KMPB in disaster management both safe situations and disaster emergency situations. Its formation was agreed in a location that was safe, strategic and accessible to the community. The post created is on the road and has a large land, namely in the RT 4 area. The KMPB post was originally an existing security post and was not maintained and used again by residents.

Creation of an early warning system

An early warning system is an act of providing information with signs / sounds that are easily digested by the community. The creation of an early warning system was carried out by involving KMPB Limbangan. The disaster warning system tool is kentongan (kokol). Kentongan is made by utilizing the bamboos left over from making chili peppers. Kentongan is intended as a traditional warning system tool for residents. The number of kentongan made is 30 pieces. After being formed, it is then painted and distributed to each resident after previously agreed in advance the sound of danger when a disaster occurs. In the division, not all residents get kentongan, but adjusted to the distance of the house provided that the sound of kentongan is still heard.

Procurement of disaster facilities and infrastructure

The provision of facilities and infrastructure is intended so that the community, in this case the KMPB, has disaster preparedness equipment that can be used during disaster emergencies. Equipment procurement is carried out through proposals from KMPB so that it can be budgeted by the Village Government through musrenbang. Apart from that, procurement is carried out through the distribution of proposals for disaster equipment assistance by KMPB. The types of disaster equipment that will be provided are 2 units of platoon tent, 20 boxes of first aid equipment, 1 unit of megaphone, and 4 stretchers. The procurement efforts that have been carried out include the creation and distribution of proposals for disaster equipment assistance to several agencies, both government and private***.***

Disaster simulation training

Implementation of disaster emergency response simulation training activities is an activity to provide knowledge and skills in dealing with situations when a disaster

occurs. The simulation training activity was located in the field in RT 04 Kampung Limbangan, Sridadi Village. The training participants were attended by ±50 people out of a total of 70 invited people. The training participants consisted of the KMPB group, the people of Limbangan Village, RT heads, community leaders, Karang Taruna members, religious leaders, Pencak Silat College children, PKK cadres, and Sridadi Village officials. As for the PMI cadre trainer instructors, before the entire simulation activity process takes place, KMPB collaborates with a resource person, namely PMI. This SOP is what will be tested in simulation training activities by KMPB Limbangan together with the community. The series of simulation training activities began with counseling regarding assessment material, Emergency First Aid (PPGD), victim evacuation, public kitchens, and tenting.

The results of the research carried out have theoretical and practical implications. The theoretical implication is that it is hoped that the results of the research conducted can contribute to strengthening, improving and developing the theory and implementation of social work with disasters and refugees. It is hoped that the practical implications of the research results will be to develop models or programs, improve the technology used, and even be able to find new, more tested models. Disaster management research is carried out in villages that have the potential for landslides. The model that has been implemented is the development of local communities with community-based disaster risk reduction policy interventions (disaster management) whose aim is to make a change in communities with the potential for landslides so that they can cope with disasters independently and participatively. The strategy used is an effort to make changes, namely by increasing community capabilities by providing knowledge, training and education as well as direct practice. This aims to encourage the community, to raise attention and concern for disaster management efforts, especially landslides, and to be involved and able to actively participate in carrying out a series of activities to reduce the risk of landslides in their area. Community involvement does not only include internal involvement in the community environment, but also involvement of parties outside the community environment. The involvement of all components of society creates a synergy of cooperation and coordination that leads to changes.

Involvement efforts here are related to community participation or community participation in disaster management efforts, where this participation has been regulated in article 26 paragraph (1) letters d, e, and f of Law no. 24 of 2007. Active community involvement in activities Disaster preparedness is very important to achieve disaster management efforts. Preparedness activity processes are a strategy to increase community capability (capacity), so that the community can learn to organize and develop all its potential to meet needs in disaster management. The research results also provide several impacts or implications where the existence of the KMPB is recognized and recognized together as a forum for disaster management efforts, especially landslides in the Limbangan Village area, Sridadi Village. Every member of the KMPB and the community understands the division of tasks according to their abilities, what efforts can be made in dealing with disaster emergency response situations, and what resources can be utilized both in pre-disaster, during and post-disaster situations. Another implication is increasing community participation in actively participating in disaster preparedness efforts, one of which is the active rice perelek activity managed by KMPB Limabangan. This is an effective form of strengthening the KMPB group as a forum that can bring together the entire community in efforts to reduce disaster risk. The involvement of residents in supporting the entire series of preparedness activities motivates KMPB Limbangan to make sustainable efforts, especially in preparedness for landslides.

CONCLUSION

The landslide disaster in Sirampog Village, Brebes Regency is a serious problem in several areas in Indonesia, because its occurrence always increases from year to year. Sridadi Village is one of the Sirampog Districts which is an area with a medium-high level of vulnerability to the dangers of land movement/landslides both in terms of geographic, topographic and climatographic conditions. Disasters are grouped into three types, namely natural disasters, non-natural disasters and social disasters. Indonesia is a country that has three types of disasters, which occur including earthquakes, tsunamis, volcanoes, land movements, floods, drought, erosion, abrasion, and extreme weather and extreme waves. Natural disasters are disasters caused by events or series of events caused by nature, including earth, tsunamis, volcanic eruptions, floods, droughts, hurricanes and landslides. The low level of scientific literacy skills is because science learning has not facilitated the optimal development of scientific literacy skills and there are gaps in how education is treated.

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