

## **Community Preparedness in Facing Mount Semeru Eruption to Support National Security**

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### **Abstract**

*The change in national security paradigm has turned into security sector reform. This change causes that national security does not only focus on territorial security but also focuses on human security. One of the factors that can disturb human security is disaster. The community's lack of preparedness for the eruption of Mount Semeru means that the community is still at high risk, causing 64 people to die. This study aims to analyze community preparedness in facing the eruption of Mount Semeru in order to support national security. This research method uses a qualitative research approach with a descriptive approach. The data analysis technique uses the qualitative data analysis technique belonging to Miles, Huberman and Saldana. The results of this study are as follows: 1) In terms of the preparation of temporary evacuation sites, fulfillment of basic needs, and preparation of restoration of facilities and infrastructure have been carried out well while the preparation of RPKB, early warning systems, training and simulations, and preparation of accurate data is still not well executed; 2) Efforts made by the government and stakeholders in increasing community preparedness for an effective response and building better have been carried out well through training in Disaster Resilient Villages, Disaster Safe Education Unit, making the Jaga Semeru application and creating a Whatsapp Group which makes the community have preparedness better in dealing with the eruption of Mount Semeru. If the government and stakeholders make efforts to increase preparedness, the community will have an effective response and build back better.*

***Keywords: Community Preparedness; Mount Semeru Eruption; National Security***

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## **INTRODUCTION**

Ideas and thoughts in national security in Indonesia are experiencing a new paradigm. The change from the state center approach to the participatory approach of citizens and society (civil society) in creating security regulations (Mukhtar, 2011). This approach is known as Security Sector Reform (security sector reform/SSR) which was successfully implemented in Western Europe in the 1990s (Mukhtar, 2011). The concept of national security becomes broader, namely: (1). The focus is no longer limited to territorial security, but to the human security dimension. (2). From security through a military approach to a sustainable development approach (Mukhtar, 2015). According to a security expert Barry Buzan (1990) national security is divided into five sectors namely military, political, environmental, economic and social. Which means that military security is only one sector of national security. Disaster is an event or a series of events that can threaten and disrupt people's lives. Disasters not only disrupt people's lives, but disasters can also disrupt people's livelihoods which can be caused by nature or non-natural causes and can also be caused by humans so that they can cause losses in the form of casualties, environmental damage, loss of property prices and psychological impacts. (Law No. 24 of 2007 concerning Disaster Management).

Disaster risk management (MRB) is an effort made by the government and society to minimize the impact of a disaster by optimizing resources according to the conditions in the area (Simarmata & Suryandaru, 2015). Meanwhile, according to UNISDR (2004) cited in Ebert et. Al (2008) states that there are 3 factors that can affect disaster risk in an area, namely

hazard, vulnerability, and capacity in dealing with disasters. Therefore, the stages of disaster risk management can be managed properly and effectively by means of knowledge about disasters, namely by understanding a threat/hazard, reducing existing vulnerabilities in the community and increasing the capacity of the area.

In increasing preparedness in Indonesia, the government has issued Government Regulation No. 21 of 2008 concerning the implementation of disaster management in article 16 paragraph 1 which states that the government implements disaster management preparedness as intended to ensure the implementation of quick and appropriate actions when a disaster occurs. The implementation of the activities referred to in Government Regulation No. 21 of 2008 is carried out by authorized agencies/institutions, both technically and administratively, which are coordinated by BNPB and/or BPBD in the form of: (1). preparation and testing of disaster emergency management plans; (2). organizing, installing, and testing early warnings; (3). provision and preparation of supply goods to fulfill basic needs; (4). organizing, counseling, training, and rehearsing about emergency response mechanisms; (5). preparation of evacuation sites; (6). compiling accurate data, information, and updating disaster emergency response procedures; and (7). provision and preparation of materials, goods, and equipment to fulfill the restoration of infrastructure and facilities.

Based on information obtained from several affected communities, it is known that these communities said that they felt that there had never been any training from the government in dealing with the eruption of Mount Semeru. However, BNPB itself has carried out simulations of handling victims of volcanic eruptions, earthquakes, unit preparedness in anticipating and dealing with disasters threatening floods and landslides during the rainy season as part of the 2012 SRC-PB event, which was attended by elements of the TNI, Polri, relevant ministries, volunteers and BNPB (BNPB, 2012). Then from the initial information that the researcher obtained with the results of short interviews from several communities, they also said that there was no notification related to an impending eruption on Mount Semeru so that the community was not prepared to face the eruption of Mount Semeru. Some people say that the information obtained is only done when an eruption occurs, while early warnings are usually received by the community a few days before an eruption occurs. What turned out to be that the training conducted by BNPB and BPBD was not in Candipuro District but in Pronojiwo District.

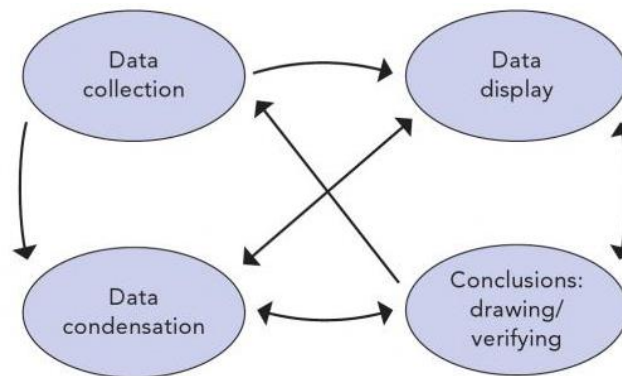
## RESEARCH METHODS

Explorative descriptive qualitative method is to describe or describe existing phenomena, both natural and human engineering (Sukmadinata, 2011). Qualitative research designs are used with the aim of being able to explain existing phenomena, both natural and artificial, with more attention to characteristics, quality, and relationships between activities (Sukmadinata, 2011).

The informants used in this study are as follows:

- a. Head of Prevention, Preparedness and Logistics BPBD Lumajang Regency
- b. Center for Volcanology and Geological Hazard Mitigation of Mount Semeru (PVMBG)
- c. Head of Penanggal Village, Candipuro District
- d. The people of Renteng Village, Candipuro District
- e. Candipuro District Community
- f. Human Initiative Field Employee
- g. Person in charge of Rainfall Monitoring Post
- h. Kodim 0821 personnel in Lumajang Regency
- i. Customer Service United Tractors

The research data that has been obtained, is analyzed using the data analysis model of Miles, Huberman and Saldana (2014) which states that the activity of analyzing qualitative data is carried out interactively and continuously until it is finished until the processed data is saturated. Figure 1. shows the data analysis model of Miles, Huberman and Saldana (2014) starting from data collection activities, data condensation, data presentation and drawing conclusions. Data analysis in this model is a cycle in which each component is interrelated and cannot be separated from one another.



**Figure 1.** Components of Data Analysis and Interactive Models  
Source: Miles, M.B., Huberman, A.M., & Saldana, J., (2014)

## RESULT AND DISCUSSION

The community's preparedness in facing the eruption of Mount Semeru in the first indicator, namely the preparation and testing of an emergency disaster management plan, was classified as low because many of the people did not know what a Renkon was and did not know what the Renkon contained. The community does not yet have the will to find out what Renkon is happening. This can also be seen from the large number of people who do not know where the designated temporary evacuation sites are. The community also does not yet have the will to carry out movements, especially in carrying out disaster preparedness and this is also different from previous research by Islamey (2020). This aspect of the emergency response plan is a person's readiness to do something related to the object of his attitude (Islamey, 2020). The government, which has responsibility for making the Renkon for Mount Semeru, has made the Renkon and has included important matters so that the Renkon can be read by the public, especially Candipuro District. Communication related to Renkon must be improved so that the information chain is not interrupted. A reliable and easily accessible communication and information system is also the key to community resilience (<http://www.apnorc.org> accessed 20 December 2022). Having a meeting point agreed upon by residents, having supporting facilities and infrastructure to respond to emergencies even though some equipment is deemed inadequate, having important telephone numbers to ask for help during an emergency and how the community coordinates across sectors when a disaster occurs (Kurniawan et.al , 2021).

The second indicator is organizing, installing and testing the early warning system. In this indicator, the government, namely the BMKG, has issued a warning to the community in Candipuro District through the PVMBG and BPBD of Lumajang Regency. This early warning was given on December 1, 2021, but most people still underestimate this because cold lava floods that occur on Mount Semeru are common. With the cold lava flood that occurred on Mount Semeru, it is easier for people to get sand which is used as a livelihood for the local community. This is in accordance with Islamey's research (2020) that the public still ignores appeals from the government. When a disaster occurs, not all of the people pay attention to the

local government's appeal to evacuate to a safer place and choose to stay in their respective homes, besides that the people themselves rarely take part in activities organized to conduct counseling or training on early warning (Islamey, 2020).

The third indicator is the provision and preparation of supplies to fulfill basic needs. According to Perka BNPB Number 7 of 2008, assistance for meeting basic needs is divided into six parts, namely:

- a. Shelter/Temporary Shelter Assistance;
- b. Food Aid
- c. Non-Food Aid
- d. Clothing assistance
- e. Clean Water and Sanitation Assistance
- f. Health Service Assistance

Of the six basic needs above, the Government of Lumajang Regency has fulfilled all of these needs. Not only the government, but NGOs, the business world and volunteers also helped meet the basic needs of all the survivors of the disaster. The community itself has also agreed to this because all their basic needs have always been met until the emergency response period for the Mount Semeru eruption has ended. If the supply and preparation of supplies to meet the basic needs of the community are sufficient, then community preparedness will be good.

The fourth indicator is organizing, counseling, training and rehearsals on emergency response mechanisms. In 2015, the Lumajang Regency Government, namely the Lumajang Regency BPBD along with the TNI/POLRI, Volunteers, Communities and other stakeholders conducted training, simulations and rehearsals on emergency response mechanisms. However, some people from Candipuro District feel that they have never done the rehearsal. Of course, limited resources and funding have prevented the Lumajang Regency Government from conducting training, simulations and rehearsals for the entire community. With counseling, training and rehearsals about emergency response mechanisms, it will build community knowledge in acting in dealing with the eruption of Mount Semeru. Knowledge in this research is the basis for community members to be able to carry out disaster management for the Mount Kelud eruption. Community knowledge regarding disaster risk in dealing with volcanic eruptions which is located at KRB II is very important for community preparedness (Islamey, 2020). If the organization, counseling, training and rehearsals regarding the emergency response mechanism are conveyed and well received by the community, then the community's preparedness will be good.

The fifth indicator is the preparation of an evacuation location, the community feels fulfilled. The preparation of the evacuation site carried out by the BPBD of Lumajang Regency is contained in the Semeru Renkon 2015. The Renkon contains where TES will be built. This also adjusts TES which was affected by the eruption of Mount Semeru. One of the provisions contained in the Semeru Renkon 2015 is the Penanggal Village Field which is included in the Mount Semeru disaster risk safe area. The assembly point should be determined in the vicinity of a particular settlement block, assuming that the gathering point can facilitate the people living in the settlement block (Wiwaha et al. .al, 2015). If the preparation of the evacuation site is well prepared, the community's preparedness will increase.

The sixth indicator is the compilation of accurate data, information and updating of disaster emergency response procedures. Information literacy regarding disasters must be further enhanced to be able to increase community preparedness in dealing with disasters (Marlyono et.al, 2016). The data made by the BPBD of Lumajang Regency is not up to date. Such as KRB map data which is still old, information related to Renkon which was last made in 2015 and some data and information distributed to the public. From the community side, they also don't want to know data and information related to the activities of Mount Semeru,

which can be seen from the lack of enthusiasm of the people who join the Whatsapp group, which contains information related to the activities of Mount Semeru. So that information literacy about disaster can increase community preparedness. If data and information are communicated properly to the community, then community preparedness is good.

The seventh indicator is the provision and preparation of materials, goods and equipment to fulfill the restoration of infrastructure and facilities. Recovery is a series of activities to restore the condition of the community and environment affected by the disaster by re-functioning institutions, infrastructure and facilities by carrying out rehabilitation efforts (Rusfiana and Lestari , 2021). The importance of restoring facilities and infrastructure is very useful for the rapid fulfillment of community needs. Planning carried out by the BPBD of Lumajang Regency in the 2015 Semeru Renkon. The 2015 Semeru Renkon has estimated what I will feel and the costs that will result if there is an eruption of Mount Semeru. BPBD Lumajang Regency has also estimated the damaged facilities, the level of damage and the duration of the disruption caused by the eruption of Mount Semeru. With these preparations, the recovery of facilities and infrastructure caused by them can be properly planned and restored.

The importance of disaster preparedness aims to reduce the risks that occur if there is a disaster. Preparedness is one of the efforts made to anticipate the possibility of a disaster occurring in order to avoid loss of life, loss of property and changes in people's lives in the future (Sutton and Tierney, 2006). Preparedness becomes broader, namely minimizing the adverse effects of a hazard through effective prevention, rehabilitation and recovery measures to ensure timely and effective arrangements and delivery of aid and assistance after a disaster occurs (Kent, 1994).

Efforts to increase community capacity in dealing with the eruption of Mount Semeru for effective response and build better in the SFDRR priority aim for communities that have the capacity to respond effectively to disasters independently and are able to bounce back after a disaster and build a better life (National Platform for Reduction Indonesia's Disaster Risk, 2016). Efforts to increase community preparedness are not only the responsibility of the government but also the responsibility of cross-sectors. The Lumajang Regency BPBD government conducted training for school residents at Candipuro State High School by conducting SPAB which aims to increase the preparedness of school residents in dealing with disasters. SPAB both have a special mission where the main objective of the program is to create a disaster-safe school environment (Taqi and Setyowati, 2022).

Other efforts were also made by NGOs from HI who carried out Destana activities in areas that were still included in KRB II and KRB III. The aim of destana is to increase the preparedness of village communities in KRB. The objectives of this Disaster Resilient Village activity are (Oktari, 2019):

- (a) Protecting the public from the adverse effects of disasters;
- (b) Increasing the participation of the community, especially vulnerable groups, in resource management in order to reduce disaster risk;
- (c) Increase community institutional capacity in resource management and maintenance of local wisdom for disaster risk reduction;
- (d) Increasing the capacity of the apparatus in providing technical and resource support for disaster risk reduction; And
- (e) Increasing cooperation between stakeholders in DRR.

What the Ministry of E-HR and PVMBG have done to increase community preparedness in this regard is by making a new KRB map. Thus, the latest threat of disaster from Mount Semeru can be known by the public. The benefits of having disaster risk mapping and disaster maps include; mapped the distribution of threats, conditions of vulnerability and capacity of life of people living in disaster-prone areas; become a disaster risk analysis tool based on area

and database availability; become the basis for the government in making disaster management plans (<http://bencanapedia.id> accessed in December 2022).

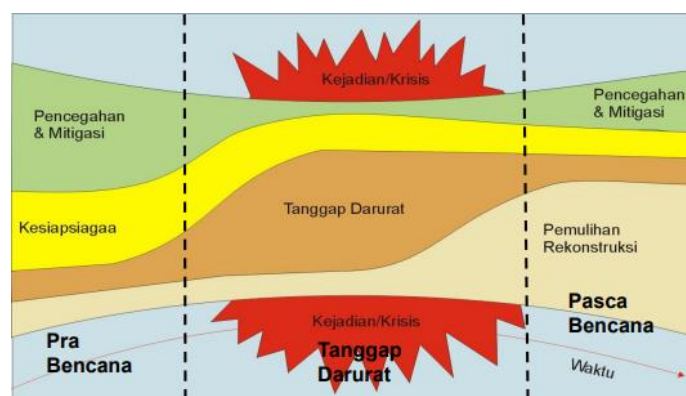
From the side of the community itself also has a role for their preparedness. Community awareness that existed after the eruption of Mount Semeru on December 4, 2021 resulted in their increased vigilance. This is due to their personal experience in dealing with the eruption of Mount Semeru. Preparedness for disasters is not good because of experience with disasters that have never been experienced, and one of the factors that influence preparedness behavior is disaster experience (Chairummi. et.al, 2013). With personal experience that occurs when a disaster occurs, the community will be more aware of future disasters.

Efforts made by various parties carried out in Candipuro District, Lumajang Regency obtained very good results which can be seen from a similar incident, namely the eruption of Mount Semeru on December 4, 2022 did not cause any casualties. Which means that the community's preparedness has increased so that they can save themselves in the event of an eruption of Mount Semeru. If the preparedness efforts are successful, the casualties caused by the eruption of Mount Semeru can be minimized.

National security in Indonesia does not only depend on the Central Government, but also involves all citizens and society. As said by Mukthar (2013) who said that "Changes in ideas and thinking in national security in Indonesia have changed from a state center approach, to an approach to citizen and community participation in creating security regulations known as Security Sector Reform (SSR)."

The eruption of Mount Semeru on December 4 2021 is an event that can threaten and disrupt people's lives and livelihoods. This is in accordance with Law Number 24 of 2007 concerning Disaster Management which states that a disaster is an event or series of events that threatens and disrupts people's lives and livelihoods caused, both by natural factors and/or non-natural factors as well as human factors, resulting in human casualties. , environmental damage, loss of property, and psychological impact.

Formation of community preparedness in accordance with priority action 4 in SFDRR which aims to increase effective response and build better not only for the emergency response period but also for the post-disaster period. With good preparedness, the community can have an effective response during an emergency response and can build better after a disaster.



**Figure 2.** Expand Contract Model

Source: (Dube, 2015)

Referring to the Expand Contract Model, in Figure 4.6 above, each phase starting from prevention and mitigation, preparedness, emergency response, and recovery and reconstruction, has a portion in each emergency phase, from pre-disaster, emergency response, and post-disaster. Preparedness is carried out on pre-disaster, emergency response and post-disaster. PP

Number 21 of 2008 states that preparedness is an activity carried out to anticipate disasters through organizing and through appropriate and efficient actions (PP Number 21 of 2008).

In SFDRR itself also has four priority actions, namely:

- a. Understand disaster risk;
- b. Strengthening disaster risk governance to manage disaster risk;
- c. Invest in disaster risk reduction for resilience;
- d. Enhance disaster preparedness for effective response and to “Build Better” in recovery, rehabilitation and reconstruction.

One way to reduce disaster risk is through disaster management. Disaster management is a dynamic, continuous and integrated process designed to improve the quality of actions related to disaster observation and analysis including prevention, mitigation, preparedness, early warning, emergency response, disaster recovery and reconstruction (Law No. 24 of 2007).

According to Maier (1990) in Romm (1993) says that national security is the ability or capacity to control environmental conditions and society from threats in nature and abroad so that they remain safe, prosperous and prosperous. One thing that needs attention in national security is human security. The concept of security is also aimed at ensuring the security of citizens/human security (Al Araf and Aliabbas, 2007). Human security is defined broadly as freedom from fear & freedom from want and is characterized as security from chronic threats such as hunger, disease, and oppression as well as protection from sudden and dangerous threats in patterns of daily life – whether at home, at work, or in society. So that with better community preparedness, disaster risk can be reduced. With reduced disaster risks that exist can support national security.

## CONCLUSION

Community preparedness in dealing with the eruption of Mount Semeru on December 4, 2021 is still lacking. This is based on the non-fulfillment of the seven indicators that are well received by the community. The community feels that they have never received knowledge regarding the RPKB or Renkon. The absence of an early warning received by the community is also one proof that the community's lack of preparedness in dealing with the eruption of Mount Semeru. If the seven preparedness indicators for PP 21 of 2008 are well conveyed to the community, then the community's preparedness will be good in facing the eruption of Mount Semeru.

Efforts to increase community preparedness in dealing with the Mount Semeru eruption disaster for an effective response and build back better after the Mount Semeru eruption on December 4 2021 are going well which can be seen from the implementation by various sectors for the community to increase community preparedness. Good. Communities in KRB II and KRB III as well as school residents who enter the Mount Semeru Hazard Zone receive proper training so that community awareness grows in dealing with the Mount Semeru eruption disaster. This can be seen from the absence of victims that occurred during the eruption of Mount Semeru on 4 December 2022. If efforts to increase community preparedness in dealing with the eruption of Mount Semeru for an effective response and build back better can be carried out properly, then community preparedness in dealing with the eruption of Mount Semeru will be good so that the victims can be minimized.

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