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Disaster Communication in Sleman Regency: Evaluating the SIMANTAB Application's Implementation and Impact

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Abstract

Indonesia, located in the Pacific Ring of Fire, is highly vulnerable to natural disasters, particularly volcanic eruptions. The Yogyakarta Province, including Sleman Regency, regularly faces threats from Mount Merapi eruptions. This research aims to analyze the integration of disaster communication in Sleman Regency through a cultural approach and the utilization of the SIMANTAB (Sleman Disaster Resilience Information System) application. Using a qualitative case study method, data were collected through in-depth interviews with the Regional Disaster Management Agency (BPBD), local communities, and residents. The findings reveal that BPBD Sleman successfully integrates technology and local cultural values in crafting effective disaster communication messages. The SIMANTAB application is used as the primary tool in disaster mitigation and management, particularly for Mount Merapi eruptions, while still respecting local wisdom and involving community leaders. This digital innovation aligns with E-Government principles while preserving cultural values in message delivery. Strong leadership commitment, collaboration with media actors, and ongoing training and support for the community enhance preparedness for emergency situations. This study underscores the importance of integrating cultural and technological approaches to strengthen sustainable disaster communication strategies that are responsive to community needs.

Keywords: Disaster Communication, SIMANTAB Application, Merapi Mount

Abstrak

Indonesia, terletak di wilayah cincin api Pasifik, memiliki risiko tinggi terhadap bencana alam, terutama erupsi gunung berapi. Provinsi Yogyakarta, termasuk Kabupaten Sleman, secara rutin menghadapi ancaman erupsi Gunung Merapi. Penelitian ini bertujuan untuk menganalisis integrasi komunikasi bencana di Kabupaten Sleman melalui pendekatan budaya dan penggunaan aplikasi SIMANTAB (Sistem Informasi Sleman Tangguh Bencana). Menggunakan metode kualitatif dan studi kasus, data diperoleh melalui wawancara mendalam dengan Badan Penanggulangan Bencana Daerah (BPBD), komunitas lokal, dan masyarakat. Hasil penelitian menunjukkan bahwa BPBD Sleman berhasil menggabungkan teknologi dan budaya dalam menyusun pesan komunikasi bencana yang efektif. Aplikasi SIMANTAB digunakan sebagai alat utama dalam mitigasi dan penanggulangan bencana, khususnya terkait erupsi Gunung Merapi, dengan tetap mempertimbangkan kearifan lokal dan peran tokoh masyarakat. Inovasi digitalisasi ini sejalan dengan prinsip E-Government, namun tetap mempertahankan nilai budaya dalam penyampaian pesan. Komitmen pemimpin daerah, kolaborasi dengan media, serta pelatihan dan pendampingan kepada masyarakat memperkuat kesiapan menghadapi situasi darurat. Penelitian ini menegaskan pentingnya integrasi budaya dan teknologi dalam memperkuat strategi komunikasi bencana yang berkelanjutan dan responsif terhadap kebutuhan masyarakat.

Kata Kunci: Komunikasi Bencana, Aplikasi SIMANTAB, Gunung Merapi

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INTRODUCTION.

Indonesia is located in the Pacific Ring of Fire, making it highly prone to natural disasters due to significant volcanic activity. Each year, the number of disasters in Indonesia continues to rise. According to the latest BNPB data, from January 1 to June 18, 2021, there were 1,441 recorded incidents (databoks.co.id). One of the regions with the highest disaster potential is the Special Region of Yogyakarta, which is not only at risk of earthquakes but also the activity of Mount Merapi in Sleman. On January 27, 2021, Mount Merapi erupted, releasing hot clouds up to 2,000 meters away, forcing residents to evacuate to three temporary shelters, despite the ongoing Covid-19 pandemic, which discourages large gatherings (Riana, 2021). Managing the Mount Merapi eruption cannot be separated from a cultural approach, as the local communities in disaster-prone areas hold strong customs and beliefs rooted in local wisdom.

Disaster communication is a crucial aspect of disaster mitigation, as it enables quick dissemination of information, thereby reducing risks for affected communities (Lestari, 2018). Accurate and credible information is vital during disasters, as the public relies on guidance from the government (Aziz, 2023) one of which is in the form of developing effective disaster communication. Preparing communities in disaster-prone areas must always be done. Adequate information is the main thing needed in areas with potential disasters other than training and internalization of habits to deal with disaster situations that are carried out on an ongoing basis-optimizing disaster communication results in the usefulness of communication in the context of disaster mitigation. This research focuses on the role and benefits of disaster communication in disaster mitigation efforts. The method used in this study adopts Francis & Baldesari's (2006. In areas prone to Mount Merapi's eruptions, the local community's trust in traditional leaders, combined with a cultural approach, reinforces public confidence in the government, making it a key factor in addressing issues like the Mount Merapi eruption (Apriliani & Abisono, 2023). The integration of cultural approaches and disaster communication is essential for reducing disaster risks by identifying threats, assessing victims' needs, and conducting risk evaluations. Disaster communication encompasses activities before, during, and after both natural and human-made disasters (Negoro, 2021) and aims to provide accurate, timely, and relevant information to affected communities, stakeholders, and the public (Nurjanah et al., 2021).

Disaster communication is essential for reducing risks, facilitating coordination, and supporting post-disaster rescue, recovery, and reconstruction efforts. E-government, government public relations, and disaster communication are interrelated components in the context of disaster management (Nurjanah et al., 2019). During disasters, effective communication leveraging technology and information channels must be prioritized, particularly from the government to communicies in affected areas. This process focuses on addressing key issues summarized as KIKK: communication, information, coordination, and cooperation, which are fundamental and indispensable (Budi HH, 2012). Fast, precise, and accurate updates are necessary to provide information on victim locations, the number of affected individuals, and their needs, thereby aiding officers and volunteers in delivering targeted assistance (Mahdia & Noviyanto, 2013). In chaotic situations marked by panic and fear, the risk of misinformation and unequal aid distribution can hinder effective disaster management, making accurate communication even more crucial.

Effective disaster communication involves communication and information technology via internet technology, making it easier to handle natural disasters in affected areas. Currently, technological developments have made it easier for the public to access important information about disasters which will support the efficiency of disaster management (Asteria, 2016).. The implementation of e-government is also expected to provide changes in the form of improved services to the community. E-government aims to deliver government services to the public more effectively. The more online services available and the wider the use of these services, the greater the impact on the public (Heeks, 2006).

This application is a strategy for handling and mitigating the Mount Merapi eruption disaster that utilizes technology. Head of Sleman Regency BPBD Prevention and Preparedness, Haenry Dharma Widjaja said, the SIMANTAB application can be accessed on the Android operating system. The benefits of this application include knowing information on the status and eruption of Merapi. Then, find out the user's location and distance from the danger radius of Mount Merapi and get evacuation routes and the closest gathering point from the user's location. Then, get to know the sister villages, disaster resilient villages in Sleman. Apart from that, use this application to find out the administrative boundaries and population per village in Sleman Regency.

Therefore, this research needs to be carried out because it is important to know the implementation of BPBD District disaster communication. Sleman through the SIMANTAB application both before, during and after a disaster to reduce the risk and negative impact of the Mount Merapi eruption disaster. Disaster management is a complex process that involves various efforts including using communication media to achieve effective and efficient communication.

Through effective communication, information can be shared with all parties involved so that emergency response actions can be carried out in a coordinated manner. This collaboration is important to maximize the use of existing resources and reduce overlap in disaster management efforts (Nurjanah, 2022). In Law No. 23 of 2007 concerning Disaster Management, one of the important steps taken to reduce disaster risk is through disaster mitigation. It is explained that disaster mitigation is a series of efforts to reduce the risk of disasters, both through physical development and awareness and increasing the ability to face the threat of disasters.

Sleman Regency is a district located in the Special Region of Yogyakarta Province which is right on the north side of Mount Merapi, as it is the most active volcano in the world so it has potential dangers that threaten residents around the slopes of Merapi. One form of disaster mitigation activity for the Mount Merapi Eruption is carried out by the Regional Disaster Management Agency (BPBD) of Sleman Regency which has the main task of dealing with the Mount Merapi Eruption. For this reason, to speed up and simplify disaster management in the Sleman Regency area, the Sleman Regency Regional Disaster Management Agency (BPBD) has a disaster communication system in the form of the SIMANTAB application (Sleman Resilient Disaster Information System) as an effective and efficient reporting and early warning tool.

The presence of the SIMANTAB application led to the Sleman Regency Government receiving the Bhumandala award in 2023 from the Geospatial Information Agency (BIG)

for innovation in the use of geospatial information in the form of disaster information applications (SIMANTAB). SIMANTAB Innovation became one of the six best finalists from the assessment results, and Sleman received the Bhumandala Ariti (Bronze) award for the Regency category This application is a strategy for handling and mitigating the Mount Merapi eruption disaster that utilizes technology. Head of Sleman Regency BPBD Prevention and Preparedness, Haenry Dharma Widjaja said, the SIMANTAB application can be accessed on the Android operating system. The benefits of this application include knowing information on the status and eruption of Merapi. Then, find out the user's location and distance from the danger radius of Mount Merapi and get evacuation routes and the closest gathering point from the user's location. Then, get to know the sister villages, disaster resilient villages in Sleman. Apart from that, use this application to find out the administrative boundaries and population per village in Sleman Regency.

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This research is inspired by several previous studies that have discussed disaster communication. The first research was conducted by Aziz (2023) entitled Disaster Communication: Role and Benefits in Mitigation. The results of this research show that the role and benefits of disaster communication in mitigation have a very significant influence. Some of the roles of disaster communication in the context of mitigation can be to provide rules or guidelines to the community. In another explanation it is interpreted as a life course. At the level of benefits, disaster communication has several aspects that can be internalized by society holistically. These include being able to change attitudes, being able to change opinions or views (to change the opinion), being able to change behavior, and being able to change society (Aziz, 2023) one of which is in the form of developing effective disaster communication. Preparing communities in disaster-prone areas must always be done. Adequate information is the main thing needed in areas with potential disasters other than training and internalization of habits to deal with disaster situations that are carried out on an ongoing basis-optimizing disaster communication results in the usefulness of communication in the context of disaster mitigation. This research focuses on the role and benefits of disaster communication in disaster mitigation efforts. The method used in this study adopts Francis & Baldesari's (2006.

Furthermore, research by Nurjanah, Ishak, & Sakir (2019) with research topics related to the Implementation of E-Government Public Relations of the Riau Provincial Government in Disaster Communication. The results of his research state that the implementation of e-government public relations in Riau Province in dealing with disaster issues has been implemented. However, to achieve high effectiveness the government still carries out disaster communication activities through face-to-face communication with residents. Another way is to involve community members in community forums related to forest and land fire disasters that occur. Then there was also research conducted by Barata, Lestari, & Hendariningrum (2017), entitled Communication Model for Mount Merapi Disaster Management Through the Plewengan Application. The results of this research show that the readiness of the Plewangan Plewangan application cannot be used optimally via an Android smartphone, the target audience is the people of Yogyakarta, the readiness of supporting institutions such as BBPTKG is ready, the media is used to share information in the form of mass media, traditional media, social media, and finding models. communication for the Plewangan Application involving Main Stakeholders, Premiere Stakeholders, Secondary Stakeholders who can be known, interested, and finally can access it so that the implementation function of the Plewangan Application can be correct. target and optimal (Barata et al., 2017). Next research by Apriliani & Abisono (2023) entitled Cultural Approach in Responding to the Crisis of Public Trust. The result said that conducting crisis communication management, it is necessary to consider aspect of the cultural background

of audiens and also provide policy recommendations through a cultural approach.

Based on previous research related to disaster communication and the implementation of application use, there has been no research that shows the success of implementing integration cultural approach and disaster communication through integrated applications such as the SIMANTAB application. Therefore, this research will provide novelty and fill gaps in previous studies which have not discovered and discussed the implementation of disaster communication using an e-gov and cultural approach in the context of disaster risk reduction in the Mount Merapi eruption area. As the findings in this research discuss the use of applications specifically designed by the regional government, in this case the Regional Disaster Management Agency BPBD, Sleman Regency. So this research will provide a new discussion on the use of applications from regional governments in disaster management.

RESEARCH METHOD.

This research uses a qualitative approach to produce descriptive research (Sugiyono, 2013) in explaining in detail the effective disaster communication model (Creswell, 2016). Data collection was carried out using the Focus Group Discussion (FGD) method with BPBD Public Relations and the community in the disaster-prone area of Mount Merapi, Sleman Regency, Yogyakarta. Qualitative method research to produce descriptive data (Moleong, 2017) by analyzing data based on disaster communication theory, and implementing e-government in the SIMANTAB application. The researcher determined the object in Mount Merapi, Sleman Regency, Yogyakarta, as the object of research because the object is a disaster-prone area that has a periodic scale and is a reference for several disaster-prone areas. The data collection technique uses primary data. The researcher conducted in-depth interviews and FGDs with the BPBD Community of Sleman Regency, Public Relations of the Sleman Regency Government, and the Sleman Regency community, especially those living in disaster-prone areas. Informants were selected purposively according to research needs, and interviews were based on the government's readiness to handle disasters in Sleman Regency, Yogyakarta, which is a disaster-prone area due to the eruption of Mount Merapi. Data analysis techniques are carried out simultaneously with data collection, data interpretation, and writing of research reports (Creswell, 2010). Interactive data analysis in 3 analysis components, namely data reduction, data presentation, and data triangulation to draw final conclusions/verification (Nugroho & Sulistyorini, 2018).

DISCUSSION.

In the age of information and technology that has developed so rapidly, access to information is the right medium to support natural balance. An alert attitude towards the possibility of natural disasters, supported by the distribution and access to adequate information, is one way of providing space for disasters to continue to occur without injuring and sacrificing human lives (Kusumaningtyas, 2007).

Integration Disaster Communication of Cultural Approach and SIMANTAB Application

Effective disaster communication requires a cultural approach that considers local context, community needs, and available technological capabilities. The local cultural

approach is an effective communication factor supported by the use of technology as an early warning system. Haddow, G. D. and Kims (2008) revealed that there are five main foundations that need to be considered, namely customer focus, leadership commitment, situational awareness, media partnership, and crisis communication.

The foundation of crisis communication needs to be supported by effective disaster communication, including aspects of providing accurate information, coordination and collaboration, recovery and reconstruction, community participation, and communication technology (Nurjanah et al., 2023). The aspects of disaster communication have been implemented well by the Sleman Regency Government in dealing with the eruption of Mount Merapi.

In the first aspect, namely providing accurate information, providing information about disasters to the community is very necessary so that the community understands the dangers they will face and agrees on warning signs. Therefore, institutions are needed whose task is to disseminate information that is truly accurate and can be trusted by the public. One of the things that can be trusted by the community is determined by who provides the information. In the conditions of the Mount Merapi Eruption Disaster, the people of Yogyakarta know the term "Juru Kunci Merapi" which is referred to as the person who guards Mount Merapi. The condition of the Yogyakarta community is inseparable from Javanese culture which provides a belief that is cultural in the community around the slopes of Mount Merapi.

"The existence of local culture or wisdom that is believed by the community actually provides two views. On the one hand, it provides something positive because we as the government can coordinate and ask the traditional leaders to convey it so that the community believes more. However, on the other hand, if there are things that cannot be proven by natural conditions, then we also experience obstacles in how to convey to the community what is actually." (Makwan, Chief Executive of BPBD Sleman Regency, Results in-dept interview 28 Agustus 2024.

Therefore, in conducting crisis communication management, it is necessary to consider aspects of the cultural background of the audience in implementing and planning communication strategies (Wertz & Sora, 2010). Research on culture in crisis management conducted by Oliveira (2013) proves that crises are created and resolved through communication, and cultural values influence how countries respond to crises they face. The study explains that knowledge of cultural diversity is one of the requirements to enter a society that can be used as a crisis management strategy.

Beside that, the institutions in charge of disaster management in Sleman Regency have been assigned to the Regional Disaster Management Agency (BPBD) of Sleman Regency. Leader commitment is very crucial; leaders involved in disaster management must have a strong commitment to carrying out effective communication (Tjahjono et al., 2018). They must be actively involved in the communications process, ensuring that important messages are delivered clearly and in a timely manner. The Sleman Regency BPBD's commitment is to continue to strive swiftly to convey accurate information through the SIMANTAB application (Sleman Resilient Disaster Information System).

The use of the SIMANTAB application is also a manifestation of the communication technology aspect which is able to facilitate the communication system in disaster management, especially the Mount Merapi eruption disaster. The SIMANTAB Sleman application is designed as a medium for information on disaster preparedness and reporting. Through this application, the public not only gets disaster information, but can also report disasters that occur in their surroundings. According to the Deputy Regent of Sleman Danang Maharsa, the SIMANTAB application is a development of the previous application called Sleman Disaster Report, or SDIS which added new features and menus.

"The addition and refinement of this disaster application is an effort to optimize services. The orientation is to increase convenience, speed, and safety. We, the Sleman Government, are committed to providing services through digital innovation. The development of SIMANTAB is thanks to the collaboration between BPBD Sleman and other OPDs" (Danang, Deputy Regent Sleman Regency, Interview results in Jakarta Newspaper, 30 October 2023)

The efforts that have been made by BPBD Sleman Regency have implemented the first element of effective disaster communication, namely focusing on community needs (Haddow & Kims., 2008). BPBD must understand what information the community and volunteers need in a disaster situation. In this case, the cultural approach provides supporting factors but on the other hand is also an inhibiting factor. This is because of the trust of Javanese culture that makes people trust some myths so that they become negligent and less alert to the dangers of Mount Merapi. This is not just about conveying information, but also ensuring that the information conveyed is accurate and relevant (Windiasih, 2019). Communication mechanisms are built in such a way that information can reach those who need it. As the presence of SIMANTAB is a complement the implementation of disaster communication applications that are better, more effective, and efficient for conveying integrated information to the public.

On the other side, the cultural approach is a helpful aspect, as Javanese society continues to have a strong mutual cooperation culture, which facilitates catastrophe information dissemination. The culture of harmony and mutual collaboration, often known as "gotong royong" among citizens, has a meaning that is not individualistic, making it particularly successful in facilitating and accelerating crisis communication and evacuation. Furthermore, employing "kentongan" as a traditional media of local wisdom might serve as a reminder if internet networks are lost during the process of sharing information. The cultural approach through the traditional media is still very much necessary to remind the community. A cultural approach assists communities in understanding their cultural vulnerabilities, developing customized intervention plans, and implementing appropriate coping strategies (Yeo et al., 2017). Furthermore, cultural competency fosters resilience in communities by fostering ongoing learning, communication, and cooperation among various stakeholders.

The Chief Executive of the Sleman Regional Disaster Management Agency (BPBD),

Makwan, hopes that the public will become more aware of disasters by installing this application. He admitted that the Sleman Disaster Report application released in 2019 was still not optimal. Therefore, the SIMANTAB application launching in 2023 is a redesign and improvement of the previous application.

"The SIMANTAB application is a refinement of several applications such as My Distance and Merapi, the SIPandu Application, the Sleman Report Application, and others. "Because the large number of applications makes disaster communication ineffective, a refinement of the SIMANTAB application was made which is expected to make it easier and increase the number of users in accessing information related to disasters in Sleman, especially anticipating the Mount Merapi disaster," (Makwan, Chief Executive of BPBD Sleman Regency, Results in-dept interview 15 July 2023)

Through SIMANTAB, the community can ensure a safe distance from the disaster location. In this application there is also a status menu for Mount Merapi and explains the user's current position. According to Makwan, the Chief Executive of the Sleman Regency BPBD, he said that the public can also monitor the condition of Mount Merapi in more real-time via the Merapi Live menu. There is also information on evacuation locations around Mount Merapi on the Pandu Timan menu. Through the presence of this application, transparency and trust will be created in conveying information to the public. People will have more confidence in the information provided because it is relevant to the current situation (Apriliani & Abisono, 2023).

"Residents and tourists visiting Sleman can download it. This application is supported by a geospatial information system, to ensure a sense of security when visiting Merapi,".

Makwan added, in the SIMANTAB application the public can get important numbers related to disasters and public services, such as Basarnas, Fire Department, PLN, and BPPTKG. Efforts made by BPBD Kab. Sleman is an implementation of aspects related to coordination and collaboration. Disaster communication also involves coordination and collaboration between various government agencies and agencies, non-governmental organizations, volunteers, and the private sector (Bajracharya & Hastings, 2020). Stakeholders need to share information, resources, and action plans to respond effectively to disasters. By collaborating with Bernas, Fire Department, PLN, and BPPTKG, information can be conveyed accurately and precisely.

Apart from that, BPBD also invites participation from the public to be active in providing accurate information on the SIMANTAB Application through the History Kak Todar feature, this feature monitors reports that have been reported by users. This feature applies the fifth aspect of effective disaster communication, namely involving community participation. Disaster communication is not only about providing information to the public, but also involving them in the decision-making process. Community participation can help in identifying more specific needs, understanding local culture, and facilitating the adoption

of mitigation measures will further increase the effectiveness of disaster communications (Widhagdha & Dewi, 2022). The features of the SIMANTAB application are listed in Figure 1.

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	PELAPORAN BENCANA DA DALLANI GEN Kabupaten Sieman selalai kabupa Beraha bai Merapi yang terma dunia, sehingan memiliki potem- wara di sekingan memiliki potem- sura di sekinaran kereng Merapi, bai ancaman bencama seperti dan di Asupaten Sieman. A di selaporan dan alat periapi chinara di selaporan dan alat periapi	IN PERINGATAN DINI DECEMBERATION (CALLER) (CALLE
	Prime Leff Description Description	eridaa inkernaali geografia selisih jarak gina manandu secsorang mengip tilik anan akat anan yang telah ditentukan obek menangkan pertakan selisih pertakan menangkan pertakan selisih yang menangkan pertakan selisih pertakan selisih ditangan oleh Turi Beakai erapi real-dime medalati CCTV gelaparan yang telah dilaparkan oleh habanggi untuk mendapatan informasi yang kerdin segera.
		San "Giap unituk Gelamat" READY TO SURVIVE

Image 1. SIMANTAB Application Source: Sleman Regency BPBD Document

So if summarized, the SIMANTAB application consists of several features with names that are closely related to local wisdom. This is done to provide easier public acceptance. The features include:

- a. Paman Lepi: Posisi Aman Lereng Merapi (Safe Position on the Slopes of Merapi), this feature provides geographical information on the difference in distance between the user and the peak of Mount Merapi.
- b. Pandu Timan: Panduan Menuju Titik Aman (Guide to Safe Points), a feature that guides someone to safe points from danger zones and safe points/safe locations that have been determined by the government
- c. Dewi Lepi: Destinasi Wisata Lereng Merapi (Merapi Slopes Tourist Destinations), a feature option that shows tourist destinations on the slopes of Merapi, along with supporting infrastructure and accommodation/hotels/guesthouses and restaurants available on the slopes of Merapi.
- d. Lapor Kak Todar: Lapor Kak Todar. This is a feature that functions for reporting and handling disaster events and will be immediately handled by the Rapid Response

Team.

- e. Merapi Live: Is a feature that displays real-time visuals of the Merapi volcano via CCTV
- f. History Kak Todar: This feature monitors reports that have been reported by users.
- g. Important Telephone Numbers: contains important numbers that can be contacted to obtain information or handle immediate emergency events.
- h. Interman: Informasi Tekini Sleman (Sleman Latest Information), provides information on early warnings or current disaster events, including early weather warnings from BMKG, the latest earthquake events, information on disasters that are currently occurring, or other emergencies that have occurred.
- i. Information Attention, the application user's reporting feature about the current situation or weather at the application user's place

Utilization of SIMANTAB as an E-Government Service

Apart from having the SIMANTAB application, BPBD Sleman Regency is still active in providing training and assistance in handling the eruption of Mount Merapi. This is because training can increase community preparedness and includes developing crisis communication skills (Yulistiana, 2017), so that all parties involved in the communication can respond quickly and effectively (Putera et al., 2020). By understanding and implementing these five main aspects, disaster communication carried out by BPBD Sleman Regency can be built more effectively. This will help communities, leaders, and volunteers to work together to better deal with disaster situations.

Utilization of the SIMANTAB Application is a form of utilization of E-Government which is a tool for delivering government services to the community more effectively. The existence of SIMANTAB is considered to be able to improve government performance towards stakeholders, demonstrate transparency, control, and accountability as well as interaction, and empower the community to take part in democratic activities for public policy (Permana et al., 2018). Referring to the type of E-Government service according to Indrajit which consists of publication, interaction, and transaction, the SIMANTAB application is part of the application used to interact (Indrajit, 2005). This is because the Sleman Regency Government, in this case the Sleman Regency BPBD, created the SIMANTAB Application to be a service provided by the government to the community to interact in the interests of reporting disasters, anticipating disasters, and knowing what actions need to be taken when a disaster occurs.

CONCLUSION.

Cultural factors are one of the determinants of the success of disaster communication, which is supported by the available technological capabilities. The Sleman Regional Disaster Management Agency (BPBD) as a regional equipment organization (OPD) that is responsible for handling and managing disasters collaborates with traditional leaders or called merapi caregivers to coordinate transportation of information to the public so that it is easy to accept and trusted by the public. The cultural approach in this case provides supporting and

inhibiting factors. It is a supporting factor because it has a culture of mutual cooperation, but on the other hand in its implementation the cultural approach also provides an obstacle because it makes people more trust in the myths that are feared to neglect the community. Therefore, Sleman Regency BPBD has special applications related to disasters, namely the Sleman Resilient Disaster Information System application (SIMANTAB). This application is a supporting communication media to detect the activities of Mount Merapi, besides this application also provides innovation and functions as an integrated disaster communication tool for each OPD disaster and uses several features with names that are closely related to cultural approaches, as well as involving the community to participate. In reporting disaster conditions in Sleman Regency, especially the installation of the Merapi eruption disaster. Sleman Regency BPBD has implemented effective disaster communication aspects including providing accurate information, coordination and collaboration, community participation in mutual cooperation, and communication technology. In the future, further research can measure the effectiveness of each SIMANTAB application feature quantitatively to measure the effectiveness of each feature in supporting effective disaster communication in handling the eruption of Mount Merapi.

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