

DISASTER MANAGEMENT IN BANJARMASIN THROUGH COMMUNICATION OPTIMIZATION

Astinana Yuliarti^{1*}, Rosalina Kumalawati², Rizky Nurita Anggraini³

- ¹Communication Studies, Universitas Lambung Mangkurat, Banjarmasin, Indonesia
- ² Geography, Universitas Lambung Mangkurat, Banjarmasin, Indonesia
- ³ Geography Student, Universitas Lambung Mangkurat, Banjarmasin, Indonesia

*Correspondent Email: astinana.yuliarti@ulm.ac.id

Received 2023-09-09 | **Revision** 2023-11-10 | **Accepted** 2023-12-30 Geography Study Program, Lambung Mangkurat University

Abstract: Disaster communication is a process of creating, sending, and receiving messages from one or more people, which can be done directly or through the media, in various disaster contexts such as pre-disaster, when a disaster occurs, and post-disaster and generates responses or feedback. The role of disaster communication in conveying information is very important amidst technological advances in helping people reach information. This research aims to determine the extent of the disaster communication process carried out by the Banjarmasin City of Regional Disaster Management Agency/Badan Penganggulangan Bencana Daerah (BPBD) in conveying information and educating the public regarding disasters. This research uses a qualitative descriptive approach. The results of the research show that in the process of conveying information to the BPBD of the Banjarmasin community, most of them have carried out their activities quite well, such as Customer Focus, Situational Awareness, and Leadership Commitment, while two other indicators, namely Media Partnership and Soft and Hard Power, are not yet running so they need attention. specifically, such as the process of conveying information via social media still using reporting language rather than journalistic language rules, as well as the limited human resources needed to manage information related to disaster prevention and management before it is conveyed to the wider community.

Keywords: disaster communication; disaster management; information; Banjarmasin

INTRODUCTION

A natural disaster is a natural case that has a major impact on people. Banjarmasin has a strategic function as a center for commercial things, government, and social service development. This function leads to a very rapid circulation of goods and services, both between districts and between provinces. High mobility encourages economic growth and attracts people to urbanize and work in the city, which is also a factor driving the rapid development of

Banjarmasin (Nurfansyah, 2016). City growth and population growth rates and their impacts are closely related to increasing land requirements and the balance of natural resources (Akhirul et al., 2020). As the population increases and housing demand increases, people tend to use the remaining space, including riverbanks and waterfronts, as residences or classify them as wilderness areas due to the chaotic effects of cities (Shofwan, et al., 2021).

Natural disasters are caused by various activities of destructive natural objects on the face of the earth, which have dangerous impacts (Setiawan et al, 2022). The impact of this incident causes various problems such as disruption of human activities (Setiawan et al, 2022). In addition, most natural disasters cause damage to vital objects in the surrounding area, such as residences, public facilities, workplaces, etc. Natural disasters also have a big chance of causing casualties, including injuries and even death. The dangers of natural disasters are also exacerbated by their unexpected or sudden occurrence.

Disaster is unpredictable therefore, George D. Haddow & Kim S. Haddow in the introduction to their book entitled Disaster Communications in A Changing Media World (2014) state that the fundamental thing in implementing disaster communication is to provide information in a timely and accurate manner to the public so that the public is prepared to anticipate disasters armed and face with the information that has been obtained. Therefore, an institution at the regional level is needed as an extension of the state to convey information about disasters to the public at the regional level accurately and on target.

The government of Banjarmasin, in this case, the Banjarmasin City of Regional Disaster Management Agency/Badan Penganggulangan Bencana Daerah (BPBD), which is under the coordination of the South Kalimantan Province Regional Disaster Management Agency/Badan Penanggulangan Bencana Daerah (BPBD), is obliged to carry out disaster management activities based on the mandate of law number 24 of 2007 concerning disaster

management which explains related to disaster management is a series of processes that are dynamic, sustainable and integrated for the sake of accurate quality action taking which is closely related to direct observation of events and disaster analysis as well as prevention, mitigation, preparedness, early warning, emergency management, rehabilitation and disaster reconstruction. The disaster management cycle is divided into four phases, namely;

- The mitigation phase is an effort to minimize the negative impacts of natural disasters. Examples: building management (building codes), vulnerability analysis, and community education;
- 2) The Preparedness Phase is a plan related to preparing for natural disasters. Examples: preparedness training, emergencies, and providing an early warning system for natural disasters.
- The Response Phase is an effort to minimize the destructive impact of natural disasters. Example: search and rescue (SAR).
- 4) The last phase is recovery is an effort to normalize community activities. Examples: building houses, financial assistance, and health facilities.

Disasters themselves are divided into four disaster clusters, namely; (1) Geology and Volcanology, consisting of volcanic eruptions, and earthquakes. Tsunamis and liquefaction; (2) Hydro-meteorology I (dry), consisting of forest and land fires and drought; (3) Hydrometeorole (wet). consisting of floods, flash floods, landslides, coastal erosion, extreme waves, tornadoes, and tropical cyclones; and (4) non-natural disasters, consisting of waste pollution, land subsidence, epidemic/pandemic and



technological failure (BPBD South Kalimantan 2023).

The position of communication in disaster management efforts is very crucial. Awareness of the importance of disasters among the public is increasing along with the emergence of various means of conveying messages related to disasters. With communication, information uncertainty will be reduced. Communication itself arises because of the need to reduce the uncertainty that occurs communication between process communities (Febriani, 2015)

existence of communication encourages people to act effectively to protect or strengthen the relevant ego in their relationships with individuals and groups (Tamitiadini et al., 2019). Communication is an important step in conveying information that a person or society needs (Alfreda, 2021). Furthermore, communication is another important thing in dealing with disasters in the present and future, with disasters occurring in an area, mass communication can be an option for conveying information to the public because public communication is important for agencies to fulfill the right to information. for citizens (Priyatna et al, Communication during and immediately after a disaster is also an important part of response and recovery, connecting affected people, families, and communities. Reliable accessible and communication and information are the key to community resilience in facing disasters (Abidin, 2021).

Disaster events are a regular occurrence in every region in Indonesia and also in the city of Banjarmasin in South Kalimantan, such as forest and land fires and floods (Trifianingsih et al, 2022), this is something that needs special attention in the context of prevention and management among the relevant government, namely the Agency Banjarmasin City of Regional Disaster Management Agency (BPBD) so that the public is educated on how to participate in disaster prevention efforts and active participation in the management process. This certainly requires an information bridge from the government to the community, so that effective disaster communication becomes a crucial thing to pay attention to

LITERATURE REVIEW Disaster

Disaster has several meanings and the Big Indonesian Dictionary (KBBI) defines disaster as something that can cause or give rise to distress, loss, or suffering; accident; and dangerous. Law No. 24 of 2007 concerning Disaster Management, defines a disaster as an event or series of events that is capable of threatening and disrupting people's lives and livelihoods because it is caused by several factors, both natural and/or non-natural factors (Arimastuti, 2011) and human factors, resulting in the emergence of human casualties, environmental damage, property loss, and psychological impacts. In Law No. 24 of 2007 concerning Disaster Management, the definition of disaster is divided into three, natural disasters. non-natural disasters, and social disasters which are explained in Law No. 24 of 2007 concerning Disaster Management as follows:

1. Natural Disaster, disasters are caused by an event or series of events caused by natural events that have a major impact on the human population (Hardiyanto and Pulungan. 2019), including earthquakes, and tsunamis.



- 2. Non-natural Disaster, complex disasters are caused by events or a series of non-natural events that will cause the atmosphere to become chaotic or uncontrollable (Pratama et al., 2021), including in the form of technological failure, modernization failure, epidemics, and disease outbreaks.
- 3. Social Disaster, disaster is caused by an event or series of events caused by people which includes social conflict between groups or between communities, and terror (Supryadi, 2018).

The definition of disaster is very diverse and continues to evolve along with future developments in disaster risk. The definition of disaster is also conveyed by the United Nation's International Strategy for Disaster Reduction (UNISDR, 2000) in Nugroho & Sulistyorini (2019), which states that a disaster constitutes a serious disruption to the functioning of society and causes significant loss of life in various aspects, starting from a physical, economic, or environmental perspective and disruption beyond the capacity of the community concerned to overcome it by utilizing their resources. Meanwhile. **Porifiev** Tamitiadini (2019), defines disasters based on the form of the disaster management area which is divided into two parts, namely:

1. An Emergency or Acute Disaster Area is a disaster caused by natural, technological, or socio-political events or incidents and so on. In this disaster, disaster management is required in the urgent (extraordinary) short-term action category, namely an immediate action in disaster management which is also related to action against chronic disasters.

2. Chronic Disaster Areas are disaster areas that cause long-term impacts such as famine, environmental contamination active radio, and so on. In this disaster, the disaster action that is needed is medium and long-term action, where generally subsequent disasters are found or occur in different areas which are the impact of previous disasters.

Based on the description above, it can be understood that a disaster is a condition that can occur naturally or be caused by nonnatural factors that have an impact on people's livelihoods, causing material losses and even psychological impacts.

Disaster Communication

Regarding natural disasters. the communication study used is through disaster communication studies. The term disaster communication has not yet become a common concept in the field of communication or the field of disasters, although research on disaster communication itself has been widely carried out, but in Indonesia, the study of communication related to disasters has only been carried out after the natural disaster of the earthquake and tsunami in Aceh. However, awareness of the importance of communication in disaster management has increased recently.

According to Nugroho and Sullistyorini (2019), disaster communication concept itself departs from the understanding that disasters must be managed, so that disaster management must be based on reliable data and information which through disaster management activities needs to be conveyed and communicated to all parties. Departing from this concept, Nugroho & Sullistyorini (2019) define disaster communication in a



broad scope which not only includes communication efforts to communities specifically those potentially affected by disasters, but also includes activities aimed at managing the media as an element of disaster management, in addition to designing communication coordination between groups, humanitarians and other organizations. One of the important areas of concern regarding disaster communication is the issue of uncertainty (Febriani, 2015).

An important aspect of communication is the concept of minimizing uncertainty. Communication itself arises from the need to reduce uncertainty so that we can act effectively to protect or strengthen the ego about our individual or group interactions. In disaster management, public and private organizations concerned with disaster victims need accurate information.

Another definition related to disaster communication was also conveyed by Lestari (2018), where disaster communication is a process of creating, sending, and receiving messages from one or more people, which can be done in person or through media, in various disaster contexts such as pre-disaster times, when a disaster occurs, as well as after a disaster and generates a response or feedback.

Disaster communication places more emphasis on pre-disaster situations which include preparedness, early warning, and mitigation. In general, disaster communication is an effort to provide information to the public about disasters (Hardiyanto and Pulungan., 2019) so that people are prepared to face disasters and can reduce disaster risks it is hoped that disaster communication can be useful in creating a society that is resilient to disasters.

According to Haddow and Haddow (2008), there are five main platforms for building effective disaster communication, namely:

- 1. Customer focus, understanding what information is needed by the community and volunteers. A communication mechanism must be built to ensure the transmission of information. Accurate and precise on target.
- 2. Leadership commitment, leaders in emergency response roles must engage in effective communication and active participation in the communication process.
- 3. Situational awareness, effective communication relies on the controlled collection, analysis, and dissemination of information in the event of a disaster. Effective communication principles such as transparency and trustworthiness are essential.
- 4. Media partnership, media such as television, newspapers, radio, and others are important in conveying information accurately to the public. Media cooperation involves understanding media needs with a team trained to collaborate with the media to gather information and disseminate it to the public.
- 5. Soft Power and Hard Power, the fifth foundation in Establishing effective disaster communications depends on disaster management efforts and must be supported by soft power and hard power approaches. The soft power approach includes preparing communities for preparedness through socialization and providing information about disasters. At the same time, the hard power approach is to deal with



disasters through physical development activities such as building communication facilities and building facilities that can reduce natural disaster risks such as building embankments, building concrete walls, dredging rivers, etc.

RESEARCH METHODS

This research uses a descriptive qualitative approach, namely research that does not carry out calculations or also uses findings that are not achieved or obtained using statistical procedures or other methods of quantification. The methods used by researchers in this research are literature study and interviews. The purpose of descriptive analysis is to provide a clear, objective, systematic, and critical picture and information regarding disaster communication in preventing and reducing public panic during disaster management. The method and analysis steps begin with collecting the required data, carrying out classification, description, and then analysis.

RESULTS AND DISCUSSION

Disaster management requires effective communication (Wandi et al., 2019) to carry out various disaster activities related to emergency management in various disaster situations. Therefore, it is important and needs attention to manage accurate and precise information for all related parties. The existence of effective communication will shape and support preparedness and provide quite informative disaster mitigation information (Asteria.. 2016) the community as a form and action that can help reduce potential risks resulting from future disaster events.

Disaster management needs to be carried out quickly and precisely (Nurdin, 2015) without necessarily going outside the standard operational procedures that have been established by the National Disaster Management Agency, and supported by maximum efforts in the form of effective communication.

There are five foundations for effective disaster communication proposed Haddow & Haddow in Nugroho and Sullistyorini (2019), namely customer focus, situational awareness, media partnership, and soft and hard power, which from the research results found that the BPBD of carries Baniarmasin out disaster communication activities effectively as explained below.

Customer Focus

The customer-focus aspect of disaster communication emphasizes how information sources and managers understand what information the community needs, disaster volunteers, or related parties through efforts to maximize communication channels that can ensure disaster information can be conveyed precisely and accurately (Fahira., 2021). From the results of an interview with the Chief Executive of the BPBD of Banjarmasin, Husni Thamrin, this was revealed

"Regarding the flow of information, we adapt to the SOP that has been set. So far, the collaboration has been carried out with the Banjarmasin City Ministry of Communication and Information through news publications on the official website. We are just preparing the news, but the dissemination is handed over to the Banjarmasin City Ministry of Communication and Information" (interview with Husni Thamrin, Kalak BPBD Banjarmasin)



This was also confirmed by staff from the BPBD of Banjarmasin, who explained that

"We use WhatsApp groups, websites, social media. BPBD takes the form of Instagram to convey information to the public. We also have a Whatsapp group which includes sub-district officials and volunteers who are faster and we ask them to pass it on to the community. *Including installing disaster prevention banners* in disaster-prone areas so that they can be read directly by the public" (interview with Hanafi, Banjarmasin BPBD Staff)

From the results of the interview, it is clear that there is an Instagram account for Banjarmasin, the BPBD of namely @bpbd_kota_banjarmasin, as an effort to bridge information from the Banjarmasin City BPBD to the public as well as report directly to BNPB via this Instagram account. In understanding the public's need for information, the Banjarmasin City BPBD also accepts complaints directly via direct to the Instagram message account @bpbd kota banjarmasin.

At this Customer Focus point, it can be seen that BPBD of Banjarmasin has made maximum efforts to carry out disaster communication effectively, which is quite good, namely through the discovery of sufficient disaster information, as well as correct and accurate information through verification from several parties so that the information conveyed can be used in handling efforts. disasters by every related party and can be useful in disaster management for the community to meet information needs.



Figure 1. Instagram BPBD of Banjarmasin

Leadership Commitment

In implementing effective disaster communication efforts, apart from understanding the information needed by the community, the BPBD of Banjarmasin as the institution for responsible disaster management also needs to be based on leadership commitment where the leadership factor also plays an active role in responding quickly and effectively. According to Haddow & Haddow (2008),communication needs to start from the commitment of leaders who have duties, functions, and responsibilities for disaster management so that they can handle disaster, this is related to the dissemination of information both internally and externally from the Institution. Based on findings in the field, the Banjarmasin City BPBD does not have special rules or policies for managing information related to disasters. So far, the BPBD of Banjarmasin, through posts on Instagram or news on the website managed by Kominfo, has only updated the latest information regarding disaster cases in Banjarmasin.



The leadership of the BPBD of Banjarmasin is always intense in monitoring every news and information that is published on the social media BPBD of Banjarmasin, so that it doesn't become a blunder later in the community, but based on monitoring via Instagram accounts which are directly handled by the BPBD itself, it was found that the language used still just a report language, not an information language that is managed again as a caption (Figure 2).



Figure 2. BPBD of Banjarmasin Instagram Posts and Captions



Gambar 3. Posts related to the activities of the BPBD Chief Executive regarding forest and land fires

The involvement and participation of the leadership in providing information to the community is also carried out by the BPBD of Banjarmasin in the form of a disaster communication process related to disaster management to external parties, in this case, the community, this is visible from posts on Instagram @bpbd_kota_banjarmasin where they hold chats related to the Forest Fire disaster and Land (Karhutla) through RRI Pro. 1 Banjarmasin (Figure 3).

There is involvement of leadership elements in the disaster communication process (Badri., 2018) especially through Instagram accounts, namely in order to educate the public regarding forest and land fire incidents (Kristhy et al., 2021) which are rife in the city of Banjarmasin, so that the public can take part and actively participate in the prevention and management of forest and land fire disasters in the city of Banjarmasin.

These findings illustrate that the BPBD of Banjarmasin has attempted to implement effective disaster communication based on leadership commitment quite well, there is a serious commitment from leadership elements by being actively involved both internally in monitoring information that reaches the community, even though there is no specificity in the news and information format itself. Apart from that, serious commitment was also demonstrated by the leadership elements in maintaining the communication process with external parties from the BPBD of Banjarmasin to guarantee and maintain the process of disseminating information related to disaster prevention and management in Banjarmasin, South Kalimantan Province.

Situational Awareness

Implementation of effective disaster communication needs to be based on the results of data collection, analysis processes, and controlled dissemination of information



related to disasters that occur as well as paying attention to aspects of transparency and accountability (Nurgoho Sullityorini, 2019). Situational awareness itself, as stated by Haddow & Haddow (2014), is a key aspect that really supports other aspects of an effective disaster communication process, understanding what conditions and situations are in locations that are disaster-prone areas or locations that are currently experiencing disasters mapping can be carried out., data collection and conditions in the field will develop effective communication to inform matters disaster mitigation related preparedness information, so that the public gets clear and detailed information, that it also determines the right decisions in response to disaster management efforts, so that every needs can be identified and able to apply available resources appropriately which will then reduce the potential for future disasters.

BPBD of Banjarmasin in implementing situational awareness as part of the implementation ofeffective disaster communication (Lestari et al., 2014), openly receives reports from the public regarding disaster events, both natural and non-natural disasters, via emergency contact numbers via telephone or WhatsApp, with The main tasks and functions are clear that the role of BPBD in the field is after a disaster occurs and does not take over the functions of other agencies such as the Fire Department, Search and Rescue (SAR) which is sometimes misunderstood in the community.

Information that arrives from the public is of course processed first, both in terms of news and in terms of the accuracy of the information source, so that it does not give rise to misperceptions later when it is conveyed to the public. Information related to disasters can also be obtained from direct patrols in the field which have carried out reviews of the situation, conditions, and data in the field to ensure the correctness of the information, as part of disaster management communication in the community. Information is also usually made in the form of infographics so that the public can easily understand the conditions for disaster prevention in the city of Banjarmasin (Figure 4)



Figure 4. Infographics related to extreme weather on Instagram BPBD Banjarmasin

The BPBD of Banjarmasin through disaster communication based on situational awareness has been quite good in its implementation, this can be seen when the BPBD of Banjarmasin always monitors and pays attention to the conditions of disaster events and the potential for disasters to occur, it carries out direct patrols or receives reports from the public via telephone or messages on WhatsApp.

Media Partnership

Disaster communication can be said to be effective (Hendra et al., 2018) if it is based on media partnerships where disaster



prevention and management efforts become an effective means of communicating information quickly, precisely, and accurately to the community on a large and widespread scale. Social media is a tool that can be easily accessed by all groups of all ages, occupations, genders, and cultures so that the exchange of information through conversation or interaction channels will not be limited by space and time and can be mediated by digital channels (Dufty, 2020).

The use of news media, especially Instagram social media owned by the Banjarmasin City BPBD as a means of education and information on disaster prevention and management to community, is an effort that has been made by the Banjarmasin City BPBD to increase insight, knowledge and information to the community regarding what a disaster is, how to distinguish it. natural disasters and nonnatural disasters, how the community can participate in disaster prevention, and information on disaster events in the city of Banjarmasin.

Collaborative activities with various parties to disseminate information (Dharma and Kasim., 2021) are of course important, with the power of media partnerships which BPBD Banjarmasin City should be able to carry out more seriously with other agencies and media will certainly have a big influence on the delivery of information and education about disaster.

Apart from that, media partnerships in terms of using social media as an effective means of disaster communication (Haddow & Haddow., 2014) are certainly supported by human resources who have capabilities in the field of disseminating digital information so that they can focus more on creating information content that is easier to

understand, attracting public interest, of course, requires collaboration with various parties.

The BPBD of Banjarmasin has not yet maximized its use of media, this can be seen by the lack of special skills possessed by information managers so that posting images and news captions still use standard language and do not comply with journalistic reporting rules which seem stiff and less interesting to read.

Soft and Hard Power

Effective communication is not only based on customer focus, leadership commitment, situational awareness, and media partnerships, but soft and hard power are also important indicators. Disaster communication by preparing community preparedness through activities providing information about disaster events (Suherman., 2018) or socializing about disasters is the meaning of soft power, while soft power is a follow-up to implementation of disaster communication by natural disaster prevention preparation aims to cope with natural disasters through the development of facilities such as building embankments and dredging rivers water channels and developing communication and information facilities (Nugroho and Sullistyorini, 2019).

Many activities carried out by the BPBD of Banjarmasin in the soft power category are seen in the form of direct outreach in the community as a form of disaster prevention as well as providing education (Pahleviannur., 2019) in high schools as a community that is also concerned and has contribution and participation in disaster prevention. As well as the use of Instagram social media for



public education with a wider reach (Subekti et al., 2020).

However, from a journalistic point of view, education and information formats in the media do not yet have special standardization either in terms of journalistic language in general or the existence of special SOPs for disaster news that are applied, so improvements are still needed from that side. The rules for disseminating information on social media are contained in the Ministerial Regulation in Permenpan-RB No. 83 of 2012 concerning the Use of Social Media in Government Agencies, where the realize suggestions aim is to disseminating information, conveying opinions from the public to becoming a medium for open discussions, but in the regulation, it is explained that this is only the responsibility of government relations and does not specifically explain regarding media. as a means of information about natural disasters in terms of prevention and management (Ulfa et al., 2019).

It can be concluded that the BPBD of Banjarmasin from a soft and hard power perspective has not optimally implemented disaster communication from a soft power perspective, even though it has carried out various outreach activities in the community and school communication, but uses social media as a means of information (Fitriani., 2017) what is easiest to reach by all groups is still not a priority both in terms of the content created as well as assignments and special expertise in the field of information dissemination.

CONCLUSION

Based on the results of research and discussion, it was found that disaster communication carried out by the Banjarmasin City Regional Disaster Management Agency or Badan Penanggulangan Bencana Daerah (BPBD) by emphasizing five indicators of disaster communication, namely Customer focus, Situational Awareness. Leadership Commitment, Media partnership and Soft and Hard power, shows that there are several conditions in the process of conveying information to the BPBD of Banjarmasin community, most of them have carried out their activities quite well, such as Customer Focus, Situational Awareness, Leadership Commitment, while two other indicators, namely Media Partnership and Soft and Hard Power, have not yet been implemented so they need special attention, such as the process the delivery of information via social media still uses reporting language, not journalistic language rules, and there are still limited human resources needed to manage information related to disaster prevention and management before it is conveyed to the wider community.

THANK-YOU NOTE

The author wishes to express sincere gratitude to the Universitas Lambung Mangkurat, especially the Institue for Research and Community (LPPM) for supporting this article through Program Dosen Wajib Meneliti Program (PDWM) Scheme in 2023.

REFERENCE

Abidin, S. (2021). Komunikasi bencana dalam mencegah dan mengurangi kepanikan masyarakat di masa pandemi COVID-19. Al-Muaddib: Jurnal Ilmu-Ilmu Sosial dan Keislaman, 6(1), 15-22.

Akhirul, A., Witra, Y., Umar, I., & Erianjoni, E. (2020). Dampak Negatif Penduduk Pertumbuhan Terhadap



- Lingkungan Dan Upaya Mengatasinya. Jurnal Kependudukan Dan Pembangunan Lingkungan, 1(3), 76-84.
- Alfreda, J. (2021). Tinjauan Komunikasi Publik Di Era Pandemi Covid-19 Terkait Optimalisasi Vaksinasi Covid-19. Sosioedukasi Jurnal Ilmiah Ilmu *Pendidikan Dan Sosial*, 10(2), 229-238.
- Arimastuti, A. (2011). Tahapan Proses Komunikasi Fasilitator Dalam Risiko Sosialisasi Pengurangan Bencana: Studi Kasus terhadap tim COMPRESS LIPI dalam Pelatihan Evakuasi andiri bagi Masyarakat Pantai Tsunami terhadap Bahaya (Pra Tsunami). Jurnal Dialog dan Penanggulangan Bencana, 2(2), 65-73.
- Asteria, D. (2016). Optimalisasi komunikasi bencana di media massa sebagai pendukung manajemen bencana. Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia, I(1), 1-11.
- Badri, M. (2018). Sistem Komunikasi Dalam Pembangunan Sosial Pasca Bencana. Jurnal Dakwah Risalah, 29(1), 66-80.
- BPBD Kalimantan Selatan (2023). Sistem Penanggulangan Bencana 2023 (materi paparan dalam kegiatan penyuluhan bencana 2023.
- Dharma, A. A. S., & Kasim, A. (2021). Infodemi Covid-19 dalam Perspektif Open Government: Sebuah Tinjauan Literatur. JIIP: Jurnal Ilmiah Ilmu *Pemerintahan*, 6(1), 105-125.
- Dufty, Neil. (2020). Disaster Education, Communication, and Engagement. Chicester UK. WILEY Blackwell.
- Fahira, A. J. (2021). Strategi Komunikasi Bencana Badan Penanggulangan Bencana Daerah (BPBD) Bidang Pencegahan Dan Kesiapsiagaan Dalam Program Desa Tangguh Bencana (Doctoral dissertation, Universitas Komputer Indonesia).
- W. Febriani. N. (2015).Strategi Pengurangan Ketidakpastian dalam Sistem Komunikasi Interpersonal (Studi Fenomenologi pada Peserta On The Job

- Training Program Ke Jepang dari PT. Construction Machinery Indonesia Periode Pemberangkatan Tahun 2009-2012). Profetik: Jurnal Komunikasi, 8(2).
- Fitriani, Y. (2017). Analisis pemanfaatan berbagai media sosial sebagai sarana penyebaran informasi bagi masyarakat. Paradigma, 19(2), 148-152.
- Haddow, George.D & Haddow, Kim. S. (2014). Disaster Communications In A Changing Media World. Oxford. Elsevier.
- Hardiyanto, S., & Pulungan, D. (2019). Komunikasi Efektif Sebagai Upaya Penanggulangan Bencana Alam di Kota Padangsidimpuan. Jurnal Interaksi: Jurnal Ilmu Komunikasi, 3(1), 30-39.
- Hendra, Y., Rudianto, R., & Priadi, R. (2018). Analisis Model Komunikasi Efektif Dalam Komunikasi Mitigasi Bencana. Kumpulan Penelitian dan Pengabdian Dosen, 1(1).
- Kristhy, M. E., Hakim, A. L., Widyawan, E., Claudia, C., Limbong, M. R., Sarvon, W., ... & Mahendra, W. (2021). Meningkatnya Kesadaran Masyarakat Terhadap Kebakaran Hutan Dan Lahan Setiap Tahunnya. Jurnal Gambut Pengabdian Kepada Masyarakat Media *Ganesha FHIS*, 2(2), 82-91.
- Lestari, P. (2018). Komunikasi Bencana Aspek Penting Pengurangan Risiko Bencana.
- Lestari, P., Prabowo, A., & Wibawa, A. (2014).Manajemen komunikasi bencana merapi 2010 pada saat tanggap darurat. Jurnal Ilmu Komunikasi, 10(2), 173-197.
- Nurfansyah, N. (2016). Tipologi Kawasan Jalan Pageran Antasari Banjarmasin. INFO-TEKNIK, 13(1), 50-56.
- Nugroho, S. P., & Sulistyorini, D. (2019). Komunikasi bencana: membedah relasi dengan media. Pusat Data, bnpb Informasi dan Hubungan Masyarakat, Badan Nasional Penanggulangan Bencana.



- Nurdin, R. (2015). Komunikasi dalam Penanggulangan Bencana. *JURNAL SIMBOLIKA Research and Learning in Communication Study*, *I*(1).
- Pahleviannur, M. R. (2019). Edukasi sadar bencana melalui sosialisasi kebencanaan sebagai upaya peningkatan pengetahuan siswa terhadap mitigasi bencana. *Jurnal Pendidikan Ilmu Sosial*, 29(1), 49-55.
- Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi (PERMEN PAN&RB) No 83 Tahun 2012 Tentang Pedoman Pemanfaatan Media Sosial Instansi Pemerintah. Diakses secara online melalui : https://peraturan.bpk.go.id/Home/Detai ls/132847/permen-pan-rb-no-83-tahun-2012 Pada tanggal 11 April 2023.
- Pratama, I. N., Hadi, A., & Zitri, I. (2021). Manajemen bencana non alam COVID-19 dilihat dari kepemimpinan quadruple helix di Kota Mataram. *Jurnal Ilmiah Tata Sejuta STIA Mataram*, 7(2), 230-244.
- Priyatna, C. C., Prastowo, F. A. A., Syuderajat, F., & Sani, A. (2020). Optimalisasi teknologi informasi oleh lembaga pemerintah dalam aktivitas komunikasi publik. *Jurnal Kajian Komunikasi*, 8(1), 114-127.
- Setiawan, I. N., Krismawati, D., Pramana, S., & Tanur, E. (2022, November). Klasterisasi Wilayah Rentan Bencana Alam Berupa Gerakan Tanah Dan Gempa Bumi Di Indonesia. In *Seminar Nasional Official Statistics* (Vol. 2022, No. 1, pp. 669-676).
- Shofwan, M., Nugroho, A. R., Prasakti, Y., Fitria, N. N., & Azmi, L. (2021). Mitigasi Bencana Pada Masyarakat Tradisional Kampung Air Kelurahan Mantuil Kota Banjarmasin. *Jurnal Geografika (Geografi Lingkungan Lahan Basah)*, 2(2), 79-90.
- Subekti, P., Hafiar, H., & Bakti, I. (2020). Penggunaan Instagram oleh Badan Penanggulangan Bencana Daerah untuk mengoptimalkan destination branding Pangandaran. *PRofesi Humas*, 4(2), 174-192.

- Suherman, A. (2018). Strategi komunikasi bencana pada masyarakat Kabupaten Buton Selatan. *Medialog: Jurnal Ilmu Komunikasi*, *I*(2), 10-18.
- Supryadi, A. (2018). Kebijakan Administrasi Kependudukan terhadap Penduduk yang Terdampak Bencana Alam dan Bencana Sosial. *Media keadilan: Jurnal Ilmu Hukum*, 9(2), 95-104.
- Tamitiadini, D., Adila, I., & Dewi, W. W. A. (2019). Komunikasi bencana: Teori dan pendekatan praktis studi kebencanaan di Indonesia. Universitas Brawijaya Press.
- Trifianingsih, D., Agustina, D. M., & Tara, E. (2022). Kesiapsiagaan Masyarakat Dalam Menghadapi Bencana Kebakaran Di Kota Banjarmasin (Community Preparedness to Prevent Fire Disaster in the City of Banjarmasin). *Jurnal Keperawatan Suaka Insan (Jksi)*, 7(1), 7-11.
- Ulfa, N., Suadnya, W., & Khusnia, H. N. (2019). Manajemen Krisis Humas Pemerintah Daerah Kabupaten Lombok Utara Pada Saat Gempa Bumi Lombok 2018. *JCommSci-Journal Of Media and Communication Science*, 2(2), 97-115.
- Wandi, D., Adha, S., & Asriyah, I. (2019). Pengaruh komunikasi terhadap kinerja pegawai pada badan penanggulangan bencana daerah (BPBD) Provinsi Banten. *Jurnal Ekonomi Vokasi*, 2(2), 18-30.

