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Original Research Article

# Disaster Communication Strategies to Improve Preparedness and Reliable Communities

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### **Abstract**

Proper communication and preparedness planning before a disaster occurs is very important to minimize the risk and the resulting damage. This study takes place in the city of Surabaya with the consideration that Surabaya is traversed by two active faults or tectonic plate faults that can cause earthquake potential. This study focuses on the preparedness phase, namely the efforts made in anticipating disasters, through organized activities. Due to the nature of disaster which is full of uncertainty, communication is the main foundation in minimizing this uncertainty. Communication in the context of disaster plays a role as access to information needs in the process of prevention, preparation and mitigation through the dissemination of information related to disasters. The main key in responding to disasters is to build an effective communication planning strategy in coordinating information before a disaster strikes. This study focuses on analyzing anticipatory activities carried out by Disaster Management Agency (BPB) and Community Environment (Linmas) related to the potential for earthquakes in the Surabaya City area to improve community preparedness. This paper is studied qualitatively by using in-depth interview method. Furthermore, this study was analyzed using the Disaster Communication Management model according to Haddow & Haddow. The result indicate that with four main foundations in building effective disaster communication, among others; Audience Focus, Leaders Commitment, Situational Awareness and Media Partnership. It is important to anticipate efforts from disaster mitigation by the Surabaya City Government in reducing the risk of disaster impacts that can occur in potentially dangerous areas.

Keywords: Disaster Communication Strategy, Community Environment, Preparedness Phase, Surabaya City.

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### 1. INTRODUCTION

This study departs from the idea that proper communication and preparedness planning before a disaster occurs is very important to minimize disaster risk and the resulting damage (Collins & Schneid, 2001). In general, disasters often occur without adequate anticipation and preparation (Nicholls, 2012). The understanding of disaster itself according to Gilbert in Quarantelli (1998) is closely related to uncertainty. So that the role of communication in the context of disasters is an important factor as access in meeting information needs that aim to reduce this uncertainty (Nicholls, 2012).

In the communication model David K. Berlo (1970) explains that communication is interpreted not only as a mere mathematical model, but also as a process of elaborating messages, channels, and information accuracy. With the announcement of disaster information early to the community, a level of

community sensitivity to disasters is formed and serves as a reminder to one another. This is different from disaster management in other Asian countries (Kim & Kang, 2010). Treatment steps that are curative and less communicative are often the choices made. In a disaster panic situation, in fact, there are often parties who spread hoaxes through social media which further adds to the distortion of disaster-related information (Okada & Matsuda, 2005). Disaster preparedness and the communicative role of the government and the competent authorities in conveying credible information are important points for the success of disaster communication (Susilo, Indrasari, Iristian & Yunus, 2020).

This study takes the setting in the city of Surabaya with the consideration that the area of the city of Surabaya is traversed by two active faults or tectonic plate faults that can cause earthquake potential. The statement released by the Ministry of PUPR in 2017

explained that there are two sources of earthquakes that threaten the city of Surabaya with the potential to reach 6.5 on the Richter scale (SR) (Pusgen, 2017). Located in an area that is categorized as prone to earthquakes, the Surabaya city government feels it is necessary to develop a preparedness planning strategy in the predisaster phase. The preparedness phase is an effort made in anticipating disasters, through organized activities.

Earthquake events can cause panic, shock and even uncertainty of information that can cause chaos if not handled effectively. This condition can have a significant negative impact or is often called a crisis (Kriyantono, 2018). To overcome these crisis conditions, systematic efforts are needed to encourage efforts in planning, organizing, implementing and evaluating performance in overcoming the crisis. This effort according to Kriyantono (2018) is called crisis management. In carrying out crisis management, communication has a very strategic role at all stages of the management (Seeger, 2006).

A crisis is viewed as a specific, unexpected, and non-routine event or series of events that creates a high level of uncertainty and threatens or is perceived to threaten the organization's high priority goals. Several studies have shown that an organization's ability to deal with crises depends on the type of suspicion during the crisis (Kriyantono, 2019). In the context of crisis management, the main problem faced by government agencies is the strategy of communicating information with people in areas at risk of disaster impacts (Nicholls, 2012).

Disasters create crisis conditions for local governments that face uncertainty because some systems are not structured (Doughall, Horsley, & McLinsky, 2014). To deal with unforeseen events, systems must be prepared to deal with crises. In short, local governments need to make structured plans to anticipate rapid changes and adaptations in an effort to encourage preparation and mitigation activities if this active fault moves, in the hope of reducing the risk of earthquakes and predicting mitigation. (Harnindira, Sunardi & Santosa, 2017).

Socialization and early warning systems are important factors in crisis management, as an effort to minimize the impact caused by disasters (Kusumasari, Alam & Siddiqui, 2010). Socialization is seen as an effort that can help the community in forming a disaster awareness attitude related to risk reduction and preparedness needs (Houston, 2012).

In preparing a resilient community, it is necessary to develop strategic management to support the organization's goals in dealing with crises. A crisis is an unexpected event that threatens stakeholders and has a serious impact on organizational performance, so

understanding the types of crises that exist will help organizations to choose the right crisis response strategy (Indiraswari, Kriyantono & Wulandari, 2019). Grunig & Repper (quoted in Kriyantono, 2008) say that the first step in strategic management is to identify and classify the public or community that affects or is affected by the organization. By communicating with the public, the program will be in accordance with public needs and the public can respond to messages conveyed during a crisis by understanding what the public knows (cognitively), believes, and perceives the information it receives (Kriyantono, 2012).

The ability of local governments to manage disasters is very important in efforts to mitigate. prepare, respond, and recover disaster management activities. (Kumalasari & Alam, 2012). In this case, the role of government agencies in formulating disaster communication strategies has a major influence on the success of disaster management in the pre-disaster phase. Therefore, an effective communication and coordination strategy is the key to success in this process. So this study focuses on disaster communication strategies in the phase of preparedness for potential earthquakes in the city of Surabaya, before the disaster occurred. This study focuses more on disaster communication strategies in an effort to socialize and educate on the potential for an earthquake in Surabaya which is carried out by BPB and the City of Surabaya Linmas in the preparedness phase. The preparedness phase is seen as an effort to deal with emergency situations and identify various resources to meet information needs related to disasters as well as an early warning system with the aim that the community has good preparation in dealing with future disasters (Tamitiadini, Adila, Dewi, 2019, p. 61).

Disaster Management Agency (BPB) and Community Environment (Linmas) of the City of Surabaya are the subjects of this research, considering that BPB and Linmas are institutions that are mandated by the Law of the Republic of Indonesia Number 24 of 2007 concerning disaster management, in accordance with article 5 which reads "The Government and Local Governments are responsible for the implementation of disaster management. disaster management". The communication strategy is one of the crisis management efforts or in the context of disaster as disaster management needed by BPB and the City of Surabaya Linmas in increasing community preparedness regarding the potential for an earthquake in Surabaya. This paper presents the communication strategy of BPB and the Surabaya City Public Relations Center in the preparedness phase based on the results of in-depth interviews with the Surabaya City BPB and Linmas parties in January 2021.

### 2. LITERATURE REVIEW

Disaster management can be described as a managerial function tasked with creating a framework

to reduce vulnerability in the face of disasters in the community (Suhaimi, Marzuki & Mustaffa, 2014). There are four principles of disaster management, namely; comprehensive, progressive, integrated and professional (Palttala, Boano & Lund, 2012). Reeves (2011) explains that the first principle of disaster management is that disaster managers must consider and take into account all hazards, all phases, all stakeholders and all impacts relevant to a disaster. The second principle is about disaster managers' anticipation of future disasters to take preventive and preparatory measures to build a disaster-resilient and disasterresilient society. The third principle is about the task of the disaster manager to ensure unity of effort among all levels of government and all elements of society. The final principle of disaster management explains the value of disaster managers on a science-based and knowledge-based approach based on education, training, experience, ethical practice, public service, and continuous improvement. The purpose of the principle of disaster management is to ensure that disaster agencies and communities can work together to deal with and recover from the impacts of disasters that may affect the physical and psychological aspects of the community (Pathirage, Baldry & Seneviratne, 2010).

Disaster communication management is defined as a series of management processes that are applied to disaster management activities that contain stages of planning, organizing, implementing, and evaluating (Schneider, 2005). Disaster management activities can take the form of coordinating disaster information as an effort to prevent disaster impacts (Seeger, 2006). Basically, the purpose of disaster communication management is a comprehensive effort to prevent and reduce disaster risk by managing the process of producing messages or information about disasters, disseminating messages and receiving messages from the pre-disaster, during disaster and post-disaster stages (Lestari et al. ., 2012, p. 175).

Disaster management is an overall activity that includes aspects of planning and disaster management during, before, during, and after a disaster that is designed to provide a framework for individuals or communities at risk of being affected by disasters to avoid, control risks, reduce, cope and recover. from the impact of disasters (Shklovski, Palen & Sutton, 2008). Disaster communication management involves planning, organizing or coordinating between government parties, authorities, communities, NGOs, donors and all levels of society affected by disasters, in an effort to build a disaster communication that can understand the meaning of the message so as to produce expected feedback based on the purpose of the message. delivered (Tomio, Sato, Matsuda, Koga & Mizumura, 2014).

The role of communication in disaster communication management is important to support the

stages of crisis management so that it runs optimally and well. Communication in management means that communication conveyed and received by the community becomes the basis for carrying out certain actions. This is supported by Haddow and Hadddow's statement that disaster communication is the flow of planning and control of information conveyed before, during, and after a disaster occurs. Haddow and Haddow also explained that to build effective disaster communication, transparency, increased credibility, trust, and reliability with various stakeholders, such as the government and the media need to be embraced so that the information provided runs effectively (Haddow and Haddow, 2008).

According to Haddow and Haddow (2008) there are 4 main foundations in building effective disaster communication, including: 1) Audience Focus. Focus on the target audience, in this case the audience in areas that have the potential for disaster, to be given messages and media related to disaster issues. Includes efforts to build the information needed by the public in this case the information provided in the form of an analysis of potential disasters, the level of possibility of disasters and how big the scale is, as well as the impact of these natural disasters and their handling that can encourage disaster mitigation actions and behavior 2). Leadership Commitment. Is the leadership of the relevant institutions in disaster management, so that there is no overlap, coordination chaos and reluctance to cooperate (because of organizational culture, different understanding of disasters or different job desks). Leaders who play a role in emergency response must have a commitment to effective communication and be actively involved in the communication process. Furthermore, the intended commitment of a leader can come from community organizations, lead the local area, or even influential people or opinion leaders in the area; 3) Situational Awareness. Forming open communication planning and operations, what is meant by open is that each party understands the position and purpose of the communication being carried out. Effective communication includes education and socialization about disasters, regions and risks, so that the public knows and understands the current and future situations. Effective communication principles such as transparency and trustworthiness are key. Effective communication in the community can build trust in the information they get. The information submitted must be in accordance with what is happening around the area; 4) Media Partnership. Haddow also highlighted the media, which has an important role in disaster events, as a tool in educating the public in an effort to help reduce risk and build audience resilience. Media such as television, newspapers, radio and others are very important media in conveying information correctly to the public. Cooperation with the media involves understanding the needs of the media with a trained team to obtain information and disseminate it to the public. In simple terms, the data media is managed

by the local community in the form of direct socialization.

This paper bases on several theoretical concepts and empirical phenomena regarding disasters, consequences, and disaster mitigation, so this research focuses more on exploring anticipatory efforts from disaster mitigation which are empirically carried out by the Surabaya City Government in reducing disaster risks that can occur in the Surabaya area. . Reviewing various previous literatures, many of which state that building a disaster communication plan before a disaster strikes is a very crucial factor to reduce risk. So that the aspect of disaster communication management that will be discussed in this study focuses more on the preparedness phase. The purpose of the preparedness phase is to anticipate the problems that exist in a disaster, so that various ways can be designed to deal with these problems effectively and the resources needed to carry out an effective response are prepared before a disaster occurs. Considering that until now the Surabaya area is one of the areas in Indonesia that has the potential for earthquakes due to the presence of an active fault plate, it is considered important to develop disaster communication management.

Disaster communication management referred to in this study is communication planning in the disaster preparedness phase which involves the communication process, coordination between the government, community, donors, and nongovernmental organizations. An accountable communication system plays a very important role in disaster mitigation efforts (Ali, Nguyen, Vien & Shah, 2015). An area can be said to be advanced if it is able to carry out disaster management independently with the ability to effectively collaborate between the community and the local disaster organization agency (Edrisi, Poorzahedy, Nassiri & Nourinejad, 2013). So that in this study it is considered important to analyze more deeply related to disaster communication management planning made by the Regional Disaster Management Agency as an effort for mitigation activities in dealing with potential earthquake hazards in the Surabaya area.

### 3. MATERIAL AND METHODS

This research on the practice of disaster communication planning strategies by the Surabaya City Disaster Management and Community Protection Agency is included in the category of qualitative research. Qualitative research is carried out by observing certain social activities of groups to try to describe in detail from the process to the behavior of the people involved in these activities. The qualitative approach also focuses its study on subjective meanings, understandings, metaphors, symbols, and descriptions of certain cases to be examined. This approach was chosen so that this research can obtain a detailed picture and an in-depth picture of the details of a specific

situation, setting or social relationship that takes place within the scope of the research subject. In this study, data were collected using in-depth interview techniques with Disaster Management Agency (BPB) and Community Environment (Linmas) personnel of Surabaya City based on key questions conducted in the period January 2021, the results of which were narrated by the author descriptively.

# 4. RESULT AND DISCUSSION 4.1 RESULT

In line with the vision and mission of Disaster Management Agency (BPB) and ) and the City of Surabaya Community Environment (Linmas) which focuses on forming disaster-resilient Surabaya residents, in this case the Surabaya City government through BPB and Linmas is responsible for prevention and preparedness related to the potential for earthquakes that threaten the Surabaya City area. Disaster preparedness is the most decisive and influential phase in changing the way people think and act in disaster-prone areas (UNDP and Ministry of Home Affairs, 2012). Disaster preparedness is a fundamental strategy to reduce or reduce all vulnerabilities, both physical and socio-economic (Maarif, 2010). Preparedness focuses on providing information, socialization, simulation, education, and increasing preparedness to anticipate and minimize disaster risk to the community. This has been stated in Perwali 72 of 2016 which is in accordance with the main functions of BPB and Linmas, namely as a disaster prevention, preparedness and emergency agency in the city of Surabaya.

In implementing the disaster management program, BPB and the City of Surabaya Linmas coordinate with Regional Apparatus Organizations (OPD) whose function is to handle according to the disaster field or referred to as the Integrated Disaster Management Task Force related to disasters that occur in the field, including; Social Service, Police, Satpol PP, DKRTH, Public Works Service, DISHUB, PMK Service, Basarnas and TNI. Regarding the potential for an earthquake that threatens the Surabaya City area, BPB and Linmas intensely and continuously collaborate with the BMKG and experts from ITS. In carrying out their duties, BPB and the City of Surabaya Linmas are implementing the functions of coordination, command and implementation as well as a means of paying for information from the Meteorology, Climatology and Geophysics Agency (BMKG) which will later be disseminated to the public. In the pre-disaster phase, it carries out important activities by conducting education and socialization followed by field rehearsals involving all important aspects of disaster management. Due to the existence of pre-disaster activities, it can minimize casualties and property.

Since the earthquake that occurred on September 21 2018, the Surabaya City Government has

appealed to Surabaya residents to remain alert for possible disasters. The Head of Prevention and Preparedness of BPB and Linmas of the City of Surabaya, Henry Simanjuntak stated that the steps that must be taken in dealing with the earthquake and tsunami hazard are to disseminate information to the community, and this socialization is conveyed to the community through the villages. In addition to socialization, the Surabaya City Government organizes simulations and disaster mitigation in an effort to reduce disaster risk. This simulation is one form of disaster preparedness education to the community so that the community is ready and trained in dealing with disasters. In implementing disaster preparedness, the Surabava City Government routinely provides education, outreach to schools by establishing disaster preparedness schools, to the village level, to companies or malls in Surabaya. This activity also involves all residents, ranging from children, teenagers, adults, to the elderly. The socialization and disaster mitigation simulation carried out made the atmosphere in the activity resemble a real disaster situation. The trainers are people who seem to be people who have experienced disaster situations or situations. In other words, the trainers positioned themselves as the people affected by the disaster. So that with this experience they are expected to be able to provide the trained community with experience on how they have the knowledge and ability to reduce disaster risk. In the implementation of the socialization of BPB and the City of Surabaya Linmas, they gave an appeal to residents so that they could obtain correct information and respond well to the potential for earthquakes in Surabaya through trusted sources. Residents are also expected to be able to ward off hoax news that is troubling and panics the community so that people can live their daily lives calmly but remain alert in the face of possible disasters that can occur at any time. This Surabaya City Government program, in addition to providing understanding, understanding, knowledge, and training, also provides more intense basic practices to all residents. This socialization is intended so that Surabaya residents do not need to be afraid to respond to the news of the potential earthquake.

Until now, in 2021, the Surabaya City Government continues to make efforts to cooperate with the BMKG in responding to the potential for earthquakes that threaten the Surabaya City area. One of them will be an application from the BMKG that will be connected to the Surabaya 112 command center that can detect where the earthquake is when it occurs. In addition, BPB and the City of Surabaya Linmas have also coordinated with ITS, the Cipta Karya and Bapeko to k began to conduct an assessment of houses and sedimentary soil in the city of Surabaya in making regulations for earthquake-resistant buildings. The government through its outreach activities always emphasizes that earthquakes don't kill but what kills is buildings that collapse due to earthquakes. From the

statement above, it can be seen that the Surabaya City government takes seriously the potential earthquakes in Surabaya. The strong commitment and belief of the Surabaya City Government to treat nature in the hope that it can provide benefits for anticipatory efforts in preventing disasters. The Surabaya City Government invites the public to treat nature better, starting from maintaining the cleanliness of the city, cleaning the river and not throwing garbage in the wrong place. Behavior that seems trivial but will be able to save the community itself from disaster. Community participation in treating nature for the benefit of the community itself is something that often requires understanding, encouragement and even coercion from the government, especially the regional government as an institution that has the authority to force the community.

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By building vital facilities and infrastructure, both command posts, skilled human resources, and other equipment, including information technology facilities capable of early detection of disasters, is a form of high commitment. As a preventive measure in disaster management, the Surabaya City Government continues to strive to establish disaster-resilient schools, disaster-resilient urban villages and each government agency office has a disaster captain whose job is to direct what to do in the event of a disaster. In line with what the Surabaya City Government is trying to do, especially regarding the benefits of technological facilities, the information used is mentioned by Tabish (2015) that the broad spectrum of ICST (Information, Communication, Space, and Technology) used in preparedness, mitigation, and disaster management includes sensing far; Geographic Information System (GIS); Global Positioning System (GPS); satellite navigation system; satellite communications; amateur and community radio; television and radio broadcasts; telephone and fax; cellphone; internet, e-mail; and special software packages, online management databases, disaster information networks. The critical application of ICST is developing and designing an early warning system which includes in understanding and mapping hazards, monitoring and predicting future events, processing and disseminating understandable warnings to administrative authorities and residents, and taking appropriate and timely actions in response to warnings. that.

Then one more facility that is owned and can be used for monitoring communication risks, namely Drones. This drone owned by the Surabaya City Government has the ability to fly up to 500 meters with a flight time of up to 15 minutes with one battery. The new tools owned and utilized by the Surabaya City Government in anticipating disasters are an innovative pilot. There is a need for new approaches supported by the central government and implemented at the city level to promote resilient urban development. Innovation can be implemented, with social media and smart technology supporting risk mitigation, early warning and disaster response. Geographic Information System (GIS) software and new tools such as drone technology can play a role in creating and analyzing spatial data for forecasting, monitoring, and communication risk (World Bank, 2013). In addition, the Surabaya City government installed tools in the form of cameras and screens to monitor the weather. This installation is mainly in areas adjacent to the sea coast. In addition, the Surabaya city government also installed 15 units of seismographs (earthquake detection devices) in Surabaya at 15 points in the city of Surabaya.

The Surabaya City Government also established 6 Integrated Disaster Response Command Posts, with the main objective of being alert in dealing with disasters in the City of Surabaya with the priority

that officers arrive 7 minutes after receiving a report. Reports on disaster events do not only come from telephones but from social media that are included in the BPB Linmas Surabaya City account which will be directly processed by the team from the Prevention and Preparedness field. BPB Linmas social media accounts include: Instagram @satpolppsurabaya @call112surabaya; for Facebook then at @commandcentersurabaya; on Twitter it is at @commandsurabaya and the official website, namely bpblinmas.go.id. The account is managed by the Public Relations team of BPB Linmas Surabaya. One of the other integrated facilities and infrastructure formed by the Surabaya City government through BPB Linmas in an effort to mitigate disaster management is the creation of a 112 command center service. Through the 112 command center service, the response given by officers is very fast in disaster prevention and management. Command center 112 is a pioneer in disaster services that are responsive in reducing disaster risk. The service program provided by the 112 command center has a very close relationship with disaster mitigation. The Command Center service program is very vital in providing services that are responsive in carrying out the first prevention in the event of a disaster. The command center plays a role in receiving disaster information, which then analyzes and simultaneously directs and launches the necessary officers to the scene. The 112 command center service program functions as a data information center which then coordinates the information to the officers in the field so that the services provided regarding disasters can run with a centralized command. This makes the 112 command center have an advantage that even 911 does not have, namely collaborating with doctors who are always ready for 24 hours, if an accident occurs in the field and requires medical assistance and an ambulance, the 112 command center is ready to serve.

#### 4.2 DISCUSSION

Some of the uniqueness found by Disaster Management Agency (BPB) and Community Environment (Linmas) officers in the field, when conducting outreach activities and socialization of potential disaster response, many people actively asked for continued socialization efforts to respond to the potential for earthquakes. BPB and Linmas routinely provide responses in the form of counseling according to the needs of the community. Public enthusiasm for health information related to the potential for an earthquake in Surabaya shows the characteristics of people who are more open to exposure to information. As for the information provided to the public if a potential earthquake occurs, then the community can already know what efforts must be made. Several forms of exposure to information and activities related to efforts to socialize, educate and simulate disaster risk reduction related to the potential for an earthquake in Surabaya by BPB and Linmas include using banners or billboards. The installation of banners or billboards is

carried out with the aim of always reminding Surabaya residents about the potential for earthquakes so they can always be vigilant without panicking. Then use leaflets, which contain information about earthquake disaster management tips and evacuating yourself and others. With the aim that residents can bring information media to their homes to be shared with other family members. Furthermore, face-to-face and online educational activities are carried out routinely throughout the year according to the agenda of BPB and Surabaya Linmas to reach all levels of Surabaya residents. Further, there is a simulation effort, which is carried out several times a year. With the aim of increasing public awareness by knowing the location of the evacuation route.

Reviewing the principles and principles of disaster management as stipulated in Law Number 24 of 2007 that disaster management must be based on science and technology and must be professional. Disaster management based on science means that disaster management must be based on knowledge that is systematically arranged according to certain methods that can be used to explain the disaster. This means that it is closely related to professional problems which means that it requires special skills to run it. Furthermore, which is no less important than disaster management is to have the principles of fast, precise and accurate. Disaster management must be carried out quickly and precisely in accordance with the demands of the situation, therefore the ability to communicate disasters or handle disasters is something that is very urgent and crucial. There are four main foundations for building effective disaster communication according to Haddow and Haddow (2008, p. 2) including Leadership Commitment, Customer Focus, Situational Awareness, and Media Partnership.

### 1. On Leadership Commitment or Communicator Selection Strategy

Communicators are required to always improve their skills in carrying out their duties. A number of absolute basic skills or competencies that the communicator must possess. Communication skills and abilities continue to develop along with the challenges faced by them. Experts in the field of communication must continue to hone their journalistic skills, including the ability to present straight news and soft news. The information conveyed by the communicators must be structured, with clear language rules, the sentence structure must also be clear so that the audience becomes concerned. In addition, communicators must also have broad insights, especially in the field of technology that helps humans work more efficiently and effectively and are required to think strategically which includes understanding the side of the message to conveyed and how the public responds. Communicating strategically needs to pay attention to the role of spokesperson or communicator. The spokesperson is in charge of providing official information for the benefit of the organization so that

the company's goals are achieved. The final result that is expected is that BPB Linmas is able to become a trusted resource person. In this case, every employee in BPB and Linmas has the opportunity to be a communicator in the activities carried out by BPB and Linmas City of Surabaya. Basically, BPB and Linmas employees of the City of Surabaya must be able to convey information related to disasters, especially earthquakes.

# 2. Customer Focus or Communication Target Selection Strategy

BPB and the City of Surabaya Linmas in mapping the community to be the target target, including based on the demographics of the communication target, namely all groups from men to women, young to old are the targets of socialization communication. Regarding the location chosen in carrying out the socialization of earthquake potential response, all levels of society in the city of Surabaya, especially in disaster-prone areas with high potential.

### 3. On Situational Awareness or Message Selection Strategy.

It can be seen that the message strategy implemented conducted by BPB and the City of Surabaya Linmas, namely the message conveyed must be informative and persuasive directly on the subject matter, described in concise and easy-to-understand language so that the audience is able to receive and digest the contents of the message conveyed from the activities carried out. So that the mitigation messages conveyed are messages that can prepare the community to be ready to face the upcoming disaster.

#### 4. Media Partnership or Media Relations

Is a tool or means used to convey messages from communicators to audiences. The selection of communication media must consider the characteristics of the content and purpose of the message to be conveyed, as well as the type of media owned by the audience. This is important to maintain cost effectiveness, time and effort. Media relations are efforts to achieve maximum publication or broadcasting of a message or information in order to create knowledge and understanding for the audience. The main objectives of media relations activities are for publicity, obtaining a platform to review a matter, obtaining public feedback on the activities of the Surabaya City BPB and Linmas, assessing issues affecting BPB and Linmas activities, and fostering stable, sustainable relationships with mutual trust and respect with the media. Media relations have an important role for disaster management activities because the media are able to influence political decisions, are able to save lives, are able to change behavior. In many cases, when an issue that exists in the community is made headlines in the media (especially big media) it will cause the government's attention to the issue to be faster. Some of the strategies carried out

by BPB and the City of Surabaya Linmas in establishing relations with the media include; 1) Utilizing the 112 command center for gathering disaster data and information so that it can be easily accessed by the media; 2). Disaster management training to the media at the national and regional levels; 3) Establishing a networking and Disaster Concerned Journalists Forum in the regions; 4) Actively provide official statements quickly, either with press conferences, press releases, social media such as Facebook, Twitter, Instagram, etc. Thus, new media as a communication medium in disaster awareness socialization has the potential to support the realization of a disaster-aware community and can take precautions to minimize disaster risk. However, to change the existing awareness and potential into reality requires continuous efforts. In essence, the government cannot work alone, it needs cooperation with various parties.

#### 5. CONCLUSION

Based on the results of the presentation and discussion of research data, it can be concluded that the author's construction in the implementation of disaster communication strategy activities related to the potential for earthquakes in the Surabaya area by BPB and Linmas is in accordance with the disaster management paradigm, namely the disaster risk reduction paradigm. The purpose of holding socialization of the potential for earthquakes is to prepare and help Surabaya residents to be resilient to disasters. The socialization of disaster awareness carried out by the government in various ways, including through conventional, formal, traditional media, websites, traditional communications, personal communication, and social media was enthusiastically received by the residents of the City of Surabaya. Residents are accustomed to participate in disaster potential socialization activities so that they are always ready to face potential disasters that occur in the future. The strategy for selecting communicators in the socialization activities is based on credibility criteria in knowledge, expertise, professionalism and skills related to disaster. The targets of the socialization activity are residents affected by the potential for earthquakes who live in disaster-prone areas. The message delivery strategy carried out by BPB and the City of Surabaya Linmas is educational in nature which provides disaster awareness education to the community. For the communication media selection strategy used by BPB and the City of Surabaya Linmas, namely old media in the form of local radio, outdoor media in the form of banners, billboards, and banners, command center 112, new media communication channels in the form of social media Facebook, Twitter, Instagram and the official website of BPB and the City of Surabaya Linmas at www.bpblinmas.surabaya.go.id.

### 6. RECOMMENDATION

Based on the research conducted, the authors provide a few suggestions or input that might be useful

- to further develop to the Disaster Communication Strategies To Improve Preparedness And Reliable Communities in Surabaya City, including:
- The next form of facilities and infrastructure is that until now the Surabaya City Government has also checked the readiness of buildings, both ordinary houses and high-rise buildings, to ensure whether they have met the requirements for earthquake resistance or not. The Indonesian National Standard (SNI) is an absolute requirement for constructing a building, especially anticipating the potential for earthquakes. The building is expected to withstand and avoid damage during an earthquake. The calculation of the mass of the building and the acceleration of the earthquake is the basis for determining the category of the building. Changes in SNI that pay attention to details related to earthquake resistance must become a standard for all buildings. The SNI for Earthquake Year Buildings will later become a reference for issuing local government permits for buildings that will stand in an area. This is done considering that Surabaya is the second largest city after Jakarta, so preventive efforts must continue to be pursued by means of all buildings having national standards.
- Two active faults or faults in Surabaya and Waru can cause an earthquake at any time. The potential for an earthquake doesn't have to scare you, but stay alert. Education on strengthening earthquakeresistant buildings must be provided to the community, while evaluating existing buildings. The introduction of disasters and living in harmony with the surrounding nature should be a guideline for people living in disaster-prone areas. This awareness is one way to minimize risks, including earthquakes. Ways to save themselves and survive are the capital to prevent many victims from falling. The community's perspective on disasters must be changed, from being responsive or acting only after a disaster occurs, to being anticipatory through disaster mitigation. This is the main goal of the disaster communication planning strategy efforts carried out by the Surabaya City Government in anticipating the potential for earthquakes.

### REFERENCES

- 1. Anderson, C. (2009). Gendered dimensions of disaster risk management, natural resource management, and climate change adaptation in the Pacific. The SPC Women in Fisheries Information Bulletin, 20.
- Ali, K., Nguyen, H. X., Vien, Q. T., & Shah, P. (2015, March). Disaster management communication networks: Challenges and architecture design. In 2015 IEEE International Conference on Pervasive Computing and Communication Workshops (PerCom Workshops) (pp. 537-542). IEEE.
- Carter, W. N. (2008). Disaster management: A disaster manager's handbook.
- Chatfield, A. T., & Brajawidagda, U. (2013, January).
   Twitter early tsunami warning system: A case study in

- Indonesia's natural disaster management. In 2013 46th Hawaii international conference on system sciences (pp. 2050-2060). IEEE.
- Collins, L. R. (2000). Disaster management and preparedness. CRC Press.
- Coppola, D. P. (2006). Introduction to international disaster management. Elsevier.
- 7. Haddow, G. D., & Haddow, K. S. (2013). Disaster communications in a changing media world. Butterworth-Heinemann.
- 8. Haddow, G., Bullock, J. A., & Haddow, K. (Eds.). (2017). Global warming, natural hazards, and emergency management. CRC Press.
- Indiraswari, R., Kriyantono, R., & Pia, W. M. (2019). Crisis domination and crisis response strategies of Indonesian state-owned companies in online media during January 2007–July 2018. Russian Journal of Agricultural and Socio-Economic Sciences, 90(6).
- 10. Kim, Y. C., & Kang, J. (2010). Communication, neighbourhood belonging and household hurricane preparedness. Disasters, 34(2), 470-488.
- Kriyantono, R. (2012). The situational theory of the publics in an ethnography research: Identifying public response to crisis management. International Journal of Business and Social Science, 3(20).
- 12. Kriyantono, R. (2012). Measuring a company reputation in a crisis situation: An ethnography approach on the situational crisis communication theory. International Journal of Business and Social Science, 3(9).
- 13. Kriyantono, R. (2013). Manajemen Periklanan: Teori dan Praktik. Universitas Brawijaya Press.
- Kriyantono, R. (2014). Teknik praktis riset komunikasi. Prenada Media.
- Kriyantono, R. (2015). Public relations and corporate social responsibility in mandatory approach era in Indonesia. Procedia-Social and Behavioral Sciences, 211, 320-327.
- Kriyantono, R. (2017). Teori-Teori Public Relations Perspektif Barat & Lokal: Aplikasi Penelitian & Praktik. Kencana.
- 17. Kriyantono, R., & McKenna, B. (2017). Developing a culturally-relevant public relations theory for Indonesia. Jurnal Komunikasi: Malaysian Journal of Communication, 33(1).
- 18. Kriyantono, R. (2019). Research strategies and media relations in public relations practices. Jurnal KOMUNIKATIF Vol., 8(2), 178.
- 19. Kriyantono, R. (2019). Apologia strategies and ethical aspects of government public relations in a crisis situation. Jurnal Representamen Vol, 5(02).
- Kusumasari, B., Alam, Q., & Siddiqui, K. (2010). Resource capability for local government in managing disaster. Disaster Prevention and Management: An International Journal.
- 21. Lestari, F., Jibiki, Y., Pelupessy, D., Imamura, F., Zulys, A., Kadir, A., & Paramitasari, D. (2021). Exploratory study for strengthening education sectors for responding to complexities due to NATECH (Natural-Hazard Triggered Technological disasters) disasters. In IOP Conference Series: Earth and Environmental Science (Vol. 630, No. 1, p. 012022). IOP Publishing.

- 22. Lestari, I. T., Wulandari, M. P., & Nasution, Z. (2021). Quality Relationships between Superiors and Subordinates as Well as Fellow Colleagues at the Sweetener and Fiber Research Centre in 2010-2019. International Journal of Science and Society, 3(2), 232-239.
- Lestari, P., Ritonga, R., Ruliana, P., & Barus, C. C. B. (2020). Disaster communication uses field training exercise simulation as an important aspect of disaster risk reduction. Jurnal Komunikasi: Malaysian Journal of Communication, 36(1).
- Lestari, P., Kusumayudha, S. B., & Paripurna, E. T. (2016). Environmental communication model for disaster mitigation of mount sinabung eruption karo regency of north sumatra. Information an International Interdisciplinary Journal, 19(9 (B)), 4265-4270.
- Littlejohn, S. W., & Foss, K. A. (2010). Theories of human communication. Waveland press.
- Meissner, A., Luckenbach, T., Risse, T., Kirste, T., & Kirchner, H. (2002, June). Design challenges for an integrated disaster management communication and information system. In The First IEEE Workshop on Disaster Recovery Networks (DIREN 2002) (Vol. 24, pp. 1-7).
- 27. Mulilis, J. P. (1998). Persuasive communication issues in disaster management: A review of the hazards mitigation and preparedness literature and a look towards the future. Australian Journal of Emergency Management, The, 13(1), 51-59.
- 28. Okada, N., & Matsuda, Y. (2005, October). Risk communication strategy for disaster preparedness viewed as multilateral knowledge development. In 2005 IEEE International Conference on Systems, Man and Cybernetics (Vol. 1, pp. 640-647). IEEE.
- Paek, H. J., Hilyard, K., Freimuth, V., Barge, J. K., & Mindlin, M. (2010). Theory-based approaches to understanding public emergency preparedness: implications for effective health and risk communication. Journal of health communication, 15(4), 428-444.
- 30. Palttala, P., Boano, C., Lund, R., & Vos, M. (2012). Communication gaps in disaster management: Perceptions by experts from governmental and non- governmental organizations. Journal of contingencies and crisis management, 20(1), 2-12.
- Permata, A. A. C., Wulandari, M. P., & Kriyantono, R. (2020). Crisis Management of Brawijaya University. International Journal of Science and Society, 2(2), 187-202.
- 32. Quarantelli, E. L. (2003). Urban vulnerability to disasters in developing countries: managing risks. Building Safer Cities, 211.
- 33. Rahman, A., & Munadi, K. (2019, June). Communicating Risk in Enhancing Disaster Preparedness: A Pragmatic Example of Disaster Risk Communication Approach from the Case of Smong

- Story. In IOP Conference Series: Earth and Environmental Science (Vol. 273, No. 1, p. 012040). IOP Publishing.
- Rattien, S. (1990). The role of the media in hazard mitigation and disaster management. Disasters, 14(1), 36-45.
- Salter, J. (1997). Risk management in a disaster management context. Journal of Contingencies and Crisis Management, 5(1), 60-65.
- Schneider, S. K. (2005). Administrative breakdowns in the governmental response to Hurricane Katrina. Public Administration Review, 65(5), 515.
- 37. Schultz, F., & Glocka, S. (2013). Crisis communication online: How medium, crisis type and emotions affected public reactions in the Fukushima Daiichi nuclear disaster. Public relations review, 39(1), 40-46.
- Seeger, M. W. (2006). Best practices in crisis communication: An expert panel process. Journal of applied communication research, 34(3), 232-244.
- Shklovski, I., Palen, L., & Sutton, J. (2008, November). Finding community through information and communication technology in disaster response. In Proceedings of the 2008 ACM conference on Computer supported cooperative work (pp. 127-136).
- Spialek, M. L., Czlapinski, H. M., & Houston, J. B. (2016). Disaster communication ecology and community resilience perceptions following the 2013 central Illinois tornadoes. International Journal of Disaster Risk Reduction, 17, 154-160.
- Suhaimi, A. W., Marzuki, N. A., & Mustaffa, C. S. (2014). The relationship between emotional intelligence and interpersonal communication skills in disaster management context: A proposed framework. Procedia-Social and Behavioral Sciences, 155, 110-114.
- 42. Sullivan, H. T., & Häkkinen, M. T. (2006, April). Disaster preparedness for vulnerable populations: determining effective strategies for communicating risk, warning, and response. In Mc Grann Conference Rutgers, USA.
- 43. Susilo, D., Indrasari, M., Iristian, J., & Yunus, E. (2020, June). Managing uncertainty during disaster: Case on typhoon hagibis japan. In IOP Conference Series: Earth and Environmental Science (Vol. 519, No. 1, p. 012015). IOP Publishing.
- Tomio, J., Sato, H., Matsuda, Y., Koga, T., & Mizumura, H. (2014). Household and community disaster preparedness in Japanese provincial city: A population-based household survey. Advances in Anthropology, 2014.
- 45. Wulandari, M. P., & Burgess, J. (2010). Trust and its relationship to the quality of communication and employee satisfaction in a large Indonesian workplace: A case study. International Journal of Business and Management Studies, 2(2), 49-55.