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# IMPLEMENTATION E-GOVERNMENT PUBLIC RELATIONS OF DISASTER COMMUNICATION IN INDONESIA (ANALYSIS OF PACITAN REGENCY, INDONESIA IN THE TSUNAMI DISASTER 2017)

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Abstract--- The geographical condition of Indonesia which is in an active tectonic zone results in Indonesia having high vulnerability to the earthquake and tsunami disasters. Pacitan Regency is one of the disaster-prone areas in East Java Province that has the potential to be affected by the tsunami. Characteristic w territory Pacitan directly adjacent to the beach with the shape of the bay has caused an increasing risk of tsunami. Tsunami disaster is one natural disaster of which has not been discovered yet any tool to predict when exactly it will occur after an earthquake. Early Warning System (EWS), is only a tool to give a signal but does not give predictions when exactly the tsunami disaster came. This study uses a qualitative approach, with the object of research being the Public Relations of the Pacitan Regency Government. This research is a qualitative descriptive study by describing and analysing existing data based on the theory of Government Public Relations and disaster communication. The results showed that the implementation of E-Government of Pacitan Regency carried out by the government with affected communities relating to the provision of financial assistance as well as other basic needs assistance are mainly related to housing assistance to affected communities.

Keywords--- E-Government, Disaster Communication, Tsunami, Pacitan.

#### I. INTRODUCTION

Java, which is facing directly towards the Indian Ocean which has the potential to experience a tsunami. Pacitan is also in the third gap of eight seismic gaps throughout Indonesia. The National Disaster Management Agency (BNPB) states that Pacitan is a tsunami-risk area. Urban Pacitan is a low-lying area flanked by hills and directly borders with bays and has large rivers that lead directly to Pacitan Bay. With these conditions, in the event of a tsunami, tsunami waves will be trapped and enter the city either directly or through a river channel.

The southern coastal area of Pacitan, East Java, especially in the six main districts namely Sudimoro, Ngadirejo, Kebonagung, Donorojo, Pringkuku, and Pacitan are areas prone to tsunami disasters. This is due to the fact that the area includes the Grindulu Fault, which is a fault line from the continental plates that make up Java Island. In plain view, one of the main fault lines in Java is in the same direction as the Grindulu River, which extends from the southern coast to the upstream area in the Bandar District. This fault line becomes very vulnerable because it becomes an earthquake propagation area when collisions occur between continental plates on Java and oceanic plates in the southern sea (Nugroho and Pamungkas: 2015). Law Number 24 Year 2007 concerning Disaster Management brought a paradigm shift in disaster management from responding to disaster situations to disaster risk reduction

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and prevention. With this change, disaster management is an activity that began since the disaster did not occur until the reconstruction phase after the disaster.

Therefore, based on the Law, in the face of a disaster, it is necessary to have good disaster management; this is done to treat disaster risk as a priority. When natural disasters occur, effective disaster communication involving communication and information technology must be carried out especially from the government to the affected communities. In this case the prioritization issues that must be done are related to Communication, Information, Coordination and Cooperation later abbreviated as KIKK. This is absolutely necessary because it requires a fast, precise, and accurate update of information (Budi HH: 2011). The issue of KIKK is also important not only in terms of providing accurate information about disasters, but it can also build public empathy and encourage affected communities to be able to rise from problems that arise due to natural disasters that occur.

To deal with natural disasters, intense cooperation is needed between disaster institutions both at the center and in the regions and affected communities. Sirnoboyo and is an area that is prone to earthquakes, tsunamis, and floods. During the 2017 tsunami in Pacitan, the region was the worst affected by natural disasters. Disaster communication during and after a disaster happens becomes an important thing that must be done especially from the government to affected communities. When natural disasters occur, effective disaster communication involving communication and information technology must be carried out especially from the government to the affected communities. In this case the prioritization issues that must be done are related to KIKK namely Communication, Information, Coordination and Cooperation. This is absolutely necessary because it requires a fast, precise, and accurate update of information (Budi HH: 2012).

Communication in disasters is not only needed in disaster emergency conditions, but is also important at the time and pre-disaster. As said that communication is the best way to succeed in disaster mitigation, preparation, response, and recovery of a situation during a disaster. The ability to communicate messages about disasters to the public, government, media and opinion leaders can reduce risk, save lives and the impact of disasters (Haddow: 2008).

According to Breakwell (Rod, BotanCarl, Holen: 2012), the main reason for communicating risks prior, during and after the natural disasters is to initiate and carry out direct protective measures. Public Relations Government has the function of providing services to the public regarding information and mobilizing community participation in the success of government policies by upholding the principle of openness. In the era of information disclosure, communities have the right to obtain correct and non-discriminatory information including information and communication about disasters that occur in their area. Thus, the role of Government Public Relations in carrying out the functions of communication and information to the public at the time of disaster becomes very vital. Disaster communication conducted by Public Relations of Pacitan Regency with all stakeholders both from the government and affected communities is very important to reduce disaster risk. On the issue of tsunami disaster in Pacitan, there are several previous studies including discussing the effectiveness of disaster resilient village programs in Sirnoboyo village, Pacitan subdistrict, Pacitan regency in 2017, which was examined by Aini (2018), the results of this study indicate that the Tangguh Disaster Village program is considered effective in disaster management.

In addition to the research conducted by Aini, there are also studies conducted by Nugroho and Pamungkas (2015) that the level of community-based tsunami disaster risk management in RW. 08 Peloso Village Pacitan Regency shows that the level of community-based tsunami risk management has been very good with an average percentage of 89, 34 % of the management stages have been carried out by the community. Active community involvement in reducing disaster risk through identification, analysis, handling, monitoring and evaluation is an act of community-based disaster risk management

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(Nugroho & Pamungkas: 2015) Based on the background above, the researcher wanted to know the Implementation of E-Government Public Relations Pacitan Regency in Tsunami Disaster Communication that occurred on August 27, 2017.

#### II. LITERATURE REVIEW

## 2.1. Disaster Management

According to Coppola and Maloney (2009: 53-55) that modern disaster management comprehensively includes four functional components, namely: (1). mitigation which includes the reduction or elimination of hazard risk components, (2). Preparedness, which includes preparing communities at risk from disasters or preparing communities to be able to help people in disaster events with a variety of tools / equipment to improve their ability to survive and minimize financial risks and other risks. (3). Response includes actions taken to reduce or eliminate the impact of disasters, and (4). Recovery, including repairing, reconstructing or recovering what has been damaged / lost as part of a disaster. These four important aspects in disaster management are things that must be done to reduce the greatest risks from a disaster.

## 2.2. Disaster Management Cycle

According to Shaw and Gupta (Shaw, Srinivas, Sharma, 2009: 57) that the communication aspect in disaster management plays an important role. In the disaster management cycle aspects of communication are also needed. Before a disaster occurred the communication aspects are related to providing accurate information, coordination and aspects of cooperation, especially to people who are vulnerable to disaster events. The activities that can be carried out are prevention and risk reduction activities such as preparedness to face likely disaster, dissemination of early warnings.

When disaster strikes, communication, information, collaboration and coordination are the keys to success in disaster management. The various activities that can be carried out are quick response, provision of relief, mobilization of search & rescue, and damage assessment.

In post disaster situation the communication aspect is also needed during the reconstruction and recovery after the disaster situation. This is as illustrated in the following chart:

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Non Disaster **Before Disaster** These activities include These activities include disaster mitigation leading to preparedness to face likely prevention and risk disasters, dissemination of reduction. early warnings After Disaster **During Disaster** These activities include These activities include recovery and rehabilitation quick response, provision of programs in disaster relief, mobilization of search affected areas & rescue and damage assessment

Figure-1: Disaster Communication

Source: Shaw, Srinivas, Sharma, 2009: 57

#### 2.3. Disaster Communication

When and after a disaster, communication is an important thing to do, especially from the government to the affected communities. In this case, at the time of occurrence and post-disaster the need for accurate information is needed by the community and private institutions that have concern for disaster victims. Communication in disasters is not only needed in disaster emergency conditions, but is also important at the time and pre-disaster. As said that communication is the best way to succeed in disaster mitigation, preparation, response, and recovery of a situation during a disaster. The ability to communicate messages about disasters to the public, government, media and opinion leaders can reduce risk, save lives and the impact of disasters (Haddow & Kims: 2008).

According to Haddow, G. D, and Kims (2008), there are 5 main bases in building effective disaster communication, namely:

- 1. Costumer Focus, which is to understand what information is needed by customers in this case the community and volunteers. Communication mechanisms must be established to ensure that information is delivered accurately and accurately.
- 2. Leadership Commitment, leaders who play a role in emergency response must be committed to effective communication and actively involved in the communication process.
- 3. Situational Awareness, effective communication is based on the collection, analysis and dissemination of controlled information related to disasters. The principle of effective communication such as transparency and trustworthiness is the key.
- 4. Media partnership, media such as television, newspapers, radio, and others are very important media to convey information appropriately to the public. Collaboration with the media concerns an understanding of the need for information.

Disaster Management must be supported by various approaches both soft power and hard power to reduce the risk of disasters. The soft power approach is to prepare community preparedness through the dissemination and provision of information about disasters. While hard power is an effort to deal with disasters with physical development such as building facilities and infrastructure.

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#### 2.4 Government Public Relations

Public Relations is a form of communication that applies to all types of organizations, whether commercial or aimed at seeking profit (profit) or non-commercial companies that are not seeking profit. It doesn't matter whether the organization is in the government sector or the private sector. Based on the explanation above, PR is one of the efforts to create harmonious and beneficial relationships between organizations and the public by fostering mutual understanding between organizations and their public. Public Relations Government conducts public relations activities with the aim of providing good services regarding information and mobilizing community participation to succeed policies that have been decided by the government by upholding the principle of openness. Communities in the era of information disclosure have the right to obtain correct and non-discriminatory information so public relations must carry out their duties in order to provide optimal service. This is as stated in Nurjanah and Nurnisya (2016), that the Government Public Relations also has the duty to disseminate new policies, especially related to the new "special jogja" tagline to the people in Jogjakarta by utilizing digital public relations which is part of the implementation of E-government.

As according to Betty (2012), in his book Government Public Relations, broadly the purpose of Government Public Relations concerning three things namely:

- 1) Reputation and image: Public relations duties cannot be separated from reputation and image; this means the assumption that a positive image will be related to the high public access to the output of the organization.
- 2) Bridge of communication: Public relations is a communicator and mediator in delivering government aspirations.
- 3) Mutual benefit relationship: public relations must ensure that the government in its operations has good intentions in realizing social responsibility and is expressed through mutually beneficial relationships between the government and the public.

While the function of Government Public Relations According to Edward L Bernays (Betty: 2012), namely:

- 1) Provide information to the public;
- 2) Conduct persuasion to change attitudes and actions of the community directly,
- 3) Attempt to integrate the attitudes and actions of an agency or institution in accordance with the attitudes and actions of the community or vice versa.

To carry out the functions and tasks as a public relations officer in the government field, the public relations must have the following capabilities:

- 1) Observing and analyzing each problem that becomes the concern of the agency and its stakeholders
  - 2) Able to establish two-way communication with every public,
  - 3) Able to influence and create public opinion that supports the institutional program,
  - 4) Able to build good relations and conducive cooperation with various parties.

In addition there are 5 success factors in implementing e-government, namely Laws and Regulations, Organizational Structures, Business Processes, Information Technology and Vision, Objectives and Strategies (Nurjanah & Nurnisya: 2016). A good E-Government vision will be based on 4 principles, namely as follows Reward innovation and provide room for opportunities for mistakes, building a competitive environment, reward innovation and provide room for opportunities of mistakes. And emphasize the achievement of efficiency. There are three types of E-Government servvice are divided into thath namely Publication, Interaction, and Transactions.

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#### III. RESEARCH METHODS

This study uses a qualitative approach with positivistic paradigm, with the object of research being the Public Relations of the Pacitan Regency Government. This research is a qualitative descriptive study by describing and analyzing existing data based on the theory of Government Public Relations and disaster communication.

The technique of collecting data uses primary data namely interviews and FGDs to related informants who are selected purposively in order to meet research needs, while secondary data is using literature study techniques and documentation to confirm and strengthen the data to be analyzed. Qualitative data analysis requires researchers to carry out activities simultaneously with data collection, data interpretation and writing research reports (Cresswell : 2012). Thus data analysis is not done separately with data collection, but is an activity carried out together. During data collection, researchers move interactively in 3 components of analysis, namely data reduction, data presentation and final conclusions / verification (Sutopo : 2006).

In accordance with the type of qualitative research and data sources needed, data collection techniques in case study research is to use data collection techniques such as in-depth interviews (observation), observation, focus group discussions (FGD) and document analysis (content analysis) (Cresswell, 2012). Data collection techniques in this study, researchers used several ways, namely: a. In-depth interviews (in-depth interviews),

Interview is the process of obtaining information for research purposes by means of face-to-face questions and answers between the questioner and the respondent or respondent by using the interview guide or interview guide. In-depth interview (indepth interview) is a meeting of two people to exchange information and ideas through question and answer so that they can construct meaning in certain topics. (Sugiono, 2005). The research informants consisted of PR informants from the Pacitan Regency Government, BPBD of Pacitan Regency, and the Pacitan Communities affected by the Tsunami. b. Focus Group Discussion (FGD)

This is a research method that uses focus group discussions by selecting people who are considered to represent a number of different publics or populations. The Focus Group Discussion (FGD) is conducted by selecting key informants and inviting to discuss research issues, FGD participants have the same position and there are no authority holders in the FGD group so that the discussion of the questions asked can take place freely and openly. In this study the FGD participants were the Pacitan Community, the Destana group in Pacitan District which was a tsunami affected community.

# c. Document Review (content analysis)

Documentation is data collection activities by utilizing all important documents related to this research. Document Review conducted on community relations and BPBD policies in Pacitan Regency Government and the community related to Tsunami disaster mitigation in Pacitan data in this study will be analyzed qualitatively. Qualitative data analysis requires researchers to carry out activities simultaneously by collecting data, interpreting data, and writing research reports (Creswell, 2012).

The data obtained were analyzed using an interactive analysis model (Creswell, 2012). Thus data analysis is not done separately from data collection, but is an activity carried out together. During data collection, researchers move interactively in 3 components of analysis, namely data reduction, data presentation, and drawing conclusions / final verification (Sutopo, 2006: 186). According to Miles and Haberman (1984) the interactive analysis model is an analysis model that consists of three components, namely data reduction, data presentation and conclusion drawing. The components in the most active analysis model can be explained as follows:

## a). Data Reduction

This is the process of selecting, focusing, simplifying, and abstracting the raw data contained in the field notes related to the Destana Government-Community Communication Model for Disaster Communication in Pacitan Indonesia. This data is in the form of interviews or summaries of secondary data that are transcribed in the form of reports and then reduced and selected important matters. At this stage the data obtained will be coded, summarized, and categorized according to important aspects of the theme under study.

#### b). Data Display

This is a collection of information organizations that enables research conclusions. In this case, the display includes various types of matrices, figures, tables, schemes and tables related to the Communication Model synergized by the Government of Destana Community for Pacitan Tsunami Disaster Communication.

#### c). Conclusions Drawing

It is an organization of data that has been collected so conclusions can be made regarding the communication model synergized by the Government-Society and the Destana Group for Tsunami Disaster Communications in Pacitan, Indonesia.

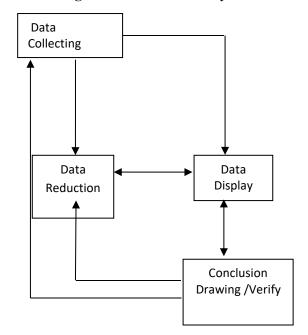


Figure 2 Interactive Analysis Method

Source: Adapted from Miles & Huberman (1984)

At that time the researchers compiled field notes on various matters relating to the implementation of e-government carried out by the Public Relations of the Pacitan Regency Government to communicate the tsunami disaster to the Pacitan community. After that researchers began to make temporary conclusions, because the data collection process is still ongoing. Data collection and analysis go hand in hand so that the analysis process occurs interactively and tests between components that are overall cyclical and last for quite a long time. By using this analysis technique, the conclusions about the e-

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government public relations implementation of the Pacitan Regency government in communicating the tsunami disaster can be tested accurately.

The process of data reduction is carried out by researchers by selecting, focusing, and simplifying the field notes obtained from data collection. The results of data reduction are then presented in the form of notes / narratives that allow the conclusions of the study to be carried out. The conclusions are reinforced continuously until the end of the study. Consolidation needs to be done by repeating activities to reduce data, present data, and revise conclusions that are felt to be lacking.

## IV. RESULT AND DISCUSSION

# Pacitan Public Relations Communication, Information, Coordination and Cooperation (KIKK) in Tsunami Disaster Communication 2017

Before, during and after the earthquake disaster occurred in Pacitan communication activities from the government in this case PR to the community affected by the disaster was very important. Communication in disasters is not only needed in disaster emergency conditions, but is also important at the time and pre-disaster. As said that communication is the best way to succeed in disaster mitigation, preparation, response, and recovery of a situation during a disaster. The ability to communicate messages about disasters to the public, government, media and opinion leaders can reduce risk, save lives and the impact of disasters (Betty: 2012). At the time of the Tsunami on 2017, Pacitan Government had carried out KIKK activities namely Communication, Information, Coordination and Cooperation. This is as stated by the Head of Pacitan Public Relations in the following interview:

"The KIKK conducted by the Pacitan Government Public Relations in Tsunami Disaster Communication is carried out in collaboration with BPBD and related SKPD, besides that we also adjust the Disaster Mitigation Law, as well as in collaboration with the community, especially with the Disaster Relief Village in Sirnoboyo area . The two regions are because the region is the worst affected by natural disasters".

Based on the results of interviews with the Public Relations of the Pacitan Regency Government it can be seen that the Pacitan Regency Government does not work alone but instead involves the participation of local communities, especially in the affected areas through the Resilient Village (DESTANA) program. Program 'Desa Tangguh Bencana' (Disaster Resilient Village) planned is an effort to reduce the risk of community-based disaster. Participation of the community in question is the active involvement of the community began forming Destana in each village / urban village, participating in socialization activities and rehearsals of the disaster and then be able to apply knowledge about disaster preparedness in the event of a disaster. Sirnoboyo Village is one of the villages in Pacitan Regency with the threat of catastrophic floods and potentially tsunamis.

KIKK communication Pacitan which is done through DESTANA is effective because communication is done directly by involving local communities. Information at the time of the onset of the disaster includes: Type of disaster, time of disaster, location of disaster consisting of hamlets, villages, and districts where disasters occur, geographical location, number of victims consisting of dead, missing, seriously injured, minor injuries and refugees, Refuge location, Access to disaster sites.

The purpose of KIKK activities is to deal with affected victims and avoid the risk of greater casualties. The existence of intensive communication, providing comprehensive information about disasters before they occur to affected communities is very important.

## Pacitan Public Relations E-Government Implementation in Tsunami Disaster Communication 2017

In the communication of the Humas Pacitan disaster, Information and Communication Technology (ICT) has also been utilized. In this case, it has implemented E-Government. The implementation of E-Government Public Relations in the earthquake disaster through activities:

1) Publications related to news and information about tsunami disasters using internet through website accounts released website by **Public** Relations with the address http://wadul.pacitankab.go.id/Wadule Pacitan (A Place for Aspirations and Complaints of Secar a Electronic Services) Pacitan Regency as a medium the aspirations and complaints of the electronic service community which in this case is related to the tsunami disaster. The most important point that should be understood that the program wadule in essence a common application that channels the aspirations and public services, with no exception communication tsunami disaster that occurred in 2017.



Figure-3. Wadul Website

Source: http://wadul.pacitankab.go.id/



Figure-4 Website of Pacitan

Source: https://pacitankab.go.id/

However, on its implementation, the Wadul.pacitankab.go.id website is still not effective, especially in the delivery of tsunami information in 2017 to the public. Wadul's website is only used to communicate complaints and complaints have not been utilized for two-way disaster communication. The more effective implementation of e-government in Tsunami disaster communication conducted by the Government of Pacitan Regency Government is through the website https://pacitankab.go.id/, as conveyed by the District Government Public Relations Pacitan that:

"At the time of the tsunami disaster in 2017 the most effective media in Pacitan was the Official Web of the Government Public Relations District. Pacitan which can be accessed on the pacitankab.go.id page. We get information about tsunami disaster events along with disaster prone points and update information on victims based on data submitted by BPBD of Pacitan Regency".

- 2). Interaction carried out by the government with affected communities. This was done through meetings with community groups DESTANA, especially when the tsunami on the Pacitan Government Public Relations and their staff accompanied the Pacitan Regent to the refuge location to have direct dialogue and simulation of tsunami disasters such as the Destana Tsunami Expedition (Strengthening Societies Against Tsunami Threats) and Responsive, Agile, Resilient and Understand Earthquake Accompanied by Tsunami implemented by Pacitan Regency Government, BPBD and related SKPD which aim to do disaster mitigation so that the community is alert and ready when a tsunami disaster occurs.
- 3). Transactions carried out by the government with affected communities relating to the provision of financial assistance as well as other basic needs assistance are mainly related to housing assistance to affected communities.

Implementation of E-Government Public Relations using ORARI Radio, Portable telephone and HT. Base on transaction with affectif communication that effectifly using HT and Radio ORARI. This is because at the time of the tsunami natural disaster, HT and ORARI Radio did not depend on signals unlike cell phones that needed cellular networks. In addition, the HT can be used within the range of 0,5 km up to 2.5 km without using balances and can be used similarly to making phone calls.

As stated by the Pacitan community Mr. Endi who stated that in 2017 there were 36 HHs that were affected by floods, some were landslides. There are 12 households heavy damage, there were already getting help there. And Mr. Endi said that the use of HT was an effective communication tool at the time of the tsunami disaster, because HT did not need cellular and electricity networks.

Thus the Pacitan Government Public Relations has implemented E-Government, especially during the tsunami communication in Pacitan. In this case it is done to provide services to the Website, especially during and after disasters. This is especially to fulfill the need for accurate information concerning tsunami disasters so as to reduce the risk of greater disasters and reduce the number of victims of tsunami disasters. That the results of this study are to be disseminated and published in the hope that the disaster-prone community especially Pacitan Regency has the awareness to mitigate disasters, especially tsunamis. With this research, it is hoped that the community will be aware that they live in areas prone to tsunami disasters so that they need to have awareness, be alert, and respond to disasters that will potentially be present around them and they need to know how to respond to disasters. The Pacitan community must also know that the government has facilitated communication media with various existing media, including the Wadul website, Destana groups, radio such as Orari, the use of HT and various other media provided by the Government.

# V. CONCLUSION

In 2017 when the Pacitan tsunami disaster occurred the Pacitan District Government in this case was the District Government Public Relations conducting communication activities from the Website as a E-government has been affected by the disaster have been carried out. Publications related to news and information with website, Communication in disasters is not only needed in disaster emergency conditions, but is also important at the time and pre-disaster. During the tsunami on 2017 at Pacitan, Public Relations carried out the KIKK process with various parties, because these four aspects are the key to handling disaster mitigation, especially for handling affected victims and avoiding the risk of greater casualties. Implementation of e-Government Relations Pacitan in 2017 Tsunami disaster communications using wadul.pacitankab.go.id/ and webstite https://pacitankab.go.id/.

Interaction carried out by the government with affected communities by working with the tsunami affected villages to implement the DESTANA program in the Sirnoboyo area which is a vulnerable spot for tsunami disasters. Transactions carried out by the government with affected communities relating to the provision of financial assistance as well as other basic needs assistance are mainly related to housing assistance to affected communities.Implementasi E-Government Public Relations using ORARI Radio, Portable telephone and HT. In this case it is done to provide services to the Website.

The conclusion of this study are to be disseminated and published in the hope that the disasterprone community especially Pacitan Regency has the awareness to mitigate disasters, especially tsunamis. And to make the Pacitan people aware of the media facilities that have been provided by the government.

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