

Government and Community Participation in Disaster Preparedness Decision Making for Eastern Indonesian Communities

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Abstract. The abstract needs to summarize the content of the paper. The abstract should This article aims to understand the role of the government and society in making disaster preparedness decisions for the people of Eastern Indonesia. This type of research is a combination or better known as a mixed method. This research will take 250 respondents from each province in Eastern Indonesia. Data analysis was performed using MAXQDA 2020 software, with two perspectives. The results of the study show that the problems or obstacles that exist when the community plays a role in disaster mitigation include inadequate personal skills and inappropriate logistical support. In addition, policies can inhibit as well as play a role in creating initiatives within the community regarding disaster preparedness efforts. The conclusion of this study is (1) decision making, respondents in the Ambon-Central Maluku region, and Central Sulawesi generally use an intuitive decision-making style. Respondents in Ambon area tend to pay attention to external factors in decision making, while respondents from Central Sulawesi tend to pay attention to internal factors in decision making. (2) External factors such as policies, magnitude of risk, experience, and religiosity are the dominant factors in disaster preparedness decision making. Meanwhile, individual factors related to decision making in disaster include individual maturity, personal abilities, personality and motivation.

Keywords: Role; Decision Making; Disaster Preparedness

1 Introduction

The potential for disaster in Indonesia is very high, this is due to Indonesia's geographic location which is at the confluence of the three main plates forming the earth's crust, namely the Eurasian Plate which moves to the southeast and the Indo-Australian Plate which moves in the Indian Ocean from the north (Aceh) to around The Timor Sea in the east and the Pacific Plate moving in the eastern part of Indonesia [1]. There are many disasters that come periodically, but this country is always unprepared for them. Disaster is a series of events that threaten and disrupt life caused either by natural factors, non-natural factors or human factors, resulting in human casualties, environmental damage, property loss, and psychological impacts (Law No.24, Article 1, on disaster management, 2007).

This must be addressed wisely, where disaster management has not been going well. The government and society proved to be less capable in overcoming emergency problems. This situation needs to be considered with efforts to carry out disaster preparedness by the community, government and professional groups [2]. Natural disasters often occur and can even occur at any time in Indonesian territory. Natural disasters that often occur such as earthquakes, tsunamis, floods, and others. This disaster was actually very detrimental to the Indonesian people. However, despite the many and varied disasters that hit, we can still live safely and comfortably as long as we can manage these disasters well and try to minimize the impact of these disasters by implementing disaster preparedness efforts properly [3]. Disaster preparedness is any pre-disaster activity that aims to develop operational capacity and facilitate an effective response when a disaster occurs. Disaster preparedness must be applied especially to disaster risk areas.

The National Disaster Management Agency (BNPB) on its website also displays the movement of disaster events over the past 10 years. Floods, landslides, tornadoes, earthquakes and tsunamis are types of natural disasters that have frequently occurred during the last 10 years. Based on this map, it can be observed that infrastructure disaster resolution can still be overcome, but what about the preparedness of the community? Hening Parlan from the Aisyiah Disaster Environment Agency, expressed his statement in the BBC, stating that the awareness of the Indonesian people was still far from what was expected. According to him, Indonesians are still not ready because they do not understand information about disaster-prone living areas (<https://www.bbc.com/indonesia/indonesia-45086874>, accessed January 31, 2020).

The implementation of disaster preparedness does not only involve the government, but also involves the community, especially for health workers. As one of the important components in disaster response, nurses have a very big role. The failure of the roles and responsibilities of nurses will result in failure to handle disaster victims. So, nurses should not only be experts in their fields, but nurses must also know how disaster preparedness is implemented so that they can minimize disaster risks and increase the success of handling disaster victims. The activity of disaster preparedness is to form an integral part of the national system which is responsible for developing disaster management plans and programs which include: prevention, mitigation, preparedness, response, rehabilitation or reconstruction [4]. Disaster preparedness can be carried out through disaster management education in anticipation of a disaster, disaster prevention training, checking and maintaining disaster prevention equipment facilities both in the area and in medical facilities, and building a network of assistance systems [5].

The results of a study by Sabir and Phil [6] explain that the reality of disasters is a moment of tension and also a crisis that arises due to the relationship between humans and others, with nature, and the environment. This moment causes individuals to experience difficulty understanding the reality of the disaster, resulting in the emergence of various perceptions about the disaster being experienced. These difficulties in understanding disasters then lead individuals to interpret various responses to disasters. [6] also add several perspectives as a response to the meaning of disaster, including fatalism. This form tends to be experienced by individuals, as well as an escapist perspective which shows that some people have difficulties and cannot be understood by reason. And the third form of perspective is the perception that attempts to take advantage of disasters as an area for competing interests, which is indicated by the attitude of capitalism towards disasters.

Response to the reality of a disaster does not occur only during a disaster. Individual responses will continue until after a disaster. One of them is the decision-making process in

understanding disaster as a preparedness. Almost every day, individuals go through a decision-making process. In a post-disaster situation, survivors will go through the process of diagnosing the situation, selecting the actions that must be taken, and implementing it. In the study of cognitive psychology, decision making is focused on a person's process of deciding. This differs from problem solving which is characterized by a situation where a goal is clearly defined and where the achievement of a goal is broken down into sub-objectives, which in turn help explain the action to be taken and when to take it. Decision making is also different from reasoning which is characterized by the process of moving individuals from what is already known to further knowledge [7].

Suharnan [8] also mentions decision making as the process of selecting or determining various possibilities among uncertain situations, thus requiring individuals to make future predictions, choose one of two or more options, make estimates (forecasts) regarding the frequency of forecasts that will occur. As in the results of research from [9] which concluded that after the eruption of Merapi, people experienced changes in more innovative communication patterns. The Merapi community took the decision to form group communication, prepare a more complete communication tool, be open to information submitted by the government or official agencies, as well as communication that determines decision making in the evacuation process.

There are also results of research conducted by [10] which concluded that community participation in community-based disaster risk reduction programs still needs to be improved. This is evidenced by the stages of decision making, implementation, utilization and evaluation that have not been implemented optimally. Other research results that show the importance of disaster preparedness decision making come from the research of [11] which shows that individual decision making in an effort to improve preparedness for tsunami disasters by participating in the socialization and simulation of tsunami disasters, establishing disaster prepared school communities, providing material knowledge about disasters, and preparing emergency response plans when faced with a tsunami disaster.

Based on the explanation and results of previous research, it is important that further research is carried out regarding the role of the government and society in making disaster preparedness decisions for the people of Eastern Indonesia, considering that the Eastern Indonesian region is a region that is prone to natural disasters, moreover the understanding of disasters is still low and hazy.

2 Research Method

This type of research is a combination or better known as a mixed method, which is a combination of qualitative research and quantitative research. Sugiyono states that this combination research method combines qualitative research methods and quantitative research methods to be used together in a research activity, so that more comprehensive, valid, reliable, and objective data is obtained [12].

This study will take 250 respondents from each province in Eastern Indonesia. Data processing in this study uses quantitative and qualitative approaches with software as a tool. Researchers who are members of this research are researchers from the SepuluhNopember Institute of Technology and Brawijaya University with Gadjah Mada University as the host. Collaboration of researchers from multidisciplinary disciplines is expected to produce comprehensive and useful outcomes both theoretically and practically.

Data analysis was performed using MAXQDA 2020 software, with two perspectives. The first perspective looks at the style of decision making in each region with the aim of seeing the uniqueness of each region in responding to different disasters. The second perspective looks at the whole area which includes Maluku and Ambon, so that the dynamics of eastern Indonesian society can be seen in making decisions as a disaster preparedness effort.

3 Result and Discussion

3.1 Qualitative Analysis Results

a) Rohomoni Village

The two informants who came from Rohomoni Village, MDS and HS showed the same decision-making style, namely intuitive. In this study, the background of the informants did not show the reasons for making this decision, but factors outside the informants seemed to have contributed significantly. The position of MDS as village head plays an important role in making decisions which tend to be based on policy factors. In contrast to MDS, HS views the magnitude of disaster risk faced as something that should be taken into consideration in making every decision.



Fig. 1. Data Analysis of MDS and HS Informants (Rohomoni Village)
Source: Data processed, 2020

Seeing the results of data analysis from MDS and HS informants from Rohomoni Village who have the same decision-making style, but there are differences in the reasons behind the decision making. The motivational factor plays a role in MDS to directly help disaster victims in Rohomoni. He who lives in Ambon chose to move to Rohomoni, then became a volunteer, and finally was appointed as the Village Head there.

Armed with the disaster experiences that also happened to him before he moved to Rohomoni, he has an intuitive decision-making style. He uses this decision-making style as an effort to survive, such as avoiding, resigning, and finding a comfortable place. This is in line with research conducted by Hastie [13] in which he argues that intuitive decision making is a

decision taken as a quick reaction which results in actions in the form of avoidance, approach, or adaptive based on experience or information that has been previously obtained.

Not only making decisions intuitively, HS also makes rational decisions as a form of self-rescue because it knows the magnitude of the risk from a disaster. He made up his mind by running towards the mountains. In the conditions of displacement in mountainous forests as described by HS, MDS explained that the response from the Central Maluku regional government and the province was a little late, causing fear and unrest among the community. In fact, policies related to this assistance are very much needed for victims who are experiencing a downturn. Fortunately, this condition was able to be overcome by MDS as the village head through the policies he made.

b) Tial Village

Different regions certainly have different decision-making styles, as happened to TT and SD informants, who came from Tial Village. The two informants used a rational decision-making style in dealing with the disaster that befell them. Rational decision making from TT and SD is based on factors from outside them, namely policy factors. Elementary school informants who are directly involved as disaster volunteers have a clear picture of the decision-making process starting from identifying problems, determining objectives and problem analysis, developing various alternative solutions, evaluating alternatives, selecting the best alternative, making decisions, and final evaluation.



Fig. 2. Data Analysis of Informants TT and SD (DesaTial)
Source: Data processed, 2020

The findings in this study are based on the style of decision making, factors that influence from within and outside the individual, and the process of decision making. The rational decision-making style of informants SD who act as volunteers can be seen from the decision-making process starting from identifying problems to the evaluation process. In the identification process, the informant SD was very aware of the disasters that were being faced, namely the earthquake and Covid-19 disasters.

That was what the informant SD said, where he was also a volunteer SD for the disaster that occurred. Knowing the disaster and the magnitude of the risk of an earthquake that occurred, SD and other communities fled themselves during September, November, and

December to seek refuge in the mountains. The information obtained from SD was also confirmed by the informant TT who also fled to an elevation area in Hurungare Hamlet.

For 3 months starting from September, November, and December, TT had difficulties in fulfilling their daily needs and only relied on government assistance in the evacuation areas. Meanwhile, informants SD as volunteers helped distribute aid for those affected by the disaster, both from the government and NGOs.

Talking about government assistance as mentioned by the TL informant, after the impact of the earthquake disaster had started to diminish, the people started to return to their villages to clean the damaged houses. The TL informant admitted that since returning home until now he has not received repair assistance, so he has to stay in his old house.

Not only policies are expected from the government, SD also hopes for disaster-related socialization. SD assesses that the community is still not ready and does not understand what disaster mitigation should be. In fact, disaster preparedness is an important matter for the community as a disaster mitigation strategy. Disaster mitigation is an effort carried out starting from pre-disaster, during a disaster, and after a disaster. This was also expressed by TT, who at the time of the disaster, he only made rational decisions based on the little information he had previously obtained and followed the actions of the majority of the community.

c) Donggala



Fig. 3. Data Analysis of Informants AD and AAM (Donggala)
Source: Data processed, 2020

The results of the MAXQDA software analysis showed that the two informants from Donggala used more rational decision making. In decision-making factors, informants are more influenced by factors outside the individual with different types of factors for the two informants. For AD informants, external factors were mostly influenced by Religiosity, while AAM informants were most affected by the amount of risk. The difference in factors outside of decision-making is caused by the influence of the AAM informant's work as a teacher who has knowledge of the impact that a disaster will cause, while an AD informant is a survivor who sees disasters more from the point of view of his beliefs as a reminder of God and his religion.

d) Parigi Mantoung



Fig. 4. Analysis of Informant Data (Parigi Mantoung Village)
Source: Data processed, 2020

The results of the MAXQDA software analysis showed that the two informants who came from Parigi Moutong used more rational decision making. In decision-making factors, informants are more influenced by factors outside the individual with different types of factors for the two informants. For AW informants, the most external factors were influenced by experience. Meanwhile, MM informants were most affected by the amount of risk. The difference in external factors in making this decision was due to the AW informants being able to see more of the impact of the disaster they experienced, while the informant MM as a person from a Community Social Institution (NGO) who has deeper knowledge related to disasters, considers what impact the people around him will experience when disaster strikes.

e) Negeri Kabauw



Fig. 5. Informant Data Analysis (Desa Negeri Kabauw)
Source: Data processed, 2020

It can be seen that the two informants who came from NegeriKabauw used more rational decision-making. In decision-making factors, informants are more influenced by factors outside the individual with different types of factors for the two informants. For ZK informants, the most external factors were influenced by policy. Meanwhile, SS informants were most influenced by religiosity. The difference in factors outside of decision-making was caused by the ZK informant who was a village head, where he had to consider all policies that were in effect in his area, while SS considered a decision based on his experience related to disasters. He looks more from the perspective of his beliefs as a reminder of God and his religion.

f) Negeri Liang



Fig. 6. Analysis of Informant Data (Negeri Liang Village)
Source: Data processed, 2020

The results of data analysis from informants in Ambon Negeri Liang show that the rational decision-making style dominates the two informants. Although the intuitive decision-making style of the RA informants, who had a greater role as ordinary citizens, was compared to the HRL informants who served as customary leaders. As RA and HRL said, the intuitive retrieval style appeared when the disaster took place.

Experience and education factors become factors outside the individual that dominate the two informants in how rational decision-making styles can be formed. The experiences regarding crises and disasters experienced by the two informants have a greater role in shaping an experience regarding disaster preparedness. The routine decision factor also seems to dominate in the HRL informants, this is related to the role of the informant's duties and responsibilities as the customary leader

How informants make decisions in everyday life is a routine responsibility. Policy is a dominating factor outside the individual, how informants perceive policy as having an important role so that decision making can occur. Both RA and FRL informants can realize the results of decision making that have been taken or agreed upon by public officials and residents. Meanwhile, emotional maturity dominates as a factor in the individual which plays a role in shaping the decision-making style of both informants. In addition, there is a personal ability factor that becomes the second dominant factor when viewed from the large ratio of the emergence of themes.

g) Palu City



Fig. 7. Informant Data Analysis (Palu City)
Source: Data processed, 2020

The rational decision-making style dominates the two informants of Palu City who act as disaster survivors or NGOs during the disaster until now. This can be seen from the statement of the FKM informant. Unlike the FKM informants, for PA informants, the intuitive decision-making style has the same weight as the rational decision-making style. Intuitive decision-making styles emerged when the PA informants were at the time of the earthquake which was followed by the tsunami in Palu City.

The factors that dominate the decision making of the two informants are experience factors. The experience factors that can be described from the two informants include the informant's life experience and the informant's specific experience regarding disasters and crises that have been experienced, as seen in the PA informants.

Education is also a dominant factor in factors outside the individual. This factor includes informants' knowledge or understanding of disasters and post-disaster conditions. Personality becomes a dominating factor in one of the informants for the individual factor, how the PA informant decides to become an NGO and has various rational decisions after the disaster. Meanwhile, the personal ability factor becomes a factor in the individual which dominates the two informants.

h) Parigi



Fig. 8. Analysis of Informant Data (Parigi)
Source: Data processed, 2020

The rational decision-making style dominated the two informants from Parigi, where both informants had the role of survivors or volunteer members of NGOs. Meanwhile, the intuitive decision-making style was also seen in US and DA informants, although the ratio of the number of informants made intuitive decisions on the theme of disaster was more dominant in US informants. Intuitive retrieval style is seen when the disaster occurs and shortly after the disaster occurs.

Factors from outside the individual are dominated by policy factors and experiences, experiences with disasters and crises. Apart from these two factors, there is also a dominating factor of religiosity. The religiosity factor is a finding of a new theme that is not mentioned in the decision-making factors according to [14]. As stated by the US, the dominant factor in the individual for the two informants is the personal ability of emotional maturity, whereas the motivational factor only dominates on one informant, namely the US informant.

Various answers from informants from all regions including Maluku and Ambon, regarding patterns or forms of disaster preparedness decision-making strategies for the people of East Indonesia did not only raise the theme of decision-making styles, but also other findings. Other findings in this study are divided into several themes including factors in decision making, knowledge or understanding of disasters, disaster management strategies (mitigation), existential beliefs, religiosity and commitment.

The style of decision-making regarding disaster preparedness is seen from the entire Maluku-Ambon area dominated by a rational style. Decision making when viewed from its style or form will depend on the time and conditions in which a person is faced with a situation or problem. The findings in this study indicate that there is still an intuitive retrieval style used by the community in responding to disasters. Intuitive style is more taken by individuals when the disaster is happening. Where individuals will rely more on feelings, emotional awareness and speed in making decisions [15].

When a disaster occurs, the community will automatically stay away from the location where the disaster occurred. Intuitive decision-making style, taken as an effort to survive, such as avoiding, resigning, and looking for a comfortable place, is in line with research conducted by [13]. Hastie [13] argues that intuitive decision making is a decision taken as a quick reaction that results in certain actions; in the form of avoidance, approach, or adaptive.

Emergency response efforts that are still traditional, such as those carried out by the people of Maluku-Ambon, are to flee to higher ground, such as the mountains. The evacuation was even carried out for months. This was done because of the aftershocks that occurred in a certain period of time and the people also felt panic and anxiety. The emotional maturity factor of the community also plays a role where they feel anxious about another disaster or a follow-up disaster such as the tsunami. This affects the style of core decision making to continue to be taken by the community in order to sustain life even though it is in makeshift conditions in the months after the big earthquake hit. In a disaster situation, humans instinctively seek a sense of security in order to avoid fear of a potential disaster impact. In order to survive for months facing a disaster situation, the community needs a coping system, one of which is religiosity. This encourages individuals to believe and get closer to religion. [16] explains that with faith, people will feel comfortable and at ease in life, never feel confused, sad or belligerent in facing all the events that happen to them. The theme of religiosity emerged in the analysis of each informant in all regions.

The intuitive style of taking on the findings of this study is also influenced by people's low knowledge or understanding of disasters. The understanding of the Maluku-Ambon community about disaster can be explained through Bloom's taxonomic perspective. From the

perspective of bloom taxonomy, individual thinking skills start from simple to complex. The domains in the bloom taxonomy are divided into 3, namely cognitive, affective and psychomotor domains [17].

Table 1. Domains in the Bloom Taxonomy

Cognitive	Affective	Psychomotor
Remember (C1)	Receive (A1)	Imitation (P1)
Understand (C2)	Respond (A2)	Manipulation (P2)
Apply (C3)	Appreciate (A3)	Accuracy (P3)
Analyze (C4)	Organizing (A4)	Articulation (P4)
Evaluating (C5)	Characterization by Value (A5)	Experience (P5)
Creating (C6)		

Source: Gunawan & Palupi (2012)

Based on the results of the understanding of the Maluku-Ambon community towards the cognitive domain disaster in several areas such as Negeri Liang and Palu City, it has reached the cognitive domain evaluation stage (C5), where the community has been able to evaluate various unpreparedness which can exacerbate the impact of the disaster. For example, in Liang Country, new house buildings must be based on an iron frame so that they can withstand earthquake shocks. Informants in Palu City have evaluated the limitations of understanding of disasters and improved by presenting disaster knowledge from various perspectives and conveyed by experts through radio broadcasts. In contrast to the case of Motoung, Kabauw, and Donggala, the community's understanding of disasters is in the cognitive domain to analyze (C4). This is shown by the ability to explain the disaster itself, both the size and the small impact of the disaster, the causes of the disaster from a religious perspective and also from a scientific perspective.

Understanding of disasters based on the average affection domain from the answers of all informants shows the affection domain respect (A3). Society has accepted that all disasters are beyond human ability and are the will of God. Respond by being sincere or resigned, having an awareness of the importance of remembering God. Respect here in the form of existential belief. Religion itself is described by Smith (in Fowler, 1981) as a concrete manifestation of existential beliefs. Existential belief according to Fowler (1981) refers to something that humans naturally possess as a gift from God since humans are in the womb, such as behaving well with fellow humans, nature, and God.

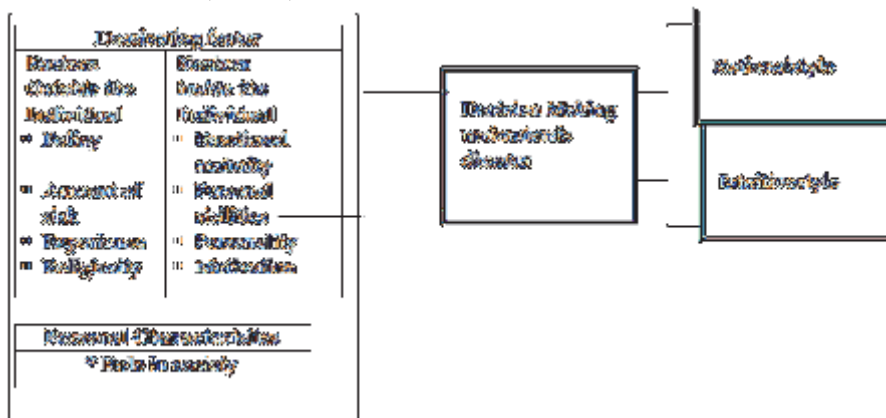


Fig. 9. Research Framework

The decision-making process in the perspective of psychology is related to perceptual factors, cognitive processes, memory, thought patterns, emotions and individual personality variables regarding decisions that will or have been taken [18]. In line with the findings, of the many factors that are divided into two, namely factors within the individual and factors outside the individual [14], not all of these factors appear in Maluku-Ambonese society and influence decision making, both intuitively or rationally. For factors outside the individual, the factors that dominate or have a large frequency are policies, magnitude of risk, experience and religiosity. Whereas in individual factors related to decision making in disaster, there are factors of individual maturity, personal abilities, personality and motivation.

Personal characteristics also play a role in decision making in society during disasters and in the aftermath of a disaster. The role of individuals in a society becomes a personal characteristic between one individual and another. The roles seen in the findings include village leaders / heads, survivors / NGOs / volunteers and as ordinary people. As is the case with the HRL informant who acts as the person in charge as well as the King (regional head) in Negeri Liang district. Making decisions that must be done regularly in accordance with community needs, customs and laws and the factor of experience being a king for 19 years, makes HRL have to make decisions according to what is mandated and expected by its citizens.

Unlike the case with RA, who act as ordinary people. RA's decision-making style is limited to focusing on personal and family safety in times of disaster. Meanwhile, after the disaster, the RA informant focused on continuing his economy or his daily work. According to RA informants, decision making in disaster preparedness was limited to following government directions, without any initiatives to change behavior to be prepared for disasters.

As a village head, the ZK informant has access to the main information with government agencies dealing with disasters, so that ZK informants make more decisions based on the rules set by the government. As explained by Zimmerer & Yasin (in Kayode et al., [19]), leadership is seen as the ability to make strategic decisions, using skills such as communication, interpersonal relationships, motivation, decision making, and emotional maturity to achieve organizational goals.

In contrast to volunteers, as someone who directly experiences the impact of a disaster, informants tend to take disaster action based on their direct experience. This is explained by Espina & Teng-Calleja [20] where the severity of previous disaster experiences is the most influential determinant of one's disaster preparedness. In line with this, Havwina, et al., [21] stated that every disaster experience gives someone the impetus to be able to prepare themselves in anticipation of the threat of a disaster that can occur at any time. With existing experience, it will be able to stimulate actions that must be taken when a disaster occurs quickly and effectively.

Chang [22] states that decision making does not only include processes of cognition and affection, but also individual behavior in it. Individual responses to disasters are not limited to when the disaster occurs, but until after the disaster. Rational decision-making is mostly taken based on the post-disaster experience that the informants have experienced, causing informants to prepare more to be more mature in dealing with disasters that may come at any time. This is manifested in the form of concrete behavior. Various decision making as a disaster mitigation or preparedness effort must be carried out, such as following the socialization and simulation of a tsunami disaster, establishing a disaster prepared school community, providing material knowledge about disasters, preparing emergency response

plans when faced with a tsunami disaster [11]. Based on the findings in this study, the community's preparedness behavior appears as a form of rational decision making.

Table 2. The Aspects and Non-Aspects of Disaster Mitigation

Not Included in Disaster Mitigation	Disaster Mitigation (Preparedness)
1. Build a tent on high ground	1. Preparing for disaster emergency needs (P3K)
2. Looted places to eat and shops	2. Do not litter
3. Changing livelihoods	3. Read the weather
	4. Education yourself with knowledge related to disasters
	5. Building a house based on functionality (earthquake-proof houses) such as preparing vacant land for emergency evacuation areas
	6. Increase dhikr and prayers (from a religious / religiosity point of view)
	7. Make policies in accordance with government instructions and local policies
	8. Become a volunteer / survivor
	9. Active in disseminating information, knowledge and understanding of disasters from various perspectives through radio broadcasts.
	10. Take part in improving mental health after a disaster.

3.2 Discussion

The decision-making style is a psychological process, which is structured based on information obtained by individuals based on various choices to determine a rational or intuitive action [23]. More specifically, Harren explained this decision-making style through the dimensions of rational and intuitive decision-making styles. Rational decision-making style is a decision making that uses high abilities in planning, self-confidence, and tends to complete tasks with high control, which is based on rational reasoning. Meanwhile, the intuitive making style focuses on experiences that have occurred which involve feelings, emotional awareness, and tends to be impulsive or quickly make decisions without being processed in a mature cognitive manner especially in the study of this decision-making theory,

Intuitive style in a psychological perspective has factors that contribute to individual decision making. These factors can come from within the individual in the form of routine decisions, support from others, the amount of risk, policies, religiosity, experience, education / knowledge, available time, and routine / irregular decisions. Not only internal factors, individuals are also influenced by external factors such as motivation, intuition, emotional maturity, personal abilities, and personality. There are other external factors that are not included in the factors mentioned by Mondri et al. [14], namely the factor of religiosity.

Religion can be a factor outside the individual that plays a role in individual decision making. In addition, religiosity can also be a form of coping strategy. Religion has two directional roles; the first is in the coping process in dealing with life, situations that stress individuals and create stress. The second role results from coping, religious can be direction, guidance and hope [24]. As a form of respect in the affective domain manifested by existential belief, religion itself is described by Smith (in Fowler, 1981) as a concrete embodiment of existential belief. Existential belief according to Fowler (1981) refers to something that humans naturally possess as a gift from God since humans are in the womb, as well as behaving well with fellow humans, nature, and God.

The dynamics of decision-making for the population of eastern Indonesia regarding disasters have two different processes, namely decision making when a disaster occurs and after a disaster, as illustrated below:

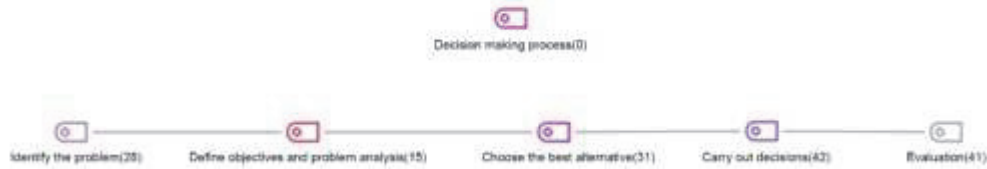


Fig. 10. Decision Making Process before Disaster

When a disaster occurs, one is instinctively encouraged to quickly avoid life-threatening situations, thus preventing one from going through the perfect and intuitive decision-making stage. In the study of cognitive psychology, decision making is focused on the individual's process of deciding. Kalangkahan et al. [10] concluded that community participation in disaster risk reduction programs can be proven by the stages of decision making, implementation, utilization and evaluation that have not been implemented optimally. Overall, the first stage is the stage of identifying problems in which the informant digests the situation that is taking place around him at that time. The next stage is to determine the goal, where informants begin to become aware of the dangers around them and begin to think of the safest place as an effort to save themselves. The next stage is choosing the best alternative where the informants choose the steps to be taken to get to the safest place and avoid the impact of the ongoing disaster. The next stage is implementing decisions, wherein the informant begins to make the best decision he makes to avoid harm. The last stage is evaluation, where the informant begins to realize the possibility of other better alternatives and the stage where the informant realizes the impact of the decision he has made.



Fig. 11. Decision Making Process after Disaster

The decision-making process after a disaster occurs through seven stages of decision making according to Putti et al. [25], namely identifying problems, determining objectives and problem analysis, developing alternative solutions, evaluating alternatives, choosing the best alternative, implementing decisions, and evaluating. The post-disaster decision-making process is usually carried out by informants who work in community social institutions that have a position in their area, where decisions are usually made by community leaders. In addition, commitment is needed to be able to implement decisions, evaluate the results of decisions, and consistently implement decisions as a disaster mitigation effort. The government and the community are committed to undergoing the process of disaster preparedness, so that it is not only at the evaluation stage, but the government together with the community can create disaster programs that are realized as the highest cognitive form of disaster understanding.

Problems or obstacles that exist when the community plays a role in disaster mitigation include insufficient personal skills and inappropriate logistical support. In addition, policies can inhibit as well as play a role in creating initiatives within the community related to disaster preparedness. The importance of policies as a form of disaster preparedness must be in accordance with the magnitude of the risk in each disaster, area, and local cultural wisdom that must be maximized [26].

4 Conclusion

Based on the results of the research and discussion that has been described, it can be concluded that:

- a. In making decisions, respondents in the Ambon-Central Maluku region, and Central Sulawesi on average use an intuitive decision-making style. Respondents in Ambon area tend to pay attention to external factors in decision making, while respondents from Central Sulawesi tend to pay attention to internal factors in decision making.
- b. External factors such as policies, magnitude of risk, experience, and religiosity are dominant factors in disaster preparedness decision making. Meanwhile, individual factors related to decision making in disaster include individual maturity, personal abilities, personality and motivation.

Suggestion

- a. It is advisable to hold outreach activities to the regions to see to what extent local wisdom can be used as capital for disaster preparedness. Through this understanding of local wisdom, policy makers can provide modification of activities that enhance a culture of disaster awareness and are not fatalistic to individuals or collectively. While
- b. For future researchers, they can examine more deeply about behavior, culture, and their relation to disasters, so that they will get a complete picture of the success of local based disaster preparedness.

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