

Community Literacy About Tsunamis In Three Villages (Hutumuri, Hative Kecil And Galala) - Ambon Island

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ABSTRACT.

Based on literature reviews and brief interviews with several residents in the preliminary research, we argued that the people in Hutumuri, Hative Kecil, and Galala affected by the 1950 tsunami, had knowledge of tsunami symptoms and could describe their characteristics. We also had other arguments that the living witness told the incident to family, neighbors, and friends, indicating that the people in the area were literate about disasters. Therefore this study aimed to discover the informant's literacy of tsunamis in Hutumuri, Hative Kecil, and Galala. This research used a qualitative method with a case study approach. Data were obtained through observation, interviews, and literature analysis. The residents selected as informants consisted of tsunami witnesses and descendants of living witnesses. Data from all of our informants were sorted out according to the study purpose, and then scientifically strengthened with a literature review (books, journals, online newspapers, and official government websites). Community literacy about tsunamis in Hutumuri, Hative Kecil, and Galala can be known from their knowledge about natural signs before and after a disaster. Besides, they also share knowledge and keep remembering while adding new knowledge about the tsunami. Knowledge is shared verbally with family, neighbors, and friends in daily conversation. They also share their knowledge in official events commemorating the 1950 tsunami in the church, at traditional ceremonies, church socialization, and discussions in village forums. How to share knowledge verbally is already a part of everyday life. Official conversations at church forums and traditional events aim to remember the 1950 tsunami while taking valuable lessons from the incident. The purpose of church socialization and discussions in village forums is to share knowledge about disasters while adding new experiences. Thus, people become literate about tsunamis. This research found that the community also shared their knowledge verbally through the singing of the song Air Turun Naik in Hutumuri and the song Banjir Galala. Another finding was the use of a loudspeaker (TOA) to deliver emergency information about the disaster by

the Galala village manager. Hutumuri people use church bells and drums as communication tools to convey information on danger signs.

KEYWORDS: *literacy; disaster; natural sign;community; tsunami*

1. INTRODUCTION

The Indonesia.go.id website explains that Indonesia is a disaster-prone country, due to its location on four tectonic plates. Being the meeting point of the Eurasian and Australian continental plates plus the Philippine and Pacific oceanic plates positioned Indonesia surrounded by earthquakes, volcanoes, and the tsunami. Of all parts of Indonesia, the Maluku islands are the most vulnerable points of disaster because they are at the meeting of three giant forces driving the earth (Pacific, Indo Australia, and Eurasia). Oceans surround the majority of the Maluku mainland; this makes the spice land also a tsunami-prone area. As 40% of the tsunami incidents in Indonesia were recorded in the Maluku islands. From 1600 to 2015, more than 85 tsunamis occurred in this region.

Latief et al. wrote recent literature on the tsunami in Ambon. In a book entitled "Air Turun Naik di Tiga Negeri" ("Water goes down and up in Three Villages") (2016). The book, published by UNESCO in collaboration with the Indian Ocean Tsunami Information Center, illustrates the tsunami that occurred in three villages (Negeri is Desa. Desa means a Village) on October 8, 1950. These three villages are named Hutumuri, Hative Kecil, and Galala. This book also explains the Ambonese people's knowledge in the 1950s about the tsunami and its symptoms. They refer to the earthquake as the 'shaking ground' and tsunami with the name Air Turun Naik (water goes down and up). The term tanah goyang (shaking ground) describes when an earthquake occurs; beginning with the earth's surface feels shaking. When the earthquake tremors get more forceful, the land sways and is no longer limited to tremors. The receding tides then follow this tremendous earth shock. After a few minutes, the seawater gushed upwards, so they recalled it with the name Air Turun Naik. Currently, we know Air Turun Naik by the name of 'tsunami.'

Over time, the people of Ambon knew the word tsunami. Further search indicating the existence of citizens' knowledge about the tsunami, was conducted by the authors through short interviews at the time of observation. One of the residents in Hutumuri (bapak Mark) said he used only to know the term Air Turun Naik from the elderly's stories who witnessed the seawater disaster suddenly receded and then gushed high up. However, he acknowledged the concrete manifestation of the Air Turun Naik Naik disaster; he learned from television news broadcasts about the Aceh tsunami (2004). For him, the Aceh incident was the earliest source of information about the word tsunami. Bapak Joseph Marthen, a Galala resident, also conveyed the same expression. He knew everything about the tsunami from the news on television. Bapak Joseph Marthen, who works as a district office employee, knows the word tsunami and understands its characteristics only from the news broadcast on television. Slightly different from the two informants, one of the residents of Hative Kecil, Nindi,

admitted that he obtained the initial information about the tsunami indeed from news about the Aceh tsunami. Still, then he sought additional information from the internet.

Based on a review of the two sources (Indonesia.go.id (2019) and the book written by Latief et al.(2016)), it is understandable that the people in Ambon have repeatedly experienced tsunami incidents in hundreds of years. At that time, the people felt natural signs and witnessed the tsunami in person. They also witnessed the destruction of the village after the disaster. The statements of three informants (Mark, Nindi, and Joseph Marthen) indicated that the community knew about the tsunami, both based on stories from family and news on television. One feature of the tsunami that they remembered was the sudden death of thousands of fish. They then considered it reasonable for some Hutumuri, Hative Kecil, and Galala residents to evacuate when they saw thousands of dead fish on the beach on September 14, 2019.

Every citizen needs to know about tsunamis, especially those living on the coast. Knowledge about tsunamis is useful as an early alarm to save themselves to prevent casualties. This knowledge then becomes a personal literary formation of disasters and proven in the 2004 Aceh tsunami. Simeulue Island residents' knowledge of the tsunami minimizes casualties. Only seven people were recorded dead. They have known a story similar to the tsunami since 1907, namely Smong. At that time, they did not know the word tsunami. Smong means tidal wave. The word Smong explained the phenomenon of a massive earthquake followed by tidal seawater, and giant waves swept ashore. The Smong poem is also a message for people to flee to nearby mountains when they see the characteristics of a tsunami. The story is made into a poem, rhyme, poetry, and hum by the local community. It is transferred from generation to generation through lullabies, spoken in the form of poetry at traditional events, and becomes a daily hum in the family. In other words, for hundreds of years, the Smong story is stored in people's memories. It then becomes a provision of vigilance to take action to escape to a higher place when a low tide follows the massive earthquake (Syafwina, 2014).

Syafwina's (2014) research showed that the Simeulue community has knowledge about the characteristics of the tsunami and how to save themselves. The Smong story, which is passed on orally from generation to generation, becomes the way of the Simeulue community of knowledge sharing with family and neighbors. Najla, Filipovic, & Kovac (2017) in Ononye & Igwe (2019) argue that actually knowledge sharing is a term used to describe the process of knowledge diffusion, knowledge transfer, knowledge distribution, knowledge dissemination, and information sharing.

Like Simeulue residents, Maluku residents also know about tsunamis and share their knowledge with the people around them. As evidence, some residents fled to the mountains when an earthquake occurred, or fish died suddenly along the coast. This action indicates that Maluku residents know about the tsunami. They used this knowledge for making decisions to save themselves; one example is the Hutumuri residents. The online version of the local newspaper, tribun-maluku.com(2019), explains that the story of the October 8, 1950 tsunami remains in the Hutumuri residents' memories until at present. The successive earthquakes from September to October 2019 seemed to evoke the residents' memories of the characteristics of the tsunami preceded by an earthquake. When the earthquake occurred,

most of them immediately fled to higher areas. Another online version of the local newspaper, viva.co.id (Mali, 2019), also explains when thousands of fish are suddenly found dead on the Hutumuri beach on September 14, 2019, caused unrest among the surrounding population. They assume fish stranded on the beach is one of the natural signs of the tsunami, which causes many residents to flee to the mountains. This online newspaper report indicates that the people in the area understand that the characteristics of a tsunami can take preventative measures and make decisions to save themselves. Besides, from a brief interview with several residents during the pre-study, we also understood that the people in Hutumuri, Hative Kecil, and Galala had knowledge about the tsunami symptoms and could describe their characteristics. We also have another argument that living witnesses have told the incident to their families and neighbors. The story is then passed from generation to generation, indicating that they have disaster literacy.

Chiang (2008), in Chung & Yen (2016), defines disaster literacy as a concept of developing one's attitude to actively apply knowledge about the disaster that an individual has to save oneself. Disaster literacy includes the ability to recognize and analyze disaster signs. Sin-Cheng (2010), in Chung & Yen (2016), explains disaster literacy consists of understanding the characteristics of disasters, actively seeking information about how to mitigate, and then being able to save themselves—thus indicating that knowledge is closely related to literacy. As revealed by Świgoń & Weber (2014), the existing knowledge in a person supports him/herself for literacy in whatever is around him/her. It then shapes the person into an intelligent human being.

Based on the presentation, we argue that knowledge has a role in an individual's disaster literacy. From the knowledge gained and shared with others, one would become aware of disaster signs. From the disclosed arguments, we decided to conduct further research to identify the literacy of informants in Hutumuri, Hative Kecil, and Galala about tsunamis. The research limitations are their knowledge of the characteristics of the tsunami, their efforts to gain knowledge, and why they do so.

2.METHOD

This research aimed to determine the literacy about tsunamis of informants in Hutumuri, Hative Kecil, and Galala and what the backgrounds were. Therefore, this study used a qualitative research method through a case study approach. Denzin & Lincoln (2009) argue that qualitative research has a focus of attention on the study subject naturally, trying to understand and interpret reality without being engineered by researchers. Qualitative research includes the study of subjects, the use of empirical data, the presentation of one's experience, interviews, and the results of similar research texts that reflect a particular case in an area. Yin (2002) considers case studies to be suitable for research with the central question of how or why, whereas researchers have little time to control events. Data in this study were obtained through observation, interviews, literature analysis. As suggested by Yin (2002), data for case studies are better from multi-sources, so it becomes a composite of complementary information.

We interviewed several residents in three locations affected by the 1950 tsunami, namely Hutumuri, Hative Kecil, and Galala, on September 19-25, 2019. We conducted interviews in a relaxed manner. We did not carry a special questionnaire, so the informants felt comfortable telling about how they shared knowledge. The answers from our informants were recorded on a smartphone. The residents selected as informants were three people from Hutumuri (Mark, Peter Tenu, and Ais Manipa), two people from Hative Kecil (Poli Watilete and Nindi), and three people from Galala (Ricky Manuel, Feby Rampala, Joseph Marthen). They were living witnesses of the tsunami and a composer of the song *Air Turun Naik* in Hutumuri (Ais Manipa), descendants of living witnesses as well as employees at the Galala village office (3 people - Ricky Manuel, Feby Rampala, Joseph Marthen) and descendants of living witnesses (3 people-Mark, Peter Tenu, and Poli Watilete).

The purpose of interviewing witnesses and their descendants was to get an overview of events and to know the process of sharing information on the symptoms and characteristics of a tsunami. From the employees at the Galala village office, we hoped to obtain information about the role of village officials in the dissemination of knowledge about the tsunami. We eliminated informants from the village office staff at Hative Kecil and Hutumuri because they did not share information or share knowledge about the disaster with the residents. From the teenage informant (Nindi), we could find out the activities of young people related to sharing knowledge about the tsunami. The data from all our informants were sorted according to the purpose of the study. We scientifically strengthened field data with the results of literature reviews sourced from books, journals, online newspapers, and official government websites. The newspaper selection was based on the consideration of up-to-date field data from reporters' coverage. Searching for the government's website was advice from employees at the Ambon Regional Disaster Management Agency.

3. RESULT AND DISCUSSION

UNESCO, in Browning (2016), claims, "Literacy is a fundamental human right and the foundation for lifelong learning. It is fully essential to social and human development in its ability to transform lives". Furthermore, UNESCO in Chung & Yen (2016) describes literacy as continuous learning that enables one to achieve goals, increase knowledge, develop self-potential, and participate in the community. Also, Rowsell & Pahl (2015) argue that literacy can penetrate the boundaries of education, anthropology, literature studies, language, literature, psychology, sociology, culture, and others. From this diversity, it can be understood that literacy is flexible in all fields. The breadth of its nature then makes literacy capable of being the basis for scientific development and opening up opportunities for knowledge mapping. Furthermore, the results of this knowledge mapping become a person's capital to increase literacy.

According to the sociologist, Stehr in Spiekermann et al. (2015), knowledge is the ability to take action. Knowledge must be understood as the first step towards action. Knowledge enriches human skills. Knowledge is a model of reality but can be used to change facts. From this explanation, it is comprehensible that knowledge exists in humans and is part

of daily community life. It is useful to improve the ability and drive action in deciding on a problem. Matošková et al. (2013), in Ononye & Igwe (2019), state that one can learn through socialization processes such as internships, mentoring, coaching, interaction, observation, imitation, storytelling, and narration. Moreover, Weichselgartner and Pigeon (2015) explain, facts, data, and information are the media needed to create and develop knowledge.

From the explanations of some experts, it can be understood that public knowledge is closely related to literacy abilities. The flexible nature of literacy in all fields allows its application in the social sphere, including disasters that befall the community. Brown, Haun, & Peterson (2014) explain that simply interpreted disaster literacy is a person's ability to read, comprehend and use the information to make decisions that are useful for prevention, treatment, and recovery after a disaster. These activities include increasing knowledge about environmental hazards, the causes of catastrophes, the impact of disasters, and the causes of a disaster-prone area. This knowledge expects anyone to create strategies to deal with and survive in the event of a disaster.

In his research, Chowdhoree (2019) reveals an example of the existence of disaster knowledge in an area indicating that traditional communities in Bangladesh have a harmonious way of life with nature. They gain knowledge about disaster management from everyday life in their environment. Such knowledge is passed on orally from generation to generation. They also tend to use this knowledge as part of their customs, local culture, rituals, beliefs, and view of life. They build dikes to prevent flooding due to tidal currents. They also routinely dig the soil to reduce the amount of mud that settles in flood-prone areas. From the study, it can be understood that people in a community then learn the knowledge created in that community.

The people in Maluku province who were affected by the tsunami in 1950 also shared knowledge of the disaster. Precisely October 8, 1950, residents in Hutumuri were initially unaware of the tsunami during the day. Rumbling that could be heard from a distance was considered as the sound of gun battles approaching the village, similarly with bamboos floating in the middle of the ocean. From a distance, they thought that the bamboo clumps that stand straight were warships ready to attack the people. After the earthquake and seawater receded, and then rose high into the sky, they realized that at that time, there was a natural disaster. The same catastrophe and at the same time also struck other Ambon coasts, namely the Hative Kecil and Galala. Thus, the people affected by the tsunami were aware of the natural signs that characterized the tsunami. Community members believed that the knowledge of a particular community was due to events in the community environment and considered as something useful to take action (in this case, saving themselves from disasters), then became local knowledge typical of the area.

4. CHARACTERISTICS OF TSUNAMIS

Badpaa et al. (2013) point out that local knowledge is created in a particular community, dynamic, based on experience, adapted to local culture, and continues to grow for centuries. Local knowledge is a collection of facts about the whole system of beliefs, beliefs, views of life, and perceptions about everything around them. The ways people observe (recognize and understand) things that happen in the environment to the way they

solve problems is another example of local knowledge. The ways people observe (recognize and comprehend) things that occur in the environment to the ways they solve problems is another example of local knowledge. The method is stored in memory or writing, practiced in daily life, and shared with the closest people (family, friends). Table 1.1 shows the results of the informant's knowledge mapping of tsunami characteristics:

Table 1: Natural Signs as Tsunami Characteristics According to Informants

Hutumuri	Hative Kecil	Galala
Land rocking (earthquake)	Earthquake	Beginning with an earthquake
Rumbling from the sea	-	-
The sea is suddenly dry (receding)	-	-
Seawater gushes high then sweeps the village	Flood	Flood
Huge wave rolls, the more rolls, the more significant	-	-
Dead fish	Dead fish	Dead fish
The birds look restless	-	-
Large chunks of bamboo float in the sea	-	-
Land rocking (earthquake)	Earthquake	Beginning with an earthquake

source: (interview, 2020)

All informants in this study mentioned the natural signs of an earthquake that preceded the tsunami. However, there was one person who still doubted this knowledge. At the time of the interview, *bapak* Ricky from Galala revealed, as far as he knew from community stories and videos on YouTube, an earthquake usually preceded the tsunami. However, he was still doubtful and then asked whether an earthquake must precede the emergence of the tsunami? Or was the tsunami first, then the earthquake? If it had to start with an earthquake, how many minutes was it between the earthquake and the tsunami? He then told his experience searching for information about the tsunami on YouTube. He saw the video of an earthquake that hit a hotel. In the video, everyone ran out of the hotel to avoid the building collapse, but when they got to the yard or the highway, the people returned to the hotel (tall buildings) to avoid the tsunami. From the video, he doubted the characteristics of the tsunami and questioned what actions people should take if the disaster occurred. He hoped the government would conduct socialization about disaster mitigation so that the public truly knows disaster characteristics and can take action to save them.

An informant who was also a musician, Ais Manipa, told about the estimated time distance of the earthquake and tsunami. As a witness of the 1950s *Air Turun Naik* in Hutumuri, he felt the earthquake continuously shook their village for approximately 30 minutes. At that time he was a child. He felt the earthquake when carried by his father running to the mountains. He did not see the tsunami wave rolls directly. However, he admitted that he remembered the story of natural events in the ocean that occurred just before the tsunami hit. A fisherman who used to be on the shore narrated about the loud sound from the ocean direction: when he looked to the course of the sound, the sea looked white, suddenly the seawater receded. The ocean became dry. Then the water gushed strongly from the seabed, forming three waves. The first wave was the smallest, only as tall as a mango tree. The second wave was as tall as a coconut tree, and the third wave was higher than the second wave.

Slightly different from the informants in Hutumuri, the informants in Hative *Kecil* and Galala did not remember the story of the process of receding and gushing seawater into the sky as part of the tsunami. They recalled more about the events after the tsunami hit the village, namely the floods. According to the elderly's stories, the two villages were flooded by seawater for days. When asked further about the *Air Turun Naik* story, *bapak* Poli Watilete, a resident of Hative *Kecil*, argued:

"I no longer remember the story of *Air Turun Naik*. Maybe, it has not been discussed by the residents here for a long time." (translation).

All informants in this study also conveyed other tsunami characteristics, namely the sudden death of thousands of fish. Based on the stories they got, after the seawater receded, there were many sea animals, including fish, lying dead on the beach and throughout the village. All informants from Hutumuri, Hative *Kecil*, and Galala said, besides causing the loss of homes and destruction of buildings, flooding after the 1950 tsunami left thousands of fish stranded in their villages. However, two informants from Galala, *ibu* Feby Rampala, and *bapak* Joseph Marthen doubted the death of fish as the only sign of a tsunami. They then related it to the dead fish incident on September 14, 2019. Despite knowing, some Galala residents fled for fear of a tsunami; however, in reality, they did not hear about the tsunami incident in Ambon at that time. *Bapak* Mark conveyed similarly, although he heard about the death of fish from the story of the 1950 tsunami, he did not suspect the death of thousands of fish on September 14, 2019, like a tsunami characteristic. He reasoned an earthquake did not precede the death of fish.

Bapak Ais Manipa had the same opinion. As a living witness in Hutumuri, Ais Manipa's father said that he helped clean dead fish scattered in his neighborhood. Fish were in the houses, which did not collapse due to the tsunami. Fish sprawled on the floor, in the desk drawers and cupboards. However, according to him, dead fish was not the only characteristic of a tsunami. Even though there were thousands of fish dying suddenly, there would be no tsunami if there was no earthquake in the area.

"Thus, now, if you want to know the tsunami characteristics, there must be a strong earthquake. If there is no earthquake, there is no tsunami. When fish died yesterday, there was no earthquake, so there will not be a tsunami ". (translated)

Besides, The Hutumuri people realized that other symptoms arose from the animal behavior besides natural signs originating from the movements of the land and seafloor. *Bapak* Mark said that based on the story he heard, a few days before the tsunami, the birds around the village seemed restless. They flew to and fro without direction. The following were his statement:

"I hear the news that birds are restless. In Aceh, if there is a weird smell from the sea, then a tsunami will emerge. There are no odor signs here. Here, suddenly from the direction of sunlight (west), many bamboos were drifting in the sea. Perhaps, they are from the island of Seram." (translated)

Based on *bapak* Mark's explanation, before the tsunami occurred, people saw bamboo floating in the ocean. As we all know, bamboo is neither a sea plant nor a coastal plant like the mangrove. The researcher also asked further about the existence of the land plants. *Bapak* Mark explained that the visible bamboos not only numbered a few stems but a whole bamboo clump still embedded in the ground. He described it as a piece of bamboo garden floating on the sea. He suspected that the bamboo clump was part of the mainland on the island of Seram, which was split due to the earthquake and then washed away by the current to the Hutumuri Sea. We asked another informant, Ais Manipa, regarding the existence of these bamboos. As a living witness, he confirmed the story.

Furthermore, as a musician, he was inspired to pour everything he knew, saw, and felt at that time, and all the stories heard about the *Air Turun Naik* into a song he created himself. At the time of the incident, floating bamboos and the number of big waves became part of the song's lyrics. Later, the song became one of the media used in knowledge sharing activities by the Hutumuri community.

5. KNOWLEDGE SHARING OF TSUNAMIS

According to Yang & Lai (2011), in Savolainen(2017), knowledge sharing is the process of expressing insights and transmitting expertise from one person to another with the aim that the recipient can use it to solve problems. Al-Ma'aitah (2008) in Akhavan et al. (2012) defines knowledge sharing as the process of transferring knowledge owned by one person to another person to facilitate precise decision making so that everything can resolve faster. Moreover, Wu (2016) argues that sharing knowledge will succeed if the giver and recipient have the same perception of the essence of such experience. The absorption of knowledge requires an ongoing process so that the recipient can quickly analyze, reconstruct, and ultimately use knowledge effectively. Zheng (2017) concludes that the main characteristics of knowledge sharing consist of: 1) an individual behavior; 2) a conscious action and carried out proactively; 3) restricted by law, rules, code of conduct, procedures for behaving in a particular community environment; and 4) the giver and receiver can share the results of sharing knowledge.

These quotations indicate that the activity of knowledge sharing is a process that is carried out consciously with a specific purpose and carried out in a certain way. Thus this activity automatically becomes a reflection of the community. Likewise, knowledge sharing activities about tsunamis were carried out by informants in this study. Table 2 below shows the way of knowledge sharing:

Table 2: Knowledge Sharing by Informants

Hutumuri	Hative Kecil	Galala
Oral (Direct)		
The story is passed down	The story is passed down	The story is passed down
The 1950 tsunami commemoration in the church	Socialization in the church	Socialization in the church
Commemoration of the <i>Air Turun Naik</i> incident at a traditional ceremony	Discussions in the village forum	Discussions in the village forum
Oral Through Songs		
<i>Air Turun Naik</i> in Hutumuri (Ais Manipa / Johannes Lilipori)	Banjir Galala (Hellas Group)	Banjir Galala (Hellas Group)

All informants, from Hutumuri, Hative Kecil, and Galala, said that they knew the characteristics and effects of a tsunami from oral stories developed in the neighborhood. Over the years, grandparents and parents have told the story of Air Turun Naik, which destroyed the village. As those who knew the story about the tsunami, informants often passed the story on to their children, grandchildren, neighbors, and friends. The story sharing activity was then carried out by the next generation. They often discuss the tragedy of the disaster at casual events, such as the chatter of mothers, young people who were hanging out, or fathers' conversations between works. From the oral story, the informants in Hutumuri knew the complete tsunami sign starting from the condition before, during, and after it occurred, while the informants from Hative Kecil and Galala only remembered the impact of the tsunami, which was seawater floods that swept hundreds of people's homes.

After we dug more deeply, the oral dissemination of knowledge was not new in Hutumuri, Hative Kecil, and Galala communities. They were accustomed to gathering with family members, neighbors, or friends. In the afternoon, for example, after taking a bath, some residents often gathered just to spend time with neighbors. Similarly, during work breaks, employees or workers often spend their free time with lunch while chatting. They practiced this habit for decades. All informants acknowledged that the Air Turun Naik event was still often told by residents until now, even though its intensity decreased. Informants Nindi, Ricky Manuel, and Feby Rampela added that this might be due to technological developments. People can seek additional knowledge from television or the internet, so they rarely ask about the characteristics of the tsunami to family members or friends. Nindi's explanation reinforced this:

"In my (Nindi's) vicinity, young people now never talk again about Air Turun Naik. They used to talk. The most proper is when there is a disaster, they then discussed. Now all have smartphones. They like watching the tsunami on YouTube. Nindi also read several times on the internet about the tsunami". (Nindi, September 23, 2019)

Nindi's explanation indicated that some teenagers in Hative Kecil used technology to find the knowledge they needed; however, they did not use it to provide insight. The use of technology for sharing knowledge is exemplified in Ziemba & Eisenhardt's study (2018) that

anyone can use a website, email, and forums on the internet, fanpage on Facebook to applications on a smartphone to write down the knowledge (s)he has and share it with anyone (s)he wants. Furthermore, Al-Busaidi & Olfman (2017) state that technology supports knowledge sharing activities via email, electronic messages, chatrooms in social media applications, and the like. Meanwhile, Qdah et al. (2018) assume. However, technology has a significant role in sharing knowledge; technology cannot replace the importance of face-to-face interaction between individuals for the process of sharing knowledge. Direct interaction is still very much needed to conduct knowledge giving and receiving activities. Technology only acts as a tool to facilitate the process. The process of directly sharing knowledge can be through courses, training, seminars, regular discussion forums, and the like.

Additionally, to casual chatting in daily life, Hutumuri people also share knowledge in religious activities, traditional events, and official discussions in a village forum. Bapak Ais Manipa said that in the past (several years after the 1950 tsunami), these incidents were often discussed in traditional events. The adat leader and the community jointly commemorated the disaster that sank half of the Hutumuri village. However, currently, it is no longer carried out. Hutumuri people hold the Commemoration of Air Turun Naik more often at special events in the church. Usually, the reverend leads prayers so that similar disasters do not occur again. The community leader role in disaster management also applies to the coast of Aceh province. Wilson & Linkie (2012) explained that Panglima (Commander) Laot can collect data about maritime affairs in the areas. He also can develop and enforce maritime policies, such as setting boundary zones for fishers to enter. This regulation is useful for preserving the seabed, surrounding plants, and ecosystems that are useful for preventing disasters.

Slightly different from Hutumuri residents, people in Hative Kecil and Galala still often discussed the 1950 tsunami in church socialization activities. However, though performed in a different event format, the reason for the residents conducting knowledge sharing in church forums was to continue to commemorate the Air Turun Naik incident and take lessons from events that had occurred. The following informant said:

"Whenever there is a disaster or an unnatural event, such as dead fishes, the church management discusses the issue. The Chairperson of the Church Assembly provides socialization to residents to prepare themselves for the worst possible disaster. He told us to secure securities. It is socialization in the form of worship." (Feby Rampala, September 24, 2019).

Like ibu Feby Rampala, bapak Poli Watilete also attended discussions about the 1950 tsunami in the church. The author ensured the similarity of stories from the two informants even though they resided in two different regions. The people of Hative Kecil and Galala worshipped in the same church. Another similarity of the residents' activities in the two villages was the existence of an official discussion forum held by village officials. In case, in their area, there was news that a disaster was about to occur, several members of Hative Kecil and Galala would participate in discussions with related parties on catastrophe. When the researcher asked further about the reason for the discussion forum, the informant answered that it was to increase knowledge as well as disaster prevention measures. The following informant gave a complete explanation:

"After there was a tsunami issue, we invited experts. We have a Galala Village Disaster Response Forum Community, which invites Representatives of the Regional Disaster Management Agency to make socialization in the village. We invite each RT leader; then, he sends representatives to attend." (Feby Rampala, September 24, 2019).

"There should be a preventive nature. The prevention of casualties. If an earthquake occurs, what should we do? Until now, the people here do not understand disaster mitigation. We have no evacuation route. Maybe the government must establish certainty, what we should do if there is a tsunami." (Ricky Manuel, September 24, 2019).

This study found another finding, the people in the three villages performed knowledge sharing in singing activities, precisely when they sang the songs Air Turun Naik and Banjir Galala in Hutumuri. According to the informant and composer of the song Air Turun Naik in Hutumuri, bapak Ais Manipa, in his song, people knew the characteristics and effects of a tsunami. If an individual continued singing the song, then the listener would absorb knowledge. Feby Rampala stated the same thing; the song Banjir Galala illustrated the impact of the 1950 tsunami. Furthermore, the two informants said that the song still exists currently:

"We still sing the song Air Turun Naik when there is a traditional event in our village. Local vocal groups also often sing this song. So many people know this song." (translation).

"Every adult citizen knows the song Banjir Galala, popularized by the Hellas Group. When sang, the children will know it is a song of a tsunami incident. By October 8, homes in Galala, as well as Hative Kecil, often play the song. Teenagers also often hang out at night in front of the house while singing this song." (Feby Rampala, September 24, 2019).

Based on Ais Manipa's statement, the song Air Turun Naik in Hutumuri was still often sung by Hutumuri people, either at official events held by village managers or sung by local singers. Informant Feby Rampala also revealed the same thing that the people in Galala and Hative Kecil villages still remembered the tsunami of 1950 through the song Banjir Galala. Feby Rampala's statement also showed that teenagers in Galala still sang the song Banjir Galala with friends when they gathered spending the night while playing the guitar. Thus, whether they realized it or not, the actions of the people who still sang songs and played tapes were knowledge sharing activities, even if performed explicitly. If examined deeper, the song contained useful knowledge for disaster mitigation measures.

In connection with disaster mitigation, this study found that people in Galala carried out emergency information-sharing activities about the possibility of disasters. Village officials took the initiative to immediately warn residents when the area experienced terrible weather or other natural conditions indicating a potential disaster. Some village administrators would rush to an open place (an alley, road, field, or schoolyard) to make an oral announcement to residents. They usually used a loudspeaker (TOA) so that the whole community could hear the information conveyed. The following was a complete narrative from the informant:

"So if there is information, we have a TOA for the announcement. The head of the RT (neighborhood) announces to the residents using a TOA loudspeaker if there is information about a disaster or anticipation. For example, when it rains, and the water discharge is already

high, the head of the RT announces to the community to move or what they should do. This policy is to anticipate things that are not desirable. Thus, information quickly gets to the residents." (Ricky Manuel, September 24, 2019).

From Ricky Manuel's explanation, it could be comprehended that village officials in Galala had a role in the dissemination of disaster information. Weichselgartner & Pigeon (2015) state that disaster risk reduction requires excellent integration among community leaders, local communities, and policymakers. By community leaders, he meant adat leaders, village elders, village heads, or community leaders, while policymakers are officials or the government. Both parties should be able to become facilitators of knowledge sharing in the community. Spiekermann et al. (2015) argue that the recipient must comprehend the meaning of information before it turns into knowledge. If the recipient already understands the meaning of information, (s)he will realize its benefits. Thus, (s)he has transformed information into knowledge. This knowledge is useful for making decisions, determining actions, and considering the possible consequences in the future.

Information sharing activities using communication intermediaries were also carried out by the Hutumuri people during the 1950 tsunami. According to bapak Peter Tenu, his grandfather once told about the message delivery tools, namely the church bells, and drums (tifa). When the tsunami occurred, church bells rang continuously. Some residents beat drums (tifa) as a means of delivering emergency messages. At that time, the village head immediately ordered all residents to evacuate to higher areas behind their village. They beat tifa again when the village head ordered residents to go down the mountain to go back to the village swept away by the waves. Residents worked together to clean the village from mud, fish, and building debris. Hutumuri residents still used church bells and drums as alarms. Bapak Ais Manipa explained that the two tools were often sounded to warn residents about possible dangers or disasters. The following was a complete narrative of the two informants:

"On the eighth, there was an earthquake and tsunami. On the ninth to eleventh after the tsunami, some residents in the mountains were told to beat the drums. We must clean the village. We cleaned the village for three days." (translation).

"Disaster alarms in this village are church bells and drums. Our village has these tools. In case of danger, disaster, or fire, we sound these two devices." (translation).

Another finding of this study was the absence of text documents as sources of information and knowledge about tsunamis by informants from Hutumuri, Hative Kecil, or Galala. They claimed to have never seen or read a book about tsunamis. Information about these disasters was mostly from chats with family, relatives, or neighbors. They would look for additional information about sea disasters by watching television or videos on YouTube. Thus, it was understandable that the informants from the three villages did not use text documents as a source of information, even though the documents contained a variety of records that could be a source of knowledge. Moreover, Matthies & Coners (2017) state that readers can explore knowledge from text documents. Even text documents can be a solution to information crisis conditions.

6. CONCLUSION

Community literacy on tsunamis in Hutumuri, Hative Kecil, and Galala can be known from their knowledge. Moreover, they also continue knowledge sharing, recalling while adding new knowledge about the tsunami. In this study, the informants' knowledge of tsunami characteristics is based on experiences (as eyewitness accounts), from stories of grandparents or parents, and internet search results. An informant from Hutumuri mentions the natural tsunami signs are the rocking ground (earthquake), rumbling from the sea direction, white seawater, sudden receding of the sea, and seawater gushing high up, which then wipes out villages. There are also huge wave rolls (the more rolls, the more colossal), dead fish, restless-looking birds, and large pieces of bamboo floating in the sea. Informants from Hative Kecil and Galala say that the characteristics of the tsunami include earthquakes, floods, and dead fish.

The knowledge is shared verbally (directly) to family members, neighbors, and friends. In Hutumuri, oral knowledge sharing is carried out by direct conversation, stories from generation to generation in a relaxed atmosphere. Furthermore, they also share knowledge in official talks commemorating the events of the 1950 tsunami in the church and at traditional ceremonies. Hative Kecil and Galala people also conduct verbal knowledge sharing. Other knowledge sharing activities take the form of socialization in the church and discussions in village forums. Verbal knowledge sharing has become part of the daily lives of residents in Hutumuri, Hative Kecil, and Galala. Hutumuri residents hold official conversations at church forums, and traditional events aimed to continue to remember the 1950 tsunami while also taking valuable lessons from the incident. Moreover, Hative Kecil and Galala residents conduct church socialization and discussion at the village forum to share knowledge about disasters, as well as increase knowledge about how to save them.

This research found that the community also perform verbal knowledge sharing through the singing of the songs Air Turun Naik and Banjir Galala in Hutumuri. Another finding is the use of devices to convey emergency information on disasters by Galala village managers. They use a loudspeaker (TOA) so that the whole community can hear the information conveyed in a short time. Hutumuri people use church bells and drums (tifa) as communication tools in delivering danger signs information.

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