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The Strength of Natural Disaster Local Wisdom in Indonesian and Japanese with Story Telling Approach

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Abstract

Abstract - Indonesia and Japan are two countries that have things in common especially form natural disaster vulnerability and tsunami. There are various efforts conducted by government of both countries to mitigate disaster risk. People of Indonesia and Japan who live in a prone disaster area still own a sense of local wisdom by believing in myths concerning natural disaster. The purpose of this research is to identify myths in local wisdom regarding earthquake and tsunami in Indonesia and Japan throught the six elements approach from storytelling concepts, namely: emotion, plot, structure, hero, villain and conflict. The research method use qualitative approach with text analysis to a number of sources and supported by interviews. Result shows that the myths believed by Indonesian is related to background of tsunami that happened because of the mystical life underwater ruled by the legend Ratu Kidul. While for Japanese, they believe that the cat fish called Namazu was the reason behind earthquake. The local wisdom has meaning in regards with the history of massive natural disaster event, the ability of local people in reading nature's signs, alertness toward nature's bigger power, the effort for asking God's guidance and tradition in building group power within local society.

Keywords - Indonesia, Japan, Local Wisdom, Natural Disaster, Storytelling.

INTRODUCTION

Natural disaster problem are continuously studied from various perspective especially in countries in which has high tendency of disaster like Indonesia and Japan. Geologically speaking, both countries have a lot in common. Japan country is located between Eurasia and Pacific. The history of its archipelago was created from the movement of volcanic that caused vulnerability towards earthquake. For about 10-25% earthquake that happened in the world took place in Japan which total number of its area is only 0.25% part of the whole world. In average Japan has experienced earthquake in the 100-150 past years [1]

This background similarity even brought researchers form both countries to work together since 2009 in study concerning earthquake, tsunami ad volcano eruption [2]. With the high disaster vulnerability, both Indonesian and Japanese people since long ago have put much effort in mitigating disaster risk by developing local wisdom. This is in accordance with the record from United Nation conference in 2015 related to disaster risk mitigation by utilizing local wisdom.

Local wisdom in society has been put into maximum use in handling or minimizing the impact of disaster risk. Various study found that people in Aceh, Pariaman Padang West Sumatera, Baduy in West Java, Temanggung in Central Java, Bantul in DIY, Rote in Nusa Tenggara Timur, Kali Pesanggarahan

in South Jakarta have practiced local wisdom in mitigating natural disaster risk. [3–12].

From earlier researches about local wisdom and natural disaster generally concerning the human relation who respects nature because it has given blessings to human's lives. On the other side, the message about local wisdom also remind human to seek protection from the Almighty from natural disaster. In local wisdom, there is also effort to keep relation between groups in local society to develop power in handling disaster. The ancestors convey messages about local wisdom verbally from one generation to next in order to protect the next generation from natural disaster.

In a number of studies about local wisdom there was explanation about history of local wisdom from each period, central subjects in mystical stories, the good deeds conducted by the subjects, massive events that become the peak of stories, the struggle process until the whole stories are summed up with a heroic meaning or values learnt to appreciate nature elements like water, plants and build alertness towards nature phenomenon. There are also stories of local wisdom about people's activity that has been conducted since long ago to preserve their nature.

There are number of relevant publications about local wisdom of Japanese society during post-earthquake period and tsunami in 2011 that has impact on the decrease of agriculture production in the province of Miyagi. The effort to improve agriculture production were immediately conducted meanwhile the other problem was the lack of manpower because they have become victim of disaster [13]. Another local wisdom was the use of earthquake-proof building from the concept of "pagoda building" that emphasize strength toward natural threats rather than its function. Pagoda was built with five floors in which the ground and second level serve as place for main activities and the other three levels were only symbolic [1].

One of the believed local wisdom by some part of society in a prone disaster area is in the form of myths. In one of study about myths and culture it was summed from the opinion from a number of experts that folklore with God or Goddess from another world is considered truth by those who believe in that story. Myths and legends have wisdom, experience and value of culture. It has moral story that has been conducted from thousand years ago and the same stories that are passed along from one generation to another yet also experienced

distortion in its delivery process [14]. In a world of literature, myths have become inspiration for fictional writings and so often myths are created as the development or combination form the previous myths. For example, Tolkien who created myth about Anglo Saxon from the series of Celtic myth and end up with a very popular fictional writing [15].

One of myths related to tsunami disaster was found in a prone disaster area in Indonesia, which was tsunami in the southern beach of Java. From several studies about tsunami in southern beach of Java, it was attributed with the myth of Ratu Kidul (Queen of South) as was described by Eko Yulianto, palaeo tsunami researcher from Research Center for Geotechnology, Indonesian Institute of Sciences [16]. Aside from tsunami deposit digging in part of areas, this study also tracked tsunami disaster in the past through the folklore and myths believed by the local. This method was known as geo mythology with the belief that a number of myths can keep information about an event in the past. Myth about Ratu Kidul is still believed by people nowadays as can be seen through ritual activity by giving the offerings to the sea by local people of Southern beach [17]. It can be assumed that myth that is part of local wisdom is also metaphor form because of the event of massive waves took place in South coastal of Java.

Another supportive study was about people's believe in South coastal of Java that assume each nature phenomenon for example like the roaring thunder and lightning followed by the giant waves as the signs of anger of ruler of southern sea [18]. Even it was not directly connected to tsunami disaster but from the narration expressed by society from one generation to another, this can be concluded that giant waves once happened and was observed and considered by people along Southern coastal as massive disaster.

Meanwhile in Japanese society, the earthquake was usually connected to the myth of folklore about giant fish called Namazu. The movement of Namazu was super strong and considered as the reason behind the massive earthquake which happened several times in 18th century. Even at the same time there were a number of opinions stated that the earthquake was the result of the imbalance level between *yin* and *yang* energy [19].

This research aims to explore the myths by scientific approach from communication field. If verbal and

nonverbal culture in eastern has become people's priority in their effort to understand the nature's phenomenon, thus it can be better described to gain more benefits in order to mitigate another nature phenomenon.

The study to explore about myths concerning natural disaster is by using the storytelling approach. This particular concept is in accordance with the identification of messages that are in the myth of local wisdom of natural disaster. The elements of storytelling concepts can describe how the meaning of messages were constructed by the ancestors to protect the next generation from the nature threats.

Storytelling is technique or ability to tell story, scene setting, event and also dialogue [20]. Storytelling uses the ability of presenter to convey story with style, intonation, and tool aids to attract the interest of their listener. Storytelling is often used in a process of study especially for beginner level or children. This technique is useful to train listening skills in a fun way. Eye contact, facial expression, body movement, voice/intonation, speed, or individual aids are factors that influence storytelling process to run well [21].

As communication media in a form of story or narrative, storytelling can be used to analyse by using various elements. Storytelling in marketing in the form of narration to connect the personality of philosophy of company in creating product and describing the production activity [22]. As a strategy, storytelling has a strong power to the imaginative process for someone to experience the essential meaning of story and convince their relations with the story so that it can be something important and delightful [23].

Another study about the benefit of the use of storytelling is that this is most suitable to attract attention rather than using other media or technique. Important and wonderful stories are the one that bring up the topic in which values are easily adopted by people. This is more acceptable rather than creating a direct advertisement. This is because a story includes arguments in the format that are easily understood by people. The strongest story is individual story in any form, both visual or verbal. Even if a story tells about failure, that would still be a good story as long as the story was positioned to focus on the learning experience for its audience [24].

Previous past researches about storytelling focused on the process of how message being conveyed by source to receiver on the context of education nowadays. Discussion would be inclusive of speaking method, storytelling method to improve result of study, benefit or impact of the implementation of storytelling method and storytelling for the service of group counselling and English Language learning for children [25–29].

In a field of disaster study, storytelling method has been implemented often, specifically for traumatic healing post disaster for children [30,31]. These studies focused on the effort to bring back the children's spirit and excitement by sharing stories as one of gradual process for trauma healing.

On this research, study was focused on the discovery of messages included in local wisdom about natural disaster myth by using the elements of storytelling. The result of this study was expected to gain insights on meaning about message construction from both myths believed by Indonesian and Japanese. This study explores the content of a number of text as well as interview to gain a more complete description of how people long time ago construct meaning of myths in local wisdom related to natural disaster. Another purpose is to gain insights about how society still give meaning to the story as important message to follow. Myths identification with storytelling element are the novelty in relation with disaster from the perspective of communication science.

A couple number of storytelling are as follows: fable, it is a story about animal world. This story is the most favorite among children because children's interest toward animal world are still high. For example, the tale of "mouse-deer and crocodile (Kancil dan Buaya)". Secondly, legend, this is the kind of story that is in relation natural magic, usually it tells story about places. For example, the legend of Toba Lake and Tangkuban Parahu Mountain. Third, Mite, it is story about God and Goddess as well as mystical creatures. This kind of story tells about the animism believe, for example story about Nyi Roro Kidul. Fourth, Sage, this is a tale with historical element, because the story was passed from one person to another, this is rich of imagination element, for example story of Jaka Tingkir. Fifth, Parabel, this is story with a lot of educational values. This is a short and simple story that serves purpose as life guidelines, for example story of Malin Kundang [32].

Furthermore, there are seven pillars to concern in conducting *storytelling*, they are (1) *Emotion*, (2) *Plot*, (3) *Structure*, (4) *Voice*, (5) *Hero*, (6) *Villain* and (7) *Conflict*. Those seven pillars create a storytelling style to describe how an object should be translated to its audience through text, picture or voice [33], (1) *Emotion*: the emotion element in the narration of storytelling. (2) *Plot*: the story flow in the narration of storytelling. (3) *Structure*: structure of story in storytelling. (4) *Voice*: voice background used to strengthen the emotion in the narration of storytelling. (5) *Hero*: the heroic figure in a story. (6) *Villain*: the villain figure in a story. (7) *Conflict*: the conflict in a story.

From the findings of previous researches, the storytelling approach usually focused on the study of communicating message. The analysis was emphasized on how message was communicated from the sender to receiver, as well as its impact. From the content side, the use of storytelling usually implemented in the formal education context nowadays. Meanwhile, on this research the study with storytelling approach is focused on identification towards messages on a number of text by using the elements of pillars in storytelling. The description result about this identification will provide a complete picture of how meaning is constructed about local wisdom of natural disaster myth that are still believed by part of society up to today.

METHOD

This study aims to construct meaning from a number of texts researched by the method of text analysis with research process was in 2022-2023. Text study basically is data analysis that search the text deeply both the content and meaning as well as structure and the discourse. The text study is a method in a scope qualitative that emphasized on the analysis or interpretation written materials based on the context. The materials could be the published records, text book, newsletter, magazine, letters, movie, daily journal, script, articles and alike [34] In this research we used six relevant journal and two article. As the guideline to analysed the text, researcher uses storytelling concept with the six pillars, they are emotion, plot, structure, hero, villain, conflict. The voice element on this research is not implemented because the object being analysed was text, both from scientific publication. Other than that, as supportive data, there was also interpretation towards the paintings and interview with local

people who believe in myths as the complementary towards data triangulation by the three sources. The research procedure consist of 5 step. Problem identification from prior research, data mining from some popular articles and journals, instrument determine, data coding and analysing.

This research uses qualitative paradigm with narrative approach by using the natural condition of the object as the opposite of experiment in which the researcher as key instrument [35] Data collection is conducted by purposive (as needed) and sampling process by snow ball technique (in-depth). The technique of data collection is conducted by triangulation [36]. Research result emphasized to the meaning making rather than generalization. The data used on this research are text from the research result and popular articles. Those three components are triangulation data that are supportive elements for confirmability process on this research.

RESULT AND DISCUSSION

Result of this research is description about analysis on text as primary data by using elements of storytelling. The elements are *emotion*, *plot*, *structure*, *hero*, *villain*, *conflict*. Furthermore, there will be interpretation on visual elements from the painting as well as interview with local people with regards to rituals related to the myth.

On the myth element on each text studied there is a message to show a sense that human need nature not only for life sustainability but also wellbeing expectation for the next generation to avoid natural disaster. The sense of weakness in human towards nature was shown by the fear element towards nature. Therefore, other than expecting protection from the Almighty, human also strive to preserve nature in order to receive blessings from nature.

The element of emotion on a number of texts studied about Ratu Kidul's myth that is believed by the pople around Suthern Coastal of Java shows fear about nature disaster The element shown on a text was described by a number of elements like a high-sea waves, the rumbling sound of the sea with its fierce waves and various of forbidding rules for people to get too close to the sea. There are also stories and myths about people who were carried away to the shores and brought to the kingdom of Ratu Kidul under the sea.

On the other side, in a number of texts about Ratu Kidul was described differently. It was about the presence of Ratu Kidul that was described as beautiful lady with black long hair. The queen wears a royal green dress along with its elegant crown. She existed in the middle of the sea by riding a royal beautiful carriage in golden colour. The attire she wears always in the green-blue-ish colour or toska colour. Local people believed that people are not allowed to wear green while visiting the Southern beach because they will be carried by the guards of Ratu Kidul into her kingdom and became the member of southern sea kingdom royal. On the text it was described that in a number of painting the queen's beauty, magnificence and dignity were strongly presented. These descriptions could bring a sense of admiration towards Ratu Kidul who is believed by local people as personification of supernatural creatures. The queen's facial was not smiling thus it creates sense of authority and can be translated into sense of power. The emotional elements were mostly described as positive emotions rather than the negative ones like worry, fear and death.

On the emotion element, researcher concluded that the **emotion** on the myth of Ratu Kidul has two dimensions. First dimension would be more about positive emotions that emphasized on beauty, magnificence, elegance and admiration. On the second dimension, the emotions's spectrum were rather in negative tones like anxiety, fear, sense of looking for protection, alertness and trauma. It can be understood that on every myth, there are many kinds of version presented and people would favor the ones with positive elements that are more entertaining. Thus, a number of paintings about Ratu Kidul were made on various version and several texts explained that this myth is believed in the form of physical as a special room dedicated for the queen (as she visited this place often) and a number of rituals in the southern beach.

In Japanese society, a belief about Namazu fish has meaning to remind human about the need for alertness or warning to all about the earthquake by the presence of catfishes that suddenly came. The emotional element on the texts other than having the fear towards big disaster also have meaning that human has the need of protection by the Gods who were considered able to provide comfort and safety. On several paintings about Namazu, they were described as giant catfishes who beautifully twisting their body with the bright colour skin. These bright colours catfishes would stand out among other black

catfishes and became the center of the beautiful painting. A figure of God was shown as holding the movement of Namazu with giant rock that described the God's power was bigger than Namazu. The God was described as a figure with giant body, small eyes as particular Japanese, has a long mustache as in man were described in traditional Japanese stories and wears layering robe. The description of God as human personification but has stronger power and was not described as regular human being.

The second pillar or element of storytelling was plot. The **plots** on both stories were described as the forward plot. On a number of texts, it was told about the background of the queen who were formerly daughter of royal king. On the next phase, people were told that there was problem faced by the princess and the story ended with story climax that described success or glory that acquired after the misery in the past. On other text it was described about the quest of someone towards the existence of Ratu Kidul that was stated in the forward plot with some meetings with other people on his quest. The main character was having dialogue with other character and came back home to his previous place. Until at the end of story, the main character realized that on his journey to search for the queen, all the people he met was actually the incarnation of the queen.

On the story of Namazu catfish what was displayed was the forward plot that expressed belief about Namazu. The movement of Namazu was believed to be followed by another massive event like nature disaster or event big social movement. On several stories, the plot did not give any exact main character, but there was exact problems that should find its solution so it would not create another bigger problems for human being in the world.

Both plots on these myths were narrated consistently with the forward plot. It did not hop backward and forward. Thus, the story that were told with the forward plot would be easier to understood by the listener or the readers. This could be understood because the myths that were told from one generation to the next back then did not have the reading culture yet. Therefore, it only relied on the memory of person who were telling the story from one generation to the another.

The third element of storytelling is **structure** written on the text and can be found that structure used is the explanation about relations between one creature with another. Besides that, text structure describes

the advantages gained from story in a myth. On a myth about Ratu Kidul, the relations formed is both the good intangible and tangible connection between local people and Ratu Kidul as mystical creature with young adult woman personification. It also implies message for human to be alert for dangers in a form of disaster. People are asked to see nature as two side in which can provide so much blessings but on the other side also able to create massive disaster and jeopardize human being.

Meanwhile on pillar structure on a number text about cat fish myth of Namazu, the relations formed was described as relations between animals and God in which the God tried to hold the movement Namazu cat fish so that earthquake would not take place. However, on a text it was told that when the God was off guard, the cat fish moved and caused the earthquake that became disaster for human. On the other side, the relation between human and the God was described as the effort of human who always asked guidance and protection from the God to avoid themselves from disaster caused by the act of Namazu cat fish.

On a story of Ratu Kidul, some part of the text explained about the description of the queen's past as Putri Kadita (Princess Kadita) the daughter of Prabu Siliwangi (King of Siliwangi) from West Java who suffered from skin disease. Putri Kadita was then being outcasted by the family. On her exile, because of her deep sadness Putri Kadita heard a whisper that said that if she wanted to be healed from her disease, she should jump to the sea and re-emerge as beautiful dazzling queen, who have many followers, ruler of south sea and has strong relations with all the kings in Java Island. This story then developed and until today it was told that Ratu Kidul was often presented at the ceremonials held by the Sultanate of Yogyakarta like the wedding ceremony of the princesses and the death of the King. Ratu Kidul is the most respected figure by the people of Yogyakarta Kingdom who believed in this myth. The most valuable lesson from this myth is that as human being, we should act gently towards the nature as well as to be alert of the great event that can cause disaster. Human being should always ask for guidance and protection to the Almighty.

Meanwhile in Japanese society, on their believe about Namazu the cat fish, the structure presented on the text was the role of Kashima God who held Namaze. But when the God was off guard and Namazu moved freely then caused a giant earthquake. Therefore, to entertain the victim of

earthquake, there was a painting of Namazu and Kashima God that being displayed on the house with the hope that happiness and joy will be with the family who live there. The structure of Namazu tale, is the personification of the cat fish. Other than that, there is also a role of Kashima God. This particular God was described as the God who held the movement of Namazu cat fish so that the earthquake would not happen.

The fifth pillar is hero. From the text of Ratu Kidul, it was described that there were some figures who dominated the area and ruled the people. They were the kings who were well respected by the people. The kings and their hereditary were considered as the creator of local wisdom and still carry the values until today. Even though the kings and their descendants mostly are gone now, but the symbols about their presence in the past is still there and strongly believed by the people. On a number of texts, it was noted that there were relations between Ratu Kidul and the Kings of Javanese land. The symbols were presented to build people's respect towards local wisdom passed and practiced form one generation to the next. It was proved to be able to provide protection and support the realization of people's wellbeing.

Meanwhile the **hero** figure on myth story of Namazu the cat fish for Japanese people was Kami or the God. The God was described as the giant strength of nature, the highest order, the superpower creature that out rule human's power.

On the next story telling pillar there was villain element. On a number of texts, there is element that was being scared of or antagonistic figures. Ratu Kidul on several texts was believed as the ruler of South Sea. She was deemed to have power to "carry" people who are on the beach to become her followers in her kingdom under the sea. Even though she was described as beautiful queen with amazing appearance, people believe that Ratu Kidul should be avoided. There were some rules that forbid people who try to get close to the beach. Even the construction about the ban has been developed since beginning especially about the colour of clothes worn by the visitors of the beach. The explicit message was the dramatically impact once the ban was crossed, it is the death because of drowning by the waves. The high sea waves that follow up the arrival of the Queen will wash away anyone who are near to the sea.

Meantime the element of villain in Japanese society's believe on the event of tsunami earthquake was the figure Namazu the cat fish. Namazu was believed escaped and move its tail therefore it caused the earthquake in Japan. Even though it was not personified on another form, but the nature of cat fish was considered as the reason of earthquake making the prime role of this myth as the element that create giant disaster. Researcher has not found a deeper study in a story of Namazu the cat fish compared to Ratu Kidul story that has many versions until today. A number of novels or fictional stories are still found about Ratu Kidul story, thus this myth is still talked about by the current generation.

The antagonistic figure in both myths were not presented as scary or horrible. The element of villain with their antagonists nature presented in a way as the impact of what the figure did in the myths. However, the actions conducted by the figure were not displayed as criminal action that disturbed human like, killing or other criminal things. The role of antagonist figures were only presented in a form of the figure "existence" that being translated as the symptoms of disaster. Even in one of the texts that studied the content of novel about Ratu Kidul, the queen was presented in many different roles as women with noble characters that attracts opposite sex and no display about the negative sides.

In a context of disaster event, the myth conveyed in a form of story telling function as the surveillance of values in language and cultural heritage, as well as supporter in socialization process of knowledge transfer in society. Through the myths transferred in storytelling form, it can teach the next generation about meaningful event in easier manner, as well as lesson of how to interact with others and what the consequences of one's good or bad deeds.

This founding relevant with prior research about story telling that focused on the process of how message being conveyed by source to receiver on the context of education nowadays and method to improve result of study, dissemination of knowledge from generation to generation, and method for the service of building traditional group [25–29].

On the element of conflict in a text about Ratu Kidul, it was described about faith that for people who do not follow or disobey the rules to get close to the sea then they would be disappear in the sea. This particular ban is still considered as truth until now and the consequences will come true once people cross the ban. From the story told by the people, they believe that the body being washed away into the

South Sea and never came back because they were being brought by Ratu Kidul and became the member of Sea Kingdom. Another conflict described in a myth of Ratu Kidul is the believe about the ban of wearing the green color clothes around South Beach. For those who wear the clothes in the favorite color of the queen, they would be carried away by the waves.

The conflict found in the text was meaningful message about the responsibility to obey the rules so that the disaster would not happen. Through the element of hero, the people believe about the attitude to build people's respect through the local wisdom values that can be passed dan practiced from one generation to another generation. There is also belief about the highest leader or creature with massive natural force that overrule all of the human's power. On both myths, the **villain** element has meaning that antagonistic role did not display horrible or scary visual. The values like building awareness toward the disaster potential as well as the risk. Aside than that, the meaning of worrying situation that creates fear remind human about greater nature forces than humans'. A deeper meaning is that human should not just be passive, but also put more effort in handling the possibilities of the next disaster by utilizing their mind and senses.

From the local wisdom it was believed that so far, the society who live in a prone-disaster area has been asked to anticipate the possibilities of the disaster based on the experience by their ancestors with the knowledge they have. The ancestors have tried to interpret the nature process that creates disaster under the circumstances that they have not known the modern knowledge but only based on daily habitual and observation. The communication passed from one generation to next with local wisdom, the

the area of South Sea of Java Island regarding the people's belief about ritual of giving the offering to the sea (sedekah laut) : purpose is so that their offspring would not experience the same disaster event like they had.

Below is the excerpt of interview with one of local people in

"So, we have the sea offerings here, it is routine activity, we work together with neighbouring areas. You can see we have various food, like roasted chicken, traditional cookies, flowers and others as well as clothing too. We send all of these away to the

sea. These are for the guardian of the sea, so that there would not be any disaster. Sometimes there are people who went missing in the sea, that's the same so that the sea will have lots of fishes"

Some of people in the area of South Beach of Java Island still conduct the offering rituals with the hope that they will get safety and blessings. The annual rituals on certain time will bring so many kind of food as the offering of "Southern Sea Guardians" also known as Ratu Kidul. The food being sent to the sea with the prayers by a group of people along with the leader of society by wearing traditional clothing as a symbol of respecting the ancestors. This ritual has meaning that human believe that the nature force is much greater than human force so that the local people always ask for help from the Almighty.

In doing such activity there is also cultural acculturation between Islamic and Hinduism as a form of tolerating each other and the process of melting the two religions as well as the cultures. This phenomenon is in line with the study about local society of Pasuruan about the harmonious pattern of interaction between the myths, sacral, and local wisdom that find face in the harmony and interaction between local culture and Islam. There is dynamic between religion and many socio religious cultural groups through the group interaction within the society religious symbols [37].

On the next pillar in analysing the form of conflict in a myth, it was found that conflict came from the myth can be described that the people who conduct the rituals solemnly in the area of South Sea in Java Island seem to reject the modern knowledge. The traditional rituals that still conducted today shows the local wisdom about South Beach myth still being obeyed by some of the people eventhough there are modern equipment provided to do surveillance about the earthquake symptoms along the beach.

The myth found has relevance with moral story that has been conducted from thousand years ago and the same stories that are passed along from one generation [14].

Some people in the area of South Beach in Java Island still continue doing the myth by keep conducting the ritual ceremony regularly. Currently, the noble values in a believed myths makes it hard for local people to accept the modern knowledge about disaster. The believe about myth with these rituals in local people environment developed rapidly because they are being told and passed since

ancestors to the people who were illiterate and heavily relied on oral tradition. The understanding that evolves in local society today even make some of people reject the elements outside the myths that have been familiar with.

The following is the result of interview as supportive data to reinforce the researcher's analysis towards a number texts studied. The interview conducted to one of the employees of government institution who handles the disaster preparedness in which one of his tasks was to have routine socialization to the people along South Beach, Java. In his activity, the officer often find difficulties in communicating with local people especially the leaders who are in charge of routine traditional ceremony regard the sea offerings to ask for protection and safety. Things are rather different with the study findings in the mountain prone disaster area. In a study about Merapi mountain, there was no conflict about the difference believe about information between people who believe in traditional information and people who believe modern information regarding disaster mitigation [38]. This condition also because the difference in number between the groups were not significant. Therefore, there were still chances to integrate the traditional and modern for the disaster risk mitigation literacy.

From interviewing process of government official in one of the South Beach in Java stated "*.... Some people in this are who really believe in the traditional ceremony, they call this "sea offerings...but then they never believe about the official information from the government. They consider their believe about the sea offering has been done regularly already makes them feel safe from tsunami disaster. They feel like it was enough to believe in the sea offerings to avoid tsunami, so there was no need to use another way to protect them from disaster. Meanwhile, on this area is very vulnerable of tsunami danger. But hopefully next month once they have "Gelaran Destana" (Desa Tangguh Bencana – Village with disaster agility). Hopefully the people would realize the importance of getting information about the natural disaster potential here"*.

From the activities of the locals in the area of South Beach Java, then myths they believed for hundred of years also serve as function to strengthen the bonds between groups of people by doing the same regular activity annually. Other than that, the myths believed also serve function to give explanation about cultural reality that applied in society. The myth about South Beach gives guidance about what

has been believed as reality and what was important to obey for the lives of local people.

On a number of texts about Ratu Kidul, even not written explicitly in a text related with tsunami disaster, but the narration on the text as stories and paintings can describe the situation closest to the situation of the tsunami waves. That particular description can be seen in a number versions of paintings that visualize a beautiful queen like an angel, dazzling, charismatic, authoritative and there is always a high sea waves on the background of the queen. On some texts, the queen was presented by the grand royal carriage. On a number of paints and story as well as the special hotel rooms also reinforced the understanding about the story behind the myth have become tourism objects because of its entertaining nature. Even though the text on a poem mentioned about the thundering sound and giant sea waves that accompany the emergence of the queen and create fear of threat for the lives' loss, this also serves as attracting factor for some of people who considered this as entertaining story.

On the other side, the **conflict** narration described in the believe about Namazu the cat fish is because Namazu's act was the result of human's bad behavior. Kashima God had tried to hold Namazu, when the God was off guard then Namazu escaped and caused a giant earthquake. The visual description of Kashima God with the silver or white robe in several paintings were clearly pictured like he was trying to hold on the rocks that suppressed Namazu the cat fish. This description has meaning that there was resistance or conquest as the effort to avoid the disaster to happen. On the other side, the description about this struggle was not visible in every painting of Nyi Roro Kidul who is considered by the locals as the source of tsunami disaster.

If the believe towards Nyi Roro Kidul was found in a number of local people's rituals to avoid the disaster's threat, from the study researcher about the myth regarding tsunami natural disaster in Japan with the believe about story of Namazu, there were no rituals addressed to the cat fish conducted by the locals until today. The temporary assumptions that can be gathered by researcher was in Japan, the disaster mitigation was conducted by technology and physical infrastructure that is modern. Along with that, the information from media was rampant so that local values were no longer developed and became the reference in disaster mitigation.

These differences can be understood because there is social system that became the background of how the myths were evolved. Besides, the growing dynamics in society also affects how far the next generations would give meaning to the local wisdom as one of the effort to build disaster preparedness. Because the natural events that was considered disaster were the same events that happened in the previous generations, therefore the meaning making process by the current generation depends heavily on the evolving social system.

From a number of texts studied, researcher also found that myth that has been believed was not permanent. There were some versions of Ratu Kidul dan Namazu both stories or paintings until rituals as one of the forms of belief towards the myths in some areas are also flexibles. The adaptation about the myth with some changes in society has experienced shifts even there were commercialization elements in some of the areas like in the Pelabuhan Ratu beach, West Java.

Both the locals' and government effort to avoid the disaster since long time ago until today were equally dynamic. Myths as one of the product of local wisdom are the human's effort to use their common sense in behaving and acting towards disaster events. Those various efforts grow in creating good deeds has various different processes. Local wisdom focuses on the process and takes longer time (up to hundred of years) while the contemporary approach focuses more on the application and can be processed in a relatively short period of time

CONCLUSION

From the local wisdom believed so far, the people in a prone disaster area have been asked to anticipate the probability of disaster based on their ancestors' experience by using the knowledge they have. Their ancestors have tried to interpret a number of natural disasters that has caused disaster. In their time, the ancestors accumulation of knowledge based on the habitual experience, felt, found or told by their previous generations as well as from the observation towards the unusual natural disaster. Communication carried out by the ancestors from one generation to the next about local wisdom regarding natural events with purpose that their offspring would not experience disaster events like the ones they had experienced.

On both myths studied, there were elements of human personification that is considered to over power other human beings. The message in emotion element that were inside the text about anxious situation, fear about whether one thing would cause death in which these are parts of human efforts be able to stay alert. A story about myths were told in a form of positive emotion that entertains like there were beauty, elegance, authority elements. The plot of both myths uses the explanation of story with forward plots and on structure elements displayed by the relations between human being and critical creatures on this case god and supernatural creatures that are considered to have more power than human.

The meaning of myths as one of the traditional local wisdoms and considered not modern should still be advantageous as values transfer and education to society. When today's society now considered to have wider knowledge and more modern but on the other side there are some parts of society that still believe on the local wisdom. Another belief about local wisdom are obeyed in a form of certain rituals that are integrated by the religions to make it last. Myths as a form of local wisdom seemed to be easier to understand and obeyed by part of society rather than using the facts like numbers and estimation with rational understanding about the potential of disaster. The study about a number of text, researcher also found social context, cultural, and historic in society that cover some text until the researcher present this study in a more comprehensive understanding about the meaning of a text.

The construction of nature meaning for society can be described as the point of view that nature is the source of life, source of wellbeing, a place to rest, nature is human's best friend therefore nature should be glorified. On the other side, there is meaning construction that nature one day can be enemy, that brings disaster and make people suffer. Therefore, it can be concluded that something has certain meaning because of what has been constructed by a group of people rather than "that particular something" itself.

The local wisdom about myths should be the product of people's culture in the past that try to interpret the nature phenomenon. The local wisdom can also be understood as individual's, community or group intelligence A more in-depth-research is required about various forms of local wisdom including the myth about natural disaster grown in society should always be developed by end living the stories from

the past because these are very beneficial in terms of study to build society in better understanding about nature disaster phenomenon.

Mitigation effort should integrate local wisdom especially the ones with historical elements with other related science, like geology, climatology, anthropology, communication and others.

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REFERENCES

- [1] Okubo T. Traditional wisdom for disaster mitigation in history of Japanese Architectures and historic cities. *J Cult Herit* 2016;20:715–24.
<https://doi.org/https://doi.org/10.1016/j.culher.2016.03.014>.
- [2] Peneliti Indonesia-Jepang Bicara Gempa. VivaCoId 2012.
<https://www.viva.co.id/arsip/309223-peneliti-indonesia-jepang-bicara-gempa>.
- [3] Permana RCE, Nasution IP, Gunawijaya J. Kearifan lokal tentang mitigasi bencana pada masyarakat Baduy. *Makara Sos Hum* 2011;15:67–76.
- [4] Pahrudin. Situs “Koto Rayo” dan kearifan tradisional di tepi sungai Tabir Jambi. *Komunitas* 2012;4:56–64.
- [5] Gunawan R, Digdoyo E, Subarkah A. Budaya kearifan lokal dalam tata kelola dan pengembangan lingkungan kota. *Sej Dan Budaya* 2014;8:207–14.
- [6] Wahyudiono E, Sudibyakto M., Kodiran M. Pengurangan risiko bencana tsunami dengan pendekatan kearifan lokal dan implikasinya terhadap ketahanan daerah. Universitas Gadjah Mada, 2015.
- [7] Thene J. Mitigasi bencana gempa bumi berbasis kearifan lokal masyarakat Rote Kabupaten Rote Ndao Provinsi Nusa Tenggara Timur. *J Teor Praksis Pembelajaran IPS* 2016;1:102–6.
- [8] Runtiko AG, Haryadi FT, Witjaksono R. Eksplorasi kearifan lokal usahatani tembakau Srinthil di Lereng Gunung Sumbing. *Kawistara J Ilm Sos Dan Hum* 2018;8:213–309.
- [9] Hairumini, Setyowati DL, Sanjoto TB.

- Kearifan lokal rumah tradisional Aceh sebagai warisan budaya untuk mitigasi bencana gempa dan tsunami. *J Educ Soc Stud* 2017;6:37–44.
- [10] Resha DD, Ernawati. Mitigasi bencana gempa dan tsunami berbasis kearifan lokal pada kawasan zona merah Kota Padang. *J Buana* 2019;3:1342–55.
- [11] Maharani S, Firman F, Rusdinal R. Kearifan lokal masyarakat pesisir dalam mitigasi bencana di Kota Pariaman. *J Pendidik Tambusai* 2019;3:1591–7.
- [12] Kusuma WR, Ramadhan AS, ‘Aini Q, Suryanda A. Kearifan lokal masyarakat dalam mitigasi bencana tsunami. *J Ekol Masy Sains* 2020;1:38–43.
- [13] Takakura H. Local agricultural knowledge as time manipulation. *Asian Ethnol* 2018;77:257–84.
- [14] Angeline M. Mitos dan budaya. *Humaniora* 2015;6:190–200.
<https://doi.org/10.21512/HUMANIORA.V6I2.3325>.
- [15] Fimi D. “Mad” Elves and “Elusive Beauty”: Some Celtic Strands of Tolkien’s Mythology [1]. *Folklore* 2006;117:156–70.
<https://doi.org/10.1080/00155870600707847>.
- [16] Findayani A, Utama NJ, Anwar K. Kearifan lokal dan mitigasi bencana masyarakat pantai selatan Kabupaten Cilacap. *J Indones Hist* 2020;9:28–37.
- [17] Andari S, Noorman S, Muhtadin T. Mitos Nyai Roro Kidul dalam novel Sang Nyai. *J Al-Tsaqafa* 2016;13:263–82.
<https://doi.org/https://doi.org/10.15575/al-tsaqafa.v13i02.1977>.
- [18] Setiawan I. Mitos Nyi Roro Kidul dalam kehidupan masyarakat Cianjur Selatan. *Patanjala J Penelit Sej Budaya* 2009;1:188–200.
- [19] Smits G. Shaking up Japan: Edo society and the 1855 catfish picture prints. *J Soc Hist* 2006;39:1045–78.
<https://doi.org/https://doi.org/10.1353/jsh.2006.0057>.
- [20] Istiarni A. Jejak pena pustakawan. Cet. II. Yogyakarta: Azyan Mitra Media; 2018.
- [21] Solihudin I. Hypnosis for parents: Tips & trik melejitkan potensi buah hati. Cet. I. Bandung: Mizan Pustaka; 2016.
- [22] Salzer-Mörling M, Strannegård L. Silence of the brands. *Eur J Mark* 2004;38:224–38.
<https://doi.org/https://doi.org/10.1108/03090560410511203>.
- [23] Mittelstadt J. Why I Have Spent My Time in Such Ways: The Ways of the Storyteller. *Read Teach* 2003;56:680–1.
- [24] Alexander B. the New digital storytelling: Creating narratives with new media. 2nd ed. Santa Barbara, California: Praeger; 2017.
- [25] Nufus NP, Filiani R, Dimiyati M. Pengaruh teknik storytelling dalam layanan bimbingan kelompok terhadap peningkatan emotional literacy siswa (Studi eksperimen terhadap siswa kelas III SDN Jatinegara Kaum 14 Pagi). *Insight J Bimbing Konseling* 2016;5:66–72.
- [26] Pratiwi RR. Penerapan metode storytelling untuk meningkatkan keterampilan berbicara siswa kelas II SDN S4 Bandung. *J Pendidik Guru Sekol Dasar* 2016;1:199–207.
- [27] Wardiah D. Peran storytelling dalam meningkatkan kemampuan menulis, minat membaca dan kecerdasan emosional siswa. *Wahana Didakt J Ilmu Kependidikan* 2017;15:42–56.
- [28] Salim MR. Penerapan metode story telling untuk meningkatkan hasil belajar mata pelajaran Bahasa Indonesia siswa kelas III SD GMIH L.O.C Kabupaten Pulau Morotai. *J Mitra Pendidik* 2019;3:921–35.
- [29] Uzer Y. Penerapan bahasa Inggris dengan menggunakan metode story telling untuk anak usia dini. *Pernik J Pendidik Anak Usia Dini* 2020;3:157–65.
- [30] Hasiana I. Metode bercerita sebagai upaya pemulihan trauma pasca bencana pada anak usia dini. *J Bikotetik* 2019;3:72–6.
- [31] Syamsuddin. Pemulihan trauma anak-anak korban gempa di Kota Palu melalui mendongeng. *Guru Tua J Pendidik Dan Pembelajaran* 2019;2:27–33.
- [32] Rosidatun. Model implementasi pendidikan karakter. Gresik: Caremedia Communication; 2018.
- [33] Lindsay F. the Seven pillars of storytelling. Bristol, UK: Sparkol Books; 2015.
- [34] Ahyar DB. Analisis Teks Dalam Penelitian Kebahasaan (Sebuah Teori dan Aplikatif). *Shaut Al-‘Arabiyah* 2019;7:100–20.
<https://doi.org/https://doi.org/10.24252/saa.v7i2.10273>.
- [35] Creswell J. Research design : qualitative, quantitative & mixed methods approaches. 2018.
- [36] Miles MB, Huberman AM, Saldana J. Qualitative Data Analysis. SAGE Publications; 2014.
- [37] Fitri AZ. Pola interaksi harmonis antara mitos, sakral, dan kearifan lokal masyarakat Pasuruan. *El Harakah* 2012;14:1–17.
<https://doi.org/10.18860/EL.V0I0.2198>.

[38] Wardyaningrum D. Kepercayaan masyarakat terhadap informasi tradisional dan modern pada

peristiwa bencana alam. J Aspikom 2018;3:609–22.