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Local Wisdom of Kampunglaut Community Facing Flood Disaster Rob

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ABSTRACT

The existence of the community cannot be separated from the natural environment, where they have lived for generations. Through a long process of adaptation to the natural environment, people really understand their ecological environment, so they treat their ecological environment intelligently. The universe is not only a source of exploitation, but as a common house that is continuously protected, cared for and arranged. The natural environment they live in is sometimes considered to be unusual and dangerous, but in reality, these communities do not feel worried because they live modestly with their natural environment. Ecological intelligence forges humans to organize their emotions, thoughts and actions in responding to the universe. Ecological intelligence is expressed in the form of real attitudes and behaviors that take into account ecological capacities, and give birth to a wise human attitude towards nature. Basically, case study research focuses attention on one particular object that is appointed as a case to be studied in depth so that it is able to uncover the reality behind the phenomenon. As is the case in the traditional wisdom of the people of Ujunggagak Village, Kampunglaut District, Cilacap Regency, Central Java which is formed from many activities, components or units that are interrelated and form certain functions. The case study method in this research is very appropriate to be able to uncover the mistigation of tidal flooding in Ujunggagak Village. The focus of case studies is the specification of cases in an event, including individuals, cultural groups or portraits of life, so that they can reveal forms of local wisdom that have the value of tidal flood disaster mitigation and freshwater crises.

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1. INTRODUCTION

Community is a social unit or unit organized in groups with common interests (communities of common interest), both functional and territorial. The term community can in a certain extent refer to residents of a hamlet (village), village, city, tribe or nation. In a socio¬logical perspective, community can be distinguished from society at large (society) through the depth of mutual concern (a community of interest) or by a high level of interaction (an attachment community). Community members have common needs (Shadily, 1983: 60-61).

Community is defined as a group of people who inhabit certain areas with all the ties and norms in it to achieve the same goal. They not only share knowledge, but also skills. Tonnies (1955: 18) uses the terms gemeinschaft (community) and gesellschaft (society) to des¬cribe how humans relate to other humans. In general, a community of people has the same culture, culture is understood as a way of life that develops and is shared by an indigenous community and is passed down from generation to generation. Culture which is the result of creation, work and initiative.

According to Koentjaraningrat (1976: 28), culture is owned by every nation, and the culture of each nation is different. There are many forms of culture, divided into several universal cultural ele¬ments, which include belief systems (religion), knowledge systems, livelihoods, tools and equipment for human life, social systems, language, and arts.

The existence of a community cannot be separated from the natu¬ral environment, where they have lived from generation to gene¬ration, they really understand their ecological environment, so they treat their ecological environment intelligently. The universe is not only a source of exploitation but as a common living house that is con¬tinuously protected, cared for, and arranged, sometimes the natural environment they live in is considered unusual and dangerous, but the community does not feel worried because they already live in a simple natural environment.

Humans are a factor that plays an important role in positioning themselves to the surrounding environment, including the compo¬nents of other living things. The conception of ecological intelligence is not only defined by the ability of people who are adept at observing their environment but includes science whose principles are applied to understand dynamic systems that take place from small to global scales.

Ecology is an understanding of organisms and their ecosystems. Ecological intelligence itself enables humans to apply what humans learn about the effects of human activities on ecosystems so that they can reduce damage (Goleman, 2010: 38).

This ecological intelligence makes it possible to understand sys¬tems in all their complexities as well as the relationship between nature and humans. Berkes (2008) describes four levels in ecological intelligence, namely (1) identifying ecosystem components, both bio¬tic and abiotic; (2) understand the functions and uses of each compo¬nent in the ecosystem; (3) understand natural and environmental management systems; (4) understand and be able to carry out the prevailing values in the ecological system.

In relation to the ecological ethics of traditional communities, the universe is not only a source of exploitation but as a common living house that is continuously protected, cared for and arranged. This ecological intelligence requires humans to apply what they have experienced and learned about the relationship between human activities and ecosystems.

Ecological intelligence forges humans to organize their emotions, thoughts and actions in responding to the universe. Ecological intelligence is expressed in the form of real attitudes and behaviors that take into account ecological capacities, and give birth to a wise human attitude towards nature (Hultkrantz, 1995: 582).

The conception of ecological intelligence is not only interpreted by the ability of the (native) hinterland who are adept at observing their environment but includes science and its principles. This ecological intelligence makes it possible to understand systems in all their complexities as well as the relationship between nature and humans. Local wisdom is well preserved despite interactions with the outside world and acculturation with cultures outside their culture, because local wisdom is preserved by the traditions and customs they still practice and obey.

The Ministry of Social Affairs defines local wisdom as a view of life and knowledge as well as various life strategies in the form of activities carried out by local communities in responding to various problems in fulfilling their needs (Ministry of Social, 2006). Local wisdom is a traditional view and knowledge that becomes a reference in behavior and has been practiced from generation to generation to meet the needs and challenges in the life of a community.

The interpretation of local wisdom is identical to the “labeling” or characteristic of certain communities and is explained in a variety of ways. Local wisdom is a local (local) idea that is wise, full of wisdom, has good values that are embedded and followed by members of the community (Sartini, 2004: 111).

One form of local wisdom that has the value of tidal flood disaster mitigation and critical fresh water is found in Ujunggagak Village, Kampunglaut District, Cilacap Regency which is located in the Segara Anakan Lagoon neighborhood. The traditional form of tidal flood disaster mitigation and critical fresh water that has been known and carried out from generation to generation. This local wisdom is a form of community adaptation that develops into norms that regulate people's behavior. This village is located at the very end of the Kampunglaut sub-district and is the village most at high risk if a tsunami hits.

As in general, coastal communities, the lifestyle of the coastal community is also known in the Ujunggagak village community, such as fishing and sea alms tradition. In this village community, local wisdom towards nature is carried out wisely, for example, planting mangrove trees has the benefit of preventing tidal flooding

because the roots can stick in the beach sand and can withstand the waves of sea water for the development of various marine life and create reservoirs for fresh water storage.

By developing wisdom embodies a system of ideas, social systems and tools, which are guided by customary norms in managing the environment so that life will be in harmony. This can minimize the occurrence of natural damage that results in the emergence of disasters, thus local wisdom and disaster mitigation are inseparable concepts. The local wisdom of the people of Ujunggagak village has disaster mitigation value, they treat nature modestly in the face of tidal floods and fresh water crises.

2. FLOODS ROB

Flood is an event in which land that is normally dry (not a swampy area) becomes inundated by water. This condition is caused by high rainfall and the topographical conditions of the area in the form of low to concave plains. In addition, flooding can also be caused by runoff overflowing and its volume exceeds the drainage capacity of the drainage system or river flow system.

The occurrence of flood disasters is also caused by the low infiltration capacity of the soil, which causes the land to no longer be able to absorb water. Floods can occur due to rising water levels due to above-normal rainfall, changes in temperature, collapsed embank¬ments / dams, rapid snowmelt, obstruction of water flow elsewhere" (Ligal, 2008).

Tidal flooding is a common phenomenon in areas located along the coast. In Indonesia, tidal flooding often occurs in coastal cities, especially due to rising sea level as well as land subsidence or commonly referred to as land subsidence. Tidal flooding is a puddle of water on the mainland coast that occurs at high tide. Tidal floods inundate parts of the coastal land or places that are lower than high water levels.

The phenomenon of tidal flooding that occurs almost throughout the year both occurs in the rainy season and in the dry season. This shows that rainfall is not the main factor causing the tidal pheno¬menon. Rob occurs mainly because of the influence of the high and low tides that occur by the force of gravity. The moon's gravity is the main generator of tides. Although the mass of the sun is much greater than the mass of the moon, because the distance of the moon is much closer to the earth than the sun, the moon's gravity has a greater influence.

The occurrence of tidal flooding is due to sea level rise caused by tides, and factors or external forces such as water, wind or swell (waves caused from a distance), and storms which are natural phenomena that often occur at sea. In addition, tidal flooding also occurs due to the global climate phenomenon which is marked by an increase in the earth's average temperature from year to year. The ozone layer protects the earth from the influence of sunlight, so that when this layer is thinning global warming will occur, causing the ice sheets in the North Pole and Antarctica to melt. As a result, global sea level rises.

Regarding the flood disaster, Rob Nasir (1993) explains, the instantaneous value of the atmosphere as well as short-term natural changes (less than one to 24 hours). The process of weathering is the result of processes that occur in the atmosphere. Weather process can affect many things, one of which is oceanography because meteorology and oceanography have a reciprocal relationship that affects the tides of sea levels. Tides are occurring periodically and have occurred for decades, but lately the incidents of tides have started to harm the community. The rise in sea level due to tides is a common and predictable natural phenomenon, due to the movement of the sun, earth, moon and other celestial bodies. The high and low tides have a long period of 18.6 years, in addition there are also short periods such as 12 hours, 24 days, 6 months, 1 year. All of this is also due to the crushing of celestial bodies.

Predicting the height of the tide must take this period into account, if the 6 month period interacts with the daily period, then the wave height increases, but the actual height is not significant by less than 10 cm. Therefore, in November-December the maximum wave occurs and will occur again in May-June.

In 2008, tidal floods occurred in January, June and December. In January and December, tidal floods occur in the north. The phenomenon of tidal flooding is a natural phenomenon that occurs in many places in Indonesia (Soehoed, 2002).

According to Wightman (1989), mangroves are plants found in tidal areas. Mangroves are typical littoral plant formations on sheltered tropical and subtropical coasts. Mangrove forest is a forest that mainly grows on alluvial mud soils in coastal areas and river estuaries that are influenced by tides, and consists of various types of trees Avicennia, Sonneratia, Rhizophora, Bruguiera, Ceriops, Lum¬ni¬tzera, Excoecaria, Xylocarpus, Aegice-race, Scyphyphora and Nypa.

The mangrove forest area consists of several resource elements, namely: (a) One or more tree and shrub species whose life is limited in mangrove habitat (exclusive mangrove); (b) Plant species that live in mangrove habitats, but can also live in non-mangrove habitats (non-exclusive mangroves); (c) Biota associated with mangroves (terrestrial and marine biota, lichens, fungi, algae, bacteria, etc.), whether they live permanently, while, occasionally, are commonly found, accidentally or specifically live in mangrove habitats. ; (d) The processes that maintain this ecosystem, both in vegetated areas and outside; (e) Open land / mudflats that lie

between the actual forest boundary and the sea, and (f) The people whose lives live and depend on mangroves (Saenger, 2002).

In coastal areas, floods are caused by climate change. This can be seen when the sea level rises, which causes the land area to decrease and the coastline to decline. This causes seawater to enter settlements and other land uses when high tide occurs and disturb residents' activities (Wacano, 2012).

According to Kodoatie and Sugiyanto (2001: 198), the factors causing flooding can be classified into two categories, namely natural floods and floods by human action. Natural flooding is influenced by rainfall, physiography, erosion and sedimentation, river capacity, drainage capacity and tidal influence. Meanwhile, flooding due to human activities is caused by human activity which causes environmental changes such as: changes in the condition of the watershed (DAS), residential areas around the banks, damaged land drainage, damage to flood control buildings, damage to forests (natural vegetation), and control system planning. improper flooding".

Flood-prone areas are areas that are often hit by flooding. The area can be identified using a geomorphological approach, especially in the morphological aspects, because features such as river terraces, natural embankments, flood plains, back swamps, alluvial fans, and deltas are the formation of repeated floods which are detailed landforms that have topography. flat" (Dibyosaputro, 1984).

According to Suryawati (2012), the Segara Anakan area is a unique area because it is a manifestation of a land ecosystem, estuary and marine ecosystem that is harmonious, harmonious and balanced as a habitat for rare flora and fauna. This area is a migration area for various types of protected animals and a place for various types of shrimp and fish to have high economic value, and has an economic function that is a source of livelihood for the wider community.

The uniqueness and strategicness of the area is strengthened by Government Regulation Number 26 of 2008 concerning RTRWN which specifically places the area as one of the National Strategic Areas that needs special attention from the government and local governments. The Segara Anakan area is the backbone of the community's economic activities, especially the Kampunglaut commu¬nity who inhabited the area from generation to generation before Indonesia's independence (Mulyadi, 2013).

Water is a liquid that has no taste, odor and color and consists of hydrogen and oxygen with the chemical formula H2O. Because water has properties that can be used for almost anything, it is the most important substance for all forms of life (plants, animals, and humans) to date apart from the sun which is a source of energy. Water can be in the form of fresh water and salt water (sea water) which is the largest part on this earth. In the natural environment, changes in form, movement of water flow (on the surface of the ground, in the ground, and in the air) and the type of water follow a balance cycle and are known as the hydrological cycle (Kodoatie and Sjarief, 2010). Fresh water is water with a salt content below 0.5 ppt (Nanawi, 2001).

Government Regulation of the Republic of Indonesia Number 82 Year 2001 concerning Water Quality Court and Pollution Quality Court, Chapter I General Provisions Article 1, states that, "Fresh water is all water that is above and below the ground surface, except sea water and fossil water. " RI Law No.7 of 2004 concerning Water Resources (Chapter I, Article I), point 2 states that "Water is all water that is above or below the ground surface, including in this definition surface water, ground water, rainwater, and sea water on land".

Point 3 states, "Ground water is water that is contained in layers or rocks below the ground surface". The physical characteristics of fresh water depend on where the water source comes from and whether the water treatment technique produces water that is good for consumption. Water that is fit for drinking According to the Regulation of the Minister of Health of the Republic of Indonesia Number 492 /Menkes/Per/IV/2010 concerning Requirements for Drinking Water Quality, Article 1 states that, "Drinking water is water that has gone through 5 processes or without processing that meets health requirements and can be drunk immediately ".

Drinking water is water used for human consumption. According to the Ministry of Health, the requirements for drinking water are tasteless, odorless, colorless, does not contain harmful microorga¬nisms, and does not contain heavy metals. Drinking water is water that has been processed or without processing that meets health requirements and can be drunk directly. (Decree of the Minister of Health Number 907 of 2002).

Although water from natural sources can be drunk by humans, there is a risk that this water has been contaminated by bacteria (for example Esherichia coli) or other harmful substances. Bacteria can be killed by boiling water to 100 ° C, but many harmful substances, especially metals, cannot be removed in this way. Currently there is a drinking water crisis in various developing countries due to overpo¬pulation and water pollution (source: http: //id.wikipedia.org/¬wiki/¬Air_minum).

Limited fresh water sources and increasing demand for these livelihood sources which are irreplaceable from the one hand and the heterogeneity and dispersion of water sources and the needs of various communities from the other, make the issue of water and its management mechanisms go beyond the technical and economic side. In this condition, water has a special position in social expansion including management, culture and even politics as well as security and the future transformation of mankind.

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Kampunglaut is administratively a sub-district in Cilacap Regen¬cy, Central Java which consists of Ujungalang, Ujunggagak, Panikel, and Klaces Villages. It is called Kampunglaut because the local community lives on the waters along the Segara Anakan Lagoon area. In terms of accessibility, this sub-district is relatively remote because to go to the area you have to use a boat or boat with a travel time of about 1.5-2 hours depending on the condition of the boat and the current of Segara Anakan. The Segara Anakan Lagoon is a strait flanked by Nusakambangan Island and Java Island, and is one of the connecting routes for the people living in Cilacap with the people of West Java. The Segara Anakan area itself is a place for mangrove forests and marine biota to live.

According to Tamin (1999), fresh waters have mangrove forest areas or mangrove ecosystems that are still in relatively good con¬dition. In fact, the mangrove ecosystem in this area is the most extensive and good mangrove ecosystem in Java. The Segara Anakan area is the backbone of the community's economic activities, especially the Kampunglaut community who inhabited the area from generation to generation before Indonesia's independence (Mulyadi, 2013).

Local wisdom is the cultural identity or personality of a nation that causes the nation to be able to absorb, even process culture from outside / other nations into its own character and abilities Wibowo (2015: 17). This identity and personality adjusts to the view of life of the surrounding community so that there is no shift in values. Local wisdom is a means of cultivating culture and defending oneself from unfavorable foreign cultures. Local wisdom is a view of life and knowledge as well as various life strategies in the form of activities carried out by local people in responding to various problems in fulfilling their needs.

In English, local wisdom is often conceptualized as local wisdom or local knowledge “local knowledge” or local genious intelligence (Fajarini, 2014: 123).

The same thing is also expressed by Alfian (2013: 428), namely: Local wisdom is defined as a view of life and knowledge as well as a life strategy in the form of activities carried out by local communities in meeting their needs. Local wisdom is a custom and custom that has been traditionally carried out by a group of people from generation to generation which is still maintained by certain customary law communities in certain areas.

Based on the above understanding, it can be interpreted that local wisdom can be understood as a local local idea that is wise, full of wisdom, good value, which is embedded and followed by members of the community. Istiawati (2016: 5) has the view that local wisdom is a way for people to behave and act in response to changes in the physical and cultural environment. A conceptual idea that lives in society, grows and develops continuously in people's consciousness, from those related to sacred life to the profane (daily part of life and its mediocrity). Local wisdom can be understood as a local local idea that is wise, full of wisdom, of good value, which is embedded and followed by members of the community.

Local wisdom according to Ratna (2011: 94) is a "bonding cement" in the form of an existing culture so that it is based on existence. Local wisdom can be defined as a culture created by local actors through an iterative process, through internalization and interpretation of religious and cultural teachings which are socialized in the form of norms and used as guidelines in daily life for the community.

Based on the above opinion, the researcher can draw a common thread that local wisdom is an idea that arises and develops conti¬nuously in a society in the form of customs, rules / norms, culture, language, beliefs, and daily habits.

Wahyudi (2014: 13) states that local wisdom is an unwritten rule that becomes a reference for society which covers all aspects of life, in the form of rules regarding relationships between humans, for example in social interactions between individuals and groups, which related to hierarchy in governance and customs, rules of marriage between clans, karma in everyday life. Regulations concerning the relationship between humans and nature, animals and plants are more aimed at conservation of nature. Rules concerning the relation¬ship between humans and the unseen, for example God and spirits.

Local wisdom can be in the form of customs, institutions, wise words, proverbs (Javanese: parian, paribasan, freedom and). This is emphasized by Haryanto (2013: 368) who says that local wisdom is expressed in the form of wise words (philosophy) in the form of advice, proverbs, rhymes, poetry, folklore (oral stories) and so on; rules, principles, norms and social and moral rules that form a social system; rites, ceremonies or traditional ceremonies and rituals; as well as habits that can be seen in daily behavior in social interactions.

Changes in various aspects of life occur through a process of adaptation to a new environment. Through the adaptation process, in general adaptation related to the environment has the meaning of adjustment to the environment. Adaptation is dynamic because it occurs continuously and tends to change and increase.

Triguna (2004: 168) argued, in adaptation there is an increase in adaptation (adaptive upgrading) or adaptation with modification (adaptive modification) through a process of understanding and interpretation towards the generally accepted level of abstraction. The adjustment effort has a double meaning, namely that humans try to adapt their life to the environment, on the other hand, humans also try to adapt the environment to their desires and goals.

Related to the above opinion, Bennet (1978) argues that in the process of human adaptation as a supporter of culture is dynamic and develops adaptative behavior and adaptation strategies. Adaptative behavior is adaptation behavior and adaptation strategies, which are actions that humans choose in the decision-making process, because their success can be predicted.

In this connection, most societies are in some way marked by either stability or evolutionary transformation. However, in some cases, society can undergo devolutionary changes: it can change accordingly to a form that has the character of a previous evolutionary stage (Sanderson, 2003: 67).

From the above opinion / understanding, it is reflected that human life or society is constantly moving, culture tends to change in line with changes in the environment. In this discussion and related to adaptation, that the environment as a habitat changes, the culture that lives in it also tends to change, whether the change is in an evolutionary or devolutionary sense.

Disaster mitigation according to Nurjanah et al., (2013: 54) is an effort to reduce the risks posed by disasters. The focus in disaster mitigation is to reduce the impact of threats so that the negative impacts will be reduced.

Meanwhile, according to ADB (1991: 41), mitigation (mitigation) is "action focused attention to reduce the impact of threats and thereby reduce the negative impact of disasters on life through several alternatives that are compatible with ecology. Mitigation activities include non-engineered measures such as regulation, sanctions and rewards to enforce more appropriate behavior and through information to raise awareness. "

Disaster mitigation activities in Law No. 24 of 2007 concerning Disaster Management are a series of efforts to reduce disaster risk, both through physical development and awareness and capacity building in dealing with disaster threats.

In general, disaster mitigation activities are the provision of rules and regulations, sanctions and rewards to provide understanding and awareness to humans of efforts to reduce the impact of a disaster. According to the Head of BNPB Regulation No. 4 of 2008 concerning Disaster Management Plan Formulation, disaster mitigation can be classified into active mitigation and passive mitigation. Passive mitigation activities include: (a) Formulation of laws and regulations. (b) Preparing disaster-prone maps and mapping problems. (c) Preparation of guidelines/standards/procedures. (d) Making bro¬chures / posters. (e) Assessment of disaster characteristics. (f) Disaster risk analysis. (g) Establishment of a disaster task force organization. (h). Strengthening the social unit in society.

Meanwhile, preventive measures included in active mitigation are: (a) Preparation and placement of warning signs, hazards, prohibition of entering disaster-prone areas. (b) Supervision of the implementation of various regulations on spatial planning and so on relating to disaster prevention. (c) Basic disaster training. (d) Public awareness and awareness raising. (e) Providing evacuation routes. (f) Construction of structures that function to prevent, secure and reduce the impact of disasters, such as embankments, dams, earthquake-resistant buildings and the like.

According to Priyambodo (2009: 25), there are two important elements that are the basis for successful disaster mitigation, namely the microcosm and macrocosm elements. Microcosm is the development of human consciousness, namely the patterns of thought and patterns of life or habits in everyday life. Meanwhile, macrocosm is the development of an environment that is friendly to the life of the living things that live in it and for the environment itself. To build a friendly nature, two things need to be considered, namely environmental characteristics and natural laws.

Livelihood is an economic business or work that aims to obtain daily necessities of life or to obtain living materials for a certain period of time (Anonymous. Accessed from http://www.gagasmedia.com on June 17, 2012). The livelihood system is a product of humans as homo economicus, making the level of human life in general continue to increase. Human life at the food gathering level is the same as that of animals, but at the food producing level there has been a very rapid progress because at this level humans are familiar with farming, raising livestock, working on crafts and others.

Livelihoods in rural communities are still very traditional, in contrast to livelihoods in cities which are very complex in all fields. Koentjaraningrat has traditionally classified human livelihoods as consisting of; (a) hunting and gathering, (b) raising livestock, (c) farming in the fields, (d) catching fish and cultivating sedentary crops with irrigation (Koentjaraningrat, 2002: 358).

Along with the times, human life continues to develop rapidly, as well as their livelihoods which develop rapidly even though not at the same time. The rapid development or changes in livelihoods can also be triggered by a development in a certain area. These changes in livelihoods can spur economic growth in the community, which in turn can clarify the stratification of society based on sources of income, which are usually obtained from a series of work activities.

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3. RESEARCH METHODS

This research was conducted with a qualitative approach using a case study method. The qualitative research tradition recognizes the term case study as a type of research. Case studies are defined as methods or strategies in qualitative research to uncover certain cases. There is also another meaning, namely the results of a study of a particular case. Stake (2005: 29) states that case study research is not a methodological study, but an option to find cases that need to be researched. The existence of a case in this research is the cause of the need for case study research.

Basically, case study research focuses attention on one particular object that is appointed as a case to be studied in depth so that it is able to uncover the reality behind the phenomenon. As in the traditional wisdom of the Ujunggagak village community, which is formed from many activities, components or units that are interrelated and form certain functions. So that the case study method in this research is very appropriate to be able to reveal disaster mitigation in Ujunggagak village.

The focus of a case study is the specification of a case in an event, whether it includes an individual, cultural group or a portrait of life (Creswell, 1998: 37-38). Some of the characteristics of a case study according to Creswell are: (1) Identifying "cases" for a study; (2) The case is a "system bound" by time and place; (3) Case studies use multiple sources of information in data collection to provide a detailed and in-depth description of the response to an event; and (4) Using a case study approach, the researcher will “spend time” in describing the context or setting for a case (Creswell, 1998: 36-37).

A case study is an in-depth study of an individual, a group, over a period of time. The goal is to obtain a complete and in-depth description of an entity. The case study produces data to be analyzed to produce a theory. As with qualitative research data collection procedures, case study data were obtained from interviews, observations, and literature studies.

The case study method according to Bogdan and Bikien (1982) is a detailed examination of one setting or one subject or one document storage or one particular event. Based on these limitations, it can be understood that the limitations of a case study include: First, the research objectives can be people, events, settings, and documents; and second, these objectives are studied in depth as a totality in accordance with their respective backgrounds or contexts in order to understand the various relationships that exist between the variables.

In general, this definition leads to the statement that, as the name implies, case study research is research that places something or object under study as a "case". Some of the limitations regarding the object that can be called a 'case study' are: The first opinion, put forward by Cladinin (2000: 60) says that. many studies have followed this structure but do not deserve to be called case study research, as they are not conducted in a thorough and in-depth manner. These studies generally only use limited types of data sources, do not use various data sources as required in case study research, so that the results are unable to raise and explain the substance of the cases studied fundamentally and thoroughly.

The second opinion, expressed by Yin (2002: 79) states that, The case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.

This second opinion, specifically views and places case study research as a research method. According to Yin, the characteristics of the research object as a case study when describing the characteristics of a case. One of the specificities of case study research as a research method is the purpose used in this study, which aims to answer the "how" and "what" of traditional wisdom in Ujunggagak village in the mistigation of tidal floods and lack of fresh water.

According to these two opinions, it can be concluded that case study research is a research method that specifically investigates contemporary phenomena that exist in the context of real life, which is carried out when the boundaries between the phenomenon and the context are not clear, using various data sources.

The position of using existing theories in case study research is intended to determine the direction and focus of the research. According to Yin (2002: 37), the directions built at the beginning of the research process are as "propositions". The proposition is built not to establish a provisional answer, but rather a theoretical direction used to build a research protocol.

Case studies require multiple data sources to produce a balance of analysis, the diversity of data sources required in a case study is intended to achieve data validity and reliability, so that the results of the research can be trusted. Facts are achieved by examining the relationship between evidence from several data sources, namely documents, recordings, observations, open interviews, focused interviews, structured interviews and field surveys.

This research on local wisdom of the Ujunggagak village commu¬nity focuses on the value of disaster mitigation. Local knowledge and wisdom in relation to flood rob disaster mitigation, and documented shortages of fresh water from the shape and activity of planting mangroves in mangrove forests, farming methods, as well as the shape, structure, layout of buildings and freshwater reservoirs. Meanwhile, knowledge and wisdom in

relation to flood disaster mitigation is documented from the management and utilization of water sources, watersheds (DAS), and mangrove forests.

Data collection was carried out through observation and interviews. Observation in observation activities is carried out on: (1) Buildings, settlements and their environment, as well as activities therein; (2) fields and their environment, as well as farming activities, and (3) water sources, watersheds and their environment, sea, mangrove forests, and activities therein.

Meanwhile, interviews were conducted with informants, namely the Head of Ujunggagak Juandi Village, Supan Adat Leader, and Ujunggagak Lasimin Village residents as key informants. Key informants were selected by snowballing, starting from the village head, traditional leaders to community members who were very knowledgeable about the topic. Generally, they are interviewed individually. The information collected includes (1) customary rules; (2) efforts by village heads and customary leaders to convey cus¬tomary provisions (3) cultural concepts on disaster mitigation, and (3) traditional knowledge about tidal flooding, sunami and fresh water crises.

The information collected is processed using case study analysis, namely using various sources of information in data collection to provide a detailed and in-depth description of the response to an event. The data analyzed included taboos and customary rules in the community of Ujunggagak village in the form of local wisdom, and disaster mitigation of tidal floods, fresh water crises.

4. RESEARCH RESULTS

Flood is an event in which land that is normally dry (not a swampy area) becomes inundated by water. This condition is caused by high rainfall and the topographical conditions of the area in the form of low to concave plains. In addition, flooding can also be caused by overflowing runoff and its volume exceeds the drainage capacity of the drainage system or river flow system. The occurrence of flood disasters is also caused by the low infiltration capacity of the soil, which causes the land to no longer be able to absorb water. Floods can occur due to rising water levels due to above-normal rainfall, changes in temperature, collapsed embankments, rapid snowmelt, obstruction of water flow elsewhere "(Ligal, 2008).

Tidal flooding is a common phenomenon in areas located along the coast. In Indonesia, tidal flooding often occurs on the coast caused by rising sea level as well as land subsidence or commonly referred to as land subsidence. Tidal flooding is a puddle of water on the mainland coast that occurs at high tide. Tidal floods inundate parts of the coastal land or places that are lower than high water levels.

The phenomenon of tidal flooding occurs almost throughout the year, both in the rainy season and in the dry season. This shows that rainfall is not the main factor causing the tidal phenomenon. Rob occurs mainly because of the influence of the high and low tides that occur by the force of gravity. The moon's gravity is the main generator of tides. Although the mass of the sun is much greater than the mass of the moon, because the distance of the moon is much closer to the earth than the sun, the moon's gravity has a greater influence.

Regarding the flood disaster, Rob Nasir (1993) explains that the instantaneous value of the atmosphere and natural changes are short-term (less than one to 24 hours). The process of forming weather is a result of processes that occur in the atmosphere. Weather processes can affect many things, one of which is oceanography, because besides that meteorology and oceanography have a reciprocal relationship that affects the tides of sea levels.

The ebb and flow of sea water in Kampunglaut is a regular occurrence and has occurred decades ago but recently, the tide has started to harm the community. The rise in sea level due to tides is a common and predictable natural phenomenon, due to the movement of the sun, earth, moon and other celestial bodies. The high and low tides have a long period of 18.6 years, in addition there are also short periods such as 12 hours, 24 days, 6 months, 1 year. All that is due to the crushing of celestial bodies.

Ujunggagak is the farthest village in the Kampunglaut area. This village was formed due to a process of natural phenomena, namely sedimentation that formed the land. Ujunggagak village consists of 6 hamlets, namely Karanganyar Hamlet, Karangmulya Hamlet, Karangjaya Hamlet, Karangsari Hamlet, and Cibereum Hamlet. This village is the village closest to the Majingklak pedestrian bridge where water traffic leads to Kampunglaut.

Ujunggagak is the village with the most complete facilities and infrastructure compared to other villages in the Kampunglaut sub-district such as education, health and government facilities. The roads in this village are also in better condition than the roads in other villages and many people have used electricity.

The people of Ujunggagak village have on average lived quite well. This can be seen from the shape of the houses that are there where the house has been permanently established. The road here is partly concrete and the paving is no longer dirt.

The cultural system that humans have is a tool to adapt to the environment in an effort to survive. In a balanced condition between humans and their environment, there will be no damage to nature or the

environment. Even if it happens it doesn't really matter, because nature is able to restore it. Thus, humans feel comfortable living in it.

Related to the above opinion, Bennet (1978) argues that in the process of human adaptation as a supporter of culture is dynamic and develops adaptative behavior and adaptation strategies. Adaptative behavior is adjustment behavior and adaptation strategies, which are actions that humans choose in the decision-making process, because their success can be predicted.

People who live in an area with different characteristics must be able to survive in that area in various ways to survive. Human adaptation in an area naturally follows the physical conditions of the area. Adaptation is personal adjustment to the environment. Adjustment means changing oneself according to environmental conditions, it can also mean changing the environment according to the circumstances of the personal desires Gerungan (1991: 55).

Adaptation itself is essentially a process to fulfill the requirements to continue living. Like people who live in coastal areas, they have to adapt to road conditions, climates and houses that are different from mountainous areas. In coastal areas, the weather is hotter than in mountainous areas, because of this condition, people who live in areas such as on the coast and mountains have different adaptation patterns to survive in the areas they occupy. As happened in the life of the people of Ujunggagak village who live in an area surrounded by waters, namely the Sagara Anakan Lagoon.

Even though Ujunggagak Village is at the far end of Kampunglaut Subdistrict, the position of this village is directly opposite Nusakambangan Island and Sagara Anakan Lagoon, so that Ujunggagak Village is protected from the waves of the South Sea. Likewise, the problem of tidal flooding that often afflicts villages in Kampunglaut sub-district, tidal flooding does not make the people of Ujunggagak village worry because tidal flooding is commonplace and it doesn't even enter their homes. This is shown by their house which is not a house on stilts. Tidal flooding often occurs during high tide, but only briefly, averaging only three to four hours, then the tide recedes. Even then, it is rare to enter the house only around the yard.

Although fresh water crises often occur, especially in the dry season, the people of Ujunggagak Village think this is normal, so they don't think about moving to another place. For them, the sea is a source of livelihood and for citizens. Moreover, Ujunggagak is their birthplace and is comfortable living in it.

Livelihood is economic business or work that aims to obtain daily necessities of life or to obtain living materials for a certain period of time (Anonymous. Accessed from http://www.gagasmedia.com on June 17, 2012). Livelihoods in rural communities are still very traditional, in contrast to livelihoods in cities which are very complex in all fields. Koentjaraningrat has traditionally classified human livelihoods as: (a) hunting and gathering, (b) raising livestock, (c) farming in the fields, (d) fishing and sedentary farming with irrigation (Koentjaraningrat, 2002: 358).

In this connection, most societies are in some way marked by either stability or evolutionary transformation. However, in some cases, society can undergo devolutionary changes: it can change accordingly to a form that has the character of a previous evolutionary stage (Sanderson, 2003: 67). That is how the people of Ujunggagak Village adapt so that they can survive in environmental conditions that are different from those in other areas.

5. DISCUSSION

For the people of Ujunggagak village, tidal flooding and fresh wa¬ter crises are considered normal, because they are able to recognize and adapt well to their environment. The main factor is that they do not want to move to another place, because their main livelihood is fishermen who rely on the sea and the Segara Anakan Lagoon which gives a lot of life expectancy. After all, Ujunggagak Village is their birthplace and they feel comfortable living in it.

What is the form of local wisdom that has the value of mitigating the flood and fresh water crisis in Ujunggagak Village, Kampung Laut District? Local wisdom is the cultural identity or personality of a nation that causes the nation to be able to absorb, even process culture from outside / other nations into its own character and abilities (Wibowo, 2015: 17).

Local wisdom in the community characterizes their identity and personality, so that it always adapts to the view of life of the surrounding community so that there is no shift in values. Local wisdom is a means of cultivating culture and defending oneself from unfavorable foreign cultures. Local wisdom is a view of life and knowledge as well as various life strategies in the form of activities carried out by local people in responding to various problems in fulfilling their needs.

The same thing was also expressed by Alfian (2013: 428). He said, local wisdom is defined as a view of life and knowledge as well as a life strategy in the form of activities carried out by local communities in meeting their needs. Local wisdom is a custom and custom that has been traditionally carried out by a group of people from generation to generation which is still maintained by certain customary law communities in certain areas.

Based on the above understanding, it can be interpreted that local wisdom can be understood as a local local idea that is wise, full of wisdom, good value, which is embedded and followed by members of the community.

Disaster mitigation in traditional societies is a form of local wisdom. This local wisdom can minimize the impact of the disaster that occurs. Community-based mitigation or preparedness to deal with natural disasters of tidal floods and fresh water crises needs to be socialized, one of which is the existence of local wisdom that has been implemented by the community from generation to generation. Thus, this local wisdom is not lost. Not only socialization that must be done, but strategic communication must be communication that is intelligent, understandable, consistent, relevant and reflects certain procedures and policies.

The local wisdom of disaster mitigation carried out by the people of Ujunggagak village is generally preventive in nature. Disaster mitigation in traditional societies is defined as the efforts made to prevent a disaster or reduce the impact of a disaster. This statement was emphasized by Subiyantoro (2010: 45), which states that disaster mitigation is actually related to the disaster management cycle in the form of handling efforts before a disaster occurs.

Meanwhile, according to the Decree of the Minister of Home Affairs of the Republic of Indonesia No. 131 of 2003, mitigation (defined as taming), namely efforts and activities carried out to reduce and minimize the consequences of disasters which include preparedness and vigilance. Studies on local wisdom and disaster mitigation in traditional communities in Indonesia related to natural and human resources.

In the view of the people of Ujunggagak Village, humans and nature are one unit because both are creations of the Almighty. Nature and humans are believed to both have spirits. Nature can be friendly if humans treat wisely and vice versa will be angry if they damage it. In general, traditional societies assume that the environment around them is owned and inhabited by other than humans. Therefore, humans who live around them must respect and guard their various places, such as forests, mountains, valleys, and water sources. In fact, not a few of these places are used as sacred or sacred places (Adimihardja, 2009: 81).

The social conditions of the community still adhere to the habit of mutual cooperation because the family relations of the people of Ujunggagak Village are still very close. Disasters that are prone to occur in the Kampunglaut sub-district are a phenomenon where floods tend to increase with higher intensity.

One of the areas in Kampunglaut sub-district that is regularly flooded by the year is Panikel Village, which causes many people's houses to be flooded. The impact caused by flooding is a loss of property. In addition, damage to transportation facilities and infrastructure, destruction of agricultural and irrigation lands and disruption of economic life are problems that always occur due to flooding. Another impact of flooding is the emergence of disease outbreaks and the decline in the quality of public health.

However, it is different from the people of Ujunggagak village, even though it is located at the end of the Kampunglaut sub-district, large tidal floods rarely occur. Likewise, it is supported by the habits carried out by the people of Ujunggagak Village to mitigate tidal flood disasters, namely the existence of village cleaning. The community has the knowledge that when the rainy season has entered, the community will start cleaning the village such as burning garbage, cleaning river flows, evacuating items that may be submerged in floods and raising the front porch of the house.

Actually, the existence of Nusaakambangan Island and the Segara Anakan Lagoon also have an important role in mitigating flood disasters. Because, Ujunggagak Village is protected by Nusakambangan and the Segara Anakan Lagoon, and the sedimentation of mud is used to elevate people's houses so that floods do not enter the house. The increasing occurrence of disasters in Kecamatan Kampunglaut is currently unpredictable, so the government often conducts counseling about the importance of disaster mitigation. This is done so that knowledge about disasters is indispensable so that people become disaster resilient communities and are able to adapt to the disasters they are facing. The essence of adapting to the environment is that society as a system must be able to cope with complex external situations and society must be able to adapt to its environment.

In addition, the function of knowledge about disasters is very important to increase community capacity in dealing with disasters. If the community has a lower level of capability or capacity compared to the level of disaster, the threat becomes a disaster. Disasters based on local wisdom must explain that local wisdom that has been in the community so far can be used as disaster mitigation. For this reason, the community must be able to take advantage of the surrounding environment so that people can more quickly understand what is being said.

This is in accordance with the opinion of Cimer (2007 in Maretta, 2016) "Information or material that is often used in everyday life is easier to understand". Based on the occurrence of disasters and the condition of the community which is prone to disasters, it must be realized that an understanding of natural disasters and how to adapt must be owned by everyone. Concrete efforts are needed in understanding and anticipating natural conditions in an integrated manner. One form of this is through efforts to reduce disaster risk by providing ethnopedagogical education.

Therefore, action is needed to re-elevate the value of local wisdom as a source of innovation in the field of education based on local community culture, by empowering it through the adaptation of local knowledge, including reinterpreting the value of local wisdom, and revitalizing it according to community conditions. Local

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wisdom that is manifested in the form of adaptive behavior to the environment has an important role in disaster risk reduction.

Local wisdom that applies in a community has a positive impact on the community in facing and responding to upcoming disasters. Local wisdom is the extraction of various experiences that have been passed down from generation to generation from ancestors or previous communities who have experienced disasters (Marfai, 2012).

Currently, the awareness and understanding of the community towards various kinds of disasters that often occur in the vicinity is still very low. Meanwhile, the current disaster education program has not comprehensively touched all elements of society and institutional elements. As one example, elements of formal education have not been significantly involved in disaster mitigation efforts so that when they become the general public they do not have knowledge of disasters (Setyowaty et al.; 2016, 2017).

One form of disaster mitigation for the people of Ujunggagak Village in dealing with the banjr rob is by working together to clean the village by cleaning waterways and jointly planting mangrove trees in the Segara Anakan Lagoon. Meanwhile, to deal with the fresh water crisis, the community always looks for springs and makes rainwater reservoirs.

In the view of the people of Ujunggagak Village, humans and nature are one unit because both are creations of the Almighty. Nature and humans are believed to both have spirits. Nature can be friendly if humans treat wisely and vice versa will be angry if they damage it.

The community of Ujunggagak village in carrying out disaster mitigation is more of a preventive nature. One form of disaster mitigation for the people of Ujunggagak Village in dealing with the banjr rob is by working together to clean the village by cleaning waterways and jointly planting mangrove trees in the Segara Anakan Lagoon. Meanwhile, to deal with the fresh water crisis, the community always looks for springs and makes rainwater reservoirs.

What is the form of curative action to overcome tidal flood disaster in Ujunggagak Village, Kampunglaut District? Knowledge of disasters in disaster education programs is not such a heavy task. The challenge is how disaster education programs can encourage the public to update information, increase the level of risk perception, maintain awareness, and make and update the right preparation for future disasters. As a follow-up, it is necessary to develop various teaching and learning approaches that are able to achieve the main goal of disaster risk reduction: making people have a culture of disaster preparedness (Adiyoso & Kanegae 2013).

Education is one way that can be taken for dissemination, education and adaptation of disaster mitigation to the community. The adaptations that humans make to their environment including the physical environment and natural processes such as disasters show an interrelation between humans and the environment (Suparmini, et al. 2013).

This interrelated relationship is a change in a component will cause other changes and vice versa. So in this context, the human ecology approach emphasizes or shows the interplay between the environment and the physical processes that take place in it and the cultural system, the process of interacting with the surrounding environment and then creating local culture and wisdom.

The curative form of dealing with tidal flooding in Ujunggagak village is to evacuate to a shelter or take a temporary ride in a relative's close house which is not flooded. But now this has not happened for a long time, because now many residents have elevated their houses.

However, in facing the fresh water crisis, they are still trying to find a solution because there are 400 families living in Ujunggagak Village who rely on rainwater for their daily needs. They collect rainwater in a reservoir in their house. They will immediately flow the reservoir into their home tub.

During the dry season, they lose this main water source. Residents in the village then rely on water from the Citandui River or springs on Nusakambangan Island, or some residents take water from water sources in Cungurasu and Karangbrajan which are quite far away. To get clean fresh water is quite expensive. The tariff for operational water extraction from the Cungurasu source varies, between Rp. 7,000 to Rp. Rp. 15,000 for a relatively large boat with a capacity of 10-25 pips. Meanwhile, IDR 2,000 s.d. IDR 3,000 for a smaller boat or with a capacity of about 10 bubbles. They buy from boat owners who usually carry water by boat. However, the water capacity carried is inadequate compared to the number of families who need clean water.

The water source of Cungurasu is about 125 meters away. The water, which is sucked in by a pumping machine, is channeled until it is inflated using a pipe installed with self-help capital. This tool is used to serve the clean water needs of the community in a number of hamlets in Kampunglaut and its surroundings, such as Muara Dua Hamlet, Panikel, Bugel (Panikel Village, Kampung Laut District), Plendokan Hamlet, Karang Anyar, Liberen (Ujunggagak Village, Kampunglaut), Majingklak Village (Ciamis, West Java), Pancang Ham¬let, Purwodadi and Cikuning Villages (Rawaapu Village, Peti¬mu¬an District, Cilacap), Liaur Hamlet, Sidakaya Village, Gandrung-mangu District, Cilacap.

To make ends meet, people must switch their livelihoods from fishermen to farmers. Thus, the people in this village have a life adaptation pattern that is different from people in other regions. Ujunggagak village has fertile land and is good for agriculture because the mud from sedimentation is fertile for agricultural land.

One of the new forms of adaptation for people in this region is experiencing a shift in their livelihoods from fishermen to farmers and other alternative livelihoods to sustain their lives. At first, most of the people made their living as fishermen who relied on the Segara Anakan Lagoon as a place for marine life to live. However, due to mud sedimentation brought about by the erosion of the Citandui, Cieureum, Donan and Cimeneng rivers as well as several other small rivers that drain directly into Segara Anakan, this lagoon is increasingly shallow resulting in reduced income for the people of Ujunggagak village.

The farmers in this village are clever enough to take advantage of the situation or season so that they are able to adjust their agricultural conditions the same as the farming community who cultivates rice fields on the mainland who can harvest rice twice a year. In addition, the way of life of the people here is still influenced by their culture from generation to generation and has not been so influenced by culture or life outside of Kampunglaut District. This is evidenced by the lifestyle of the Kampunglaut community which is still classified as very simple.

The curative form of dealing with tidal flooding in Ujunggagak village is to evacuate to a shelter or take a temporary ride in a relative's close house which is not flooded. However, at present, this has not happened for a long time, because now many residents have elevated their houses. However, in the face of the fresh water crisis, they are still working on a solution by relying on rain-fed for their daily needs.

6. CONCLUSION

From the explanation above, the following conclusions are presented:

1. The flood disaster and fresh water crisis for the people of Ujunggagak village are considered normal. They are able to recognize and adapt well to their environment. The main factor they do not want to move to another place is because their main livelihood is fishermen who rely on the sea and the Segara Anakan Lagoon which gives them a lot of life hope. Moreover, some members of the Ujunggagak village community, they were born and raised in that area, so they feel comfortable with whatever happens in the area.
2. In the view of the people of Ujunggagak Village, humans and nature are one unit. Both of them are the creation of the Almighty. Nature and humans are believed to both have spirits. Nature can be friendly if humans treat wisely and vice versa will be angry if they damage it.
3. The community of Ujunggagak village in carrying out disaster mitigation is more of a preventive nature, one form of disaster mitigation for the community of Ujunggagak village in facing a banjr rob is to work together to clean the village and clean the waterways. They also planted mangrove trees together in the Segara Anakan Lagoon. Meanwhile, to deal with the fresh water crisis, people look for springs and make rainwater storage tanks.
4. The form of curative in dealing with tidal flooding in Ujunggagak village is to evacuate to a shelter or take a temporary ride in a relative's close house which is not flooded. but now this has not happened for a long time, because now many residents have elevated their houses. However, in facing the fresh water crisis, efforts are still being made to solve them. They rely on rainwater for their daily needs, the rainwater they collect in the reservoirs in their homes. They will immediately flow the reservoir into their home tub.

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