

TOURISM POLICY PLANNING SUPPORT IN MANAGEMENT OF JAPANESE VESSELS ON THE MALILI RIVER, EAST LUWU REGENCY

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Abstract

The existence of warless ships of independence on the Malali River is widely known by the public. People are more familiar with Japanese ships because stories about Japanese soldiers are more prominent. The aspirations of the community and the government to utilize and manage the existence of this ship as a tourist attraction. This study aims to identify the presence of ships stranded in the Malali River as well as formulate the extent of existing policy planning support to utilize it as a tourist attraction. Community approach methods and descriptive analysis and scoring were used in this study. The results showed that a number of characteristics and shapes of the ship's body showed that this ship was made in America and was a warship from America. Meanwhile, based on the analysis of ship conditions, water conditions and the condition of sludge deposits around the ship support the reduction of corrosion processes on ships. The planning offered consists of several options including moving the ship to the opposite side of the ship and enforcing the ship in its original place. The results showed that the option of enforcing ships in place all received full support from the surrounding community so that it was not far from community stories. Meanwhile, in optimizing its development, the transfer of ships across the river is the best option in terms of land availability.

Keywords- Japanese Ship, Malili, Tourism Planning

INTRODUCTION

The United Nations Convention on the Law of the Sea (UNCLOS, 1982) asserts that States have a duty to protect objects of archaeological and historical nature found in the sea and will work together for this purpose. East Luwu Regency has a Japanese ship located in Balantang Village, Malili District has a history during the war of independence and the 2nd World Battle. This Japanese ship was on the Malili River and was in a partially submerged state. The existence of Japanese ships is a potential to be utilized and managed for the benefit of education, preservation of cultural heritage to economic development activities such as tourism.

Tourism in Law Number 10 of 2009 is affirmed as a variety of tourist activities and is supported by various facilities and services provided by the community, entrepreneurs, government, and local governments. Based on the Tourism Law Number 10 of 2009, defining tourist attractions is everything that has uniqueness, beauty, and value in the form of a diversity of natural wealth, culture, and man-made products that are the target or destination of tourist visits. According to James J. Spillane (1997), what is meant by tourist attractions is: in the form of natural appearances such as flora and fauna, landscapes, plants, and human cultivation products such as museums, monuments, temples, historical buildings, tourist attractions that include humans





and traditional music culture, dances and customs". In addition, the things that cause tourists to be interested in visiting a tourist attraction are: 1) Natural beauty with its various variations 2) Climatic conditions 3) Culture and attractions 4) History and legendaryness 5) Ethnicity with its tribal nature and finally 6) Accesibility, that is, the ease of achieving it (James J Spillane, 1997).

In developing a tourist attraction, of course, it requires careful consideration and planning in order to analyze the tourist attraction to be developed and pay attention to the driving factors. The concept of 4A tourism product components proposed by copper can be one of the references in tourism development. According to Pitana and Diarta (2009: 134) tourism development strategies must be able to combine aspects that support the success of the tourism world. These aspects are access to transportation and marketing channels, tourism infrastructure, social interaction and linkages with other sectors, resilience to tourism impacts, local community resistance and others.

According to the Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage in article 73 it is explained that:

- (1) The Zoning System regulates the function of space in the Cultural Reserve, both vertically and horizontally.
- (2) Vertical Zoning arrangements can be made against the environment above the Cultural Reserve on land and or on water.
- (3) The Zoning System as referred to in paragraph (1) may consist of:
 - a. core zone;
 - b. buffer zone;
 - c. development zone; and/or
 - d. Support zone
- (4) The determination of the area, layout, and function of the zone is determined based on the results of the study by prioritizing opportunities to improve the welfare of the people

According to Marrioti in Yoeti (1993:160-162) states that tourist attraction is everything that is found in the tourist destination area which is an attraction for people to visit. The purpose of implementing this activity is to establish policy support, appropriate and economical lifting mechanisms for the existence of this Japanese ship as well as recommend utilization and management for the future. The object of study was a Warship during independence, which the local people around the Malili River referred to as the Japanese Ship. This ship is located in Balantang Village, Malili District, and East Luwu Regency.

The role of the government is very important in formulating policies and regulating the management of underwater archaeological sites as a tourist attraction, especially to support aspects of environmental conservation.





METHODS AND PROCEDURES

The methods carried out in this study are experimental methods and historical studies (literature). The experimental method can be defined as a systematic method to build causal relationships (Directorate of Education Personnel, 2008). The experimental method is the core method of the research model that uses a quantitative approach. Historical method is carried out by looking at the written evidence that exists on the object of study. This method is used to be able to describe clearly and legally the history related to the existence of ships.

The implementation of policy support study activities in the management of Japanese ship tourism attractions is carried out with a number of stages of activities, namely:

- A. Stages of Secondary Data collection. At this stage, collections related to the presence of ships are carried out from research reports, mass media, and a number of legal reviews.
- B. Stages of primary data collection. Primary data collection carried out in the form of observation of the presence of ships and the surrounding environment, river water sampling, soil sampling, metal sampling to be able to further carry out laboratory tests
- C. Stages of historical tracing and study. Activities at this stage are more about tracing research results and official reports from various parties related to the history of the ship.
- D. Management boxing. The reviews carried out are related to the management of existing ships in various regions and countries. In this review, identification of utilization, completeness of facilities and location of ship stays that have been carried out in various places was carried out.
- E. Laboratory testing. Laboratory tests were carried out on river water samples, soil samples and metal samples. Water and soil sample testing is carried out in the Laboratory, while Metal testing is carried out at the Polman Laboratory Ceper Manufacturing Polytechnic, Batur, Tegalrejo, Ceper, Klaten
- F. Data analysis and interpretation. Data analysis is carried out related to existing historical data, lab test data and interpretation of policy review data related to cultural heritage. At this stage, an analysis of considerations for the use and management of ships in the future is also carried out as well as an alternative study of ship lifting that can be carried out.
- G. Formulation of recommendations. This activity is carried out more on the formulation of the final recommendations carried out on the data analysis carried out.

RESULT AND DISCUSSION

The existence of Japanese ships in Balantang Village, Malili District, and East Luwu Regency has existed since the time of Indonesian independence. The stranding of padboats on the west side of the Malili River is very close to residential areas. The closest distance between the ship and the settlements of the population is 6 meters. With this distance, it is clear that in everyday life, the local community sees the existence of the ship and interacts / uses the ship in their daily lives.







The data obtained shows that many Japanese Naval Vessels and Japanese Merchant Vessels have sunk in Indonesian waters. The number reaches about 175 ships consisting of 44 navy ships and 131 Japanese Commercial ships. The data of sunken ships including 44 Japanese Navy ships consisted of 10 destroyers, 11 minesweepers, 2 frigates, 2 submarines, 1 torpedo boat, 2 tank landing ships, 2 minelayers, 1 seaplane tender, 8 special submarine chasers, 1 yacht, and 3 cruisers. The ships sank mostly due to attacks from submarines totaling 26 ships, army craft totaling 7 ships, mine totaling 3 ships, aircraft totaling 2 ships, surface craft totaling 1 ship, and army mine totaling 1 ship.

Meanwhile, data on Japanese Commercial Ships that sank in Indonesian waters amounted to 131 ships consisting of 78 cargoes, 21 passenger-cargoes, 17 tankers, 6 converted tenders, 3 converted net tenders, 2 converted seaplane tenders, 1 converted submarine tender, and 1 transport. In general, the sinking was caused by 81 submarines.

Other causes are army aircraft totaling 16 ships, marine casualty totaling 6 ships, aircraft totaling 6 ships, surface craft totaling 5 ships, navy land-based aircraft totaling 5 ships, navy carrier-based aircraft, navy aircraft, and army mine totaling 1 ship each. Meanwhile, the sinking of Inabasan Maru Sakura Maru, and Horai Maru was caused by various weapons derived from army aircraft, aircraft, and surface craft.

The results of sorting the location of sunken ships based on the coordinate points of the Western Waters of Indonesia obtained a total of 20 Navy ships and 49 Commercial ships. Meanwhile, the ships sunk in the Eastern Waters of Indonesia totaled 24 Navy ships and 82 commercial ships. Based on these figures, it can be concluded that the number of Japanese ships sunk in the Eastern Waters of Indonesia is more than that of Western Indonesia.

The Japanese ship stranded on the Malili River, referring to a number of ship identities, was a ship built in America. For canon/Cannon is a production of the US Naval Gun Factory more precisely a production of the Washington Naval Yard. The size of the Cannon is 3 inches with the Mark II classification. Referring to the identity of this Cannon, it can be argued that this was indeed a United States production or that at this time was an allied army. On the cannon on this ship, it can be seen that on some parts of the wreck there is the inscription U.S NAVAL GUN FACTORY – W.N.Y – 3IN PT VOESTAND. Based on the results of the investigation, the U.S NAVAL GUN FACTORY was a maintenance and maintenance site for United States Navy ships inaugurated on March 17, 1800. Then since 1883, the institute was dedicated to producing war armaments for the United States Navy. The brief information indicates that the ship found in Malili Subdistrict, East Luwu Regency is most likely not a Japanese-owned ship but the United States. However, evidence regarding the identity of this vessel cannot be traced further due to the limited information it has and the limited data obtained. Besides the description on the ship's Cannon, the number inscription on the ship's body cannot be defined based on japanese or union records. When considering the general form of similar ships, the ships on the Malili River are classified as AM Minesweeper type and transom type. Looking at the stern shape of the ship, the Japanese ship is classified as Transom but with a small size. The L-B ratio size is generally 9 to 11-1. The substation equipment is classified as Stick Mast. The type of gun on Japanese ships is a Single Open Mounth type gun. This type is more







compact and can be used for various short-range combat and for anti-aircraft. Taking into account a number of characteristics of existing ships, it can be concluded that this ship is a patrol boat that comes from the sea to the mainland. Length between 35-40 meters overall. The closest model is the YP-District Patrol Vessels-AM Similar. With this model, the estimate ranges from 70 tons to 120 tons. With current conditions, it is estimated that more than 60% of the ship's facilities have been lost, so it is estimated to weigh between 30 tons and 50 tons. Based on the results of surveys and interviews with the public, at least the ship's engine is still there, there is a hole in the hull on the right side of the front and a number of wheelhouse completeness has been lost,

Corrosion is the degradation or deterioration of metal quality due to the chemical reaction of a metal with its environment (Bradford, 2001; Bahri, 2007; & Shidiq, 2013). Some important indicators that play a role in the classification of the rate of corrosivity in soils are: water content, pH, mineral type, soil type resistance value and other chemical-physical parameters (Warnana, 2015 & Putra, et al., 2018). With good soil corrosivity mapping, it is hoped that it can further identify potential areas at risk of high corrosivity (HSE, 2011). The percentage of grain size (texture) on the soil affects the variation in the resistance value of the soil type. The higher the percentage of fine grains on the soil, the higher the moisture content (Farahnaz et al., 2018). The higher the water content in the soil, the higher the conductivity of the soil and the lower the resistance value of the type (Irianto et al., 2014). The resistance value of the soil type is low (high conductivity) then the corrosivity is high. Conversely, when the resistance value of the soil type is high (low conductivity) then the corrosivity is low (Warnana et al., 2015). Soil erodibility, Influence of tree roots directly and indirectly (Pritchard et al., 2013). Corrosion is influenced by water content, soil resistivity, pH, dissolved oxygen, temperature and microbial activity (Wasim et al., 2018). Corrosion increases with increasing soil moisture content (Noor & Al-Moubaraki, 2014).

According to Diana Hendrawan (2005) rivers are widely used for human purposes such as water reservoirs, transportation facilities, irrigation of rice fields, livestock purposes, industrial purposes, housing, catchment areas, flood control, water availability, irrigation, places to raise fish and also as recreational places. Corrosion is the degradation of a material (usually a metal) due to the electrochemical reaction of the material with its environment (Bardal, 2003). Many experts also mention corrosion as a decrease in the quality of metals due to electrochemical reactions with their environment (Trethewey, K. R. & J. Chamberlain, 1991). According to Hakim, A.R, (2012) Corrosion or corrosion is an event of damage or deterioration in the quality of a metal material caused by a reaction to the environment. According to Al Hakim (2011) in general, the corrosion mechanism that occurs in a solution starts from the metal oxidized in the solution and releases electrons to form positively charged metal ions. According to Halwan Jaya et al (2010) corrosion has various forms. Each form of corrosion has different characteristics and mechanisms.

In the shipping industry, steel is often used in the manufacture of a material, one of which is ship plates with low carbon steel content. Where, the steel plate element consists of 97% Fe







(iron) with another element content of 1.67 carbon. Ship plate is a material used as ship skin that is directly related to environmental factors.

In many cases, shipwrecks and a number of marine objects are interesting tourist objects and attractions and have proven to have brought many tourist visits. A number of management of ships and marine objects are:

Tulamben Village in Karangasem Regency, Bali has an underwater cultural heritage site developed as a special interest tourist attraction, namely the United State Army Transport Liberty ship or better known as the U.S.A.T Liberty. This war logistics ship belonged to the United States Army which was used during World War II (1942-1945). This underwater cultural heritage site of U.S.A.T Liberty is about 60 meters towards the sea off the coastline of Tulamben Village. Nowadays, the condition of the ship has been overgrown with sea corals so that the ship's iron material is not clearly visible. This ship can be encountered at a depth of 10 meters with conditions that are tilted towards the open sea. In addition to having high historical value, the U.S.A.T Liberty site has also been developed by the local community as a leading tourist attraction in Karangasem Regency. The rate of tourist visits to the site reaches 70,000 per year based on data in 2014. As for the daily tourist visit rate of about 100-200 people per day. The development of the site was carried out in three phases, namely the initial phase (1942-1979), pioneering (1980-2005) and development (2006-present). In the initial phase, Tulamben Village is one of the poorest villages in Bali with a very low population income.

Karimunjawa Islands located in East Java Province is one of the popular tourist destinations in Indonesia with a variety of potential underwater archaeological heritage sites. This potential is owned because of the very strategic geographical location of the Karimunjawan Islands, located in the center of the shipping lanes and trade of the Java Sea. Indonoor site is the most visited area by tourists. However, the activity carried out on this site is diving so that tourists must have a diving certification with assistance from a dive guide. The development of underwater tourism activities in the Karimunjawa Islands has encouraged the visit of domestic and foreign tourists every year so as to open business opportunities for the surrounding community through the provision of restaurants, souvenir centers, homestays, and dive centers and so on. These tourist activities also open up job opportunities for the local community, such as tour guides, diving guides, transportation providers, diving equipment rentals and others. The tourists who visit the Karimunjawan Islands are dominated by repeater tourists. These tourists are interested in visiting in order to enjoy the beauty of marine natural life and visit unique, interesting and challenging underwater archaeological sites so that they can achieve their own satisfaction.

The Pearl Harbour National Memorial is one of the historical sites of the United States located on the Island of Oahu, Hawaii State, precisely the Joint Base Pearl Harbour-Hickam. The construction of the site was approved by the 34th President of the United States, Dwight D. Eisenhower in 1958 to commemorate the services of U.S. military personnel who died in World War II, particularly in the Pearl Harbor Area. The site was later inaugurated as a U.S. national historic landmark in 1964. The Pearl Harbour National Memorial is one of the most visited tourist attractions in Hawaii, specifically Ohau Island. At The Pearl Harbour National







Memorial Visiting Center, visitors can visit two exhibition galleries, Watch Theater, audior tours, the USS Bowfin Museum and Submarine Park, the Battleship Missouri Memorial and the Pacifis Aviation Museum.

The Submarine Monument (Monkasel) is one of the historical and education-based tourist attractions in the city of Surabaya located on Jalan Pemuda No. 39, Embong Kaliasin, Genteng District. This tourist attraction is the largest submarine monument in Asia using the former KRI Pasopati 410 which was used in the operation to liberate West Irian during the Dutch colonial period. KRI Pasopati 410 has an SS Whiskey Class type made in Vladi Wostok, Russia in 1952 and joined the Indonesian Navy since January 29, 1962. The main attraction of Monkasel is the existence of the submarine itself which has high historical value for the Indonesian nation, especially the people of Surabaya. This ship represents the greatness of Indonesia as a maritime nation in the light age that can motivate visitors to get to know and love marine history better.

The development of the tourist attraction of Japanese ships, will be carried out by considering appropriate tourist activities by examining the physical and non-physical aspects of artifacts and existing locations. The type of tourist attraction of war relic artifacts is interesting and will be able to provide many benefits. The benefits will be quickly and deservedly felt if they meet the standards of tourist attraction management.

Some of the important benefits of developing the tourist attraction of Japanese ships can include several elements, namely education, recreation, environmental and socio-cultural conservation of the community, empowerment of small communities, architecture and accessibility.

a. Educational Elements

The tourist attraction of Japanese ships can be an educational place for students in East Luwu district as well as from outside. The heritage / historical aspect is the main capital of management as a tourist product that provides knowledge about the past related to the existence of the Unitary State of the Republic of Indonesia (NKRI) and stimulates national insights based on historical habitation. Although the artifact of the ship is a Japanese warship (made in the USA) and does not belong to the Indonesian nation, but with management as an educational tour will direct the thinking of the younger generation of the nation, especially that Indonesia (East Luwu) was once colonized by foreign nations. This colonization is not without cause, but because of the resources or wealth owned. The artifact is historical evidence that ancestral lands were once colonized, contested and recognized as belonging to many foreign nations. The learning is not to let this happen again and the way is to improve academic abilities and is based on values to realize development that is able to provide welfare for the community in the future. Realizing something to learn in the tourist attraction of artifacts like this, can be done by managing educational tours that prioritize historical information, descriptions and understanding of philosophical values.





b. Recreational Elements

The management of the tourist attraction of Japanese ships to meet the recreational element can be done by presenting tours that can include the form, function and benefits of a tourist product. Including the location (site) as a tourist area meets aesthetic, ethical, attractive aspects of the view, invites attention to be visited concretely (meets the aspects of Sapta Pesona). There are activities or activities (something to do), even if possible there are thematic aspects of something to buy related to the core of the tourist product.

c. Elements of Environmental Conservation and Socio-Cultural Society

The management of Japan's ship tourism attractions in environmental and socio-cultural conservation of the community is to pay attention to physical and non-physical tourist attractions. This management includes hygiene arrangements, environmental governance, and community participation to help maintain the tourist attraction of Japanese ships.

d. Elements of Small Community Empowerment

The management of Japan's ship tourism attractions regulates the public to be able to feel the benefits of building Japanese ship tourism attractions. Small communities are sought to be able to experience economically the existence of Japanese ship tourism attractions. The participation of the surrounding community is open to selling food and drinks and helps maintain the sustainability of the tourist attraction.

e. Architectural and Environmental Elements

The management of the tourist attraction of Japanese ships is aesthetically physical which is loaded with nuances of struggle and environmentally friendly. The addition of dioramas and other supporting facilities is well managed and has the opportunity to include modern techniques ranging from artifact settings, lighting and the use of information technology such as Augment Reality (AR) including Virtual Reality (VR).

f. Accessibility Elements

The management of the tourist attraction of Japanese ships is adjusted to the use of the site space / tourist area. If necessary, management of access, utilities and thresholds is carried out. If not managed properly, it can cause physical and social problems in the future.

Anthropologically, the artifacts of the tourist attraction of Japanese ships constitute a death monument. That is, there is no social and cultural connection with the existing conditions of society. The community around the artifact does not have special ties because of several important factors, namely that the ship is a ship belonging to a foreign nation. The most visible bond is because the artifact sites are in their territory.

Historically, the artifact did belong to Japan despite having a physical feature-the number of a ship made in the United States (1907). Historical evidence shows that on January 2, 1942 the Japanese side had conquered Manila (Philippines) in order to expand them as the "elder brothers" of the Asian nation (latently it was in the Japanese nation's interest to fulfill the logistics of the war such as cotton, rice, and other natural resources). The United States forces





that controlled the Philippines at that time surrendered defeated. Various military assets belonging to the United States are controlled by the Japanese.

On June 1, 1942 Jakarta and many other parts of Indonesia were conquered by the Japanese and the Dutch who at that time-controlled Indonesia surrendered defeated. Everything belonging to the Netherlands and its allies such as the system of government, infrastructure, machinery including warships was absolutely taken over by the Japanese.

By 1942 the Japanese had occupied Sulawesi and became Makasar as the center of the Eastern Fleet Navy. The Japanese did not change the government system and inherited the Dutch system of government (important positions were occupied by the Dai Nippon side). Datu Luwu's position in the civilian government while the military government was held by the Japanese. In running the civilian government Datu Luwu was given freedom but remained closely monitored by the Japanese military government which was ready to punish civilian officials if they did not carry out the will of the Japanese. Datu Luwu at that time was Andi Kambo Opu Tenrisompa who was later exchanged by his son Andi Patiware who later held the title Andi Jemma (http://p2k.unkris.ac.id/id1/3065-2962/Sejarah-Tanah-Luwu_110372_p2k-unkris.html).

The determination of the area, layout, and function of the zone is determined based on the results of the study. Aspects and activities that will affect the survival and existence of Cultural Heritage such as the tourist attraction of Japanese ships are:

- a. **Preservation: conducting physical tests of artifacts and** conducting feasibility of artifacts and their utilization space.
- b. **Conservation**: structuring and developing artifacts and their utilization space involving technical and non-technical elements.
- c. **Exploitation**: namely conducting data-based research for packaging as a tourist attraction that has feasibility as a tourist attraction.
- d. **Interpretation**: Able to implement physically, socially, culturally through tourism aspects about the existence of artifacts and their use space for visitors and tourists. So that the attraction of Japanese ship tourism as a heritage can be a means of education while recreational or traveling.

Soil quality is measured to obtain results to the extent of potassium (K), Magnesium (Mg) and pH content in the soil. There is an early hypothesis that corrosion in the ship's metal will affect the condition of the soil. Based on the results of research and laboratory tests, the results were obtained that the content of potassium and magnesium was at a minimal value. In the laboratory testing process, there were 4 samples that were tested and obtained result data on the parameters of pH, DO, TDS, DHL, Salinity, Iron (Fe). Related to a number of these parameters, the following laboratory test results are conveyed:





Parameters Method Unit Result 1 Result 2 Result 3 Result 4 Ph Electrometry 7,88 8,07 7,95 8,40 3,77 Do Titrimetry mg/l 2,68 3,17 4,66 **TDS** 270 170 190 Gravimetry mg/l270 Dhl 421,87 265,62 296,87 Gravimetry mg/l 421,87 Salinity Argentometry 0,099 0,15 0,058 0,056 mg/l Iron (Fe) Spectrometry mg/l 0,441 0,40 0,096 Ttd

Table 1: Water Quality Test Results

Based on the results of the water test, it can be concluded that a stable pH, low TDS, low salinity level greatly affects the low corrosion level of the vessel so that the Iron (Fe) content in the water is low or even undefined. With these results it can be concluded that dissolution does not occur (very minimally) in the existing metal vessels.

Ferro metal (iron and steel) is a very important part of the industrial world, because starting from raw materials to the production stage in the industrial world always use it. Metal is an excellent conductor of heat and electricity, metal has ductile properties, metal has good wear resistance. However, metals also have many disadvantages when compared to other elements, because metals are easily corroded if they interact with the environment.

Based on the results of laboratory tests on the metal composition of Japanese ships, with the test method used ASTM E 415 - 08, with a Fe grade of 100, the following results were obtained:

Elements	Test Samples	
	430/21-S1092 (%)	Standard Deviation
С	0,224	0,002
The	0,081	0,038
Mn	1,758	0,279
P	< 0.0100	0,082
S	0,066	0,007
Cr	0,056	0,011
Mo	0,075	0,005
Ni	0,112	0,011
Cu	0,177	0,012
Al	0,056	0,003
Co.	0,025	0,004
Mg	< 0.0050	0,001
Nb	0,0090	0,008
It	0,0036	0,009
V	< 0.0050	0,002
W	0,208	0,060
Fe	97.13	0.218

Table 2: The Iron Composition of Japanese Ships







Based on the results of laboratory tests, it can be obtained that the iron (Fe) content is still very high, namely 97.13%, while manganese and carbon elements are still high. With this condition, the strength of the iron structure is still strong. When considering the results of the Nital Etching test with the IK test method. 5.4-1-4 results in which the density of the structure is still very high both in the TE50X and in the TE200X.

Until the existing condition, this shipwrecked warship, which was called by the local people called Japanese ships, was only used for the community as a place to dry clothes and bathing activities on the river. In line with the development of activities along the outskirts of the Malili River, considering a number of opportunities for the use of ships as an existing historical residence, the options for the use of existing ships in the future are:

- 1. Utilization as a tourist attraction. The use as a tourist attraction is offered so that the existence of Japanese ships can be built into a tourist attraction including the acquisition of tourist attractions, the provision of facilities, and increased accessibility to the location of the ship and ship services as a tourist attraction. As a tourist attraction, this Japanese ship must be able to attract people to come and buy existing tourist products.
- 2. Utilization as a monument. Its use as a monument will be added with a number of historical evidences and a spirit of struggle. The main purpose of developing this utilization was that its use as a monument would be the result of the events of the battle between the Japanese and allied tantara on the Malili River. With this event, it can be learned that outsiders (allies and Japanese) are scrambling to obtain existing territories and resources for their benefit, why the Indonesian people themselves do not take advantage of existing territories and resources.
- 3. Utilization as Education. Utilization as a means of education is inseparable from the events that occur around the ship and events that result in the ship being stranded. Educational Facilities are more about distributing historical information.

For these 3 Japanese ship utilization options, in the future it is necessary to combine the purpose and concept of this utilization. For this reason, in the utilization and development of Japanese ships, it will be developed as a monument as well as a tourist and educational attraction.

CONCLUSION

Referring to the cultural heritage law, the existence of ships when viewed from the time of stranding can be classified as cultural heritage. Therefore, changes to the ship should be made by minimizing changes made to the ship. The changes in question must aim at the use of cultural heritage as well as preservation and preservation efforts. Basically, all steel is unstable and tends to react with its environment, by forming oxide or carbonate compounds of a stable nature. NACE (National Association of Corrosion Engineers) defines corrosion as a deterioration in the quality of a material (usually steel) or its properties resulting from a reaction with its environment. Considering the water and soil conditions around the ship that have a physical and chemical character that does not support the occurrence of corrosion, considering the ability of the ship's metal to attract and press, it can be concluded that the condition of the





ship is capable of withdrawing the currently estimated ship weight. In relation to the concept of ship management, based on the results of the analysis, it was obtained that the highest level of feasibility, namely the ship, will be lifted and established in its current position. This alternative was chosen to maintain the value, history, story and attachment of the local community to the existence of the ship.

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