Cultural attitude and values towards underwater cultural heritage and its influences on the management actions in Indonesia

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Abstract
Understanding attitudes and values towards underwater cultural heritage (UCH) is critical element in determining appropriate approaches to a wide variety of planning and management actions. Management actions such as gaining support to protecting historic shipwreck and its associated relics, designing and implementing new management methods depend on an understanding of cultural norms and values of their success.

In Indonesia, historic shipwrecks and its associated relics are managed through two different policies. Cultural protection Act 11/2010 mandates protection on cultural heritage including underwater remains, and Presidential Decree 19/2009, regulated commercial management processes, incorporating UCH as marine resources with potential economic value, which might contribute to community welfare. These two paradoxical procedures have raised long debate between stakeholders, including government agencies.

Using individual interview, this paper attempts to understand cultural attitudes and values towards shipwreck and its relics in related government agencies in Indonesia, in which resulting the two deferent management approaches. Furthermore, this writing also examines the possible influences of these policies on the current management of UCH in this country.

Key words: historic shipwrecks and its cargoes, intrinsic value, commercial interest, private company

Introduction
Substantial amount of underwater cultural heritage in the form of historic shipwrecks and its cargoes are predicted lying off Indonesian Water. This form has lost mainly due to natural or accidental causes. Currently, there are twenty underwater sites documented, spreading from South China Sea to Java Sea. The character of the wrecks varies from one another. For example, the Cirebon wreck, found in Java Sea, is a 10th century wooden shipwreck containing large amount of artifacts from Five Dynasty Chinese ceramics to glass bottle from Iran, enriched history of an ancient trade in
maritime silk road, while in Tulamben, Bali lies beneath the water a World War II transport ship the *USAT Liberty*. Each wreck has its story, comprising valuable knowledge, technology and culture from specific periods and place, assigning it not only exceptional and irreplaceable (Smith & Couper, 2003) but also finite.

Therefore, some experts assert that historic shipwrecks are human legacy and it deserves protection and management, ensuring these heritage is interpreted and shared with the wide public and preserved for the benefit of present and future generations (Jameson and Scott-Ireton 2007; Spirek and Scott-Ireton 2003 see in (Leshikar-Denton, 2010). However, beside the concern of safeguarding the UCH, there is a distinct-profit interest towards historic shipwrecks. It is likely related to a different value assigned to the objects by different parties. Delgado (1988) examines the monetary benefit provided by historic shipwrecks, in particular its cargoes, besides cultural, historical, archaeological, aesthetic and recreational (Delgado, 1988). Public has witnessed how the *Geldermaelser* and *Vung Tau* were priced $16 million and $7,2 million respectively in the auction house. Some people have seen this commercial interest as threat against preservation and protection of the heritage. Kaoru and Hoagland (1994) supported that those values can overlap considerably causing conflict among parties over appropriate use of historic shipwrecks (Kaoru & Hoagland, 1994).

Overlapping interest towards historic shipwreck and its cargoes become an interesting issue on managing underwater cultural heritage in Indonesia. Legally, there are two distinct policies imposed in regard to managing underwater artifacts. First is a policy places this heritage as significant cultural, archaeological and historical remains required preservation and protection, while the other policy has governed the objects as marine resources with physical value, allowing consumptive use of the heritage.
Hypothetically, this paradoxical management type is influenced by knowledge, perception and attitude of people in a policy making level. Some studies have shown that people’s perceptions and attitudes towards particular objects or management issues are shaped by their knowledge, educational background, socio economic factors or management intervention (Allendorf et al. 2006; Shrestha and Alavalapati 2006; Xu et al. 2006; Alkan et al., 2009; Shibia 2010 see in (Htun, Mizoue, & Yoshida, 2012). This paper is about to portray and compare perceptions and attitudes of decision making level officers from two institutions in Indonesia, Ministry of Marine Affairs and Fisheries (MMAF), and Ministry of Education and Culture (MEC), towards an underwater cultural heritage and its current management. Both institutions plays significant role in managing UCH in the form of historic shipwrecks and its cargoes in this country. The result of the study might provide preliminary insight and support in developing appropriate management strategies towards historic shipwrecks and its cargoes in Indonesia.

Methods

Policies towards historic shipwrecks and its cargoes in Indonesia

Shipwrecks exploration in Indonesian water has a long history, started from the exploitation of the *Geldermalsen* in 1986. Before this period, there was no specific national mandatory on managing historic shipwrecks and its cargoes (Tanudirjo, 2008). Discovery of the *Geldermalsen* and the fantastic value of its cargoes became an eye-opening reality to the government in regard to the significance of historic shipwrecks, particularly its cargoes (Tanudirjo, 2008). In 1989, the Presidential Decree concerning Valuable Objects from the Sunken Ship commanded the government to form a special committee, which has responsibility to manage the cargoes discovered from shipwrecks, included permitting its exploration and exploitation (Decree No. 49, 1989). Since then, the monetary interest of underwater cargoes has become a concern in managing the UCH in Indonesia. Three years later, in 1992, Act concerning Protection of Cultural heritage had been released under Ministry of Education and Culture, and it mandated a protection of cultural resources in land and underwater (Act 5, 1992). The Act was revised in 2010 through Act 10/2010 and this new is clearly prohibited transferring cultural objects to other countries for any purposes but education and research.
However, another new act concerning Coastal Management (Act 27, 2007), released under Ministry of Marine Affairs and Fisheries, classifies historic shipwreck and its cargoes as marine resources, in which the protection and economic concerns can be mutually managed.

**Sample and Data Collection**

Perception and attitudes of the government officers from the two ministries regarding underwater cultural heritage were measured by a personal interview, using questionnaire. The questionnaires consisted of three sections, first is started questions to identify general knowledge about the valuable cargoes from shipwrecks, answered in Yes, No and Not Sure; the section 2 is 15 major statements covered in 3 parts, part 1 is meant to gauge perceptions on the state of the significance of an underwater heritage, part 2 scales the attitudes towards the current management of historic shipwrecks and its cargoes, and the last part is to identify responses on the management implication; then the section 3 is personal information. Perceptions and attitudes were measured by asking respondents to rate statements using Likert-type scale from 1 (Strongly disagree), 2 (disagree), 3 (not sure), 4 (agree) and 5 (strongly agree), few statements used strongly unacceptable to strongly acceptable form. The questionnaires were closed type, however few parts of the section 2, the respondents were given space to provide comments.

The respondents were gathered using non-probability method, with purposive sampling technique (Kumar, 2013). This paper only examined perception and attitudes of the decision making level officers (i.e. Head of Unit, Deputy Director and Director) from Ministry of Marine Affairs and Fisheries (MMAF) and Ministry of Education and Culture (MEC), focusing to the unit or directorate that has closely responsible in managing underwater cultural heritage. From MMAF, 9 high official members of Directorate of Coastal and Marine Affairs were chosen, while in the MEC, the target respondents were Deputy Directors of Directorate of Culture and Head of the Preservation and Protection of Cultural Resources Office. The total respondents from the two institutions were 18 people.

**Result**

The first section, the respondents were asked four general questions with a Yes, No or
Not sure answer to assess their understanding of the status of historic shipwrecks and its cargoes in Indonesia. Respondents who answered “yes” were preceded to the section 2 enquiring their perceptions and attitudes towards management of historic shipwrecks and its cargoes and the implication. In general, as it is written in table 1, all respondents from both institutions distinguished that historic shipwrecks and its cargoes are not only important but also protected. They also have knowledge, that these historic objects are opened for commercial purposes.

Table 1. General understanding on the status of Historic Shipwrecks and its cargoes

<table>
<thead>
<tr>
<th>Questions on survey instrument</th>
<th>Percentage Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you know about the valuable objects from the sunken ship or commonly known as BMKT?</td>
<td>100</td>
</tr>
<tr>
<td>Do you think historic shipwrecks and its cargoes are important?</td>
<td>100</td>
</tr>
<tr>
<td>Do you know historic shipwrecks and its cargoes are protected?</td>
<td>100</td>
</tr>
<tr>
<td>Do you know some of the cargoes, discovered from historic shipwrecks could be sent off to auction?</td>
<td>94.4</td>
</tr>
</tbody>
</table>

Perceptions of the officers on the significant values of an underwater cultural heritage

Concerning the significant value of an UCH in the form of historic shipwrecks and its cargoes, the respondents were asked to scale 4 statements. These statements are narrowed to portray perceptions of the officers towards the consumptive use and the non-use value of historic shipwrecks and its cargoes (See (Kaoru & Hoagland, 1994). The results as indicated in table 2 show the officers from both institutions have strong agreement on valuing historic shipwrecks and its cargoes. Both of them are aware that there are several different values attached to these entities. Shipwrecks and its cargoes are historically and culturally significant, framing intrinsic quality of maritime past, as many experts support that historic shipwrecks are a closed context reflecting the society of the time; it has the potential to provide information about the people on board, ship construction, navigation technology, and the goods it was transporting; however, beside those essential value, it also have short term economic opportunities gained from this
historic object (See Delgado, 1988; Huang, 2013; Hutchinson, 1996; Kaoru & Hoagland, 1994).

*Table 2. Perceptions of the officers on the significant values of the UCH*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Respondents-Scale (%)</th>
<th>Correl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting underwater cultural heritage is important (i.e. historic shipwrecks and its cargoes) because it has historical value</td>
<td>0 0 0 0 0 22.2 0.0 77.8 100 0.958</td>
<td></td>
</tr>
<tr>
<td>By managing historic shipwrecks and its cargoes provide livelihood and other economic opportunities.</td>
<td>0 0 0 0 0 66.7 6.0 33.3 33.3 0.853</td>
<td></td>
</tr>
<tr>
<td>The government should protect historic shipwreck and its cargoes in order to preserve national and cultural identity.</td>
<td>0 0 0 0 0 55.6 33.3 44.4 66.7 1</td>
<td></td>
</tr>
<tr>
<td>Artifacts from historic shipwreck, such as ceramics and jewellery, are highly valuable in the antique market.</td>
<td>0 0 0 0 0 22.2 88.9 77.8 11.1 0.160</td>
<td></td>
</tr>
</tbody>
</table>

n1 = 9 (respondent from MMAF), n2 = 9 (respondent from MEC); 1 - 5 = likert scale, 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree; Correl. = Correlation

**Perceptions of the officers on the current management of Historic Shipwrecks and its cargoes**

Currently, private company funds exploration of shipwrecks in Indonesian water. Consequently, they have rights to own 50% of the cargoes or 50% generated from the selling artifacts. The five statements in the questionnaire tried to explore how decision making level officers perceive the involvement of the third party in exploring historic shipwrecks and its cargoes, auctioning the artifacts, and an appropriate funding source. In response to the statements, as it is shown in the table 3, the respondents from both institutions scaled strongly agree to agree that the government has responsibility to provide funding support to exploring and managing the historic shipwrecks and its cargoes. However, interestingly, when they were giving an option whether the fund for exploration should be provided by the government or private, the responses were varied, 33,3% officers from MMAF agreed the exploration should be funded by the government, 33% of it opposed the idea and 22,2% was not sure. 55,6% from MEC preferred the private as fund source, instead of the government, yet 22% strongly agreed if the fund
support is from the state, while 11% was not sure. Even though, more than half of MEC’s respondent agreed the private providing fund for exploration, there were 33.3% of them refused the involvement of the third party would assist to manage and preserve historic shipwrecks and its cargoes.

Table 3. General Knowledge on the Status of Historic Shipwrecks and its cargoes

<table>
<thead>
<tr>
<th>Statement</th>
<th>Respondents-Scale (%)</th>
<th>Correl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration of shipwrecks and its cargoes should be conducted and funded by government not by private company.</td>
<td>n1, n2, n1,2, n1,3, n1,4, n1,5, n2,5</td>
<td>0.476</td>
</tr>
<tr>
<td>National policy allows private company to perform recovery excavation of historic shipwrecks and auction its cargoes off; then the selling income will be shared between government and private company.</td>
<td>0, 22.2, 11.1, 56.7, 0, 0, 55.6, 22.2, 33.3, 0</td>
<td>-0.067</td>
</tr>
<tr>
<td>We can auction off artefacts discovered from one shipwreck as long as the national museum has pick the Significant Representative Collection.</td>
<td>0, 0, 0, 77.8, 0, 0, 44.4, 11.1, 55.6, 11.1</td>
<td>-0.24</td>
</tr>
<tr>
<td>The government has responsibility to provide funding support to explore and manage historic shipwreck and its cargoes</td>
<td>0, 0, 11.1, 0.0, 0, 0, 44.4, 55.6, 44.4, 44.4</td>
<td>0.970</td>
</tr>
<tr>
<td>To help managing and preserving historic shipwreck and its cargoes in Indonesian water is by involving third party or private company to explore it</td>
<td>0, 0, 0, 33.3, 22.2, 11.1, 66.7, 44.4, 11.1, 11.1</td>
<td>0.659</td>
</tr>
</tbody>
</table>

Furthermore, the biggest difference between the officers from the two institutions is when they were asked their perception on getting the artifacts off to auction. Even though, the unique and rare pieces must be list as state property and prohibit for sale, still 77.8% respondents from the MEC against the idea of selling the underwater artifacts, and only 11% respectively scaled strongly agree and agree to this idea. While, 55.6% and 33.3% of the MMAFs’ officers settled with the notion of commercial interest. They commented, that principally they agree to bring the mass product artifacts off to auction but the rare one must belong to the country. Subsequently, strong negative correlation (See Rumsey, 2003) between officers existed, when they were asking their
opinion on the current National Policy in which allows private company to salvage and auction the underwater artifacts. There was strongly disagreement towards the policy (56.7% and 22.2%), even though 22.2% of MECs’ officers marked agrees towards it. While 55.6 and 33.3% officers from MMAF were consistently support this involvement.

**Attitudes of the officers towards the management implication**

Integrating commercial values of historic shipwrecks and its cargoes into the policy have evolved public perceptions towards the objects. Since 1989, number of private companies permitted to explore shipwrecks in Indonesian water has increased and hundred thousands of artifacts discovered along the shipwrecks (PANNAS, 2012). However, despite the fact that this practice attracts investment to the country, some people criticized the exploration and salvage activities in Indonesia are far concern to the money-making and tend to disregard the intrinsic value of the objects (Tanudirjo, 2008). The International Congress of Maritime Museums mentioned the exploration of the *Geldermalsen* as an example how commercial salvor destroy the historical value of the cargoes (See in Hallwood & Miceli, 2005).

Six statements in the table 4 examine attitudes and perceptions of decision making officers from two main institutions, that closely responsible for managing underwater heritage, towards the management implication of the current policy. There are some significant differences between the MMAF and MEC regarding the statement that income generated from investment on shipwrecks and its cargoes benefits the country. 66.6% MECs’ respondents resisted that business on shipwrecks is not profitable to the state, contrasting 66.7% of the respondents from MMAF. The correlation between the high official respondents is negative. Similarly, most of the MECs’ do not accept to gain revenue by selling artifacts, while more than half respondents from MMAF (66.7%) consider this policy as an agreeable. Interestingly, when the MECs’ officers were asked about banning the auction, the proportion of MECs’ (44.4%) who agreed and disagreed is similar.

Furthermore, a significantly higher percentage of the MECs’ (88.9%) believed the exploration of shipwrecks destroys the context of maritime history, while 56.7% from MMAF disagreed with the statement and one third of them have no knowledge
regarding the issue. From one perspective, it might understandable if the proportion of “not sure” answers were little high considering respondents from MMAF generally come from different study background such as environment and economic. Yet, one MMAF’s respondent stated exploration might destroy the context of history if there is no strong regulation existed. Despite strong agreement from MECS’ about destruction of historical context, there are slightly high proportion of its respondents (44.4%) accepted the exploration done by the private has contributed to the preservation and protection of the historic shipwrecks and its cargoes, even though 33.3% of them disagree with this. Some people believe that exploration and recovery of historic shipwrecks and its cargoes might be considered as one way to safeguard the objects from being illegally salvaged and also providing further opportunity of the wide public to access the objects.

Table 4. Attitudes and perceptions of the officers towards the management implication

<table>
<thead>
<tr>
<th>Statement</th>
<th>Respondents-Scale (%)</th>
<th>Correl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from business on underwater artifacts benefits the country.</td>
<td>0 22.2 11.1 66.7 11.1 0.0 66.7 11.1 11.1 0 -0.17</td>
<td></td>
</tr>
<tr>
<td>National policy should ban selling the cargoes discovered from shipwreck</td>
<td>11.1 0.0 11.1 44.4 44.4 11.1 33.3 44.4 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Exploration of historic shipwrecks and its cargoes, done by private, has contributed to the preservation and protection of underwater cultural heritage.</td>
<td>0 0 0 33.3 44.4 11.1 55.6 44.4 0 11.1 0.476</td>
<td></td>
</tr>
<tr>
<td>Exploration of historic shipwrecks and its cargoes, done by private company, has destroyed the context of maritime history.</td>
<td>0 0 55.6 0 33.3 0 11.1 88.9 0 11.1 -0.27</td>
<td></td>
</tr>
<tr>
<td>Business on shipwrecks and its cargoes attract more investment to Indonesia</td>
<td>0 1 11.1 55.6 22.2 0.0 55.6 22.2 0 11.1 0.036</td>
<td></td>
</tr>
<tr>
<td>Government auctions off artefacts discovered from shipwrecks to gain country’s economic income.</td>
<td>0 44.4 11.1 33.3 11.1 11.1 66.7 11.1 11.1 0 -0.39</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion and Conclusion**

This survey was conducted to accomplish the main task of determining the perceptions and attitudes of the decision making level officers from different institutions towards historic shipwrecks and its cargoes. As it is predicted, the two institutions showed
negative correlation for particular commercial interest issue. The policy on sending artifacts off into auction becomes sensitive among respondents from the MEC. Kaoru and Hoagland (1994) noticed that some individuals might find commercial attachment to the historical objects is offensive. To inform, all of the interviewees come from similar background, archaeologists and historians. Their knowledge on the historic objects might associate with their perception and attitude. In parallel with some studies resulted that greater in knowledge are associated with greater influence of attitudes on behavior (See Fabrigar, Smith, Petty, & Crites Jr., 2006). On the other hand, high officers from the MMAF tend to consider the consumptive use over the non-use value of the historic shipwrecks and its cargoes (See Kaoru and Hoagland, 1994). They argue that historic shipwrecks and its cargoes along with other natural ecosystems are part of marine resources, which can be used and managed for the sake of the community wellbeing. Accordingly, the long term development goal of the MMAF are maximizing the use of the resources to achieve prosperity while keeping sustainability towards environment, social, culture, and economic as a based of actions (MMAF, 2007). Therefore, it is not surprising when the officers from this ministry have supported the inclusion of commercial value of historic shipwrecks and its cargoes into their policy. Assumption on the physical benefit of historic shipwrecks, particularly its cargoes is tempted, even though further research is required to justify how much direct and indirect benefit generated from this business until now.

In relation to the involvement of private company in funding and exploring historic shipwrecks and its cargoes, apparently, there is ambivalent on the respondents from the MEC. It is realized that, exploring shipwrecks and its cargoes is an expensive project. The government has a limitation to fund the exploration of historic shipwrecks due to the country’s economic development priority; this constraint encourages institution to seek for alternative funding source in order to study and explore more the maritime past. At the same time the private company offers an opportunity to access the historical time capsule on the deep ocean, with mutual benefit sharing mechanism. It often places the government in dilemmatic positions; partnership with the private company or salvors means allowing them to take away their shares, half of the historic cargoes, separating the artifacts as whole context, however, without fund support, the access to explore, to
study and to research are also limited. While, looting and illegal salvage continually threatens the objects.

In fact, both respondents are aware of the intrinsic cultural and historical value of the entities, however, they value the objects differently, in which resulting different management. At the end, managing historic shipwrecks and its cargoes requires political willingness. The national government, include both institutions need a comprehensive action to unravel dispute and settle down national strategy on managing the underwater cultural heritage in the form of historic shipwrecks and its cargoes.

**Bibliography**


**Biography**

Zainab is an Underwater Archaeologist working for Ministry of Marine Affairs and Fisheries. Zainab received her Bachelor in Archaeology at Hasanuddin University and a Master Degree in Environmental Science, specializing in Protected Area Management at James Cook University, Australia.

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ii This presidential Decree was revised in 2000, 2007 and 2009 due to the changes of responsible institution, however the substantial content has not been altered. Since 2000, Ministry of Marine Affairs and Fisheries is the mandated institution to lead the committee.

iii In order to harmonize the two legislations, the special committee has imposed a decree ordering the exploration and recovery of historic shipwrecks and its cargoes should be documented and recorded by the contractor. In addition, the unique and rare cargoes must be returned to the state (Ministerial Decree 39, 2000).

iv Based on the Indonesia Strategic Framework for Development 2012 – 2016, there are five focus area, renewable energy, disaster risk management, agriculture, human resource development and eastern Indonesia