




Between In-Situ Preservation and Commercial Salvage: The Future of Underwater Cultural Heritage in Indonesia

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Abstract. In 2023, the Indonesian government enacted new regulations concerning underwater cultural heritage management, seemingly reintroducing the possibility of commercial salvage that has the potential to disrupt the historical and archaeological context. This new legislation contradicts fundamental archaeological principles as well as the 2001 UNESCO Convention. Therefore, the study aims to provide insights into how underwater cultural heritage is valued and effectively preserved in Indonesia by mapping the multifaceted perspectives of stakeholders. These stakeholders may view underwater cultural heritage as repositories of historical and archaeological significance, marine resources, potential treasures, or a combination of these factors. Through a comprehensive literature review, this study examines the stakeholder roles and responsibilities, legal framework, challenges faced, and collaborative efforts in the field. The extracted information was synthesized thematically to identify patterns, trends, and gaps in the dilemmas of underwater cultural heritage management in Indonesia. The results indicate that the new regulation has created an opportunity to address the challenges surrounding the preservation of underwater cultural heritage by opening new direction for sustainable public private partnership when approached thoughtfully. This paper proposes a new direction for establishing a sustainable utilization framework that harmonizes economic interests with the imperative of preservation, ensuring the longevity of this invaluable underwater cultural heritage.

Keywords: Underwater Cultural Heritage Management, In-Situ Preservation, Commercial Salvage, Public Private Partnership, Indonesia.

1 Introduction

According to 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, “underwater cultural heritage means all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years” [1]. Indonesia, as an archipelagic country strategically positioned along global trade routes, has played a pivotal role as a vital trading hub since the 7th century AD [2]. This historical

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significance has led to an abundance of shipwrecks and a culturally rich heritage. This underwater cultural heritage serves as a repository of archaeological, historical, educational, economic, social, and political values [3].

In the context of the national development agenda, it offers a unique opportunity to diversify the nation's revenue streams, extending beyond the predominant focus on finite natural resources such as oil and minerals [4]. Recognizing the profound value embedded in underwater cultural heritage, its preservation is of paramount importance. However, Indonesia currently faces challenges in safeguarding this invaluable heritage. A long history of commercial salvage and illegal looting activities haunts this heritage [5]. This issue stems from a lack of human resources to ensure its protection. In addition, insufficient archaeological research, due to limited tools, funding, and experts, further exacerbates the problem [6].

From a legal perspective, the Indonesian government has demonstrated inconsistency in regulations related to the management of underwater cultural heritage. On one hand, Law No. 11 of 2010 on Cultural Heritage mandates protection, preservation, and sustainable utilization [7]. This legislation successfully imposed a moratorium on the retrieval of shipwreck cargo in 2010. On the other hand, with the issuance of Law No. 11 of 2020 on Job Creation, commonly known as the Omnibus Law, which regards underwater cultural heritage as a significant trade commodity, reintroduced the opportunity to resume shipwreck cargo retrieval activities [8]. This was formalized with the enactment of Presidential Regulation No. 8 of 2023 on the Management of Sunken Shipwreck Cargo. However, based on case studies of the Tek-Sing wreck [9], Belitung wreck [10], and Cirebon wreck [11] during extensive commercial salvage activities from the mid-1990s to 2010, it has been demonstrated that this approach is ineffective in safeguarding underwater cultural heritage in Indonesian waters.

In the global context, commercial salvage has been abandoned since the enactment of the 2001 UNESCO Convention [12]. In-situ preservation has become the primary approach for conserving underwater cultural heritage. This method is preferred because it not only preserves the historical and archaeological value but also has positive impacts on environmental conservation, offers opportunities for fish breeding, and serves as a tourist attraction. Consequently, it can enhance the well-being of local communities and support national development agendas [4]. Moreover, this preservation method fosters collaboration among stakeholders, not only within sectors but also among countries, serving as a diplomatic tool to strengthen shared ownership among nations [13].

Nevertheless, it is undeniable that the Indonesian government's current infrastructure and human resources are inadequate for effectively safeguarding underwater cultural heritage alone [7]. Active participation from the private sector and the community is required to support the successful preservation of underwater cultural heritage in Indonesia. Presidential Regulation No. 8 of 2023 actually provides an opportunity for external parties to participate in preserving underwater cultural heritage. However, considering the history of underwater cultural heritage management in Indonesia, a sustainable collaboration framework between the public and private sectors has yet to be formulated.

Based on these challenges, a crucial question emerges: How can a nation endowed with such a rich underwater cultural heritage reconcile the imperatives of preservation with the demands of economic development? What innovative solutions can bridge the gap between contemporary needs and the safeguarding of underwater cultural heritage? Therefore, this paper aims to examine the roles and needs of stakeholders in Indonesia concerning underwater cultural heritage. It also proposes alternative approaches in public-private partnerships for preserving underwater cultural heritage that can simultaneously benefit community welfare and national development. Consequently, this study makes a significant contribution to the dilemmas surrounding underwater cultural heritage management, particularly in Indonesia.

2 Methods

This study employs a desk-based research methodology to address the research questions. The literature review aims to analyze a spectrum of sources, such as government documents, legal regulations, and academic papers related to underwater cultural heritage management. The literature review will focus on key areas, including the history of underwater cultural heritage management in Indonesia, the legal framework related to underwater cultural heritage, and best practices in heritage management.

A systematic literature search was conducted using reputable academic databases, including Scopus Database, ScienceDirect, and Google Scholar. Search terms comprised combinations such as 'underwater cultural heritage,' 'in situ preservation,' 'commercial salvage,' 'stakeholders,' 'public-private partnership,' and related terms. Despite using reputable databases, it is acknowledged that certain relevant studies or grey literature not indexed in these databases might be overlooked, introducing a potential limitation in the coverage of the literature review.

Relevant data were systematically extracted from selected sources, encompassing stakeholder roles and responsibilities, legal framework, challenges faced, and collaborative efforts in the field. The extracted information was synthesized thematically to identify patterns, trends, and gaps in the dilemmas of underwater cultural heritage management in Indonesia.

Data triangulation was performed by comparing data findings from the literature review with information obtained from policymakers, archaeologists, heritage practitioners, representatives of the tourism industry, and heritage activists. This approach aimed to validate information, fill gaps, and provide a deeper understanding of underwater cultural heritage management in Indonesia.

3 Indonesia's Legislation regarding Underwater Cultural Heritage

3.1 The Emergence of Regulation and PanNas BMKT

Indonesia's approach to underwater cultural heritage has evolved over the years. Initially, the underwater cultural heritage remained largely overlooked due to its limited

accessibility, especially when compared to terrestrial archaeological sites. However, this perspective began to shift following a pivotal event in 1985, the salvage of the Geldermalsen shipwreck by Michael Hatcher and Max de Rahm [9]. The Geldermalsen was a Dutch East India Company (VOC) ship that sank in the waters east of Bintan in 1752 while carrying valuable cargo from China.

At the time of its salvage, the loot from this shipwreck, which included 150,000 ceramics and 126 gold ingots with a combined value exceeding £10 million, was auctioned at Christie's Auction House in Amsterdam, with no revenue returned to Indonesia [14]. Unfortunately, the ship itself was left in ruins on the seabed, with no proper documentation of the salvage process [15].

During this period, Indonesia lacked regulations specifically addressing underwater cultural heritage. This gap in legislation was due, in part, to Indonesia's colonial history under Dutch rule. The existing cultural heritage regulations were inherited from the Dutch colonial government and did not adequately address underwater cultural heritage [16]. Furthermore, the focus of Indonesia's law No. 17 of 1985, which ratified the 1982 United Nations Convention on the Law of the Sea (UNCLOS), was primarily on sovereignty and economic zones, with limited consideration for archaeological or historical artifacts as important elements to be preserved [8].

The salvage of the Geldermalsen prompted Indonesia to take notice of its underwater cultural heritage as a valuable resource. Consequently, in 1989, the National Committee for Salvage and Utilization of the Valuable Cargo of Sunken Ships (Pan-Nas BMKT) was established. This committee's mandate was to regulate and oversee exploration and exploitation activities related to sunken ship cargoes within Indonesian waters, as decreed by Presidential Decree No. 43 of 1989. Underwater cultural heritage in this regulation stated as 'Valuable Cargo of Sunken Ships' (BMKT). This regulation marked the beginning of the formal legalization of commercial salvage in Indonesia.

PanNas BMKT's role was initially focused on safeguarding salvaged valuable objects as state property. The valuable objects referred to items that possess historical, cultural, economic, and 'other' value, and salvage involves the research, survey, and recovery of these valuable objects. To execute this mandate effectively, various ministries and technical institutions were involved to manage the technical aspects of its implementation. Additionally, ministry-specific regulations were introduced to support the main decree [8]. For example, the sharing of profits between the government and salvage companies was outlined in Ministry of Finance Decision No. 1260/KMK03/1989. Further rules were established for salvage and underwater work that required foreign investors to obtain permits and collaborate with local enterprises, detailed in Ministry of Transport Decision No. KM23/1990. Ministry of Education and Culture Decision No. 0843/O/1989 emphasized the importance of archaeological standards in excavations and required that artifacts of significant archaeological and historical value be returned to the state.

However, the absence of an enforcement mechanism led to inconsistent implementation. Bureaucratic complexities and high costs associated with acquiring permits meant that the issuance of permits depended more on the financial capacity of commercial entities rather than their professional qualifications. Consequently, many sal-

vage processes did not meet established standards, and the state gained few significant artifacts [17].

Following the enactment of the first national regulations in 1989, Indonesia faced difficulties in safeguarding its underwater cultural heritage. For instance, the recovery of the Tek Sing wreck in 1999 resulted in the retrieval of high-value artifacts but lacked excavation records and adhered inadequately to conservation procedures. This activity also led to the destruction of the ship, leaving 350,000 shards from the Tek Sing strewn across the seabed. Simultaneously, the salvage company freely sold, transported, and transferred archaeological goods to global collectors [9].

Despite protests arising from the national and international community, the regulations governing commercial salvage remained unchanged. The Cultural Heritage Objects Law No. 5 of 1992, the first law regarding cultural heritage, also failed to address underwater cultural heritage issues [8]. A glimmer of change emerged with the passage of Law No. 27 of 2007 (amended by Law No. 1 of 2014) on marine space, designating maritime conservation areas for zones with significant historical and archaeological value [18]. However, this law still considered underwater cultural heritage as marine resources to be exploited for economic gain. As a result, PanNas BMKT continued to regulate commercial salvage.

3.2 Moratorium on Commercial Salvage and its Challenges

A significant turning point came with the issuance of Law No. 11 of 2010 on Cultural Heritage, which prompted PanNas BMKT to impose a moratorium on commercial salvage due to its prohibition on the sale of artifacts abroad [7]. The PanNas BMKT suspended the issuing of new licences to commercial salvage companies. This law stated that cultural heritage, 'on land and/or water,' and intangible heritage should be preserved due to their significant value. Although this law prohibited the sale of artifacts abroad, domestic trade in artifacts remained legal.

Awareness regarding the significance of sustainable utilization of underwater cultural heritage has been steadily increasing since the enactment of Law No. 11 of 2010, which mandates the use of underwater cultural heritage for the common good. Subsequently, the Indonesian government introduced Presidential Regulation No. 44 of 2016, detailing the List of Closed Business Fields and Open Business Fields with Conditions for Investment, explicitly prohibiting investment in commercial salvage. Similarly, Law No. 32 of 2014 on Marine Affairs places emphasis on the importance of harnessing underwater cultural heritage to support livelihoods through tourism. This law also recognizes the active role of communities in protecting and safeguarding underwater cultural heritage.

However, challenges in coordinating government stakeholders remain a significant hurdle to enhancing this regulation [7]. The lack of operational guidelines has also potentially hindered policy implementation [12]. The implementation of Law No. 11 of 2010 revealed several ambiguities in the designation of underwater cultural heritage sites. These ambiguities persisted due to the complex nature of existing regulations. Since the enactment of regional autonomy in 1998, the jurisdiction of maritime areas has been divided into three parts: municipalities and regencies maintain jurisdic-

tion up to four nautical miles from the shore, provinces from 4-12 miles, and the central government beyond that (currently, only provinces and the central government have jurisdiction over maritime areas) [19]. This division complicated the designation of underwater cultural heritage areas. Furthermore, despite Indonesia not ratifying the UNESCO 2001 Convention, ship owners' concerns also contributed to the government's hesitation in designating cultural heritage [20]. Therefore, up to this point, no historical shipwrecks or other submerged archaeological objects have been designated as cultural heritage.

Furthermore, despite the commercial salvage no longer in place, new challenges emerged. Many fishermen and coastal communities engaged in illegal looting, often funded by foreign investors, leading to the smuggling artifacts out of the country [17]. Remarkably, there have been no tangible efforts by the government or licensed salvage companies to rescue archaeology from these activities [7]. This situation presents a dual dilemma: on one hand, the government lacks adequate resources, and on the other, companies are reluctant to initiate salvage operations that may violate prevailing regulations.

3.3 Balancing Conservation and Economic Utilization

The introduction of Law No. 11 of 2020 aimed to facilitate business, reduce bureaucracy, boost investments, and create jobs. In this law, the utilization of marine resources is considered a means to benefit society, which includes commercial salvage as one of its potential uses. This law sparked protests from various segments of community, including archaeologists, marine conservators, heritage activists, and academics. Concerns arose about the potential resurgence of treasure hunting activities in Indonesia. Nonetheless, the law did open up opportunities for renewed investment in commercial salvage, as evidenced by the issuance of Presidential Regulation No. 8 of 2023 on the Management of Sunken Shipwreck Cargo.

Presidential Regulation No. 8 of 2023 categorizes underwater cultural heritage into two main groups: Valuable Cargo of Sunken Ships Suspected to be Cultural Heritage (BMKT ODCB) and Valuable Cargo of Sunken Ships not Suspected to be Cultural Heritage (BMKT non ODCB). The classification is based on an assessment report issued by the Minister responsible for cultural affairs (currently the Minister of Education, Culture, Research, and Technology). According to Law No. 11 of 2010, the criteria for objects suspected to be cultural heritage include being at least 50 years old, representing a specific stylistic period of at least 50 years, having significant historical, scientific, educational, religious, or cultural value, and contributing to the strengthening of national identity.

Under this regulation, BMKT ODCB are to be treated in accordance with Law No. 11 of 2010, emphasizing their preservation for the common good. In contrast, BMKT non ODCB can be utilized insitu, meaning through the management of conservation areas and/or marine tourism management, as well as through sales via government auction offices. The Indonesian government has established guidelines for the role of business entities in the retrieval of BMKT, addressing licensing and profit-sharing

arrangements, as specified in Article 15, with 45% for the Central Government and 55% for the salvage company.

Upon closer examination, the regulations actually contain provisions that support the sustainable utilization of underwater cultural heritage. The regulations specify that the retrieval of BMKT is only permitted for objects not suspected to be cultural heritage. Furthermore, the regulations offer investors the opportunity to use underwater objects for sustainable purposes, namely tourism. The aim is to maximize Indonesia's marine resources optimally and sustainably, without sacrificing the historical and archaeological value of underwater cultural heritage.

However, challenges remain, including ambiguities in regulations, coordination among government stakeholders, and the absence of operational guidelines raises concerns about the potential repetition of the treasure hunting era in Indonesia. Moreover, none of the underwater cultural heritage objects have been designated as cultural heritage under Law No. 10 of 2010. This comprehensive analysis of Indonesia's legislative journey provides valuable insights into the country's evolving approach to underwater cultural heritage management. It sets the stage for a deeper exploration of the challenges and potential solutions in the subsequent sections of this paper.

4 In-situ Preservation as Preferred Option

In-situ preservation, in the field of archaeology, is a method that aims to preserve archaeological remains in their original positions as they were found [21]. One of the key reasons why in-situ preservation is the primary option is because it allows us to maintain the surrounding context and association between objects, which is essential data for archaeological research. Consequently, underwater cultural heritage remains preserved in their natural state, just as they were when they first sank. Technological limitations and financial constraints often make it challenging to document these cultural treasures once they are moved elsewhere, resulting in the loss of invaluable archaeological data [22].

Moreover, relocating artifacts from their original locations can have negative impacts that accelerating their degradation and deterioration [12]. Therefore, preserving underwater cultural heritage in-situ make the sites as underwater archives for future research and enjoyment [21]. UNESCO has advocated for the primary use of in-situ preservation as a method for safeguarding underwater cultural heritage, as outlined in the 2001 UNESCO Convention.

In-situ preservation also offers numerous other benefits, particularly in rehabilitating the environment and preserving marine biodiversity. Shipwrecks, for instance, often become ideal habitats for coral growth, attracting various species of fish and other marine life, ultimately creating new ecosystems in the sea. For example, the USAT Liberty Shipwreck in Bali has become home to 246 out of 805 fish species found in Balinese waters [23]. This shipwreck hosts an array of marine life, ranging from tiny crustaceans, pygmy seahorses, and oriental sweetlips to larger species like sharks and barracudas (see fig. 1). Additionally, the SS Aquila wreck in Ambon is a habitat for the rare frogfish, found only in the vicinity of the wreck [24]. Recognizing

the importance of shipwrecks to marine ecosystems, one of Australia's sunken ships from World War II, HMAS Perth and HM, was designated a Marine Protection Area in 2018 [25].

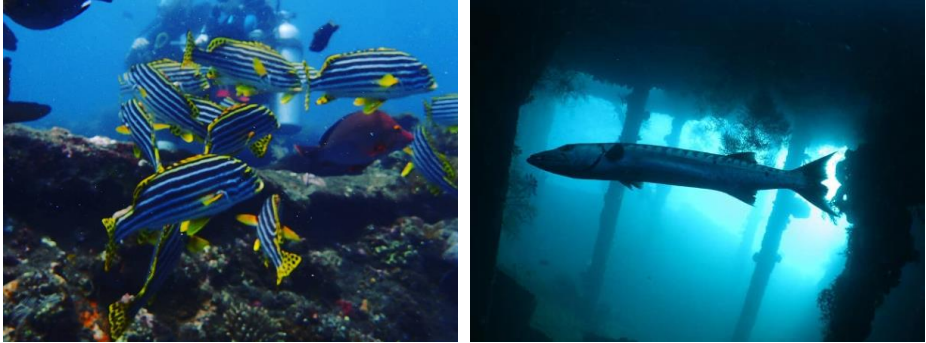


Fig. 1. Marine Biodiversity at USAT Liberty, Tulamben (author)

The presence of underwater cultural heritage can also boost the economy and create jobs through the tourism industry. For instance, tourism centered around the USAT Liberty generates an estimated annual revenue of approximately US \$3 million, including income from hotels, restaurants, and other activities [26]. It is estimated that over 50% of the population living around the village of Tulamben work in the tourism industry and related sectors [27].

The economic benefits from the wreck motivate the communities nearby to actively participate in protecting and preserving these cultural objects. They voluntarily engage in site protection and site monitoring, significantly aiding the government's role in preserving underwater cultural remains [28]. Additionally, communities can serve as agents in promoting and educating visitors about the importance of preserving underwater cultural heritage, which align with the principles of sustainable tourism [29].

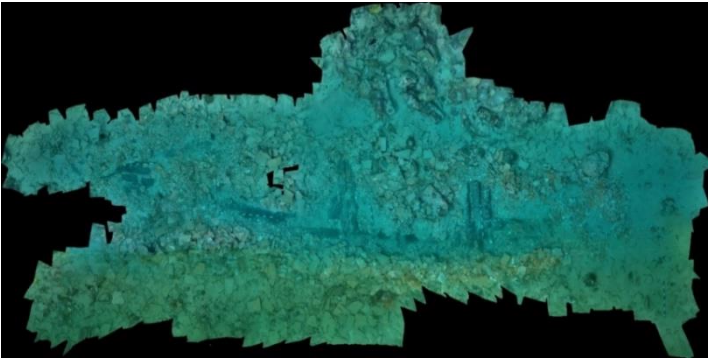
In-situ preservation can also serve as a diplomatic tool to enhance collaboration between nations. A notable example is the joint effort between the Indonesian and Australian governments to protect the HMAS wreck through collaborative surveys, assessments, and documentation [25]. Despite significant damage from illegal looting, steady progress is being made in safeguarding the site through the collaborative efforts of these countries. Such collaborations foster a strong sense of shared ownership of the shipwreck, transcending ego boundaries for the greater good of future generations.

While in-situ preservation is the primary option for safeguarding underwater cultural heritage, there are some drawbacks that make ex-situ preservation an alternative. One significant limitation is that, in terms of archaeology, transformations in the site's context inevitably occur due to natural effects such as ocean currents and waves, potentially altering the site's integrity [22].

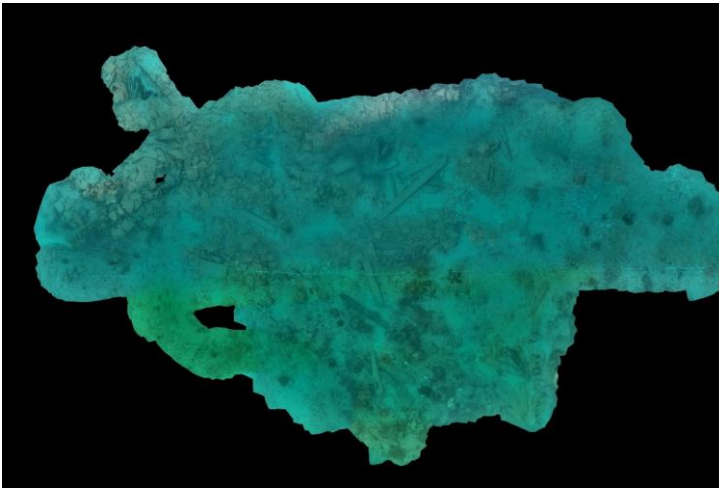
In the context of underwater cultural heritage management in Indonesia, in-situ preservation is not always applicable everywhere. Limited law enforcement, a short-

age of experts, and insufficient funding make it challenging to maintain the abundance of underwater cultural heritage in Indonesia. Natural threats, systematic salvage and opportunistic looting by various irresponsible parties continue to pose threats to these objects.

In some cases, even sites under regular monitoring can be destroyed in an instant due to illegal looting. One example is the Senggiling Site in Bintan, believed to be the *Mercurius* ship that sank in 1856. The National Research Center of Archaeology conducted studies on this site in 2021 and 2022 [30]. In 2021, the site remained well-preserved, with the wooden structure of the ship still buried beneath the seabed, and various objects neatly arranged alongside the ship's structure. However, when monitored in 2022, the ship was discovered in a dismal condition, with only the ship's structure remaining in a disordered state and fragmented ceramics (see figure 2).



(a)



(b)

Fig. 2. (a) Photogrammetry Senggiling Site in 2021; (b) Photogrammetry Senggiling Site in 2022 [30]

Recognizing the vulnerability of underwater cultural heritage to looters, a change in the mechanism for managing underwater cultural heritage is imperative. The Indonesian government cannot act alone in protecting these objects. A new mechanism involving relevant stakeholders needs to be established to ensure their sustainability.

5 Public Private Partnership: Beyond Commercial Salvage

The recent enactment of Presidential Regulation No. 8 of 2023 has created a new opportunity to address the multifaceted challenges surrounding the preservation of underwater cultural heritage. This regulation introduces a groundbreaking concept of "open for investment" in the context of underwater cultural heritage, potentially reshaping the landscape of underwater cultural heritage management. It holds the potential to alleviate longstanding issues related to funding, research infrastructure, and expertise.

Traditionally, private sector involvement in cultural heritage management has often been limited to Corporate Social Responsibility (CSR) initiatives, wherein companies engage in cultural preservation as a means to offset corporate practices that may harm society or the environment. Unfortunately, some CSR endeavors have been perceived as mere facades to mask corporate greed and malpractice within their core operations [31]. However, there are corporations genuinely committed to heritage conservation, such as Rio Tinto. This company has internally formulated guidelines for managing cultural heritage within its concession areas, even though such regulations are not mandatory in that country [32].

The government's expectation of benevolence from corporations to aid in heritage management is evident. Nevertheless, an innovative market mechanism can be established, where companies engage in the sustainable management of underwater cultural heritage. For instance, the management of Borobudur and Prambanan temples in Indonesia by PT. Taman Wisata Candi (PT. TWC) serves as an illustrative model [33]. While PT. TWC is government-owned, it exemplifies the possibility of partnering with external entities in heritage management. However, challenges have arisen in PT. TWC's management due to outdated regulations that fail to adapt to contemporary needs and market demands, coupled with sectoral egoism [34].

Adopting operational frameworks from other conservation models employing public-private partnerships is another viable approach. The Ecosystem Restoration concession (RE), an integral part of the Reducing Emissions from Deforestation and Forest Degradation (REDD+) program, presents an intriguing example [35]. REDD+ derives from United Nations Framework Convention on Climate Change (UNFCCC) in 2013. It constitutes a set of international initiatives and efforts aimed at mitigating climate change by reducing greenhouse gas emissions from deforestation and forest degradation, primarily in tropical forests. The goal of REDD+ is to address both climate change and biodiversity conservation while supporting local communities and indigenous peoples who depend on forests for their livelihoods [36].

RE aims to rehabilitate production forests to regain biodiversity, ecosystem stability, and other ecological aspects disrupted by deforestation activities in Indonesia.

Through RE, companies exploiting forest resources must engage in ecological restoration activities until natural equilibrium is restored. Additionally, this program also aims to improve the livelihood of the community living within RE areas. Companies are required to involve the community in participating in sustainable forest management practices [37].

One of the examples of RE program is Hope Rainforest (Hutan Harapan) managed by PT. Restorasi Ekosistem Indonesia (PT. REKI). PT. REKI is a company that produces sustainable forest products and envisions recovering the damaged and remaining lowland forests in Sumatra through ecosystem restoration activities. This company provides education and basic healthcare to the indigenous community within their concession area. The community is also employed for planting, nurturing, and caring for native plants in Hope Rainforest. The products obtained from these plants can be used for the well-being of the community [38].

The RE program has achieved remarkable success in restoring forests and land. According to the Ministry of Environment and Forestry, from 2015 to 2020, this program successfully restored 4.69 million hectares of forest land in Indonesia [39]. Moreover, the RE program has opened up new revenue streams through carbon credits, accelerating the reduction of greenhouse gas emissions [40]. It contributed a substantial \$56 million in revenue to the country from Norway, recognizing of Indonesia's efforts in reducing emissions. This policy shift has fundamentally changed the perspective on the utilization of production forests. It has evolved from a sole focus on commodities to one that prioritizes ecosystem preservation and local wisdom.

Given the potential of underwater archaeological sites to support environmental preservation and community economics, the RE model can be adapted as a management model. Private sector could be granted management licenses oriented toward sustainable use, such as underwater archaeological parks, maritime museums, and facilitating public access to underwater cultural heritage sites [41]. This approach aligns with Indonesian regulations, archaeological principles, and environmental preservation norms.

Developing utilization models that draw inspiration from the RE program not only creates opportunities for investors to reap benefits but also generates jobs for local communities near underwater sites, and assisting the government in underwater cultural heritage preservation. However, the process of formulating regulations and implementing underwater cultural heritage management require collective input from communities, private sector, and other stakeholders to strike a balance in rights and responsibilities. Active engagement among various stakeholders fosters a sense of shared ownership, crucial for sustainable preservation and utilization [42].

While in-situ preservation remains the ideal option for underwater cultural heritage management, certain cases necessitate excavation, salvage, and ex-situ preservation [22]. Salvage activities become imperative to rescue underwater cultural heritage threatened by natural and human factors or for the advancement of scientific understanding [43]. In Southeast Asia, salvage operations often involve the collaboration of salvage companies to provide the required funding, expertise, and equipment [44]. However, salvage activities in Indonesia have yet to firmly align with heritage preservation interests.

Presidential Regulation No. 8 of 2023 has created a space for private sector entities to assist the government in safeguarding underwater cultural heritage through salvage activities. Internationally, many underwater cultural heritage sites have been excavated with the aim of preservation, knowledge generation, and broadening access to the wider community. The excavation and recovery of the Batavia Wreck in Australia serve as a noteworthy example where the recovery of underwater cultural heritage has been beneficial for the public.

The Batavia wreck, a Dutch East India Company (VOC) ship that sank in June 1629, posed a significant risk due to its exposure to oceanic conditions. Initial excavation efforts in 1963 marked an ambitious project [45]. Today, the ship is part of the Western Australian Museum's collection, representing a national treasure and heritage of Australia [46].

Recognizing the importance of salvage activities in preserving underwater cultural heritage, Indonesia should consider subsidiary regulations from relevant ministries to support Presidential Regulation No. 8 of 2023. These regulations should aim to establish salvage standards that align with international, national, and local guidelines on archaeological research and environmental conservation. By doing so, responsible salvage practices can be established to benefit all stakeholders.

Efforts related to post-salvage and excavation activities must also take into consideration. This includes conservation measures, profit-sharing system, and auction mechanism adhering to established standards. The involvement of professional third-party institutions in the valuation of objects and post-recovery preservation is vital to ensure the proper safeguarding of underwater cultural heritage. It is essential to avoid repeating the mistakes of artifact conservation and sales mismanagement by the government, as seen in the case of the Cirebon Wreck [9].

Through a regulatory framework that balances the rights and responsibilities of all parties involved, the government can create opportunities for societal investment in economic progress without compromising the preservation of underwater cultural heritage. This shift can also transform the image of the private sector from mere "treasure hunting companies" into valuable contributors to the broader community.

6 Conclusion

Indonesia is currently at a crossroads in determining the direction for managing underwater cultural heritage in the country. The regulations and the commercial salvage track record in Indonesia have cast a shadow over the preservation of underwater cultural heritage. The existing regulations concerning underwater cultural heritage management are seen to prioritize short-term economic interests, jeopardizing the protection of these valuable remnants. Sectoral egos and divergent interests have led to overlapping regulations, complicating the implementation of sustainable management.

The need for sustainable management that balances economic interests with heritage protection is evident. To move forward, the Indonesian government must take concrete steps. Firstly, the creation of a dedicated coordinating body, involving repre-

sentatives from relevant sectors and stakeholders, is imperative. This body would serve to harmonize divergent interests and streamline regulations, fostering a conducive environment for underwater cultural heritage management.

Secondly, there is an urgent need for capacity building. Investing in training and resources for professionals in the field, encompassing research, protection, monitoring, and conservation, is essential to enforce regulations effectively.

Thirdly, while concerns exist about involving the private sector in underwater cultural heritage management, our examination of case studies demonstrates that, when approached thoughtfully and in a framework of public-private partnership, it can yield positive results. Private sectors can contribute not only financially but also with expertise and innovation.

For instance, the successful Hope Rainforest (Hutan Harapan) managed by PT. Restorasi Ekosistem Indonesia (PT. REKI) showcases how private entities can engage in sustainable practices while benefiting the community. PT. REKI provides education and healthcare to indigenous communities and engages them in responsible forest management.

In conclusion, Indonesia stands on the brink of a new era in underwater cultural heritage management. By taking decisive action, involving various stakeholders, and learning from successful models worldwide, the nation can pave the way for a sustainable, balanced, and fruitful future for its underwater cultural heritage.

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