

Enforcement of Law for Foreign Vessel Coral Reef Damage in Environmental Protection in Indonesia (A Case Study of the Caledonian Sky Vessel in Raja Ampat, Papua)

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Abstract This study employs a juridical-empirical research method and a case study approach to investigate the legal enforcement of laws against coral reef destruction by foreign vessels in Indonesian waters. The focal point of the analysis is the MV Caledonian Sky incident in the Raja Ampat Waters, Papua, which occurred on March 14, 2022. The United Nations Convention on the Law of the Sea (UNCLOS) of 1982 comprehensively governs marine environmental protection in its Part XII, comprising 45 Articles (Articles 192-237). UNCLOS empowers member states to establish legal frameworks that prioritize preventive and remedial measures to combat environmental damage. Indonesia, as a UNCLOS member, actively participates in marine conservation through a series of regulations, particularly Law No. 32 of 2009 on Environmental Protection and Management and Law No. 32 of 2014 on Maritime Affairs. The sinking of MV Caledonian Sky, which led to coral reef damage, is a critical case in maritime law. The Indonesian government took strong action by seeking accountability and compensation from Noble Caledonia, the London-based company owning the vessel. Furthermore, the government is committed to conservation and rehabilitation efforts for the impacted coral reefs as part of its long-term environmental protection strategy. This study provides insights into the intricate legal framework governing marine environmental protection and law enforcement in Indonesia, with a specific focus on coral reef preservation.

Keywords: Law Enforcement, Coral Reef, environmental conservation

1 Introduction

Indonesia's geographical character is predominantly insular, characterized by its extensive sea and maritime zones, forming the cornerstone of its identity. Stretching from Sabang to Merauke, Indonesia comprises over 17,000 islands, with a significant portion inhabited, and numerous uninhabited and smaller islands connected through its maritime territories. In terms of quantity, approximately three-quarters of Indonesia's total area encompasses its maritime zones, encompassing a vast expanse of approximately 5.8 million km². These extensive marine territories serve not only as vital maritime transit routes and trade conduits but also as the primary source of its fisheries. Furthermore, they house unparalleled natural diversity, notably coral reefs.[1]

Indonesia boasts an incredibly high degree of diversification and variation in its coral reefs, ranking among the highest in the world.[2] Of the estimated 800 coral species, Indonesian waters host approximately 60%, with 480 identified species and an ongoing discovery process. Moreover, Indonesia plays a pivotal role in coral reef coverage, encompassing 76% of the total coral reefs in Southeast Asia, where the region accounts for 34% of the world's total. In essence, Indonesia holds immense and crucial potential in coral reef resources, which are of global significance in marine biodiversity conservation.[3]

In addition to its substantial biodiversity, the economic benefits of coral reefs for local communities are of great importance. The direct exploitation of coral reefs in Indonesia generates at least US\$1.6 billion annually. Furthermore, the tourism sector significantly benefits from coral reefs, as they are a key attraction for both domestic and foreign visitors. Nonetheless, alongside these immense benefits, the potential of Indonesia's coral reefs is threatened by various factors, one of which is pollution of the seas and the risk of shipwrecks causing damage to the coral reef ecosystems. An illustrative case is the sinking of the Caledonian Sky cruise ship in the waters of Raja Ampat, a prominent coral reef area in Indonesia.[4]

The sinking of the Caledonian Sky, a British-owned cruise ship flying the Bahamian flag, on March 4, 2017, stands as a maritime disaster with direct consequences for the coral reef ecosystem. The precise grounding of the sunken ship upon a cluster of coral reefs resulted in substantial damage to the biodiversity covering several hectares. Oil spills, ship debris, and other dissolved materials in the waters pose potential long-term threats to the sustainability of marine life and plant species in the Raja Ampat waters.

2 Method

In composing this written work, a juridical-normative approach was employed, characterized as a scholarly method that utilizes a legal perspective grounded in legislation to address issues.[5] Several regulations serve as the foundation for this analysis, including UNCLOS 1982, Law No. 32 of 2014 concerning Maritime Affairs, along with other relevant legislation. Additionally, credible books, journals, and reference materials related to marine environmental protection and coral reef issues were also consulted to provide a comprehensive examination.[6]

3 Result and Discussion

3.1 Protection of the Marine Environment and Coral Reefs

Indonesia, as a maritime nation, optimally utilizes its marine territories. These marine areas have both direct and indirect functions. Direct functions encompass the sea as a source of capture fisheries, zones for the exploration and exploitation of mineral and energy resources, and the conservation of biodiversity.[7] Indirect functions include the marine regions serving as transportation routes, trade pathways, and potential shipping routes that can yield prosperity for the controlling nation. In terms of environmental protection, both international and national maritime laws provide a legal framework for governing the mechanisms and management of marine area utilization, including the safeguarding of the environment and coral reefs.[8]

International maritime law, binding countries worldwide and serving as a reference for maritime regulation, is primarily embodied in the United Nations Convention on the Law of the Sea

(UNCLOS 1982).[9] Under this regulation, Article 145 of UNCLOS explicitly stipulates that environmental protection, in the form of necessary actions concerning activities in an area, must be taken in accordance with this convention to ensure effective protection of the marine environment from adverse effects. Each nation is granted the authority to establish suitable provisions, regulations, and procedures for the prevention, reduction, and control of pollution and other hazards to the marine environment, including coastlines, and disturbances to the ecological balance of the marine environment. Moreover, states have the right to regulate the protection and prevention of damage to the flora and fauna of the marine environment.[10]

Countries are obligated to take actions to ensure that shipping and maritime exploration activities within their jurisdiction adhere to environmental principles outlined in UNCLOS.[11] The prevention of marine environmental damage is a prioritized perspective to prevent substantial-scale harm resulting from maritime use. Furthermore, states have the authority to enforce decisive, remedial, and measured actions in accordance with applicable national laws against actions considered unlawful and causing tangible harm to the marine environment.[5]

As a member state of UNCLOS 1982, Indonesia ratified the convention through Law No. 17 of 1985 and plays a role in regulating marine environmental protection, including coral reefs, through various legislative measures. The primary legislation governing these aspects includes Law No. 32 of 2014 on Maritime Affairs and Law No. 32 of 2009 on Environmental Protection and Management. General principles regarding pollution, as outlined in Article 53 of the Environmental Protection and Management Law, emphasize that anyone causing pollution is obliged to take mitigation actions and is responsible for the legal, environmental, and social consequences. They are also obliged to cease the pollution or environmental damage they have caused. Consequently, it is evident that the destruction of the marine environment, particularly coral reefs, is well protected and governed by positive legal provisions in Indonesia. Furthermore, provisions related to accountability efforts align with and adhere to decisions made by the competent judiciary.[12]

3.2 Legal Accountability of the Caledonian Sky Ship and Environmental Conservation Efforts

The sinking of the Caledonian Sky ship had a significantly adverse impact on Indonesia. According to the Coordinating Ministry for Maritime Affairs in 2017, the damage to coral reefs reached 13,533 square meters, primarily caused by the ship's collision. More extensive damage, possibly reaching 20,000 square meters, could occur in the near future due to oil spills, chemicals, metal debris, heavy soluble materials, and water acidification resulting from corrosion. In this case, the Person in Charge (PIC), who was the ship's captain, Michael Taylor, is a British national residing in the United States. Captain Michael Taylor had previously been involved in similar violations at the Kuala Tanjung port in North Sumatra.[13]

The environmental damage and coral reef destruction caused by the Caledonian Sky also necessitated the government to impose legal sanctions for several violated regulations, namely Law No. 32 of 2014 on Maritime Affairs and Law No. 32 of 1999 on Environmental Protection and Management. These regulations stipulate that any responsible party or entity engaged in activities violating the law, resulting in pollution or damage, must pay compensation and undertake specific actions required by Indonesian law.[14]

Through an extrajudicial settlement, the Indonesian government decided not to prosecute the cruise ship MV Caledonian Sky's captain, Michael Taylor, as long as the company, Noble Caledonia, based in London, could assume responsibility and fulfill the compensation requirements. Nevertheless, the government prepared prosecution procedures as an ultimate remedy if non-penal resolution could not be achieved. In the government's estimated calculations, the economic loss due to the coral reef damage in Raja Ampat resulting from the Caledonian Sky's sinking amounted to \$15 million. This value served as a benchmark in the negotiation process for compensation between the government, Noble Caledonia, and the insurance parties.

Indonesia, as an archipelagic nation with a visionary concept of becoming a maritime state, must continue to refine and accelerate legal improvements for the enhanced effectiveness and efficiency of marine resource management while addressing emerging issues like coral reef damage caused by maritime activities and shipwrecks.[2] The marine economy sector, encompassing the potential of fisheries and other natural resources, especially minerals and energy, represents a vast national wealth capable of yielding broad societal impacts. The government should regulate and ensure the management of these resources to maximize benefits while aligning economic interests with sustainable environmental conservation needs.[15]

The Caledonian Sky case is an event that does not rule out the possibility of similar incidents in the future. Therefore, the government needs to promptly and responsively resolve the Caledonian case, settling compensation costs and recovery efforts. Ideally, the resolution of the Caledonian Sky incident can serve as a precedent, or at least a proper reference, in dealing with similar cases in the future.

The incident involving the MV Caledonian Sky, which damaged coral reefs in Raja Ampat, serves as a reminder to Indonesia of the immense natural wealth within its waters. Indonesia's geographical position places it within the Coral Triangle, endowing it with a rich ecosystem of highly diverse coral reef species, totaling approximately 600,000 varieties. Globally, the coral reefs cover a comprehensive area of 284,300 square kilometers, with approximately 18% (86,503 square kilometers) situated within the Coral Triangle region. Indonesia, in particular, encompasses about 45.7% of the total Coral Triangle area.[16]

Coral reefs hold both high ecological and economic value. Ecologically, they serve as breeding grounds, feeding areas, shelters for marine life, and contribute to water purification. Additionally, coral reefs offer economically valuable resources for communities, including tourism, a source of food, and medicinal products. The damage to coral reefs resulting from the Caledonian Sky incident, along with the protracted legal process regarding compensation claims, highlights Indonesia's strong interest in enhancing conservation efforts, the sustainable utilization of its maritime resources, and ensuring the consistent enforcement of environmental laws.

Before the Caledonian Sky incident, several cases of coral reef damage had already occurred, leading to critical consequences for the environment. Research conducted by the Indonesian Institute of Sciences (LIPI) on the condition of coral reefs in Indonesia from 1993 to 2015 revealed that approximately 1,259 coral reef hotspots in Indonesia were at risk due to environmental changes, rising sea temperatures, or human activities such as shipping and marine pollution.

To strengthen the government's policies concerning conservation, protection, and the enforcement of maritime laws for safeguarding this natural wealth, at least three phases of effort can be undertaken.[17] Firstly, the government should implement curative measures by defining shipping routes that minimize risks to the sustainability of coral reef resources beneath them. To ensure the implementation of these efforts, sanctions should be applied in cases of violations to underscore Indonesia's commitment to the rule of law and environmental preservation.

Besides enhancing the legal regulations for marine security, protection, and governance, the government should also judiciously exploit the potential of marine resources, including fisheries, energy, and coral reefs, to deliver significant benefits to the population.[18] It is crucial for the government to ensure that the diversification of coral reefs is utilized passively, such as for tourism and fundamental small-scale usage like the production of essential medicines. Large-scale industrial use, ornamental purposes, or any activities leading to ecosystem damage must be avoided and protected by legal provisions.

From a taxonomic perspective, coral reefs are classified as species within the animal kingdom.[19] Despite their stationary existence, passive feeding behavior, and expansive growth resembling the plant kingdom, coral reefs reproduce slowly and under limited conditions. Recovery from damage may take up to a year for coral reefs to grow and regenerate by just one centimeter. Given the extensive damage of over 18,000 square meters, it may take 50 to 80 years for Raja Ampat's coral reefs to recover from the damage caused by the Caledonian Sky, assuming there are no environmental or climatic changes affecting the underwater conditions.¹

The damage resulting from the sinking of the Caledonian Sky should be viewed as an environmental threat with sanctions geared toward environmental restoration. While the ship's captain may face imprisonment, without accountability mechanisms involving compensation and fines, the coral reefs will remain unrecovered. The compensation and fine, estimated to amount to \$15 million, can be used to revitalize marine resource conservation efforts and coral reefs in the waters of Raja Ampat. Conservation efforts also need to prioritize utilizing areas with coral reefs for tourism purposes while keeping them away from the routes of large-scale vessels to prevent damage. This is particularly important in the Arafura Sea, characterized by shallow depths, where heavy maritime traffic contributes to the degradation of coral reefs and the surrounding ecosystem.

4 Conclusion

UNCLOS 1982 extensively regulates the protection and preservation of the marine environment in Part XII, consisting of 45 articles from Article 192 to Article 237. In the effort to ensure the sustainability of marine areas, UNCLOS grants authority to countries to arrange and manage the legal aspects, focusing on measures for the prevention and mitigation of damage. As a member of UNCLOS, Indonesia actively participates in the protection of marine and aquatic areas by enacting a series of regulations, notably Law No. 32 of 2009 concerning Environmental Protection and Management and Law No. 32 of 2014 regarding Maritime Affairs.

¹ Cornelia Mirwati Witomo, dkk. *Estimasi Kerugian Ekonomi Kerusakan Terumbu Karang Akibat Tabrakan Kapal Caledonian Sky di Raja Ampat*. Jurnal Badan Penelitian dan Pengembangan Kelautan dan Perikanan, hlm.9

The sinking of the MV Caledonian Sky in the waters of Raja Ampat on March 14, 2022, which resulted in damage to coral reef ecosystems, is a significant case in maritime law studies. The government responded decisively by demanding accountability from the ship's parent company, Noble Caledonia, based in London, for compensation. Additionally, the government has a vested interest in conservation and the rehabilitation of the affected coral reef areas as part of its long-term environmental protection efforts.

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