

MARINE TOURISM IN MALAYSIA: ENSURING SUSTAINABLE DEVELOPMENT AND CONSERVATION

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Article history:

Submission date: 2 February 2026
Received in revised form: 22 June 2026
Acceptance date: 26 July 2026
Available online: 31 July 2026

Keywords:

Marine tourism, sustainable development, conservation law, Malaysia

Funding:

Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education (grant number: FRGS/1/2022/SSI12/UKM/02/11).

Competing interest:

The author(s) have declared that no competing interests exist.

Cite as:

A/L Ravindran, H., Mohd Sukri, A. R. F., Anak July, A. B., Mohd Ariff Mochtaruddin, A., & Dahlan, N. K. (2026). Marine tourism in Malaysia: ensuring sustainable development and conservation. *LexForensica: Forensic Justice And Socio-Legal Research Journal*, 3(1), 51-59.
<https://doi.org/10.33102/z8fk9r40>



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SDG Elements:

Life Below Water



ABSTRACT

Marine tourism plays a vital role in Malaysia's economic development, drawing both domestic and international visitors to its biodiverse coastal and island ecosystems. However, this rapid growth raises serious concerns regarding environmental sustainability, including coral reef degradation, marine pollution, and overexploitation of resources. This paper examines the legal and policy framework governing marine tourism in Malaysia, highlighting key legislation, including the Environmental Quality Act 1974, the Fisheries Act 1985, and the Exclusive Economic Zone Act 1984, as well as relevant state enactments in Sabah and Sarawak. It further examines how international commitments, particularly the United Nations' Sustainable Development Goals and the Coral Triangle Initiative, influence domestic conservation strategies. Through zoning, licensing, and enforcement mechanisms, Malaysia seeks to balance economic benefits with environmental protection. The paper also assesses the role of sustainable and regenerative tourism practices in ensuring long-term ecological and socio-economic viability, including community-based initiatives and conservation-linked tourism such as shark diving in Semporna. Despite these efforts, challenges persist in the form of weak inter-agency coordination, enforcement gaps, limited awareness, and uneven benefit distribution among coastal communities. The study concludes by emphasizing the need for integrated governance, community empowerment, and environmental education to achieve sustainable marine tourism that supports both ecological resilience and inclusive development.

Introduction

Tourist destinations worldwide offer diverse and unique experiences that cater to a variety of traveler preferences, and Malaysia is no exception. Among its many attractions, marine tourism, also referred to as nautical tourism, stands out as a key driver of the nation's tourism industry. This sector is defined by recreational activities that focus on marine environments, encompassing saline waters and tide-affected ecosystems (Orams, 2002). Activities such as yachting, cruising, diving, jet skiing, and exploring harbor-side developments are popular components of marine tourism (Lukovic, 2013).

Malaysia is blessed with an abundance of natural beauty, particularly along its coastlines and islands. Iconic destinations such as Perhentian Island, Langkawi Island, Penang Island, Redang Island, Tioman Island, Gaya Island, and Sipadan Island are internationally renowned for their pristine waters, vibrant coral reefs, and exceptional biodiversity. These areas not only serve as hubs for marine tourism but also attract eco-tourists who seek to experience the region's natural wonders (Che Leh et al., 2021).

The importance of marine tourism extends beyond recreation, as it plays a significant role in Malaysia's economy. Contributing substantially to the nation's Gross Domestic Product (GDP), marine tourism is one of the fastest-growing sectors within the broader tourism industry. This growth is reflected in visitor statistics, with national marine parks attracting hundreds of thousands of tourists each year (Adam et al., 2019). For instance, in 2023, these parks welcomed 456,960 visitors, including 359,295 domestic and 97,665 international tourists. Although these numbers represent a post-pandemic recovery, they remain below pre-COVID-19 levels, when marine parks recorded over 500,000 visitors in 2019 (Department of Fisheries Malaysia, 2024). This suggests significant potential for growth, particularly in attracting international tourists.

Despite its economic benefits, the expansion of marine tourism poses challenges, particularly in maintaining the ecological balance of sensitive areas. Malaysia's marine parks, which are designated for conservation due to their biological importance, also serve as major tourist attractions. However, increasing tourist activities often lead to environmental pressures, including coral reef degradation, pollution, and habitat disturbance. Reports from organizations like Reef Check Malaysia highlight critical issues, such as high levels of rubble, silt, and damage caused by boat anchors, as well as coral bleaching due to rising sea temperatures.

As marine tourism continues to grow, the need to balance development with sustainability has become more pressing. Malaysia has implemented various laws, such as the Environmental Quality Act (1974), Fisheries Act (1985), and National Parks Act (1980), to address these concerns. These legislative measures aim to protect marine ecosystems while supporting the tourism sector. Achieving this balance is essential to ensure that Malaysia's marine tourism thrives as a sustainable source of economic growth and environmental conservation.

This introduction provides a comprehensive overview of Malaysia's marine tourism sector, its significance, and the challenges it faces, setting the stage for a deeper exploration of the strategies required to achieve sustainable development in this vital industry.

Literature Review

Legal Framework Governing Marine Tourism in Malaysia

Malaysia's legal framework for marine tourism is a carefully constructed tapestry of federal, state, and international laws designed to foster sustainable development while ensuring the preservation of its marine ecosystems. This multifaceted approach addresses challenges associated with environmental degradation, resource overexploitation, and the balance between economic growth and ecological stewardship.

Central to this framework is the Environmental Quality Act 1974, which lays the groundwork for protecting marine environments from pollution. Sections 21 and 25 of the Act impose strict controls on the discharge of pollutants into Malaysia's waters, holding individuals and industries accountable through fines and imprisonment. These provisions are especially crucial for mitigating threats such as oil spills, industrial waste discharge, and effluents from tourism-related activities, which, if unchecked, could

jeopardize biodiversity crucial to marine tourism activities like diving and snorkeling (Environmental Quality Act 1974). The National Parks Act 1980 complements these efforts by empowering the federal government to designate areas as national or marine parks under Section 3. This authority has resulted in the conservation of renowned destinations such as Pulau Redang and Pulau Tioman, where restrictions under Section 9 prohibit activities that could harm flora, fauna, and geological formations. These parks not only preserve Malaysia's natural heritage but also serve as a magnet for eco-tourists who value sustainable travel (Fisheries Act 1985).

Equally significant is the Fisheries Act 1985, which governs the sustainable use of marine resources. Under Sections 41 and 41A, the government has established Marine Protected Areas (MPAs), ensuring that core conservation zones remain undisturbed while allowing controlled tourism in designated areas. Violations of these regulations, such as unauthorized fishing or coral harvesting, are subject to penalties under Section 43, reinforcing the law's conservation objectives (National Parks Act 1980). Adding another layer of regulation, the Tourism Industry Act 1992 ensures that Tourism operators adopt environmentally responsible practices. Section 5 mandates licensing for all tourism-related businesses, while Section 16 enforces compliance with guidelines designed to minimize harm to marine environments. Together, these laws create a framework that not only supports sustainable tourism but also balances economic benefits with ecological integrity (Tourism Industry Act 1992).

A crucial addition to Malaysia's legal arsenal is the Exclusive Economic Zone Act 1984 (EEZ Act), which establishes Malaysia's jurisdiction over its Exclusive Economic Zone. This Act provides the legal basis for regulating activities such as resource exploitation, marine scientific research, and tourism within the EEZ. Sections 4 and 5 of the Act explicitly require authorization for activities that might impact marine ecosystems, including underwater exploration and artificial reef construction (Exclusive Economic Zone Act 1984). The EEZ Act also aligns with international commitments such as the United Nations Convention on the Law of the Sea (UNCLOS), ensuring that Malaysia adheres to globally recognized principles while managing its marine resources. By imposing stringent requirements on operators within the EEZ, the Act serves as a vital tool for protecting offshore habitats, which are increasingly popular for activities like deep-sea diving and cruise tourism.

The enforcement of these laws is bolstered by the Maritime Enforcement Agency Act 2004, which established the Malaysian Maritime Enforcement Agency (MMEA). The MMEA acts as the country's primary maritime law enforcement body, tasked with ensuring compliance with regulations in Malaysia's territorial waters and EEZ. The agency's responsibilities include patrolling marine parks, preventing illegal fishing, and responding to environmental threats such as oil spills and pollution from ships.¹⁰ Its board authority, inspects and detains vessels suspected of violating environmental and fisheries laws is pivotal for maintaining the integrity of Malaysia's marine tourism sector. For instance, the agency has played a critical role in curbing Illegal, Unreported, and Unregulated (IUU) fishing, a global issue that threatens the sustainability of marine ecosystems. By combining enforcement capabilities with inter-agency coordination, the MMEA ensures that Malaysia's marine tourism framework is not only robust on paper but also effective in practice.

State-specific laws and policies play an equally crucial role, particularly in Sabah and Sarawak, where natural resource management falls under state jurisdiction. Sabah's Parks Enactment 1984 governs the establishment and management of marine parks within the state. Under Section 7, the Sabah Parks Board of Trustees is authorized to manage parks such as Tun Mustapha Marine Park, Malaysia's largest marine park. This enactment ensures that activities within the park are regulated to support conservation and sustainable tourism (Sabah's Parks Enactment 1984). Similarly, Sarawak's Forest Ordinance 2015 includes provisions for the protection of marine areas and coral reefs, enabling the state to implement localized conservation strategies that align with its tourism development goals (Sarawak's Forest Ordinance 2015). Through the integration of national legislation, marine protected areas, and state-specific policies, Malaysia demonstrates a comprehensive approach to managing marine tourism. These laws and provisions ensure that the economic potential of marine tourism is harnessed without compromising the ecological integrity of its marine environments. The framework not only provides legal protection for marine biodiversity but also ensures that tourism operators and visitors contribute to sustainable practices.

While the described legal framework provides comprehensive theoretical coverage on paper, a critical analysis reveals several systemic gaps in integration, jurisdiction, and enforcement. The primary vulnerability stems from the federal-state jurisdictional divide dictated by the Malaysian Constitution. While federal laws like the Fisheries Act 1985 control marine resources and maritime boundaries, state enactments in Sabah and Sarawak govern land use and coastal waters up to three nautical miles. This structural separation creates a significant legal gap, often leading to operational friction when federal conservation mandates clash directly with state-driven commercial tourism or island development goals.

Furthermore, Malaysia suffers from a regulatory vacuum due to the complete absence of a dedicated, singular "Marine Tourism Act". Instead, the framework relies on a fragmented patchwork of statutes scattered across separate ministries such as the Environmental Quality Act 1974 for pollution, the Fisheries Act 1985 for marine protected areas, and the Tourism Industry Act 1992 for business licensing. Because these laws were designed for independent sectors, they fail to provide an integrated approach. The Tourism Industry Act 1992, for instance, functions well as a tool for registering commercial operators but lacks the ecological mechanisms required to dictate local carrying capacities or enforce specialized marine conservation protocols.

This fragmentation is further complicated by agency misalignment, as seen in the reliance on the Fisheries Act 1985 to manage tourist recreation. Using a statute fundamentally designed to regulate fishing means that authorities are forced to retrofit outdated legal provisions to police entirely different commercial tourism behaviors, such as recreational diving, jet-skiing, and anchoring. Consequently, daily tourism-related offenses frequently slip through localized regulatory cracks.

Finally, an enforcement gap exists between heavy maritime policing and local conservation monitoring. While the Maritime Enforcement Agency Act 2004 empowers the MMEA to act as a strong coast guard against large-scale issues like Illegal, Unreported, and Unregulated (IUU) fishing, the agency's broad authority is rarely optimized for daily localized tourism offenses, such as anchor damage to coral reefs or minor resort sewage leaks. Combined with the fact that statutes like the EEZ Act 1984 remain strictly reactive and corrective rather than proactive, the current legal framework lacks modern adaptation mechanisms. It lacks the flexibility to legally mandate temporary park closures during mass climate-induced coral bleaching events or to dynamically enforce regenerative tourism practices.

International Commitments and Influence On Malaysia's Marine Tourism Laws

Malaysia's alignment with international commitments has profoundly shaped its marine tourism industry, enabling the translation of global objectives into actionable and measurable outcomes. Among its significant achievements is the designation of over 10% of the country's coastal and marine areas as Marine Protected Areas (MPAs), fulfilling the requirements of Target 14.5 of the United Nations Sustainable Development Goals (SDGs). These MPAs, such as the expansive Tun Mustapha Marine Park in Sabah and Pulau Payar Marine Park in Kedah, function as biodiversity hotspots and controlled zones where sustainable tourism thrives without compromising conservation efforts. Tun Mustapha Marine Park, spanning over 1 million hectares, exemplifies Malaysia's dedication to safeguarding marine ecosystems while supporting eco-tourism activities like diving, snorkeling, and guided nature tours (Mujahid, 2023; Economic Planning Unit, 2021).

Malaysia's commitment to global environmental agreements is further evident in its proactive response to climate change, which poses significant risks to marine tourism. Coral bleaching events within the Coral Triangle, exacerbated by rising sea temperatures, have highlighted the vulnerability of Malaysia's marine ecosystems. In response, the government has implemented climate-resilient strategies, including real-time ecosystem monitoring systems that facilitate early intervention to mitigate environmental damages. Climate-adaptive tourism practices, such as promoting low-impact activities like kayaking and guided snorkeling, have been introduced to reduce stress on sensitive marine habitats. Additionally, improved waste management systems on heavily visited islands and beaches, along with the deployment of artificial reefs, have contributed to habitat restoration while creating new attractions for tourists (Mujahid, 2023).

International collaborations have played a pivotal role in strengthening Malaysia's marine tourism policies. Through participation in the Asia-Pacific Economic Cooperation (APEC) Marine Sustainable Development Framework, Malaysia has benefited from knowledge exchange and capacity-building initiatives with other member nations (Mujahid, 2023). These partnerships have enabled the adoption of ecosystem-based management practices, which account for the interconnectedness of marine ecosystems and tourism activities. Collaborative projects under APEC, such as artificial reef development and sustainable fisheries programs, have bolstered Malaysia's efforts to enhance marine habitat resilience and foster eco-tourism opportunities.

Domestically, these international commitments are seamlessly integrated into Malaysia's legal and policy frameworks. The principles of sustainable use and conservation outlined in the SDGs and the Convention on Biological Diversity (CBD) are reflected in national laws such as The Fisheries Act 1985, establishes MPAs and prohibits destructive fishing practices. The Environmental Quality Act 1974 incorporates international pollution control standards, ensuring the protection of marine ecosystems from industrial discharge and waste pollution. These legal measures are complemented by community-based conservation programs, particularly in states like Sabah and Sarawak, where local communities are empowered to manage marine resources sustainably. Such programs, which align with the objectives of the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF), provide socio-economic benefits through eco-tourism while promoting biodiversity conservation (Marzo et al., 2023).

Malaysia's comprehensive approach to aligning its domestic policies with international standards highlights its role as a regional leader in marine conservation and sustainable tourism. The establishment of MPAs, the adoption of climate-resilient practices, and the integration of community-based initiatives are tangible examples of how Malaysia effectively bridges global commitments with local implementation. These efforts are not merely symbolic but are vital steps toward ensuring the sustainability of marine tourism while preserving the country's rich marine heritage for future generations. By continuing to participate in international collaborations and adhering to globally recognized frameworks, Malaysia underscores its dedication to addressing environmental challenges and advancing sustainable tourism practices within the Asia-Pacific region.

Sustainable Development in Marine Tourism

The travel and tourism sector have been severely impacted by the COVID-19 pandemic. The true economic and human cost of tourism today is incalculable, with the World Travel and Tourism Council projecting a loss of over 75 million jobs and a global GDP decrease of over \$2 trillion due to tourism. Global GDP is said to have decreased by 3.4 percent between 2019 and 2020, with economies that rely on tourism being the most affected. How about Malaysian tourism? Due to the COVID-19 pandemic, Malaysia saw a 96.7% decrease in foreign visitor arrivals to 0.13 million from 26.1 million in 2019 before the outbreak occurred, and a 49.9% decrease in domestic visitor arrivals from 131.7 million to 66 million. Travel agencies, hotels, airlines, amusement parks, national parks, and other tourism-related businesses are required to temporarily halt operations, and some businesses are shut down entirely. In 2020, the unemployment rate rose by about 4.55%, hitting its highest level since 1993 (Economic Planning Unit, 2021).

Sustainable development is crucial to our recovery from the outbreak that severely damaged our economy. Before exploring its specific application to marine environments, the concept of sustainability within the wider tourism sector must first be defined. Under the United Nations Environment Programme, sustainable tourism is defined as tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities. So, by applying the definition above to the context of marine we can conclude that sustainable marine tourism transforms into a means of promoting balance between environmental preservation, cultural preservation, and economic growth.

Reducing tourism's detrimental effects on the environment and cultural heritage is essential to achieving sustainability. This entails dealing with pollution, excessive use of energy, water, and land resources, as well as stopping the deterioration of historic sites and the dilution of regional cultures. Managing pollution in coastal and marine areas by controlling the solid waste, wastewater, runoff, and plastics; minimizing damage in high-use areas through sustainable development planning and coastal zone management;

lowering greenhouse gas emissions and minimizing energy and water usage, especially from air, sea, and ground travel; and enhancing energy efficiency and promoting water conservation through changes in visitor behavior are some of the key strategies (Islam et al., 2013). This entails restricting resort sprawl and high-occupancy tourists in areas that are sensitive to the environment or culture, minimizing economic leakage by supporting local companies and job possibilities, and creating or enforcing regulations to protect cultural assets. Preserving both material and intangible cultural assets requires actions including limiting the number of visitors at sensitive locations, hiring local guides and operators, and installing interpretive signage. Malaysia has already begun putting the aforementioned sustainability-related measures into practice. Sipadan Island serves as an example of this, as just 176 people are permitted admission each day (The Land (Control and Management of Sipadan Island) Rules 1996).

True sustainability requires more than just reducing the adverse effects of tourism or making sure that the money generated by it stays in local economies. Coastal and marine tourism has the ability to sustain and revitalize local communities and cultures, promote economic development, and actively improve the local environment. Restoring coastal and marine habitats, particularly mangroves and coral and shellfish reefs, can help diversify an already-existing tourism industry and provide substantial extra tourism advantages. Additionally, it has the potential to significantly increase employment in the neighborhood.

Restoration is a resource-intensive endeavor that calls for a variety of expertise and occupations. Additionally, there is mounting evidence that travelers are becoming more interested in and inclined to actively participate in enhancing a destination's natural resources, such as rebuilding coral reefs. Numerous studies have demonstrated the benefits of focused conservation initiatives for tourism, including the repopulation of marine animals like sea turtles, sharks, and dolphins. Wildlife-tourist interactions need to be carefully controlled and supervised. In 2012, shark diving tourism generated over \$9.8 million in direct revenue for the district of Semporna, Malaysia's most popular diving destination (Vianna et al., 2017). This included almost \$2 million in direct taxes for the government and \$1.4 million in pay for the local people. Establishing a fee that divers must pay might bring in over \$2 million annually for the upkeep and enforcement of a shark sanctuary.

Regenerative tourism is more than just making sure that communities and local economies gain from travel or stopping money from leaking out (Prayote Songklin, 2024). Travel restrictions and border closures during the worldwide pandemic have increased the opportunity for governments and tourism firms to engage in education programs, apprenticeships, training, and capacity building. Local community people should be given preference when hiring for managerial positions and should be paid a livable wage with prospects for promotion. To guarantee the long-term employment of local communities, businesses must develop long-term strategies and fill skills gaps through education and training. Generous communities' rights to "maintain, protect, and develop the past, present, and future manifestations of their cultures, such as archaeological and historical sites" emphasize the importance of preserving traditional and cultural knowledge.

As custodians of coastal and marine habitats, indigenous groups have a wealth of information that can be extremely helpful in restoring and preserving the health of these ecosystems. They have, however, historically been deprived of these habitats, underscoring the necessity of their empowerment and engagement in conservation and sustainable tourism initiatives. For example, the Bajau people have long resided in Southeast Asian waters, where they have developed into creatures that survive at sea and have bodies that are unlike those of other people on Earth (Kara Goldfarb, 2018). They can be included in a community-based tourism project where they can empower themselves socially and economically.

Nevertheless, operationalizing these sustainable and regenerative models within the Malaysian context uncovers a profound institutional misalignment. Although frameworks such as Semporna's shark-diving initiatives demonstrate clear fiscal feasibility, scholarly analysis is currently limited by historical datasets and a distinct separation from federal statutory laws. Additionally, centralized environmental metrics regularly ignore the unique legal marginalization of native groups, particularly the stateless status of the Bajau populations, which systematically excludes them from receiving formal financial returns from the local tourism markets they underpin.

Methodology

The research adopted a qualitative methodology as the primary approach. This method allowed them to explore and analyze marine tourism issues in depth, focusing on the legal frameworks, policies, and principles that regulate the industry in Malaysia. Rather than relying on numerical data, the qualitative approach emphasized understanding the context, implications, and effectiveness of existing laws in balancing tourism growth with environmental sustainability. This approach enabled the researchers to capture the complexity of legal issues and their broader impact on society and the environment.

To further strengthen the analysis, the content analysis is employed as a tool to examine various primary and secondary sources. Relevant statutes, regulations, policies, and government reports were systematically reviewed to identify themes, patterns, and gaps in the current legal framework governing marine tourism. Academic writings, journal articles, and case studies were also analyzed to provide critical perspectives and support their arguments. Through this method, the researchers were able to highlight the strengths and weaknesses of Malaysia's legal framework and to evaluate how these laws align with the principles of sustainable development and conservation.

Additionally, the research was grounded in the doctrinal method, which is commonly used in legal research. This method focused on the interpretation and analysis of legal provisions, case law, and statutory frameworks relevant to marine tourism in Malaysia. By applying the doctrinal approach, this research examined how the existing legal instruments are applied in practice and whether they adequately address the challenges of marine tourism. The doctrinal analysis also provided a foundation for recommending legal reforms and improvements to ensure that the law remains responsive to both economic opportunities and environmental responsibilities.

The data analysis for this study relies on a two-pronged approach, combining qualitative content analysis with a doctrinal legal method. Content analysis is used to systematically review policy reports and academic studies, while the doctrinal method is applied to evaluate the actual text, hierarchy, and weaknesses of Malaysia's marine laws. This analysis is carried out in four straightforward phases:

First, the collected texts are split into two groups to separate legally binding rules from general commentary. The first group consists of primary legal sources, such as the Environmental Quality Act 1974, the Fisheries Act 1985, the Exclusive Economic Zone Act 1984, and state laws from Sabah and Sarawak. The second group contains secondary sources, including academic journals, UN Sustainable Development Goal roadmaps, and NGO conservation reports, which provide real-world context on how these laws work in practice.

Second, these texts are reviewed and sorted into four key themes: park zoning rules, business licensing compliance, agency enforcement powers, and local community benefits. Once sorted, the laws are put through a legal "gap analysis". This step examines whether rules originally written for commercial industries (like fishing) can legally be used to police modern tourist activities like jet-skiing and scuba diving. It also maps out areas where federal and state government authorities overlap or clash.

Finally, the discovered legal loopholes and enforcement problems are compared against international conservation standards, such as the United Nations SDGs and the Coral Triangle Initiative. This final step checks whether Malaysia's current laws actively protect the environment or if they simply act as administrative paperwork. Ultimately, this structured review forms the logical foundation for the legal reforms recommended at the end of this paper.

Findings

Conservation Efforts through Legislation

Legal mechanisms play a pivotal role in safeguarding marine ecosystems by creating enforceable frameworks that balance ecological preservation with human activity. Firstly, by zoning in marine parks. Marine parks often implement zoning systems to manage human activity and protect sensitive habitats. Tourism zones allow controlled activities like snorkeling, diving, and boating to ensure the sustainability of marine resources. While no-entry zones are designated as strict conservation areas, these zones prohibit human access to minimize disturbances. These zones are important to be preserved as a way to protect

the ecosystem. For example, the Perhentian Island was gazetted as a Marine Park in 1994 and was established as a no-take zone; fishing is prohibited within two nautical miles from the lowest water level on the shore. This zoning is important in order to protect coral reef ecosystems from overfishing and other harmful activities (Islam et al., 2013).

In the beginning, the responsibility for the marine park management was being held by the Department of Fisheries Malaysia but in 2004, the responsibility was shifted to the Marine Parks Department Malaysia under the Ministry of Natural Resources and Environment. The management is guided by several acts including The Fisheries Act 1985 where it provides the legal framework for the establishment and management of marine parks in Malaysia, Establishment of Marine Parks Malaysia Order 1994 where it declares specific islands and the surrounding waters as marine parks alongside defining the boundaries of these marine parks. While the Marine Parks Department Malaysia manages the water area up to two nautical miles surrounding the island, the state government however still has the authority over the land management on the marine park islands (Mujahid, 2023).

Next, Jervis Bay Marine Park in Australia employs zoning plans to separate areas such as recreational zones and no-take sanctuary zones. In the no-takes zone, activities that might damage the habitats such as fishing or harvesting marine life are strictly prohibited. The effort is made to ensure the habitats will be protected at all costs. Besides, there were also conflicts between scuba divers and anglers in the area. However, it was successfully managed by spatially separating user spaces through no-take zones and no-anchoring zones. The approach has reduced competition for space and provided ecological and social benefits. Certain zones, such as the headlands of Jervis Bay were also identified as high-use areas for activities like diving and fishing. These zones often become hotspots for user conflicts (Lynch et al., 2004).

Zoning in marine parks such as the approach taken by Jervis Bay Marine Park has demonstrated that ecological protection and recreational use can be balanced by the effective enforcement of designated areas. Besides, by establishing no-take zones and no-anchoring zones, authorities can mitigate conflicts between two different groups of scuba divers and anglers. The steps taken indirectly also safeguard critical habitats and endangered species (Lynch et al., 2004).

The next legislative steps taken to enhance the conservation efforts in marine parks are by enforcing licensing and regulations. As an example, Section 25(1) of the Environmental Quality Act 1974 states that a person must obtain a license from the Director-General of the Department of Environment in order to discharge any waste or pollutant into inland or coastal waters (Environmental Quality Act 1974). The licensing requirement under this provision may also be applied to the operators who conduct activities that are likely to cause environmental pollution such as diving centres and tourist boats.

The activities are concerned with the discharges of pollutants into coastal waters. Hence, proper monitoring and control are required to make sure there is no pollution. According to Section 5 of the Exclusive Economic Zone Act 1984, the provision prohibits activities such as exploitation of natural resources, searching or excavation operations, marine scientific research or construction, operation or artificial island unless they are being authorized by the Exclusive Economic Zone Act 1984. Malaysia has made sure that the licenses for operators who are involved in exploration and construction activities will help to ensure that the activities are being done in line with environmental protection principles. The licensing process also involves the consideration of environmental impact as before the approval of the licenses, the operator is required to conduct Environmental Impact Assessments (EIA) so that measures can be put in place for marine biodiversity conservation. Besides, regulations and licensing conditions also ensure that operators will comply with environmental standards while carrying out their activities. By enforcing these rules, our country can monitor the activities of operators to make sure that they adhere to the principles (ERIA, 2021).

In Malaysia, legislation plays a vital role in protecting the environment from harmful activities. Illegal, Unreported, and Unregulated or IUU Fishing is one of the global issues threatening the sustainability of the world's oceans. The main factors contributing to the issues is due to limited and overlapping enforcement by authorities besides IUU fishing is highly profitable due to lack of regulation and taxation. The fishing industry's complexity also makes it vulnerable to organized crime and corruption. The following factors resulting in the depletion of fish stocks and economic loss also pose threats to maritime

security and stability (Ghazali et al., 2021). However, Malaysia has adopted various laws and mechanisms to combat the issues. As an example, The Fisheries Act 1985, alongside with other legislations has provided a comprehensive framework to regulate and enforce precautionary measures against the violations. Section 8 of the act provides that a valid license is required for any fishing activities and any unauthorized activities will be penalized. Section 26 of the act addresses the prohibition of using pollutants for fishing as it is one of the ways to prevent pollution that might harm marine life and ecosystems. Besides, the use of banned and destructive fishing gear such as bombs and cyanide is strictly prohibited under this section as the methods can devastate sea floors and coral reefs resulting in significant biodiversity loss.

Other legislations used include the Exclusive Economic Zone Act 1984 and Maritime Enforcement Agency Act 2004 where the law has prepared precautionary measures including licensing, prohibited fishing methods, and powers for authorized officers to act without a warrant. In order for Malaysia to deal with the issue, there should be a continuous process of strengthening the legal framework and enforcement mechanism including the increase in penalties for violations, coordination between federal and state governments, and expansion of Marine Protected Areas to support conservation efforts and ensure compliance with the regulations.

Restoration projects such as mangrove ecosystems are important in order to rehabilitate the habitats. By integrating legislation with adaptive management, we can actually ensure the long-term sustainability of mangrove forests and the benefits they have. For example, The Mangrove Restoration at Sungai Haji Dorani was supported by the Department of Irrigation and Drainage of Malaysia. They classify the area as critical due to severe erosion and the classification has supported the role of governmental agencies in prioritizing areas for restoration. The projects also align with environmental regulations aimed to protect and rehabilitate the coastal areas. The approach taken combines hard and soft engineering where the approach is supported by legal policies that promote sustainable and effective coastal protection methods. Besides, the use of local materials and simple construction techniques such as bamboo mats is aligned with policies that encourage cost-effective and sustainable restoration practices. The benefits gained by this approach are it can improve both ecological and socio-economic aspects of the coastal area besides the restoration of mangroves also provides multiple ecosystem services such as shoreline stabilization or sediment trapping (Hashim, et. al., 2010). The mangrove restoration project in Sungai Haji Dorani shows the effectiveness of combining engineering solutions with ecological restoration. The integrated approach not only stabilizes the shoreline but also enhances biodiversity and provides socio-economic benefits to local communities.

Challenges in The Implementation of Sustainable Development in Marine Tourism

Malaysia is working hard to become a fully developed country while making sure it grows in a sustainable way. Even though Malaysia is quite late compared to other developing countries, Malaysia still implements the best practices in its activities. This implementation not only involves the government body but also other parties like the private sector and NGOs to ensure that this mission and aim to become a sustainable nation will be achieved based on the target. But along the way, there are many challenges in the implementation of sustainable development in the environmental field especially concerning marine tourism.

Regulatory clarity is crucial for the successful implementation of sustainable marine tourism in Malaysia. However, the country faces significant challenges in this area. One key issue is fragmented policies and coordination among the various agencies and stakeholders involved. These entities often operate in silos, leading to overlapping responsibilities, inefficiencies, and a lack of collaboration. For example, Malaysia's marine and ocean policies lack integration, with different objectives and jurisdictions between federal and state governments, which creates confusion and delays in policy implementation (ERIA, 2021). Another major challenge is enforcement limitations. Weak enforcement of environmental regulations in marine tourism areas hampers conservation efforts and undermines the protection of vital marine ecosystems. The lack of effective monitoring and penalties for damaging activities, like coral reef destruction and pollution, contributes to ongoing environmental degradation (Din et al., 2014).

Furthermore, there is a lack of comprehensive planning for sustainable marine tourism. Often, tourism development is driven by short-term profit motives rather than long-term sustainability. Without integrating sustainability principles into planning, marine tourism risks damaging the very resources that it depends on. Research has shown that incorporating sustainability into long-term strategies are essential to ensuring the sector's future success and environmental protection (Din et al., 2014). Addressing these governance challenges is essential for promoting a more sustainable marine tourism sector in Malaysia. A more coordinated approach, better enforcement, and comprehensive planning will help ensure that tourism benefits both the economy and the environment.

Secondly, environmental challenges. One of the most pressing issues is coral reef degradation. Over-tourism, coupled with destructive activities such as irresponsible diving, anchoring, and illegal fishing practices, significantly damages delicate marine habitats. These activities not only harm the coral reefs but also disrupt the biodiversity that marine tourism depends on. Coral reefs, which serve as vital ecosystems supporting marine life, are particularly vulnerable to human activities and are being destroyed at an alarming rate, undermining the health of the entire marine ecosystem (Selamat et al., 2016).

Marine pollution is another major concern, with significant environmental consequences. The continuous accumulation of litter, plastic waste, and runoff from coastal developments pollutes the waters, threatening marine life and ecosystems. These pollutants degrade water quality, harm marine species, and reduce the appeal of coastal destinations for tourists. Moreover, the long-term effects of pollution, such as plastic ingestion by marine animals and the destruction of habitat for fish and other species, are causing irreversible damage to the marine environment (Crabtree, 2007). Additionally, climate change impacts are exacerbating the environmental challenges faced by marine ecosystems. Rising sea temperatures and ocean acidification are causing widespread coral bleaching, which disrupts the biodiversity and structural integrity of coral reefs. These environmental changes not only affect marine ecosystems but also undermine the tourism industry, as the beauty and health of coral reefs are major attractions for visitors. The increasing frequency of extreme weather events, such as storms and flooding, further accelerate damage to marine habitats, creating additional stress for the tourism industry and coastal communities (KASI Strategic Institute for Asia Pacific, 2020).

The third issue is economic dependency on tourism. Many coastal communities in Malaysia rely heavily on tourism as a primary source of income, which often makes it difficult for them to embrace sustainable practices (Selamat et al., 2016). These communities may resist initiatives that limit visitor numbers or restrict certain activities, fearing that such measures will result in reduced income and job losses. This challenge underscores the tension between economic growth and environmental conservation. The goal is to transition toward sustainable practices that ensure long-term viability for both the environment and the economy, which requires careful planning and support for local communities to adapt without sacrificing their livelihoods protection (Din et al., 2014).

Another significant challenge is limited awareness and education about sustainability among both tourists and local stakeholders. Many tourists, as well as local residents, are often unaware of the environmental consequences of their actions. Without proper education and awareness, behaviors such as littering, overfishing, and other forms of environmental degradation are common. This lack of understanding contributes to the deterioration of marine ecosystems and threatens the long-term success of marine tourism. Comprehensive education programs targeting both visitors and locals are essential to ensure that sustainable tourism practices are widely adopted. These initiatives should aim to increase awareness about the environmental impacts of tourism and promote responsible behaviors that preserve marine ecosystems (Hamzah et al., 2024).

Furthermore, equity and inclusion issues create social tensions in marine tourism areas, complicating efforts to achieve sustainable development. The benefits of marine tourism are not always equitably distributed among local communities. While some individuals and businesses reap the rewards of tourism, others, particularly those in more marginalized or rural areas, may not experience the same economic benefits. This inequality can exacerbate social tensions and create a divide between different groups within the community. For sustainable tourism to succeed, it is essential to ensure that the economic benefits are shared more equally, with efforts to support marginalized communities and provide them with opportunities to participate in and benefit from tourism. Addressing these issues requires a more inclusive

approach that prioritizes social equity alongside environmental and economic goals (ERIA, 2021). By addressing these issues through education, policy development, and equitable distribution of resources, Malaysia can move toward a more sustainable and inclusive tourism sector that benefits both local communities and the environment.

Conclusion

Malaysia has implemented laws and policies for its maritime environments by enacting important statutory tools, such as the Environmental Quality Act 1974, the National Parks Act 1980, and the Fisheries Act 1985. The country has also undertaken international commitments to pursue UN Sustainable Development Goals related to marine tourism, alongside joining the Coral Triangle Initiative. In any case, sustainable marine tourism still faces a host of challenges that must be met with urgency and long-term answers. These include governance issues regarding fragmented policies and weak enforcement; environmental issues like coral reef degradation and marine pollution; economic dependency of coastal communities; and social equity considerations. These issues were further worsened by the historic impacts of the COVID-19 pandemic, which resulted in a dramatic decline in international tourist arrivals by 96.7%.

However, sustainable development efforts within the country have managed to showcase that it is possible to balance conservation and economic growth. This is seen in successful examples like visitor restriction policies in Pulau Sipadan and high revenues gained from sustainable tourism practices such as shark diving tourism in Semporna. The future of sustainable marine tourism in Malaysia will depend greatly on increased collaboration among key stakeholders, strengthened enforcement machinery, environmental education for citizens and tourists, and the equitable distribution of tourism benefits, alongside proactive responses to climate change impacts. This includes tapping traditional knowledge in indigenous communities like that of the Bajau, introducing new concepts such as artificial reefs for the restoration of degraded marine habitats, and moving toward a future whereby marine tourism works for both environmental protection and community empowerment, rather than acting as a driver of ecosystem degradation and social inequality.

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