LEGAL PROTECTION OF MARINE PROTECTED AREAS

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Abstract

In order to conserve marine biodiversity, control human activity, and protect ecosystems from environmental concerns including pollution, overfishing, and climate change, it is important that Marine Protected Areas (MPAs) be legally protected. This study examines the national and international legal frameworks that regulate marine protected areas (MPAs), evaluating their efficacy, methods of enforcement, and difficulties in maintaining compliance. In order to improve the protection of these crucial ecological zones, it also emphasizes the significance of fusing sustainable development objectives with marine conservation legislation and fostering more collaboration among stakeholders.

Keywords: Marine Protected Areas (MPAs), marine conservation, sustainability, biodiversity, marine ecosystems, regulatory mechanisms.

Introduction

In order to protect marine ecosystems and biodiversity, laws, rules, and international agreements are examined in the legal study of Marine Protected Areas, or MPAs. MPAs are essential for maintaining vital habitats, preserving threatened species, and encouraging the sustainable use of maritime resources. This area of research focuses on the legal frameworks that control the establishment, administration, and enforcement of these protected zones, striking a balance between the preservation of the environment and commercial endeavors like shipping, fishing, and tourism. Comprehending the legal aspects of marine protected areas (MPAs) is imperative in order to guarantee efficacious marine conservation and tackle the obstacles presented by pollution, overfishing, and climate change.

Method of Study

Combination of the descriptive and analytical legal research methods are applied in this research. The primary data of the research comes from international conventions, regional agreements and national legislation. Secondary data is literary books, online resources and cases study. The paper employs a comparative legal analysis to evaluate conventions against Myanmar National Laws, identifying gaps in enforcement.

Definition of Marine Protected Areas

Any region of the open ocean or coastal zone that has been granted some degree of protection in order to control the use of resources and ocean space or to save species and habitats that are threatened or endangered can be broadly referred to as a marine protected area. On the other hand, the International Union for the Conservation of Nature and Natural Resources (IUCN) definition of an MPA is likely the one that is used the most frequently worldwide, "Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna,

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historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment."[2]

The definition of MPAs is "An area within the maritime area for which protective, conservation, restorative or precautionary measures, consistent with international law have been instituted for the purpose of protecting and conserving species, habitats, ecosystems or ecological processes of the marine environment."[3]

Coral reefs, salt marshes, mangroves, offshore reefs, seamounts, and ice- covered places are only a few of the many biotopes included on the global list of MPAs. MPAs can be created for a variety of reasons, including as preserving fish populations, controlling tourism operations, minimizing disputes between various resource users, and safeguarding marine species and habitats.[4]

There are two main groups into which MPA-related concerns can be divided. MPAs created to safeguard the maritime environment fall under the first type. It is necessary to record at least five MPA-related concepts (1) clearly defined area. (2) ice- covered area; (3) special areas; (4) particularly sensitive sea areas; and (5) specially protected areas. The maritime environment is intended to be protected against vessel- source pollution by clearly defined areas, ice-covered areas, special areas, and particularly sensitive sea areas. By safeguarding the maritime environment, these MPA- related concerns will help to maintain diversity even though they do not directly involve the conservation of marine biological diversity. Marine spaces are shielded from land- based marine pollution by specially protected areas.[5]

The second category consists of MPAs that are directly related to the conservation of marine biological diversity. These MPAs can be further classified into two subcategories: species-specific MPAs, which aim to protect particular marine species, like marine mammals, in a given area. MPAs in this subcategory are essentially consistent with the conventional species-specific approach, and examples are provided by:

- the 1990 Agreement on the Conservation of Seals in the Wadden Sea,
- the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS),
- the 1999 Agreement Establishing a Sanctuary for Marine Mammals," and
- the Inter-American Convention for the Protection and Conservation of Sea Turtles."[6]

The second subcategory consists of MPAs, such as the Rio Convention, which aim to preserve endangered or uncommon species' habitats, unusual or fragile ecosystems, and other marine life in a particular region.[7]

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[2] Julian Roberts, (2007), Marine Environment Protection and Biodiversity Conservation

[3] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-418.

[4] Julian Roberts, Marine Environment Protection and Biodiversity Conservation, (2007), *The Application and Future Development of the IMO's Particularly Sensitive Sea Area Concept*, p-29. p-30.

[5] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-418.

[6] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-418

[7] Article 2 of the Rio Convention, 1992, the United Nations Conference on Environment and Development, A/CONF.151/26.

In Myanmar, established in 1993 and managed by the FD's Nature and Wildlife Conservation Division (NWCD), the Meinmahla Kyun Wildlife Sanctuary of the Ayeyawady was created in a low, flat delta area that is home to a large number of mangroves. Established in 1970 in the Ayeyawady, the NWCD is in charge of the Thamihla Kyun Wildlife Sanctuary. However, there is a significant maritime component to the conservation efforts conducted there, which are supervised by the DoF. In addition to the Irrawaddy dolphin, the refuge is home to populations of Green, Loggerhead, and Olive Ridley turtles. Established in 1928 and under the FD's jurisdiction, Moscos Island Wildlife Sanctuary in Taninthayi Region is home to four of Myanmar's five marine turtle species and Indo-Pacific finless porpoises, but mostly the island's terrestrial portion is protected.[8]

In addition to Lampi Marine National Park, the Myeik Archipelago is establishing three Locally Managed Marine Areas (LMMAs). LMMAs are a traditional method of managing community-based fisheries and are often administered locally by coastal communities. LMMAs are not specifically intended to maintain marine biodiversity; rather, they are a tool for managing fisheries.[9]

Importance of Marine Protected Areas

There are three goals in mind when establishing Marine Protected Areas. They are

(1) The aim is to preserve and replenish the biodiversity found in a region's ecosystems. The majority of national wildlife refuges and marine sanctuaries are a few examples.

(2) One way to do this would be to safeguard historical items, like a shipwreck. A few national marine sanctuaries, state and national parks, and historic monuments may fall under this category.

(3) The region would be managed to facilitate the extraction of living resources (plants, fish, and shellfish, among others) that rely on the protected areas' habitat for purposes such as feeding, mating, spawning, and other activities. A few wildlife refuges and specific fishing locations could serve as examples.[10]

An area of the ocean where human activity is restricted by the government is known as a marine protected area (MPA). Numerous MPAs permit uses of the land that do not harm the ecosystem. Some have fishing bans. Some don't even permit visitors to enter the region. Because of the numerous risks that the ocean and its inhabitants face MPAs have been formed. Overfishing, littering, water pollution, and climate change are some of the threats facing the ocean. Numerous fish, marine animals, and other sea creatures have had population declines as a result of these dangers. There are numerous names for marine protected areas, such as no-take zones, marine parks, marine conservation zones, marine reserves, and marine sanctuaries.[11]

MPAs protect biodiversity, build resilience, improve fisheries, and serve as a backup plan in the event that other approaches to fisheries management fail. They safeguard and rebuild threatened species' habitats. These are locations for research and teaching. They can draw tourists and give local populations another source of income. The reserves have the power to

[8] Marine Conservation in Myanmar, Current knowledge and research recommendations, p- 63
[9] Biodiversity in Myanmar, including Protected Areas and Key Biodiversity Areas, Supplement to MCRB's Briefing Paper on Biodiversity, Human Rights and Business, 2018, p-6.
[10] http://marineprotectedareas.noaa.gov, National Marine Protected Areas Center.
[11] https://education.nationalgeographic.org/resource/importance-marine-protected-areas/

revive vital operations like carbon capture and water purification. Furthermore, they are crucial in preserving and reviving the big, ancient fish that have historically served as the main agents of procreation and population replenishment. Longer-living animals have the capacity to bear more offspring. They cannot be brought back by traditional fisheries management; only reserves can. The greater the number of larval and adult progeny, the greater their dispersal.[12]

Thus, MPAs are vital not only for environmental protection but also for supporting food security, climate adaptation, and sustainable development in Myanmar.

Legal Provisions for Marine Protected Areas

MPAs have mostly been established in territorial seas where they may be enforced by the appropriate authorities. Conversely, MPAs have been established in exclusive economic zones and international waters.

According to Article 2(1) of the Ramsar Convention, every Contracting Party is required to identify a suitable wetland on its soil so that it can be added to a List of Wetlands of International Importance. The Contracting Parties are required to develop and carry out their plans in a way that prioritizes protecting the wetlands listed on the List and, to the greatest extent feasible, using wetlands wisely within their borders in compliance with Article 3(1). Articles 1(1) and 2(1) may apply to such wetlands, which may include offshore areas. Approximately 48% of the Ramsar sites that have been officially recognized have coastlines, and these sites may have marine elements.[13]

The 1972 Convention for the Protection of the World Cultural and Natural Heritage (hereafter the World Heritage Convention) also contains a notion connected to MPAs. In addition to habitats of "threatened species of animals and plants of outstanding universal value from the point of view of science or conservation," this convention strives to safeguard cultural and natural heritage. According to Article 11(1), each State Party is required to provide the World Heritage Committee with an inventory of all the assets that comprise its territory's outstanding universally valuable cultural and natural heritage. The Committee will then create the "World Heritage List," a list of properties that are a part of both the natural and cultural heritage. A marine site is one of several World Heritage sites.[14]

According to Article 61 of the UNCLOS, Coastal states are responsible for preventing overexploitation of the living resources inside their EEZs. It offers the foundation for naming MPAs to control and preserve marine life. Coastal states have the authority to control the use of marine resources, including through MPAs. Within their EEZs, coastal nations have the authority to impose more stringent protection regulations for marine animals, including MPAs.[15]

These clauses permit international collaboration in the establishment of MPAs in fields outside of national borders. All states must take the required actions for their citizens, or work with other states to take such actions, to preserve the high seas' living resources.[16] States will collaborate to manage and conserve living resources in high seas regions. To take the required

[12] https://www.americanprogress.org/article/marine-protected-areas-help-fisheries-ocean-ecosystems
[13] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-419.
[14] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-419.
[15] Article 65 of the United Nation Convention on the Law of the Sea, 1982, 3067 (XXVIII), the United Nations General Assembly on November 16, 1973.
[16] Article 117, Ibid.

steps to conserve the living resources in question, states whose citizens exploit the same living resources or other living resources in the same area must engage in discussions. To do this, they will, when necessary, work together to create regional or subregional fisheries organizations.[17] States must take into account how conservation efforts will affect ecosystems and the interdependence of species.[18]

States have an obligation to safeguard and maintain the marine environment under UNCLOS. This serves as the official foundation for MPAs in areas within national control (high seas) and outside of it (territorial waters, EEZs).[19] Pollution from different sources must be prevented, reduced, and controlled by the states. It emphasizes the preservation of endangered, threatened, or unusual species' habitats as well as rare or delicate ecosystems. The designation of MPAs as a mechanism to accomplish these environmental protection objectives is common.[20] According to Article 197 of the UNCLOS, States must work together to safeguard and conserve the marine environment, including MPAs created by regional agreements, either directly or through international organizations.

To maintain and preserve the marine environment and to avoid, reduce, and regulate marine pollution, states must:

(a) support programs of scientific, educational, technical, and other assistance to developing States, either directly or via capable international organizations. Among other things, this support will involve:

  (i) educating their scientific and technical personnel;

  (ii) facilitating them to take part in important international programs;

  (iii) providing them with the facilities and equipment they require;

  (iv) increasing their ability to produce such equipment;

  (v) offering guidance on and building facilities for monitoring, research, education, and other programs;

(b) give developing nations, in particular, the help they need to minimize the effects of significant events that could seriously pollute the maritime environment;

(c) Offer suitable support, particularly to developing nations, about environmental assessment preparation.[21] It promotes collaboration in offering poor nations scientific and technical support for marine conservation, which aids in the creation of MPAs.

By its specific circumstances and capacities, each Contracting Party shall: (a) create national plans, programs, or strategies for the conservation and sustainable use of biological diversity, or modify existing plans, programs, or strategies for this purpose, indicating, among other things, the measures outlined in this Convention that are pertinent to the Contracting Party in question; and (b) incorporate, to the greatest extent feasible and as appropriate, the

[17] Article 118, Ibid.
[18] Article 119, Ibid.
[19] Article 192, Ibid.
[20] Article 194, Ibid.
[21] Article 202, of the United Nation Convention on the Law of the Sea, 1982, 3067 (XXVIII), the United Nations General Assembly on November 16, 1973.

conservation and sustainable use of biological diversity into pertinent sectoral or cross-sectoral plans, programs, and policies.[22] National biodiversity strategies may incorporate MPAs.

Each Contracting Party is required to identify biodiversity components that are crucial for conservation and sustainable use, such as marine species and habitats, as well as monitoring activities that could significantly harm marine biodiversity. Setting parts for MPA designation is aided by this method.[23]

As far possible and appropriate, each contracting party shall create a system of protected areas or areas where special measures are required to conserve biodiversity;

Provide guidelines for the selection, establishment, and management of protected areas; encourage the preservation of ecosystems, natural habitats, and viable species populations; and respect, preserve, and uphold conservation-related knowledge, innovations, and practices of indigenous and local communities.[24]

Under Article 9 of the Convention on Biological Diversity,1992, the conservation of marine biodiversity outside of its natural habitats must be supported by each contracting party in addition to in-situ conservation measures, which may include MPAs. States must encourage the implementation of socially and economically sound incentives, such as MPAs, to enhance biodiversity protection.[25]

Contracting parties shall take all reasonable steps to avoid the introduction and spread of pests that damage plants or plant products, including invasive alien species. The National Plant Protection Organizations (NPPOs) are in charge of risk assessment, surveillance, and management strategies for invasive species that impact plants.[26]

In order to support the preservation of wetlands and control invasive species that jeopardize the biological integrity of the wetland, contracting parties must develop and carry out their plans.[27] Contracting party encourages action from all parties to protect migratory species that are in danger of extinction, including invasive species that could imperil these species.[28]

The obligation of the contracting parties is to prevent ships from discharging hazardous pollutants or effluents into the marine environment. The implementation of MARPOL protections in and around MPAs is based on this legal foundation.[29] Article 3 of the MARPOL, 1973, explains that the Convention is applicable to all ships, regardless of flag, and to sea regions that are under the Parties' jurisdiction. This international application ensures that MPAs can be protected from international maritime activity under MARPOL rules. It is illegal to discharge in a way that violates MARPOL. The national laws of the parties must forbid such discharges.[30] Provides the legal reasons to sanction pollution in or around MPAs, particularly where Special Areas are involved.

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[22] Article 6 of the Convention on Biological Diversity,1992, A/RES/65/161 General Assembly.
[23] Article 7, Ibid
[24] Article 8, of the Convention on Biological Diversity,1992, A/RES/65/161 General Assembly
[25] Article 11, Ibid
[26] Article 1&4 of the International Plant Protection Convention, 1951.
[27] Article 3.1 of the Ramsar Convention on Wetlands, 1971.
[28] Article 3 of the Convention on the Conservation of Migratory Species of Wild Animals, 1979.
[29] Article 1 of the International Convention for the Prevention of Pollution from Ships, 1973, IMO Resolution MEPC. 176 (58).
[30] Article 4, Ibid

Within their jurisdiction, coastal governments have the authority to implement MARPOL regulations, such as port state control and ship inspection or detention.[31] This article gives coastal states the authority to sue ships that pollute MPAs or the areas around them.

In the case of Mauritius v. United Kingdom[32], establishing a Marine Protected Area (MPA) around the Chagos Archipelago, a collection of islands in the Indian Ocean, was the source of the conflict. Therefore, it was unanimously determined that the United Kingdom had violated Articles 2(3), 56(2), and 194(4) of the United Nations Convention of the Law of the Sea by establishing the MPA around the Chagos Archipelago. Article 194(4) says that "States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in accordance with this Convention." This arbitration award is about how to interpret and apply that article. The tribunal came to the conclusion that the UK had breached its UNCLOS responsibilities by creating the MPA. However, the tribunal was unable to resolve the more general issue of sovereignty over the Chagos Archipelago since it was outside its jurisdiction.

In the Tubbataha Reef Natural Park Incident (Philippines, 2013)[33] case, A U.S. Navy minesweeper, the USS Guardian, ran aground on Tubbataha Reef in January 2013, causing damage to about 2,345 square meters of coral. The sailboat allegedly broke local environmental rules, entered the restricted area without the required clearance, and disregarded park officials' warnings, according to Philippine authorities. In compensation, the U.S. Navy gave the Philippine government about 87 million Philippine pesos, or about $1.97 million. The money was set aside for further conservation initiatives in Tubbataha as well as the repair of the damaged reef.

Although MPAs are being included in more and more treaties pertaining to the preservation of marine biological diversity, there is still debate on their efficacy. There must be a minimum of three difficulties recognized from a legal perspective." The first barrier is the absence of connections between MPAs for the purpose of controlling marine pollution and conserving marine biological diversity. The preservation of marine biological diversity is contingent upon the prevention of contamination to the environment. Because land-based pollution mostly affects coastal waterways, which are places with significant biological variety, regulation of land-based pollution is especially crucial.[34]

However, marine biological diversity cannot be protected from marine pollution by MPAs established only for the purpose of conserving marine biological diversity. It is therefore necessary to integrate the management of marine pollution with MPAs in order to preserve marine biological diversity. That being said, MPAs typically do not have the authority to regulate marine pollution. Climate change's detrimental effects on marine biological diversity present the second challenge. Changes in the atmosphere and temperature have an impact on the maritime environment. However, MPAs by themselves are unable to stop the negative effects of climate

[31] Article 5 of the International Convention for the Prevention of Pollution from Ships, 1973, IMO Resolution MEPC. 176 (58).
[32] Case No 2011-03, 2010, ICJ.
[33] G.R. No. 206510, September 16, 2014, The Supreme Court of the Philippines
[34] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-429.

change on marine ecological diversity. Therefore, in order to stop the loss of marine biological diversity, climate change prevention is also required.[35]

Third, there's no denying that one of the main dangers to the richness of marine life is fishing. Treaties pertaining to the conservation of marine biological diversity do not encompass the control of fisheries, with rare exceptions. Conversely, treaties pertaining to fisheries do not prioritize the preservation of marine biological diversity. There is a disjunction between the two legal spheres as a result. To effectively protect marine biological diversity, there will be a greater need for positive coordination between MPAs and fisheries control.[36]

Myanmar is a signatory to a number of significant international agreements, such as UNCLOS in 1996, CBD in 1994, Ramsar in 2005, CITES in 1997, and regional ASEAN frameworks, which serve as the legal and regulatory framework for the establishment and administration of Marine Protected Areas.

The primary law controlling protected areas is the Biodiversity and Conservation of Protected Areas Law (2018), nevertheless, it needs to define the definitions of MPAs, zoning systems, and particular provisions for maritime ecosystems. The Ministry of Natural Resources and Environmental Conservation (MONREC) is authorized to establish protected areas.[37] However, there are no marine- specific categories or management procedures specifically mandated, leaving room for uncertainty over jurisdiction over jurisdiction and enforcement at sea. Although Section 13 of the Conservation of Biodiversity and Protected Areas Law, (2018) outlines forth management duties for conservation and sustainable use, it makes no specific regulations for fishing, navigation, or coastal development in maritime zones, hence ministerial directives are used to carry them out.

According to section 3(b) of the Myanmar Fisheries Law 1991, amended in 2011, Provides that the Department of Fisheries (DOF) has the power to create fishery management areas, which could include MPAs to manage fish stocks and marine ecosystems. Prohibits destructive fishing methods such using poison or dynamite, which could seriously affect MPAs and the marine creatures they safeguard. To prevent overexploitation of MPA resources, the DOF is empowered to control fishing activities within specified zones.[38] To preserve biodiversity, MOECAF is authorized to designate marine zones as environmentally protected areas. It is stipulated that an Environmental Impact Assessment (EIA) procedure shall be established and applied to any project that can have an impact on MPAs.[39] Institutional overlap results from the weakness of an established coordination mechanism between DoF and MONREC for collaborative maritime area management. General rules for regulating fishing activities and creating fishery conservation zones are included in the Fisheries Law (1990, updated 2019); however, MONREC coordination procedures are required for the management of maritime biodiversity and protected areas.

The Ministry of Natural Resources and Environmental Conservation, formerly the Ministry of Environmental Conservation and Forestry, is in charge of establishing regulations for

[35] Yoshifumi Tanala, (2019), The International Law of the Sea, Third Edition, p-429.
[36] Ibid
[37] Section 9, of the Conservation of Biodiversity and Protected Areas Law, 2018.
[38] Section 17 and 21, Myanmar Fisheries Law 1991
[39] Section 10 and 13 of Environmental Conservation Law, 2012.

environmental management, some of which may involve invasive species control.[40] Controlling pollution and conserving resources, including managing invasive species, are under the purview of the Environmental Conservation Department.[41] The main goal of forest management as stipulated by this regulation is to stop the entry of dangerous animals or plants into forests.[42] The Environmental Conservation Law (2012) mentions pollution prevention and ecosystem preservation, however it makes no mention of MPA designation or management.

Myanmar's commitment to sustainable development and environmental conservation, including biodiversity protection, is outlined in the National Environmental Policy, which is not a law. It emphasizes how important it is to have management and control plans for invasive species in order to preserve biodiversity.[43] MPAs slow down habitat damage, which keeps important ecosystems from disappearing, by limiting practices like bottom trawling, mining, and drilling. One of the biggest dangers to marine biodiversity is overfishing. By lowering or completely eliminating fishing pressure in some areas, MPAs enable fish populations to recover and age structures to their natural state. This enhances trophic interactions and preserves predator-prey connections, both of which support healthy ecosystems. The creation of MPAs inside ABNJ is fraught with difficulties, resulting from a lack of legal frameworks as well as a lack of scientific knowledge. The ecological processes and environmental conditions of the ABNJ are poorly understood. Notwithstanding this information gap, it is nevertheless imperative to carefully consider whether locations are appropriate for MPAs and what kinds of activities may be allowed there. There are logistical and financial hurdles after an MPA is established, in addition to the difficulty in establishing MPAs in ABNJ. It is especially difficult to enforce regulations, keep an eye on activities, and carry out surveillance in these marine areas.

Finding

Marine Protected Areas (MPAs) need legislative protection to protect marine ecosystems, but research shows that enforcement and implementation of these laws are frequently difficult. There is no uniform governance framework for MPAs established by any of Myanmar's legislation, which results in conflicting agency mandates, unclear enforcement authority, and insufficient accountability. Marine conservation's efficiency is further limited by the weakness of legal requirements for scientific monitoring, management plans, and participation by the public. The legislative framework for MPA protection in Myanmar is therefore still fragmented, undeveloped, and insufficient to handle the complex ecological and socioeconomic realities of marine ecosystems. Therefore, even though there are laws in place, their effectiveness primarily depends on how well they are enforced and how well nations work together to conserve the maritime environment.

Recommendation

It is crucial for establishing thorough national legislation that addresses the creation, administration, and enforcement of marine protected areas (MPAs) and involves international treaties like the Convention on Biological Diversity in order to strengthen the legal protection of MPAs. Effective management plans should be created with input from local communities and

[40] Section 7(h), Ibid.
[41] Section 13 (f), Ibid.
[42] Section 10(b) of the Forest Law,2018.
[43] The National Environmental Policy 2019

stakeholders, establishing clear objectives and zoning regulations to ensure sustainable use. In order to achieve genuine marine protection, Myanmar needs a specific Marine Conservation or Marine Resources Act that unifies current legislation, makes institutional responsibilities clear, and incorporates international commitments under the UNCLOS and Convention on Biological Diversity (CBD) into legally binding domestic laws.

Conclusion

In conclusion, maintaining healthy ecosystems and conserving marine biodiversity depend on the legal protection of Marine Protected Areas (MPAs). Even while laws have been put in place to protect these places in many countries, the success of these legal safeguards frequently depends on how well they are enforced, how well they are funded, and how well they are managed. In addition to controlling human activity, effective legal frameworks must guarantee long-term sustainability by collaboration with the community, empirical study, and adaptive management. Achieving more robust and efficient protection of the world's maritime resources requires bolstering international collaboration and filling legal gaps.

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