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China's Marine Protected Areas Legal Challenges and Global Engagement within and Beyond National Jurisdiction

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Abstract: *This paper explores the legal challenges and global engagements surrounding China's Marine Protected Areas (MPAs) within its national jurisdiction and beyond, including its participation in the negotiations concerning marine biodiversity in areas beyond national jurisdiction (ABNJ). With over three decades of MPA management experience, China has established more than 250 sites, yet needs to improve its effectiveness. The study highlights obstacles such as the absence of systematic approaches, inadequate regulatory frameworks, governance inefficiencies, and conflicts between conservation and exploitation interests. Furthermore, the paper examines China's participation in international discussions on marine biodiversity, particularly its involvement in negotiations related to MPAs under the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (the BBNJ Agreement). By addressing these issues, this study contributes to informed decision-making and effective strategies for marine conservation in China and globally.*

Key Words: Areas Beyond National Jurisdiction, BBNJ Agreement, Biodiversity Conservation, China, Marine Protected Areas

Introduction

Marine Protected Areas (MPAs) are essential tools for preserving biodiversity and guaranteeing sustainable development in coastal and marine habitats. China has pledged more to marine conservation in the last few decades. China, positioned as a committed party to the Convention on Biological Diversity (CBD), significantly updated its National Biodiversity Conservation Strategy and Action Plan. The goal of this all-encompassing program is to lessen the loss and decline of biodiversity by implementing a number of conservation strategies, most notably the creation of a vast network of nature reserves. (CBD, 2011)

The maritime regions of China are divided into three separate climate zones, each of which has unique marine ecosystems that are indicative of temperate, subtropical, and tropical climates. These seas are home to more than 28,000 known species of marine life, exhibiting a wealth of habitats and biodiversity. These include a variety of habitats, including coral reefs, seagrass beds, mangroves, salt marshes, and islands (Liu, 2013). Among these, 249 species of seabirds, 41 species of marine animals, and 3,213 species of fish are noteworthy (Liu, 2012). China has been at the forefront of MPA establishment, being nearly forty years ahead of schedule in preserving its rich biota. The State Council approved the first national marine nature reserve in 1980, designating Bohai Snake Island and nearby Laotie Hill. This decision marked a historic milestone (Hu et al., 2020).

The creation of MPA networks has significant ecological benefits in the Chinese context. These networks are essential to maintaining biological diversity and protecting important habitats, particularly in light of the increasing pressures placed on these components that lead to their loss and degradation. Rather than creating a single large-scale MPA to meet ecological needs, it is more economical to establish an ecological network made up of multiple small to medium-sized MPAs without sacrificing ecological advantages (Laffoley, & Kilarski, 2008). China has more than 250 sites developed inside its coastal and maritime regions, demonstrating its more than thirty years of experience maintaining MPAs

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(People's Daily, 2017). However, despite these initiatives, China's MPA management could be more effective. China's recent pledges to expand the area covered by MPAs and establish an "ecological barrier" along its coast demonstrate the country's recognition of the importance of marine conservation (CBD, 2011).

Despite its significant accomplishments, China still has to deal with declining coastal biodiversity, disappearing natural coastlines and characteristic habitats, and depleting marine biological resources (Hu et al., 2020). China's problem is common; worldwide, the gap between the actual status and the intended conservation aims for marine ecosystems has grown due to human activity-induced stresses and more extensive environmental changes (Halpern et al., 2012). Because of how serious these issues are, there has been increased awareness of the need for MPAs both domestically and abroad.

By 2020, at least 10%, which is now 30% by 2030, of marine and coastal waters are to be protected, according to CBD's marine conservation goal (CBD, 2022). This emphasizes how urgently comprehensive and deliberate actions are required to solve the intricate biological problems that marine habitats face, not just in China but also on a global scale.

This paper investigates the legal issues and international participation related to China's MPA ambitions, both within and beyond its jurisdictions. It offers a critical assessment of the state of MPA practices in China today, highlighting significant obstacles such as the absence of systematic methods, inadequate legal frameworks, ineffective governance, and conflicts between the objectives of exploitation and conservation. Insufficient monitoring programs and limited resources exacerbate these issues.

Furthermore, by analyzing the fragmented legislative framework and outlining potential solutions for the current management issues, the research delves deeper into the broader context of protected area management in China. Recommendations include strengthening the management system and laws, expanding public involvement, and establishing multiple funding sources, among others.

Even though China has made progress in protecting the marine environment within its borders, much more needs to be done, particularly in conserving deep-water ecosystems and areas beyond national jurisdiction. The study also examines China's involvement in global discussions on marine biodiversity, particularly in negotiating the BBNJ agreement regarding MPAs. It analyzes the factors driving and limiting China's participation in establishing MPAs in areas beyond national jurisdiction (ABNJ) and proposes potential strategies to address the associated challenges.

Additionally, the research examines China's changing position toward MPA plans in global venues such as the Commission for Conservation of Antarctic Marine Living Resources (CCAMLR). It looks at how China's involvement in and attitude toward MPA programs demonstrate its expanding significance in international marine conservation activities.

Finally, this study thoroughly examines the legal difficulties, international involvement, and potential future developments related to China's MPA activities. By addressing these challenges, it seeks to support well-informed decision-making and practical solutions for marine conservation in China and abroad.

Research Question

What are the existing challenges and achievements in China's MPAs within its national jurisdiction, and how does China engage in the establishment of MPAs in ABNJ along with its participation in negotiations under the BBNJ agreement?

Objective(s)

Primarily, the study aims to evaluate the effectiveness of China's existing MPAs in conserving biodiversity and fostering sustainable development in coastal and marine ecosystems. Secondly, the study endeavours to explore China's engagement in the establishment of MPAs in ABNJ. This investigation will explore the legal complexities, global interactions, and ecological ramifications of extending marine conservation efforts beyond national jurisdictions. Furthermore, the study analyzes China's participation in negotiations under the BBNJ agreement. This analysis will focus on China's stance, priorities, and contributions to international dialogues concerning marine biodiversity conservation.

Status Quo of MPAs in China

The classification of MPAs in China presently falls into two primary categories: Marine Nature Reserves (MNRs) and Marine Special Protected Areas (MSPAs) (Hu et al., 2020). The basic distinction lies in the approach to protection, with MNRs adopting a full protection strategy, while MSPAs follow a multi-purpose management approach based on zoning. In addition to these two major categories, Aquatic Germplasm Reserves (AGRs), commonly referred to as fishery conservation zones, are designated conservation areas focused on safeguarding commercially significant, rare, or endangered fish species. These reserves often prioritize critical

reproductive zones, encompassing breeding and nursery grounds, as well as recognized migration routes. Unlike MPAs, AGRs do not primarily aim for biodiversity conservation, a mandate stipulated for MPAs by the International Union for Conservation of Nature (IUCN) (Bohorquez et al., 2021). These MPAs can be classified into several types based on their diverse objectives, broadly aligning with the IUCN-protected area classification classes.

Since 2012, China, Japan, North Korea, South Korea, and Russia have been discussing the planning of a comprehensive and representative North East Asia Marine Protected Areas Network (NEAMPAN). NEAMPAN's main objectives include preserving marine life and its habitats, encouraging sustainable resource use, and advancing regional collaboration in MPA administration (ESCAP 2021). Six existing MPAs within China's jurisdiction have been designated as NEAMPAN sites.

Furthermore, this marks the first instance of marine areas being considered potential national park candidates. The three designated sea areas include the South China Sea, renowned for its tropical marine ecosystems; Nanji Island, characterized as a marine biosphere within a subtropical zone; and Changdao Island, a crucial habitat for migratory birds and marine animals in a temperate zone (CGTN News, 2023).

Emergence of Marine Protected Areas in China

China's MPAs have advanced notably in the last few decades. During the 1980s, China's total MPAs grew at an average yearly pace of about 4% (Hu et al., 2020). Extending MPA coverage and accelerating the MPA network's development are two goals for managing MPAs from 2013 to 2018, as stated in the 12th Five-Year National Plan (SOA, 2013). China announced changes to the National Main Functional Area Planning policy on August 1, 2015. In the marine areas under China's jurisdiction, this new strategy promotes the formation of an "ecological barrier" made up of connected islands and MPAs (The State Council, 2015). Notably, this marks the first policy in China to emphasize the importance of connectivity in marine conservation explicitly.

These MPAs can be distinguished according to the significance of their protected objectives at the national, provincial, municipal, and county levels. Currently, China has established a network of 271 MPAs, encompassing 4.1% of the nation's sea area (Zhao, 2018). Consisting of 164 marine nature reserves and 107 MSPAs, collectively covering a sea area of 59,000 km^2 (Hu, et., al 2020).

Legislation, Regulations, and Policies Governing the Management of Protected Areas in China

The "Constitution of the People's Republic of China," regarded as the fundamental legal framework in the nation, underscores the protection of natural resources and asserts the overall ownership of these resources within the country. Article 9 of the Constitution states:

"All mineral resources, waters, forests, mountains, grasslands, unreclaimed land, mudflats and other natural resources are owned by the state, that is, by the whole people, except for the forests, mountains, grasslands, unreclaimed land and mudflats that are owned by collectives as prescribed by law. The state shall ensure the rational use of natural resources and protect rare animals and plants. It is prohibited for any organization or individual to seize or damage natural resources by any means. Constitution of the People's Republic of China Article 9. The Environmental Protection Law of the People's Republic of China is recognized as the cornerstone of environmental legislation in China. Article 4 of this law affirms: "Protecting the environment is a fundamental national policy of the state. The state shall adopt economic and technological policies and measures conducive to economically and cyclically utilizing resources, protecting and improving the environment and enhancing the harmony between mankind and nature to coordinate economic and social development with environmental protection."

Marine nature reserves, a distinct category within nature reserves, present unique challenges compared to their terrestrial counterparts and require tailored regulations for effective management and protection. The term "marine nature reserves" was initially introduced in the Marine Environment Protection Law of the People's Republic of China. Article 4 of the law stipulates: "The relevant departments under the State Council and the people's governments of the coastal provinces, autonomous regions, and municipalities directly under the Central Government may, as the need to protect the marine environment requires, establish special marine reserves, marine sanctuaries and seashore scenic and tourist areas and take corresponding measures to protect them. The designation of special marine reserves and marine sanctuaries shall be subject to the State Council for approval."

As a result, twelve marine nature reserves were created in coastal regions. But at first, these reserves were reduced to "paper" reserves with no real

protection because there were no specific procedures for the law's execution (Keyuan, 2005). Acknowledging this shortcoming, it was necessary to create specific legislation for the administration and defence of marine nature reserves. Under the direction of the State Oceanic Administration (SOA), the "Measures on the Management of Marine Nature Reserves" began to be drafted in 1988. Many laws and regulations, some of which date back to the late 1900s, such as the 1994 Regulations on Nature Reserves and the 1995 Regulations on Marine Nature Reserves, govern the management of MPA systems. Unfortunately, these legal frameworks have not been updated to address modern issues effectively (Ministry of Ecology and Environment, People's Republic of China, 1995).

The Measures on the Management of Marine Nature Reserves passed in 1995, is the main legislation controlling how marine nature reserves are managed. In China's legislative system, it is positioned as an administrative rule at the third level, below the Regulations on Nature Reserves and much below the Law on Marine Environmental Protection. The main idea expressed in this law is the importance of conservation, which is counterbalanced by responsible exploitation and the goal of sustainable development (Zou, 2003). There are two other types of marine nature reserves: national and local. Significant scientific and protective value and their broad national and international significance are the criteria used to designate reserves at the national level. The approval of the State Council is necessary for their establishment. On the other hand, local reserves are created by provincial governments based on their significant local influence and particular scientific and protective values (Zou, 2003). Article 10 of Regulations on Nature Reserves of the People's Republic of China states: Nature reserves shall be established for areas meeting any of the following conditions:

- Typical natural geographical regions, representative natural ecosystems, and areas of similar natural ecosystems that have been damaged but can recover with protection;
- Areas of concentrated distribution of rare and endangered wild animal and plant species;
- Seas, coasts, islands, wetlands, inland waters, forests, grasslands, and deserts with special conservation value;
- Geological structures, famous caves, fossil distribution areas, glaciers, volcanoes, hot springs, and other natural relics with significant scientific and cultural value;
- Other natural areas require special protection approved by the State Council or the people's governments of provinces, autonomous regions, or municipalities directly under the Central Government (Ministry of Ecology and Environment, People's Republic of China, 1995).

Challenges and Management of MPAs in China

Even though China has been developing MPAs for over 30 years and has constructed a number of them within its 12-nautical-mile territorial sea. To establish and manage those MPAs, China must, nevertheless, overcome several challenges. MPAs are not methodically planned at the national level in China (Qiu et al., 2009). It is recognized that the loss of biodiversity is caused by the uneven distribution of MPAs and the exclusion of significant marine ecosystems from the limited marine area planning that has been finished (Cui & Liu 2006; Ye et al., 2008). Geographically, the Yellow Sea has the highest concentration of national MPAs, while the South China Sea has fewer, smaller-sized MPAs. (Accessed 12 April 2023) The National Biodiversity Strategy's priority areas are only sometimes in line with the classification of MPAs. Certain habitats and species are given priority in protection aims, whereas others receive less attention. The regulatory structure has problems, such as little enforcement priority, little legal force, and unclear implementation directions. Inconsistent regulations, rivalry in governance, and a lack of cooperation among government entities overseeing MPAs all limit the management efficacy of MPAs (Li, & Fluharty 2017).

Only a few MPAs have independent, long-term monitoring programs, and monitoring and evaluation systems need to be better conceived (Qiu et al., 2009). Political will is also essential, particularly in China's top-down political system, where the central government still plays a big role. Significant adjustments to management practices and a strong political will at the national level are believed to be required for the transition to a structured MPA network (Xu, 2015).

China's Influence on MPAs in ABNJ

International coordination and cooperation are necessary for global ocean governance. China is a large maritime nation, and its involvement in global marine governance is essential. Owing to the ocean's interconnectedness, China would be impacted by marine conditions worldwide in terms of marine ecosystems, ocean development, and ocean management initiatives (Yu, & Huang 2023). In a meeting with heads of foreign delegations invited to participate in multinational naval events in Qingdao on April 23, 2019, President Xi Jinping, who also serves as the Chairman of the Central Military Commission, proposed the creation of "a maritime community with

a shared future". President Xi Jinping emphasized that instead of oceans dividing the planet into islands, they serve to unite it, fostering a community with a shared future. In this envisioned community, all nations share in prosperity and face challenges together in areas such as maritime security, the economy, culture, the environment, and beyond (Xu & Tan, 2023). With the Southern Ocean being one of the world's last great wilderness zones, conservation efforts are of worldwide importance (Terauds et al., 2012; Douglass et al., 2014). The necessity of an extensive network of MPAs in the Southern Ocean has been highlighted by the effects of climate change and the growth of human activities, such as fishing, tourism, and marine scientific research. This is necessary to guarantee the long-term preservation of the region's marine life resources. As a result of this increasing awareness, the CCAMLR has come under more scrutiny and expectation. As a result, the CCAMLR pledged to support the objectives stated in the World Summits on Sustainable Development Plan of Implementation (WSSD) (United Nations, 2011). The Southern Orkney Islands Southern Shelf MPA was the first high-seas MPA declared by the CCAMLR in 2009, setting a precedent for the global community (Christiansen, 2010).

China Engagement with CCAMLR

On June 8, 1983, China ratified the Antarctic Treaty, and on October 7, 1985, it formally joined the Antarctic Treaty Consultative Meeting (ATCM). However, its involvement and interest in Antarctic marine living resources were only recently evident. China's accession to the Convention for CAMLR occurred on September 19, 2006, and it became a Commission for the CCAMLR member on October 2, 2007. Another reason for the delay in joining is China's predominance in Antarctic scientific research and a lack of technical know-how in fishing in such remote and difficult marine areas (Zou, 1993). In the 2009-10 fishing season, China launched their krill fisheries with three vessels, yielding a total catch of fewer than 2000 tons (Tang, 2017).

China and the Ross Sea Marine Protected Area

As previously mentioned, by the time China joined the CCAMLR in 2007, the matter of MPAs had long been under consideration by the commission. The identification of eleven priority areas for further work on MPA development had just taken place (CAMLR, 2008). Despite this, the Commission did not make any notable advancement in defining MPAs during that period. If China had engaged at that time, it would have presented a valuable opportunity for the country to participate in the process almost from its initiation actively (Tang, 2017).

Many Members and observers welcomed China's 2015 adoption of the updated Ross Sea MPA proposal (CAMLR, 2015). China is concerned about the fine balance between preservation and sensible use, specifically the possible overuse of krill resources.

Furthermore, the bilateral relationship between the United States and China significantly influenced the global discourse surrounding the Ross Sea MPA proposal presented at the CCAMLR. Particularly noteworthy was the Chinese president's state visit to the United States in 2015, which occurred just one month before the CCAMLR meeting and proved pivotal (Reporter, 2017). Following the visit, both nations pledged to increase their cooperative research efforts and work together on the plan to create a Marine Protected Area in the Ross Sea of Antarctica. While the Ross Sea MPA plan was discussed at the US-China Strategic and Economic Dialogue between 2013 and 2015, China's endorsement in that year implies that the State visit might have prompted a last-minute agreement.

China affirmed its support for establishing an MPA that is compliant with international law and grounded in scientific evidence to enhance the conservation of Antarctic marine living resources. China reiterated key positions, including alignment of MPA objectives with the Convention's principles, preservation of freedom for scientific research in Antarctica, consideration of rational use in MPA establishment, operational research and monitoring plans, a reasonable MPA period, and consensus-based decisions for extensions. China acknowledged that the revised proposal addresses its main concerns and expressed support for its consideration as a basis for further deliberations, emphasizing collaboration with all Members in evaluating the Ross Sea MPA proposal (CAMLR, 2015).

China in BBNJ Negotiations for MPAs

China consistently supports a community with a shared future for humankind. This concept, applied to the ocean, signifies a collective formed by individuals under specific shared conditions or a cohesive organization in the marine domain established by various national and non-state actors with common marine interests or values (Yu & Huang 2023). The notion of a maritime community with a shared future serves as the guiding ideology for China's engagement in global marine governance (Duan, & Yu, 2021).

China has actively engaged in the negotiations regarding BBNJ and has contributed to discussions on

MPAs within the prospective BBNJ agreement (Duan, 2022). China emphasizes the need to establish a tradition of consensus-based decision-making when implementing area-based management tools. China firmly believes in handling international affairs through extensive consultation. During the PrepCom sessions, it is important to highlight that China actively engaged by submitting three written contributions. One submission was a collaborative effort by the Group of 77 and China, while China independently presented the remaining two submissions. The Chinese Government supports the advancement of conservation and sustainable utilization in BBNJ and places significant emphasis on ABMTs, which include MPAs.

Recommendations

In order to reduce concerns over the success of MPAs and the failure to support international MPA plans, it is imperative to conduct more rigorous scientific studies and gather comprehensive data. Prior to creating MPAs, it is necessary to collect baseline data, conduct research, and develop monitoring plans. Enhanced data collection and analysis will establish a strong basis for decision-making and effectively address China's concerns about the scientific foundations of MPA proposals.

To address the challenges of decentralization, uneven spatial distribution, and top-down decision-making processes, it is imperative to enhance governance and management frameworks. This involves establishing a standardized system for evaluating the effectiveness of MPA management and ensuring that protocols are adaptable to accommodate emerging challenges.

Considering the global scale of challenges related to marine conservation, it is imperative to promote international cooperation. China should engage proactively in constructive discussions and collaborations with other nations and international organizations to tackle shared challenges and promote global expertise in marine conservation.

Financing ecological restoration and climate change adaptation techniques is crucial to mitigate the decline in marine ecosystems and the depletion of coastal biodiversity. To protect marine areas from development, it is necessary to establish "ecological red lines". In addition, it is imperative to integrate "blue infrastructure" to enhance coastal resilience.

It is crucial to expand and diversify funding methods to address the challenges caused by insufficient funding for the management and conservation of MPAs. This involves exploring innovative financial solutions, such as global funding opportunities, collaborations between public and private sectors, and conservation finance options.

Conclusion

China's dedication to marine conservation, demonstrated by the establishment of MPAs, showcases its praiseworthy endeavors to safeguard its diverse marine biodiversity. However, the effectiveness of these MPAs faces significant obstacles, such as the need for systematic methodologies, inadequate regulatory frameworks, governance inefficiencies, and conflicts between the goals of conservation and exploitation. China's participation in international debates, particularly in negotiations about MPAs under the BBNJ agreement, demonstrates its recognition of the importance of global marine conservation efforts, despite the challenges it faces.

Furthermore, despite ongoing difficulties, China's involvement in marine conservation programs offers a chance for positive change. By implementing strategic interventions and collaborating with the international community, China has the potential to assume a crucial role in protecting marine ecosystems and promoting a sustainable future for global marine biodiversity conservation.

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