

LEGAL PATH AND CHALLENGES TO ACHIEVE GLOBAL MARINE BIODIVERSITY CONSERVATION TARGETS UNDER THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK IN CHINA

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I. INTRODUCTION

The *Second World Ocean Assessment* points out that climate change, unsustainable fishing, the introduction of invasive species, etc., continue to pose a threat to the ocean, degrading the marine environment. Legal protection of the marine environment has been carried out from two aspects: the prevention of marine pollution and the conservation of marine biodiversity.¹ One typical international instrument is the *United Nations Convention on the Law of the Sea* (UNCLOS) adopted in 1982, which established an overarching framework for the protection and preservation of marine environment in its part XII. The international rules on the conservation of marine biodiversity were further developed when the *Convention on Biological Diversity* (CBD) was adopted in 1992, which addressed different types of biodiversity, including marine biodiversity. Corresponding measures are stipulated by the CBD to ensure the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Since the legal measures of the CBD are relatively concise and abstract,² the Conference of the Parties (COP) to the CBD has taken a target-based approach to developing several biodiversity strategic plans or frameworks, including the *Strategic Plan for Biodiversity 2011-2020* (including the Aichi targets, Decision X/2 in 2010) and the *Kunming-Montreal Global Biodiversity Framework* (GBF, Decision 15/4 in 2022). The GBF sets out global targets and goals to be finished before 2030 and 2050, respectively. The GBF targets are updated from the Aichi targets, being more ambitious, quantifiable, and actionable. Besides, the UNCLOS parties adopted the *Agreement Under the United Nations Convention on the Law*

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1 ROBIN CHURCHILL, VAUGHAN LOWE & AMY SANDER, *THE LAW OF THE SEA*, at 751-752 (Manchester University Press, 2022).

2 Felix Ekardt, Philipp Günther & Katharina Hagemann et al., *Legally Binding and Ambitious Biodiversity Protection Under the CBD, the Global Biodiversity Framework, and Human Rights Law*, 35 *Environmental Sciences Europe* 8 (2023).

of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement) in 2023 to regulate area-based management tools (ABMT), marine genetic resources, and environmental impact assessments for areas beyond national jurisdiction (ABNJ). The BBNJ Agreement and the CBD are mutually supplementary in the sense that the former focuses on ABNJ, while the latter focuses on areas within national jurisdiction.

The GBF aims to halt and reverse biodiversity loss, as required by its 2030 mission and 2050 vision, by catalyzing, enabling, and galvanizing transformative action by various states and non-state actors. Four global goals and 23 targets are hence established. As will be analyzed in part II below, at least the following GBF targets contribute to marine biodiversity conservation and thus constitute the global marine biodiversity conservation targets: targets 1 (spatial planning), 2 (ecological restoration), and 3 (30 by 30 conservation target). A valuable lesson that can be learned from the failure of Aichi targets is that states should set reasonable and actionable targets and these targets should be translated into national or local action.³ Based on the lessons learned, the GBF follows a whole-of-government and whole-of-society approach. Following this approach, considering the urgent need to conserve marine biodiversity, and to comply with the obligations in the CBD to take general measures regarding biodiversity, effective national laws and policies are indispensable. States need to establish and implement legal measures to achieve the global marine biodiversity conservation targets, so as to provide solid support at the national law level.

This article focuses on China's legal approaches to implementing the global marine biodiversity conservation targets in the GBF. China shows its determination and ambition to address marine biodiversity loss and to implement the GBF by adopting or revising the relevant policies, laws, and regulations. For instance, China revised the *Marine Environmental Protection Law* (MEPL) in 2023, adding more emphasis on marine biodiversity conservation. China also updated its *National Biodiversity Conservation Strategy and Action Plan* in 2024, namely the NBSAP (2023-2030), to guide the national implementation of the CBD and the GBF. Nonetheless, there is a lack of systematic policy and legal framework on marine biodiversity, and

3 Decision 15/3 Review of Progress in the Implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020 and the Achievement of the Aichi Biodiversity Targets, CBD/COP/DEC/15/3, Montreal, Canada, December 7-19, 2022. Andrea Perino, Henrique M Pereira & Maria Felipe-Lucia et al., *Biodiversity Post-2020: Closing the Gap Between Global Targets and National-Level Implementation*, 15 Conservation Letters 3 (2022).

concrete legal measures to implement the GBF targets need to be improved.⁴ This article will thus analyze the legal approaches and challenges of fulfilling the goals and targets of the GBF and then propose ways to overcome these challenges. Analyzing how China implements the GBF will provide insights for other parties to the CBD, especially the developing country parties, on how to align national targets and measures with GBF requirements. Specifically, part II of this article will define and delineate the scope of ‘global marine biodiversity conservation targets’ in the GBF and explain the linkages between these GBF targets and other international instruments or goals, such as the BBNJ Agreement, the COP decisions, and the sustainable development goals (SDGs). Part III will comprehensively discuss China’s policies and legal framework that implement the CBD and the GBF concerning marine biodiversity and the legal challenges that come along. Part IV will analyze key legal measures in China that contribute to the achievement of the global marine biodiversity conservation targets identified in part II, analyzing each target’s overall requirements, criteria for reaching it, and concrete steps, as well as China’s approaches to implementing it. Part V is the conclusion.

II. GLOBAL MARINE BIODIVERSITY CONSERVATION TARGETS AND THEIR SYSTEMATIC VALUES

A. Delineating the Global Marine Biodiversity Conservation Targets

As the CBD merely provides for abstract and general rules and its substantive obligations do not distinguish between different types of ecosystems, the CBD should equally apply to all ecological realms including marine biodiversity.⁵ Broadly speaking, all 23 GBF targets can regulate the conservation and utilization of marine biodiversity, where applicable. Meanwhile, there is a long-existing emphasis on terrestrial biodiversity in multilateral environmental agreements (MEAs). Nonetheless, more and more international rules or targets focus on marine biodiversity conservation, as shown in the Aichi targets and the GBF targets. Furthermore, compared to the Aichi targets, the GBF has an increasing number of marine-related targets with enhanced requirements.

To narrow down the scope of discussion, ‘global marine biodiversity

4 Geng Yijia, Li Ziyuan & Tian Yu, *Convention on Biological Diversity: The Current Status, Ongoing Challenges, and Future Prospects of Marine Biodiversity Conservation*, 31 Biodiversity Science 7 (2023).

5 Carolina Hazin & Daniela Diz, *Less Specific and More Comprehensive? An Analysis of How the Ocean Is Reflected in the Kunming-Montreal Global Biodiversity Framework*, 38 Ocean Yearbook Online 325, 338 (2024).

conservation targets' will be defined in this article as the GBF targets that directly or indirectly contribute to the conservation of marine biodiversity. It is relatively easy to pinpoint GBF targets that directly address marine biodiversity conservation, assisted by checking whether terms such as 'marine', 'sea', and 'ocean' are used. Based on this criterion, GBF target 1 on spatial planning that addresses land and sea use change, target 2 involving marine ecosystems, target 3 involving marine areas, and target 8 involving ocean acidification are global marine biodiversity conservation targets. Opinions differ as to which GBF targets are indirectly related to marine biodiversity conservation. For instance, *Hazin* and *Diz* extended marine-related terms to include 'plastic pollution', 'fisheries', and 'blue spaces', that is, targets 7, 10, and 12 are identified to be relevant to marine biodiversity conservation.⁶ Furthermore, *Obura* explored the linkage between GBF targets and the 17 SDGs, especially SDG 14 on marine biodiversity conservation as defined by the *2030 Agenda for Sustainable Development*. He concluded that the following targets are global marine biodiversity conservation targets: targets 2 (ecological restoration), 3 (30 by 30 conservation target), 4 (species protection), 5 (use of wild species), 6 (invasive species), and 12 (access to green and blue spaces).⁷

This article will focus on targets 1, 2, and 3 due to limited space of discussion and for the following reasons. Firstly, these targets cover representative measures that address marine biodiversity conservation, covering from traditional restoration measures to more recently developed measures such as marine protected areas (MPAs).⁸ Secondly, since this article aims to discuss China's laws and regulations on marine biodiversity conservation, targets that have been transposed into national law should be paid with special attention. The NBSAP (2023-2030) is the guidance document for the implementation of the GBF in China and thus represents China's most recent understanding of the GBF. At least three out of the total 27 priority actions in the NBSAP (2023-2030) explicitly mention marine biodiversity conservation goals and requirements, which are consistent with the three targets in the GBF. Specifically, they are priority actions 7 (spatial planning), 8 (ecological restoration), and 9 (*in-situ* conservation).

6 *Id.*, 334.

7 David Obura, *The Kunming-Montreal Global Biodiversity Framework: What's in It for African Marine Conservation?*, 32 *Wiomsa Newsbrief* 12 (2023).

8 Heike K. Lotze, *Marine Biodiversity Conservation*, 31 *Current Biology* R1191-R1192 (2021).

B. Systematic Values of the Global Marine Biodiversity Conservation Targets

The global marine biodiversity conservation targets in the GBF have dual functions of upraising global biodiversity governance and global marine governance, as regulated by the CBD and the UNCLOS, respectively. These targets should not be isolated from other international instruments or goals that address marine biodiversity conservation, since they will also create synergies if effectively implemented. Other international instruments in this regard include the *2030 Agenda for Sustainable Development*, the COP decisions of the CBD, and the BBNJ Agreement. Therefore, it is necessary to analyze the systematic values of the global marine biodiversity conservation targets and their interaction with other international instruments.

1. *SDGs*.— The GBF explains its relationship with the SDGs in section D: they are mutually supportive of each other. *Obura* identified the mutually supportive connection between the GBF and SDGs by explaining how concrete GBF targets promote each SDG.⁹ SDG 14 is closely connected to the global marine biodiversity conservation targets in the GBF, as it sets goals and targets to conserve and sustainably use the oceans, seas, and marine resources for sustainable development. Specifically, SDG target 14.2 and target 14.5 set targets on the conservation and restoration of marine ecosystems and the coverage of 10% of coastal and marine areas by 2020, respectively, and target 14.3 aims to minimize and address the impacts of ocean acidification. GBF targets 2, 3, and 8 update and extend these three SDG targets.

The implementation of SDG 14 is not up to expectation, as no country had achieved all four of the seven SDG targets when they were due in 2020.¹⁰ Lessons that can be learned by the parties to the CBD from the practices of SDG 14 when implementing the GBF include bolstering the legal basis and institutional arrangements for marine environmental protection, streamlining concrete tasks to avoid conflicts, and carrying out capacity-building and development initiatives to get developing countries prepared for achieving the targets.¹¹ To further facilitate the achievement of SDGs, including the SDG targets related to marine biodiversity conservation, the United Nations General Assembly proclaimed 2021-2030 as the Decade on Ecosystem Restoration and the Decade of Ocean Science for Sustainable Development.

9 David Obura, *supra* note 7. David Obura, *The Kunming-Montreal Global Biodiversity Framework: Business as Usual or a Turning Point*, 6 *One Earth* 78-79 (2023).

10 Bianca Haas, *Achieving SDG 14 in an Equitable and Just Way*, 23 *International Environmental Agreements: Politics, Law and Economics* 202 (2023).

11 *Id.*, 202-203.

These initiatives call for sustainable and innovative solutions for ecosystem restoration and ocean development, which will also help secure the global marine biodiversity conservation targets in the GBF.

2. *COP Decisions*. — The Aichi targets and the GBF were both adopted based on COP decisions, setting the overarching frameworks and the roadmaps for reaching certain global biodiversity targets within a specified period. Although these COP decisions are not legally binding, they may carry normative force by elaborating on ambiguous legal provisions and clarifying the interpretation and implementation of the obligations in the CBD and will therefore directly contribute to attaining the three objectives of the CBD.¹² COP decisions of the CBD have been adopted to address marine biodiversity conservation.¹³

The first COP decision addressing marine biodiversity is the Decision II/10 (conservation and sustainable use of marine and coastal biological diversity) adopted in 1995, which expressed concerns over factors that affect marine and coastal biodiversity, and affirmed the significance to conserve marine biodiversity. Decision II/10 is annexed with the *Jakarta Mandate on Marine and Coastal Biodiversity*, which encouraged the use of integrated marine and coastal area management as the most suitable framework for addressing the loss of marine and coastal biodiversity. COP 4 adopted the *Programme of Work Arising from Decision II/10 (Jakarta Mandate on Marine and Coastal Biological Diversity)* (PoW) in Decision IV/5 in 1998, identifying the priorities, principles, and core measures regarding the governance of marine biodiversity. The PoW was then elaborated on by Decision VII/5 in 2004. As admitted by Decision 16/17 adopted in 2024, the mutually supportive link between the global biodiversity framework and the PoW continues even after the GBF has been adopted.

The PoW was proposed to be revised to incorporate key priorities and elements of the GBF.¹⁴ The gaps and areas in need of additional focus and further efforts were identified in COP Decision 16/17 to support the implementation of the GBF concerning marine and coastal biodiversity. Specifically, for instance, the parties to the CBD need to enhance the use of nature-based solutions and/or ecosystem-based approaches. The gaps and areas will be the right basis for updating the PoW. In addition, the implementation and support measures such as capacity-building and financial mechanisms in the GBF can be used to enhance the implementation of the PoW, as it can be observed that the PoW has not been fully implemented.

¹² Carolina Hazin & Daniela Diz, *supra* note 5, 327.

¹³ For a compilation of all COP decisions on marine biodiversity until COP 15, see Geng Yijia, Li Ziyuan & Tian Yu, *supra* note 4, 4.

¹⁴ Carolina Hazin & Daniela Diz, *supra* note 5, 335-336.

Besides the PoW, the COP also discussed and proposed measures to conserve marine biodiversity. A series of COP decisions have guided the establishment and management of ecologically or biologically significant marine areas (EBSAs) since 2008, involving the criteria to designate marine areas as EBSAs and the requirements for management following the designation.¹⁵ The EBSA process is one of the ABMTs, and its appropriate use will facilitate the achievement of GBF targets, especially target 3 on the 30 by 30 conservation target.¹⁶ Experiences in implementing the Aichi targets show that it is no easy task to finish this target. Merely relying on the designation and management of MPAs within national jurisdiction cannot reach GBF target 3. Instead, the EBSA process also applies to ABNJ, thus broadening the areas that can be used for reaching the 30 by 30 conservation target. Meanwhile, as recognized by COP Decision 16/16, the EBSA process can also contribute to the designation and management of MPAs under the BBNJ Agreement, as the EBSA process can provide scientific evidence for identifying MPAs in ABNJ.

3. *The BBNJ Agreement.* — The BBNJ Agreement reconfirms the determination of the parties to the UNCLOS to halt and reverse biodiversity loss in marine areas. Several measures in the BBNJ Agreement can directly help achieve concrete GBF targets. For instance, the MPAs designated under part III of the BBNJ Agreement will increase marine areas as expected under the 30 by 30 conservation target. It is not easy to achieve GBF target 3 by solely conserving and managing marine areas within national jurisdiction, as high seas account for 61% of the global marine areas, while marine areas within national jurisdiction only account for 39%. Establishing and managing protected areas in ABNJ as covered by the BBNJ Agreement will significantly increase the conservation and management of global marine areas. However, it should be noted that for the effective implementation of the GBF by the BBNJ Agreement, the principles and criteria for designating and effectively managing protected areas should be clarified. As discussed above, the EBSA process can provide a scientific and technical basis in this regard.¹⁷

15 For instance, COP Decision IX/20, Decision XI/17, Decision XII/22, Decision XIII/12, Decision 14/9, and Decision 15/26.

16 Amber Himes-Cornell, Juan Francisco Lechuga Sánchez & Caroline Potter et al., *Reaching Global Marine Biodiversity Conservation Goals with Area-Based Fisheries Management: A Typology-Based Evaluation*, 9 *Frontiers in Marine Science* 2 (2022).

17 INA TESSNOW-VON WYSOCKI, IOANNIS AGAPAKIS & ANUPAM ANAND ET AL., STRENGTHENING SYNERGIES FOR TRANSFORMATIVE CHANGE: IMPLEMENTING THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK THROUGH EXISTING BIODIVERSITY AGREEMENTS, in *INTERNATIONAL ENVIRONMENTAL LAW-MAKING AND DIPLOMACY REVIEW 2021*, at 71-82 (Tuula Honkonen ed., University of Eastern Finland, 2023). Geng Yijia, Li Ziyuan & Tian Yu, *supra* note 4.

III. CHINA'S POLICY AND LEGAL FRAMEWORK REGARDING MARINE BIODIVERSITY CONSERVATION

The State Council Information Office of the People's Republic of China released the *White Paper on the Development of China's Marine Programs* in 1998 and the *White Paper on Marine Eco-Environmental Protection in China* in 2024 to introduce China's policies, activities, achievements, and challenges in marine biodiversity conservation. Comparing these two white papers, China has made great progress in establishing policies and laws on marine biodiversity conservation, developing appropriate legal measures, and playing more important roles in global marine governance. In addition, more efforts shall be made to reach the global marine biodiversity conservation targets in the GBF.

A. Policy Documents

Chinese policies on biodiversity conservation are formulated in the strategic context of constructing ecological civilization, promoting the Chinese path to modernization, and implementing the national ocean strategy to build China into a strong maritime country.¹⁸ The Central Committee of the Communist Party of China (CPC) and the State Council have issued various policy documents to support biodiversity conservation which also apply to marine biodiversity conservation. The *Opinions on Further Promoting the Development of Ecological Civilization* issued in April 2015 and the *Integrated Reform Plan for Promoting Ecological Progress* issued in September 2015 set forth general principles and measures for the construction of ecological civilization, including for instance, the ecological compensation measures and the strategy of ecological conservation red lines (ECRLs). The *Opinions on Further Strengthening the Protection of Biodiversity* issued in October 2021 set out general requirements on biodiversity conservation, such as the improvement of the policies, laws, and regulations on biodiversity, the establishment of a sound monitoring system, the strengthening of law enforcement and supervision, and the deepening of international cooperation. The *Opinions on Comprehensively Promoting the Construction of a Beautiful China* issued in December 2023 require China to

18 Huang Lansong, Zhou Rui & Wang Quansheng, *Toward Better Governance of the Marine Environment: An Examination of the Revision of China's Marine Environmental Protection Law in 2023*, 11 *Frontiers in Marine Science* 6-7 (2024). Lin Xin, Li Yi & Wang Lei et al., *Research and Prospects for China's Deep Participation in Global Marine Biodiversity Conservation*, 69 *Chinese Science Bulletin* 1598-1599 (2024).

develop beautiful bays, with the completion rate reaching 40% before 2027 and being basically completed before 2035.

Besides, China has mainstreamed marine biodiversity conservation into national plans, strategies, and action plans, such as the *China's Agenda 21* published in 1994, the *China Ocean Agenda 21* in 1996, China's 14th Five-Year Plan in 2021, and the NBSAP (2023-2030) in 2024. More specific targets regarding marine biodiversity conservation are stated by *China's 14th Five-Year Plan for Marine Ecological and Environmental Protection* issued in January 2022. It was adopted by the Ministry of Ecology and Environment (MEE), in collaboration with other ministries such as the Ministry of Natural Resources (MNR) and the China Coast Guard. Regarding marine biodiversity, the NBSAP (2023-2030) requires that by 2030 at least 30% of coastal and marine areas get effective protection and management, 30% of degraded coastal and marine ecosystems get restored, and marine ECRLs include at least 150 thousand square kilometers. In addition, as mentioned in part II of this article, several priority actions in the NBSAP (2023-2030) explicitly address marine biodiversity conservation. These targets are consistent with the targets set in the GBF and are direct evidence that China is implementing the global marine biodiversity conservation targets in the GBF.

B. Legal Framework

The *Constitution*, the *Environmental Protection Law* (EPL), and the MEPL are the primary legislation on marine biodiversity conservation. Article 26 of the *Constitution* provides a constitutional basis for China to govern marine biodiversity, since marine biodiversity is an integral part of the 'ecological environment' mentioned by this provision. In addition to the generally applicable provisions such as article 30 for biodiversity conservation, the EPL specifically addresses marine environmental protection in its article 34. The MEPL adopted in 1982 is a comprehensive law that aims to preserve and improve marine environment. One of the highlights of the revised MEPL in 2023 is the addition of the provisions on marine biodiversity conservation, which deviates from the previous legislative thinking of the prevention and control of marine environmental pollution as the focus. Chapter 3 of the MEPL, covering articles 33 to 45, is devoted to marine biodiversity conservation. In addition, a number of laws and regulations also include requirements for marine biodiversity conservation. For instance, the *Island Protection Law* adopted in 2009, the *Wildlife*

Protection Law adopted in 1988 and revised in 2022, the *Regulations on Nature Reserves* adopted in 1994 and revised in 2017, and the *Measures for the Management of Special Marine Protection Areas* adopted in 2010 respectively address island ecosystems, marine species, marine nature reserves, and special marine protected areas.

C. Comments and Analysis

With the formulation of specialized marine biodiversity rules, the MEPL's role in promoting the CBD and the GBF will become increasingly obvious. Firstly, by clarifying the requirements for marine biodiversity conservation, the revised MEPL conforms to the trend of the GBF with more importance attached to marine biodiversity governance. One of the highlights of the revised MEPL is that it gives more weight to marine biodiversity conservation, with the whole chapter 3 of the MEPL devoted to this issue and 'marine biodiversity' being mentioned in articles 36, 37, and 42 of the MEPL. China's MEPL has also responded to the problem of overly focusing on terrestrial biodiversity conservation by adding the principle of land-sea coordination, so that marine biodiversity has a status close to terrestrial biodiversity in biodiversity governance, which is in line with the needs of global marine biodiversity governance.

Secondly, the legal principles and mechanisms for marine biodiversity conservation stipulated in the MEPL are connected and echoed with the requirements of the GBF. According to article 3 of the MEPL, the legal principles of marine environmental protection include the principles of prioritizing protection, focusing on prevention, control at source, land-sea coordination, conducting integrated treatment, public participation, and enforcing liability for damage. Section C of the GBF describes the considerations for the implementation of the GBF, including taking a whole-of-government and whole-of-society approach and following the guidance of the *Rio Declaration*. The principle of public participation is the normative expression of the whole-of-government and whole-of-society approach in domestic laws. Moreover, principles such as focusing on prevention, integrated treatment, and enforcing liability for damage are integral parts of the *Rio Declaration*. Furthermore, the MEPL streamlines measures for marine biodiversity conservation, including marine ECRLs (article 13), ecological monitoring and surveillance (article 23), MPAs (article 34), and the administrative supervision system for marine ecological restoration (article 42). As will be analyzed in part IV of this article, these measures are regulatory

foundations for China to fulfill global marine biodiversity conservation targets.

As pointed out by the NBSAP (2023-2030) and the *14th Five-Year Plan for Marine Ecological and Environmental Protection*, more legal and institutional capacity building is still needed to better implement the GBF. Firstly, it is necessary to enact a biodiversity law with a holistic and systematic view.¹⁹ Biodiversity conservation activities need the guidance of coordinated and unified legal principles and legal systems. The principles and core tasks set by the policy documents should be transformed into legislative norms, which are conducive to the achievement of the global and national targets for biodiversity conservation. Secondly, more detailed rules on marine biodiversity conservation in the MEPL are needed. For instance, although the principle of land-sea coordination has been stipulated by the MEPL, it is necessary to explore and develop detailed rules to systematically incorporate this principle into different aspects of marine biodiversity.²⁰ Furthermore, legislators should ensure that rules on marine biodiversity conservation are structurally coherent when the environmental code of China or a comprehensive biodiversity law is enacted. *Yu Wenxuan* et al. proposed to put general rules in the general provisions and the section on ecological conservation of the environmental code, while more specific rules remain in specific laws and regulations.²¹ There are different suggestions, proposing to absorb all provisions of the MEPL into the environmental code.²² Regardless of which path to take, it is necessary to ensure that the rules for conserving marine biodiversity are presented systematically and implemented in a coordinated manner.

Lastly, China's institutional capacities to regulate marine biodiversity have increased, while the coordination of institutions and their functions need to be improved. From the perspective of fulfilling the commitments under the CBD and the GBF, the MEE is a core department. For example, the International Cooperation Department of the MEE is the national contact point under the CBD, responsible for submitting national reports and organizing the draft of NBSAPs. Although the MEPL restructures institutional functions of the MEE based on the principle of land-sea

19 Qin Tianbao, *On the Systematic Legal Regulation of Biodiversity Conservation*, 37 Legal Forum 128 (2022). Liu Tongtong, *Systematic Holism: The Legal Logic of Biodiversity Conservation in China*, 10 Theory Monthly 134 (2021).

20 Li Zhiping & Cheng Xiaoya, *Discussion on the Thorough Expression and Implementation of 'Land-Sea Coordination' in the New Marine Environmental Protection Law*, 51 Environmental Protection 27 (2023).

21 Yu Wenxuan & Hu Zehong, *Systematization of Biodiversity Legal Institution from the Perspective of Ecological Civilization*, 49 Journal of Henan Normal University (Philosophy and Social Sciences Edition) 42-45 (2022).

22 Liu Weixian, *Codification of Ecological Environment Code from the Perspective of Re-Codification of 'Marine Environmental Protection Law'*, 3 Jiang-Huai Tribune 83-86 (2024).

coordination, enabling the MEE to supervise and coordinate marine biodiversity, the regulatory capacities of the MEE should be further strengthened, considering the MEE's long emphasis on terrestrial instead of marine biodiversity conservation. On the other hand, the involvement of the MNR in the implementation of the GBF targets should be increased. The CBD and the GBF have promoted the legal and institutional capacity building by setting goal D and target 20 in the GBF and by adopting Decision 15/8 on capacity building and technical and scientific cooperation. In addition to improving the coordination of departments domestically, external capacity-building projects under the GBF should be used to enhance the institutional capacities to transform international requirements into national actions.

IV. CONCRETE MEASURES AND CHALLENGES TO ACHIEVE THE GBF TARGETS

The policy and legal framework of marine biodiversity conservation contains various legal principles and measures that contribute to achieving the global marine biodiversity targets in the GBF. Requirements and suggested measures to achieve each GBF target are further explained by the monitoring framework for the GBF as adopted by COP Decision 15/5 in 2022 and then the Decision 16/31 in 2025, as well as the guidance notes from the Secretariat of the CBD.²³ Following that, China's legal measures and challenges to implement GBF targets 1, 2, and 3 will be analyzed.

A. Spatial Planning

GBF target 1 requires the parties to the CBD to 'ensure that all areas are under participatory, integrated, and biodiversity inclusive spatial planning and/or effective management processes addressing land and sea use change'. A relevant monitoring indicator in the monitoring framework of the GBF is the percent of land and sea area covered by biodiversity-inclusive spatial plans. This target has at least the following three elements: incorporating biodiversity considerations, integrated land and sea management, and participatory processes. Firstly, incorporating biodiversity considerations is one of the measures to mainstream biodiversity into other policy areas.

²³ For guidance notes from the Secretariat of the CBD, see 2030 TARGETS (WITH GUIDANCE NOTES), at <https://www.cbd.int/gbf/targets> (Last visited on March 20, 2025).

Such mainstreaming activity enables other sectors to consider the need and take measures to conserve and restore marine biodiversity. During this process, marine biodiversity conservation should be harmonized with other development goals such as food security, as overly emphasizing marine biodiversity conservation may lead to negative overall development outcomes.²⁴ Secondly, holistic and integrated spatial planning that covers land and sea use is needed. The integrated land and sea management should be used to enhance the effectiveness of biodiversity-inclusive spatial planning, as the terrestrial and marine ecosystems are interconnected and should be conserved based on a holistic system view. This requirement is essential for achieving other area-based targets, such as targets 2 and 3, as these targets are set for both terrestrial and marine areas. Thirdly, land and sea are often used for different and sometimes competing purposes. The stakeholders' participation and public involvement, including local communities, are thus needed.²⁵ This is consistent with the whole-of-government and whole-of-society approach as established by the GBF. Such requirement also contributes to increasing public acceptance of spatial planning, hence enhancing the planning's effectiveness.

The *Land Administration Law of China* provides a normative basis for including biodiversity considerations in the national territorial spatial planning. When it was revised in 2019, its articles 17 and 18 require integrating and specifying land used for urban and rural production, living, and ecology, taking into account ecological considerations, and sticking to the principles of giving priority to ecology and green and sustainable development. According to chapter 5 of the *National Land Planning Outline (2016-2030)*, marine biodiversity shall be conserved. The *National Territorial Spatial Planning (2021-2035)* further streamlines the management of spatial resources in China with innovative measures such as 'multiple planning integration' measures, making ecological land an integral part of territorial spatial planning.²⁶ Priority action 7 of the NBSAP (2023-2030) requires that biodiversity conservation be included as one important aspect of the national territorial spatial planning. According to this priority action,

24 Li Qingyang, Ge Yingxue & Jeffrey A. Sayer, *Challenges to Implementing the Kunming-Montreal Global Biodiversity Framework*, 12 Land 2 (2023).

25 Felix Ekardt, Philipp Günther & Katharina Hagemann et al., *supra* note 2. Carlos Carroll, Daniel J. Rohlf & Yaffa Epstein, *Mainstreaming the Ambition, Coherence, and Comprehensiveness of the Post-2020 Global Biodiversity Framework into Conservation Policy*, 3 Frontiers in Conservation Science 8-9 (2022). *Id.*

26 Tang Shuang'e, *Legal Definitions of Ecological Land in Land Spatial Planning: On the Scope of Ecological Environment Damage*, 3 Huxiang Law Review 26 (2023).

by 2030, China aims to include at least 150,000 square kilometers in marine ECRLs and such areas should be strictly protected. Furthermore, the priority action 7 of the NBSAP (2023-2030) also requires to designate priority areas of marine and coastal biodiversity conservation, identify key tasks, and establish update, monitoring, and assessment procedures. Under the guidance of the NBSAP (2011-2030), the MEE has established 35 priority areas of biodiversity conservation, three of which are priority areas of marine and coastal biodiversity conservation.²⁷

Several provisions in the MEPL regulate marine spatial planning. As required by articles 12 to 15 of the MEPL, spatial planning is an important tool for controlling and managing the development and utilization of marine resources and construction activities. Marine spatial planning should consider biodiversity conservation by following the principle of land-sea coordination as stipulated by article 3 of the MEPL and sticking to the concrete measures to coordinate land and sea management as described in article 12(1) of the MEPL. According to article 12(1) of the MEPL, plans, standards, and monitoring concerning marine environment protection should be made and implemented in a coherent and coordinated manner. According to article 13 of the MEPL, marine areas with extremely important ecological functions and an extremely sensitive and fragile ecosystem should be given priority and be delineated into ECRLs; activities shall comply with the national territorial spatial planning and ECRLs; and ECRLs should be strictly protected to avoid damage to marine ecological environment. In addition, according to article 13(3) of the MEPL, the relevant departments of the State Council and local people's governments at or above the districted-city level in coastal areas shall make environmental impact assessments on national territorial spatial planning that contains information on marine environmental protection. This requirement aims to ensure that marine spatial planning is well-designed to reflect the need to protect the marine environment.

The 'multiple planning integration' has been implemented effectively in China, as 'a gradient pattern of marine spatial development and protection has been gradually formed' with marine biodiversity conservation considered.²⁸ However, taking the requirements of the GBF into account, there is still room for improvement in spatial planning regarding marine areas in China. Firstly, marine biodiversity conservation is considered not

27 *Priority Areas for Biodiversity Conservation in China*, promulgated by the Ministry of Environmental Protection on December 30, 2015 (Decree No. 94).

28 Zeng Rong, Xu Yan & Yang Lu et al., *Adjustment of the Marine Ecological Red Lines in China*, 14 Scientific Reports 10 (2024).

systematically incorporated in the spatial planning. Moreover, MPAs are not comprehensively designated and not effectively managed.²⁹ The designation and management of marine-related areas as MPAs in spatial planning are not guided by detailed legal rules, leading to the status that protected areas are not well-connected.³⁰ Secondly, before the revision of the MEPL, terrestrial and marine biodiversity conservation were separated, and more resources were put into terrestrial biodiversity conservation.³¹ The principle of land-sea coordination can solve this issue by covering more coastal and marine areas when making spatial planning. However, approaches to implementing the principle of land-sea coordination have to be determined. Lastly, the involvement of stakeholders and the public in spatial planning regarding marine biodiversity conservation is not sufficiently ensured by current laws and regulations. The MEPL provides for the public participation principle in article 3 and requires governments to engage the public with marine environmental protection activities in article 8. The public can participate in the decision-making during environmental impact assessment of planning. According to article 13 of the *Regulation on Environmental Impact Assessment of Planning*, for special planning which may have adverse environmental impact and directly involve the environmental interests of the public, the planning preparation organ shall openly solicit the opinions of relevant entities, experts, and the public on the environmental impact report through various forms. Detailed rules in this regard are stipulated by the *Measures for Public Participation in Environmental Impact Assessment* adopted by the MEE in 2018. The public's right to participate in the environmental risk assessment on spatial planning that is categorized as special planning, such as the *National Major Marine Functional Zoning Plan*, is protected. Public participation requirements are not specifically stipulated for environmental impact assessment on comprehensive planning, such as the *National Territorial Spatial Planning (2021-2035)*. Further legislation on public participation in spatial planning is thus needed.³² According to the *Measures for Ecological Environment Supervision of Ecological Conservation Red Lines (for Trial Implementation)* promulgated

29 Tu Yumin & Liu Tian, *Approaches to Implementing National Territorial Spatial Planning from the Perspective of Ecological Civilization*, 12 China Construction 112 (2024). Mei Hong, *On China's Plan for the Classification and Zoning Control of Marine Protected Areas*, 5 Journal of Ocean University of China (Social Sciences) 44 (2024).

30 Qi Yue, Hao Haiguang & Zhang Zhe, *Study on the Strategies to Advance Biodiversity Conservation*, 51 Environmental Protection 43 (2023).

31 Mei Hong, *supra* note 29, 45.

32 Tang Rubing, *On the Use Regulation of Territorial Space System from the Perspective of the Constitution*, 29 Journal of Chongqing University (Social Science Edition) 197-198 (2023).

by the MEE in 2022, when designating the ECRLs, the public participation principle should be complied with.

B. Ecological Restoration

GBF target 2 requires that ‘by 2030 at least 30 percent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity’. According to the notes of the Secretariat of the CBD, restoration refers to the ‘process of actively managing the recovery of an ecosystem that has been degraded, damaged or destroyed’.³³ All types of ecosystems are included if they are degraded. However, the definitions of ‘degraded ecosystems’ and ‘effective restoration’ are not given under the GBF and the monitoring framework. The headline indicator for this GBF target is ‘area under restoration’, but it cannot provide an appropriate benchmark for assessing the fulfillment of this target, as the baseline for monitoring restoration progress is not provided. Furthermore, the reach of this indicator merely shows that GBF restoration measures are in place, not necessarily means that ecosystems are fully and effectively recovered.

Consistent with GBF target 2, China sets its restoration target as restoring 30% of degraded ecosystems before 2030. The MEPL and several other policies, laws, and regulations have been adopted to guide the restoration of marine biodiversity. The *14th Five-Year Plan for Marine Ecological and Environmental Protection* equates conservation with restoration to enhance the high quality and steadiness of marine ecosystems. In other words, the paradigm of ecological restoration has shifted from a reactive approach to a proactive approach. This is consistent with the principle of focusing on prevention as required by article 3 of the MEPL. Article 36(2) of the MEPL also embodies the equal treatment of conservation and restoration of marine biodiversity restoration by requesting developers of marine and coastal resources to take into consideration the adequate protection of important marine ecosystems, biological species, and biological genetic resources.

When addressing degraded marine ecosystems, restoration measures will play important roles. Articles 36(1) and 37 of the MEPL provide for the maintenance and reparation of important marine ecological corridors and encourage the use of artificial repair in a scientific way to restore degraded

33 *Supra* note 23.

marine ecosystems, respectively. Furthermore, article 42(1) of the MEPL sets the general requirement and principle for restoring marine biodiversity. It stipulates that a damaged marine ecosystem with important ecological, economic, and social value shall be repaired. The principles of reparation include, firstly, that marine ecological repair shall focus on improving habitats and restoring biodiversity and essential ecosystem functions; secondly, that natural restoration takes precedence over artificial repair; and thirdly, that priority shall be given to repairing representative marine ecosystems.

Whether the above-mentioned measures will lead to effective ecological restoration needs to be discussed by taking into account the following two issues. On the one hand, legalized ecological restoration targets are more binding and operational, and thus are demanded. The current restoration targets are based on the NBSAP (2023-2030), which was mainly drafted and released by the MEE. It is necessary to consider incorporating this target into the law. The MEPL supports China's transformation and implementation of the GBF targets through provisions that encourage and support international exchanges and cooperation, but the provisions are relatively general. In the future, when formulating a biodiversity law or environmental code, it should also include provisions to encourage and support China to fulfill its international legal obligations under the CBD and other MEAs, so as to provide a domestic legal basis for China to fulfill the global biodiversity framework such as the GBF. Concrete and specific targets can be incorporated into specialized regulations or departmental rules. Compared with laws and regulations, departmental rules have greater flexibility and can adjust specific targets and indicators as global biodiversity governance goals and targets are updated.

On the other hand, a systematic legal system for ecological restoration should be further established. The MEPL provides two approaches to restoring degraded marine ecosystems: the administrative and judicial approaches. The administrative approach is mainly the administrative supervision system for marine ecological restoration, which is based on article 42 of the MEPL. Through the administrative approach, China has developed a national roadmap for restoring degraded marine ecosystems. Concrete measures have been explained in the *Major Projects for the Protection and Restoration of Coastal Zone Ecosystems (2021-2035)*. It is one out of nine divisions of the *Master Plan on Major Projects for the Conservation and Restoration of National Key Ecosystems (2021-2035)*.³⁴ The administrative supervision system for

34 Other projects, for instance, cover hilly and mountainous areas in the south, the northeast forest belt, and the ecological barrier area of the Qinghai-Tibet Plateau.

marine ecological restoration is supported by non-state actors, as evidenced by the *Opinions of the General Office of the State Council on Encouraging and Supporting Private Capital in Ecological Protection and Restoration* in 2021. Non-state actors are encouraged and supported to get involved in restoration projects, carrying out market-based measures to restore and repair degraded ecosystems. Nonetheless, their activities must not deviate from the requirements and standards set by the government, following the principle of the government leading ecological restoration. Article 42 is relatively abstract and needs to be further clarified through the formulation of implementation rules in terms of procedural requirements and technical standards. Legal requirements and procedures for involving non-government capital and non-state actors in the restoration of marine biodiversity should also be carefully designed.

As for the judicial approach to restoring degraded marine biodiversity, the central mechanism is the marine ecological compensation mechanism as stipulated by article 114 of the MEPL. This mechanism derives from the ecological compensation mechanism in article 1235 of the *Civil Code of China*. According to it, if marine environment pollution or marine ecological destruction results in significant damage to the state, the departments empowered to supervise and control marine environment shall, on behalf of the state, claim compensation from those held liable for the losses. Typical judicial cases have been published by the Supreme People's Court and the Supreme People's Procuratorate to guide the adjudication of cases on degraded marine biodiversity.³⁵ Potential problems of this mechanism include low willingness to bring cases to the court and inconsistent actions taken by the responsible departments when claiming compensation from liable persons.³⁶ Specialized rules should be established to guide the implementation of the marine ecological compensation mechanism, as it is distinguished from the general ecological compensation mechanism in the following aspects: elements of liability, the scope of compensation for damages, and the scope of the subjects of the right to claim compensation for damages. It is necessary to clarify its specific aspects through the formulation of implementation rules or judicial interpretation. This will provide a clear guidance for the judicial

35 For instance, see TYPICAL CASES OF PROSECUTORIAL PUBLIC INTEREST LITIGATION ON MARINE NATURAL RESOURCES AND ECOLOGICAL ENVIRONMENT WERE JOINTLY PUBLISHED BY THE SUPREME PEOPLE'S COURT AND THE SUPREME PEOPLE'S PROCURATORATE, at https://www.spp.gov.cn/xwfbh/wsfbt/202312/t20231229_638673.shtml#1 (Last visited on March 20, 2025).

36 Liang Hongfei, *Administrative Public Interest Litigation of Marine Ecology and Environment: System Generation and Practical Review*, 51 *Seeking Truth* 142-145 (2024).

practice of the system. This will also help to improve the effectiveness of the restoration of marine ecosystems as required by GBF target 2.

C. The 30 by 30 Conservation Target

GBF target 3 requests that ‘by 2030 at least 30 percent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures’. The 30 by 30 conservation target is a collective goal, meaning that, ideally, if each party achieves 30% of its conservation target, all parties will achieve the global target by 2030.³⁷ However, different parties have different levels of difficulty, willingness, and ability to achieve this target.³⁸ Experiences in implementing the Aichi targets show that it is challenging to achieve this target. Insufficient willingness, not making full use of other effective area-based conservation measures (OECMs), and the shortage in financial support and international cooperation can partially explain the poor achievement of the target.³⁹

To raise the rate of success in implementing GBF target 3, the following two elements should be paid attention to: the usage of the OECMs and the effective management of protected marine areas.⁴⁰ Designating MPAs is traditionally deemed as a key tool to enlarge marine areas as expected by GBF target 3. The OECM mechanism is not as mature as the MPA system. However, it has the potential to help achieve the 30 by 30 conservation target. Hence, the legal rules on OECMs’ designation and management are crucial and thus should be further clarified. This term OECM was first used in Aichi target 11 and was clearly defined in COP decision 14/8. Principles of designating OECMs are also provided by decision 14/8. The decision also stipulates the basic principles and criteria for designating OECM areas. The parties to the CBD have great discretion in formulating legal requirements and procedures for the identification and management of OECMs.

Furthermore, the key monitoring indicator for GBF target 3 is the

37 Ma Keping, *Kunming-Montreal Global Biodiversity Framework: An Important Global Agenda for Biodiversity Conservation*, 31 Biodiversity Science 1 (2023).

38 Aiora Zabala, Ignacio Palomo & Marta Múgica et al., *Challenges Beyond Reaching a 30% of Area Protection*, 3 npj Biodiversity 1 (2024).

39 Geng Yijia, Li Ziyuan & Tian Yu, *supra* note 4, 6.

40 Lisa M. Campbell & Noella J. Gray, *Area Expansion Versus Effective and Equitable Management in International Marine Protected Areas Goals and Targets*, 100 Marine Policy 195-196 (2019).

coverage of protected areas and OECMs, with ecosystem representativeness and effectiveness of management underrated. Such monitoring indicator may ostensibly reach the conservation target without providing substantial protection to the areas. Therefore, solely upgrading the protection target for marine areas to 30% is far from enough to achieve such a target since the effectiveness of the conservation should also be considered. One viable way to elevate the effectiveness of protected areas is to rely on COP decisions, for instance, to revise the PoW and elaborate on the EBSA process. Meanwhile, when designating and managing MPAs and OECMs to fulfill GBF target 3 at the domestic law level, special attention should be paid to the effectiveness of the protection of marine areas.

Priority action 9 of the NBSAP (2023-2030) is about *in-situ* conservation, specifying China's 30 by 30 conservation target, requesting the establishment of a national system of protected areas, encouraging to carry out pilot projects on marine OECMs, and demanding to promote the governance capacities. These requirements echo with the key elements of GBF target 3. However, it should be noted that, similar to the discussion above on GBF target 2, these quantitative targets need to be further transformed into legal provisions to be more binding and operational.

Article 34 of the MEPL has initially established the system of MPAs, covering marine national parks, nature reserves, and nature parks. Important marine ecosystems, natural concentrated distribution areas of rare and endangered marine life, concentrated distribution areas of marine natural heritage and landscape, and other areas shall be designated as certain types of MPAs. Article 3 of the *Administrative Measures on the Management of National Parks (for Trial Implementation)*, as adopted by the MNR in 2022, also confirms that national parks cover marine areas, and such areas are called marine national parks.

A broader system of protected areas should be considered when discussing the system of MPAs, as the former provides a framework for designating and managing all types of areas, including marine areas. Legislators are working towards establishing a sound legal system in this regard. For instance, a national park law is being enacted.⁴¹ After the general legal framework for protected areas is established, legal rules on MPAs should be elaborated on accordingly by applying the general rules to the more specialized marine areas. In addition, current implementing rules, such as the *Measures for the Management of Marine Protection Areas* and

41 CHINA MULLS NATIONAL PARK LAW, at <https://english.news.cn/20240910/fdb1ea5de597484897bfba9e6cbe8a3c/c.html> (Last visited on March 20, 2025).

the *Measures for the Management of Special Marine Protection Areas*, should be revised to be consistent with the requirements of article 34 of the MEPL, and be further updated if the national park law or the protected area law is enacted. Furthermore, the expansion of the MPAs should be steadily made, while China should also enlarge its OECMs to supplement the MPAs. Although several types of OECM areas have been established, there is a lack of legal basis for OECMs. Laws or regulations shall be formulated to clarify the definition, demarcation, and identification standards and management measures of OECMs.⁴²

V. CONCLUSION

The GBF contributes to the conservation and sustainable use of marine biodiversity by setting global marine biodiversity conservation targets, including targets 1, 2, and 3 on spatial planning, ecological restoration, and the 30 by 30 conservation target, respectively. This article analyzes China's legal approaches and challenges in implementing these GBF targets from the perspective of transforming international commitments into national legal systems. The NBSAP (2023-2030) incorporates all three GBF targets into priority actions 7, 8, and 9 at the national level. The MEPL brings opportunities for China to implement the global marine biodiversity conservation targets in the GBF effectively by adding provisions that specifically address marine biodiversity issues. China has finished the first step to transforming international commitments into a national policy and legal system. However, challenges still exist. A comprehensive biodiversity law is needed to guide all types of biodiversity including marine biodiversity. Meanwhile, institutional capacities regarding marine biodiversity conservation should be enhanced by incorporating public participation and international cooperation.

Furthermore, with regard to the approaches to implementing the concrete GBF targets, legal measures should be improved in the following aspects. Firstly, China has promptly translated its international obligations into policy requirements, and quantitative and operational targets need to be confirmed through legislation, typical of which are the ecological restoration target and the 30 by 30 conservation target. Secondly, referring to the monitoring framework of the GBF and the guidance provided by the Secretariat of the CBD, legal measures should further align with international requirements in

42 Lv Zhi, *Meeting China's '3030 Goal' on Biodiversity Conservation*, 4 *Frontiers* 32-33 (2022).

achieving specific targets. Specifically, for instance, China's territorial spatial planning has integrated marine biodiversity considerations and conducted the integrated land and sea management, as required by GBF target 1. Regarding ecological restoration, the effectiveness of the administrative and judicial approaches should be enhanced. Meanwhile, both types of ecological restoration measures should be elaborated on by adopting implementing rules or judicial interpretation. Moreover, MPAs are expanded gradually, but more detailed rules on the designation and management of different types of MPAs should be revised and implemented. The analysis of China's challenges and responses to achieving global marine biodiversity targets would contribute to the overall achievement of the GBF targets. In sum, more efforts should be made to develop a sound legal system for marine biodiversity conservation, develop and implement innovative and full-fledged measures, and enhance the institutional and regulatory capacities to achieve the global marine biodiversity conservation targets in the GBF.

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