中华海洋法学评论

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《中华海洋法学评论》编辑部

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卷首语

即将过去的2020年，突如其来的新冠肺炎席卷全球，人类社会遭遇了本世纪以来最大的一次世界性的生存挑战，各国人民更加深切地体会到中国领导人所倡导的建构“天下一家”的人类命运共同体的重要性与紧迫性。作为人类活动与开发的最重要公共空间之一，海洋是当下国际社会在建构和谐、法治与安全的命运共同体上，正积极保护、建设的重要领域。本期刊发的四篇论文，正是秉持这一人类共同体的理念，分别关注了国家管辖范围以外区域海洋生物多样性的养护和可持续利用、海底资源的开发与利用、国际海底区域管理计划的法律地位，以及后疫情时代促进国际航运业复苏的制度建设等全球公共治理话题。

国家管辖范围以外区域海洋生物多样性（BBNJ）的养护和可持续利用，是国际社会面临的美好意愿与现实挑战并存的课题。虽然在BBNJ国际协定谈判“一揽子协议”包含的四个重点领域中，不少国家都支持在“环境影响评估”领域下推动“战略环境评估”的制度建设，但也遭到了包括俄、美、中等在内的许多重要国家的反对，各方存在较大的分歧。施余兵、陈帅合作的《论战略环境评估在BBNJ国际协定中的适用性》一文，在厘清“环境影响评估”与“战略环境评估”内涵异同及立法现状、国际争议的基础上，客观分析了目前在国家管辖范围以外区域开展战略环境评估所面临的法律依据不足、理论不成熟、可借鉴的国际条约有限、国际社会整体实践经验缺乏等诸多困境，以及可能导致的国家主权损害、发展中国家不合理的环境负担、制约BBNJ国际协定的有效性等消极影响，都是BBNJ国际协定谈判中的制度建设不可回避的重要问题。

海底资源、尤其是矿产资源的开发利用，是海洋公域法治管理的另一重要内容，沿海各国在深海采矿巨大商业利益的诱惑下，不仅在国际海底区域申请区块进行勘探和开发，而且将目光瞄准二百海里以外的外大陆架海底资源，引发了国际社会局部与整体的利益博弈。Klaas Willaert博士的《国际海底区域与外大陆架矿物资源开发缴费机制比较研究》一文，从缴费机制入手，深入研究了国际海底区域与国家管辖范围内的二百海里以外

大陆架上矿产开发的法律边界及管理上的“重叠”问题，主张国际海底管理局在评估国际海底区域征收方式、税费制度与外大陆架现行制度相关性的基础上，对国际海底区域和二百海里以外大陆架上矿物资源开发实施有效的费率折扣管理，不失为探索国际海底区域法治管理的一个合理性、平衡性方案。

董世杰博士的《国际海底区域内区域环境管理计划的法律地位》，则是从中层制度设计的角度，探讨国际海底区域内因生态、生物多样性以及生态系统结构和功能差异而形成的不同的区域性的环境管理计划的法律地位问题。作者主张，尽管目前这一重要的区域性的环境管理计划的建设刚刚起步，各方对计划的主体与义务、法律地位与约束力等尚有不同的看法，但因地制宜地制定这类区域性计划，弥补了针对整个国际海底区域的环保措施流于原则性、概括性而缺乏针对性的不足，解决了具体合同区环保措施不见树木只见森林的缺陷，国际社会应予以重视，而且应该坚持“无区域环境管理计划，无开发活动”法律约束力的一般原则。上述看法，对于深化国际海底区域环境管理制度建设有重要的启发。

航运业是后疫情时代遭遇新冠肺炎疫情影响最为严重的全球性行业，疫情后国际航运业的风险不仅存在于国际经济与物流贸易层面，还存在于行业的管理本身，船员的健康权益和劳动权益的保障及其对行业的影响，就是其中一个重要方面，吴蔚、黄如青的《后疫情时代航运业船员权益的法律保障》对此做了有益的探讨。作者认为，在世界各国防控疫情措施不断升级、船舶靠岸与船员换班以及船员健康权劳动权都受到很大影响的背景下，航运界应建立完善的船员权益法律体系的构建，保障船员合法权益、保证船员身心健康，以推动航运业的良性发展与运转。

2020 年是本刊正式获批国内侨刊刊号的第一年，我们得到了海内外广大同仁的大力支持，在海峡两岸暨香港、澳门各合作方的共同努力下，在致力于建设高水平海洋法学术交流平台的道路上顺利迈出了稳健的一步。2021 年，本刊将继续秉持海纳百川、天下一家的共同体理念，不断深化合作，促进交流，挖掘潜力，提高内涵质量与水平，进一步扩大在国内外的学术影响，伴随厦门大学建校百年的东风，迈向一个新的高度。

《中华海洋法学评论》编辑部 谨识

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Editorial Note

2020 shocked the world with an unanticipated outbreak of COVID-19. It brings human society the first major worldwide survival challenge in this century, making people around the world realize more deeply the importance and urgency of building "one world"—a community with a shared future for mankind, as advocated by Chinese leaders.

Ocean, in its capacity as one of the most important public spaces for human activities and development, serves as such a vital home that the international community is actively protecting and building in the construction of a harmonious, law-based and secure community with a shared future. Adhering to the concept of this community, the four papers published in this Issue respectively focus on global public governance topics such as the conservation and sustainable use of biological diversity of areas beyond national jurisdiction, the exploitation and utilization of seabed resources, the legal status of the regional management plans in the international seabed area, and institutional development to promote the recovery of international shipping industry in the post-pandemic era.

The conservation and sustainable use of biological diversity of areas beyond national jurisdiction (BBNJ) is a topic presented to the international community with both good intentions and practical challenges. Regarding the four key fields involved by the "package agreement" of BBNJ international agreement negotiations, many countries support promoting the construction of a "strategic environmental assessment" system in the field of "environmental impact assessment", which, however, is opposed by a number of leading countries, including Russia, the United States and China. There exists considerable disagreement among all parties concerned.

Based on the clarification of the similarities and differences between the connotation of "environmental impact assessment" and "strategic environmental assessment", as well as the current legislative status and international disputes, the paper *On the Applicability of Strategic Environmental Assessment in BBNJ International Agreement* by Prof. SHI Yubing and CHEN Shuai presents

an objective analysis of the many plights currently facing the conduct of strategic environmental assessment in areas beyond national jurisdiction, such as insufficient legal basis, immature theory, limited international treaties to draw on, and lack of practical experience in the international community as a whole. It also analyzes the possible negative effects such as damage to national sovereignty, unreasonable environmental burden on developing countries, and restrictions on the effectiveness of BBNJ international agreement. All the above are important issues that cannot be avoided in the system construction in the negotiations on BBNJ international agreement.

The exploitation and utilization of seabed resources, especially mineral resources, stands as another important element of the legal management in the marine commons. Lured by the huge commercial interests of deep-sea mining, coastal countries not only apply for blocks in the international seabed area for exploration and exploitation, but also set their eyes on the seabed resources of the continental shelf beyond 200 nautical miles, triggering a game of local and overall interests of the international community.

From the perspective of the payment mechanism, the paper *Payment Regimes for the Exploitation of Mineral Resources in the International Seabed Area and on the Extended Continental Shelf: Deep Sea Mining at A Discount?* by Dr. Klaas Willaert delves into the legal boundary and regulatory "overlap" of mineral exploitation in the international seabed area and on the continental shelf beyond 200 nautical miles in the area under national jurisdiction. This paper advocates that the International Seabed Authority should, on the basis of assessing the relevance of the collection method and taxation system of the international seabed area to the current system of the outer continental shelf, implement effective rate discount management for the exploitation of mineral resources in the international seabed area and on the continental shelf beyond 200 nautical miles, which can be regarded as a reasonable and balanced solution to explore the legal management in the international seabed area.

The paper *The Legal Status of Regional Environmental Management Plans in the International Seabed Area* by Dr. DONG Shijie explores the legal status of different regional environmental management plans in the international seabed area due to differences in ecology, biodiversity, and ecosystem structure and function from the perspective of mid-level institutional design.

The author argues that despite the fact that the parties concerned still have different views on the subject and obligation, legal status and binding

force of such important regional environmental management plans that are in their infancy of construction, the formulation of these locally tailored plans remedies the deficiency that the environmental protection measures of the international seabed area are too principled, generalized and lack of pertinence, and resolves the defect of lacking a holistic approach in terms of the environmental protection measures targeted at specific contract regions. The international community should take it seriously, and the general principle of "no REMPs, no exploitation" should be upheld as legally binding. The above views shed important light on the deepening of the construction of environmental management system in the international seabed area.

The shipping industry is the global industry suffering most from the impact of the COVID-19 outbreak in the post-pandemic era. The post-pandemic international shipping industry exposes to risks not only at the level of international economy and logistics trade, but also in the management of the industry itself, and the protection of seafarers' health and labor rights and their impact on the industry constitutes one of the important aspects. In this regard, the paper *Legal Protection of Seafarers' Rights and Interests of Shipping Industry in Post-Pandemic Era* by WU Wei and HUANG Ruqing has made a beneficial discussion.

The authors argue that in the context of the escalating epidemic prevention and control measures in various countries around the world, leading to a great impact on the ship docking and shift changes of seafarers and the seafarers' health and labor rights, the shipping industry should establish a perfect legal system for seafarers' rights and interests, with a view to protecting their legitimate rights and interests and ensuring their physical and mental health, thereby boosting the healthy development and operation of the shipping industry.

2020 marks the first year when this Journal was officially approved as a domestic journal for overseas Chinese. Backed by the strong support of our colleagues at home and abroad and the concerted efforts of our partners in the Chinese mainland, Hong Kong, Macao and Taiwan, we have taken a smooth and steady step on the path of committing to building a high-level academic exchange platform for the law of the sea. 2021 will see this journal keep on upholding the concept of a community that is inclusive and united. We will continue to deepen cooperation, facilitate exchanges, tap potential, raise our internal quality and level, further expand our academic influence at home

and abroad, and strike a new height by taking the opportunity of Xiamen University's centennial anniversary.

COLR Editorial

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Facebook	https://www.facebook.com/COLawRev/
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目 录
Table of Contents

论战略环境评估在BBNJ国际协定中的适用性

施余兵　　陈　帅 *

内容摘要: 战略环境评估被认为是一项可以将环境保护和可持续发展同时纳入决策过程的重要工具。在当前的BBNJ国际协定政府间谈判中，是否应该纳入关于战略环境评估的条款，是环境影响评估这一重点领域下各方存在较大分歧的议题。分析战略环境评估在BBNJ国际协定中适用的法律障碍及其不利影响，表明BBNJ国际协定不应该规定战略环境评估条款;片面提高环保标准，并推动将战略环境评估纳入BBNJ国际协定的做法，并不符合国际社会的整体利益。

关键词: 战略环境评估　BBNJ国际协定　环境影响评估　国家主权

战略环境评估是一项可将环境保护和可持续性发展同时纳入决策过程的重要工具。[1] 当前，人类对海洋资源的开发利用向国家管辖范围以外区域（Areas beyond National Jurisdiction, 以下简称“ABNJ”）不断拓展，海洋生物多样性正承受巨大压力，导致生境退化、生物资源开发过度的状况。[2] 由于相关国际立法的缺失，国家管辖范围外区域海洋生物多样性（Biological Diversity of Areas Beyond National Jurisdiction，以下简称“BBNJ”）的养护和可持续利用正面临更大的挑战。在此背景下，2004年，联合国大会通过决议成立了“研究BBNJ有关问题的不限成员名额非正式特设工作组”（以下简称“特设工作组”）。[3] 2015年，联合国大会

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1 Bram Noble & Kelechi Nwanekezie, *Conceptualizing strategic environmental assessment: Principles, approaches and research directions*, Environmental Impact Assessment Review, Vol. 62, p. 165-173 (2017).

2 UNGA, Oceans and the law of the sea, Report of the Secretary-General, A/60/63/Add.1, UN website (Jul. 5, 2005), https://undocs.org/A/60/63/Add.1, para. 1.

3 UNGA, Resolution Adopted by the General Assembly on 17 November 2004, Oceans and the law of the sea, A/RES/59/24, UN website (Feb. 4, 2005), https://undocs.org/en/A/RES/59/24, para. 73.

第69/292号决议决定在《联合国海洋法公约》（以下简称“《公约》”）的框架下就BBNJ的养护和可持续利用问题拟订一份具有法律约束力的国际文书（以下简称“BBNJ国际协定”），并决定设立预备委员会，以便各方在启动政府间谈判前进行磋商。[4] 2018年，BBNJ国际协定谈判开始转入政府间谈判阶段，到目前为止，联合国已召开三次政府间谈判会议。BBNJ国际协定谈判旨在于四个重点领域达成“一揽子协议”，战略环境评估是环境影响评估这一重点领域下各方存在较大分歧的议题。目前，关于此议题的讨论聚焦于BBNJ国际协定中是否需要纳入关于战略环境评估的条款，以及如果需要纳入战略环境评估的相关条款，条款应当如何设置。本文将重点讨论在BBNJ国际协定中是否应该纳入关于战略环境评估的条款这一各国存在较大分歧的问题。

一、战略环境评估及其立法实践

（一）战略环境评估与环境影响评估

战略环境评估（Strategic Environmental Assessment，SEA），又被称为“战略环境评价”或“战略环境影响评价”，是指对拟议的计划（plans）、规划/方案（programs）、政策（policies）、法律等战略及其替代方案的环境影响进行系统的、正式的和综合的评价过程。[5] 在理论上，战略环境评估既是专门的技术性工具，又是一项具体的环境管理制度。在实践中，不仅是一种具体的技术过程，也是辅助决策的重要手段。[6] 战略环境评估具有高层次、综合性、系统性和不确定性的特点，[7] 可以确保在制定规划、计划、政策等战略的同时对环境问题予以考虑，并通过战略影响评估的方式加强和改善项目环境影响评价并对累计影响进行评价，体现可持续发展观念，促进各种政府机构和有关方面的协商，并在增加公众对规划、计划和政策的参与方面发挥重要作用。[8]

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4 UNGA, Resolution Adopted by the General Assembly on 19 June 2015, Development of an International Legally-binding Instrument under UNCLOS on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, A/RES/69/292, UN website (Jul. 6, 2015), https://undocs.org/A/RES/69/292.

5 李天威主编：《政策环境评价理论方法与试点研究》，中国环境出版社2017年版，第2页。目前，国内学术界对于相关概念存在不同的翻译习惯。本文将Environmental Impact Assessment（EIA）译为“环境影响评估”，将Strategic Environmental Assessment（SEA）译为“战略环境评估”，将涵盖EIA和SEA在内的广义的环评称为“环境影响评价”。

6 李天威、王会芝、徐鹤著：《我国战略环境评价的有效性研究》，中国环境出版社2017年版，第59页。

7 徐新阳主编：《环境评价教程》，化学工业出版社2010年版，第173页。

8 Antonios Souloutzoglou & Anastasia Tasopoulou, *The Methods and Techniques of Strategic Environmental Assessment, Comparative Evaluation of Greek and International Experience*, Sustainability, Vol. 12:8, p. 1 (2020).

战略环境评估的起源和发展历程与环境影响评价制度发展密切相关。从环境影响评价制度的技术发展来看，20世纪60年代，以单个建设项目或若干建设项目组合为评价对象环境影响评价形成。20世纪70年代中后期到80年代初期，受可持续发展观念的影响，规划、计划等政府行为影响社会环境行为的观点得到重视，以政策、法律、规划和计划等政府行为为评价对象的战略环境评估应运而生。在20世纪80年代末，环境影响评价的对象不仅包括单个建设项目，也包括宏观层面的区域或部门的开发规划和微观层面的产品、材料和技术。2000年至今，在环境影响评价原有形式的基础上，发达国家开始采取可持续性战略环境评估、综合影响评价等评价形式，评价要素也向社会、经济、文化、人群健康的影响等拓展，且更加关注可持续性和全球环境问题。[9]

根据战略环境评估的过程模式不同，战略环境评估可以分为基于项目环境影响评价的战略环境评估和包括内阁决策中的战略环境评估、政策战略环境评估等模式的非基于项目环境影响评价的战略环境评估。[10] 基于项目环境影响评价的战略环境评估，具有程序清晰、专业性强的特点，但也存在灵活性不足、决策影响力较低的问题。非基于项目环境影响评价的战略环境评估，强调灵活性和适应性，但缺乏特定的程序规定，其实施很大程度依赖于政府的意愿及能力。根据现有的研究，战略环境评估与环境影响评估至少存在七个方面的区别（参见表1）。

表1 战略环境评估与环境影响评估的主要区别 [11]

要素	战略环境评估（SEA）	环境影响评估（EIA）
目标	在政策、计划和规划中嵌入环境管理的理念和做法，从而促进可持续和弹性发展	通过设定具体的环境管理指标，最小化或减缓项目的环境影响
范围	广泛的政策、计划或发展规划	具体的项目和选址
视角	较广的战略视角，关注一般的环境问题	较窄的视角，与选址有关的细节
程序类别	多阶段、灵活性，可能有反复	流程清晰，有明确的开始和结束
备选方案	在发展部门、主题或陆地/海洋等领域内考虑较为广泛的备选方案	在项目的范围内考虑较为有限的备选方案
累积影响	对累积影响提供早期预警	对累积影响进行有限的审议
监测	针对政策、计划和规划的实施情况	衡量现实影响

9 方秦华：《基于生态系统管理理论的海岸带战略环境评价研究》，厦门大学2006年博士学位论文，第5-7页。

10 张继伟、姜玉环、陈肖娟主编：《国家管辖范围以外区域环境影响评价机制研究》，海洋出版社2019年版，第196-197页。

11 Secretariat of the Pacific Regional Environment Programme, *Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories*, SPERP website (Sep. 2020), https://www.sprep.org/sites/default/files/documents/publications/SEA-Guidelines.pdf, p. 3.

（二）战略环境评估的国内立法

环境影响评价制度化是指将环境影响评价及其程序、审批、法律责任进行制度化和法律化。[12] 当前，环境影响评价制度已经在全球范围内普及和发展。对于战略环境评估，各国或在环境影响评价的有关法律之中予以规定，或采取单独立法的模式，或在环境保护相关法律中设置专门条款规定，或尚未对此进行立法。[13]

美国于1969年颁布《国家环境政策法》，这是环境影响评价和战略环境评估首次被引入法律，该法案要求联邦政府各机构在其立法提案中均须考虑和评估拟议行动的环境影响。[14]

我国于2002年10月制定了《中华人民共和国环境影响评价法》，并于2016年7月和2018年12月先后对该法进行了两次修正。该法第2条规定，“本法所称环境影响评价，是指对规划和建设项目实施后可能造成的环境影响进行分析、预测和评估，提出预防或者减轻不良环境影响的对策和措施，进行跟踪监测的方法与制度。”可见，我国规定的环境影响评价既包括针对项目的环境影响评估，也包括针对规划等在内的战略环境评估。因此，在国内环境立法中，“环境影响评价”有时被理解为涵盖战略环境评估；而在在国际环境法中，环境影响评价通常仅指项目环境影响评估，而不包括战略环境评估。

（三）战略环境评估的国际立法

战略环境评估的概念一经提出，即在国际上引起了广泛的关注。然而，相对于各国的国内立法实践，其在国际上尚未得到广泛的应用，到目前为止仅有两个条约明确规定了战略环境评估。

1992年《生物多样性公约》规定了“影响评价和尽量减少损害”，要求缔约国应当尽可能并酌情采取适当的措施，以确保其方案[15]和政策（programmes and policies）中可能对生物多样性产生不利影响者所导致的环境后果得到适当的考虑。[16] 该条款是《生物多样性公约》对战略环境评估的义务要求。《生物多样性公约》

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12 王曦、万劲波：《有关我国环境影响评价立法的几点思考》，载《法学评论》2001年第1期，第115页。

13 [美]巴里•萨德勒：《战略环境评价手册》，王文杰等译，中国环境科学出版社2012版；张继伟、姜玉环、陈肖娟主编：《国家管辖范围以外区域环境影响评价机制研究》，海洋出版社2019年版。

14 National Environmental Policy Act of 1969, § 102(4332)(C)，参见 Secretariat of the Pacific Regional Environment Programme, *Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories*, SPREP website (Sept. 2020), https://www.sprep.org/sites/default/files/documents/publications/SEA-Guidelines.pdf, 第7页。

15 《生物多样性公约》中文译本将“programmes”译为“方案”。

16 《生物多样性公约》第14条第1款（b）项。

第六届缔约方大会通过决议的方式，对战略环境评估进行定义，指确定和评价拟议政策、计划或规划的环境后果的正式、系统和全面的过程，以确保在尽可能早的决策阶段充分考虑和适当处理环境影响，并适当顾及经济、社会影响。[17] 该定义在2006年《关于涵盖生物多样性各个方面的影响评估的自愿性准则》（以下简称“《影响评估自愿准则》”）及2012年《在海洋和沿海地区的环境影响评价和战略环境评估中考虑生物多样性的自愿准则》（以下简称“《战略环境评估自愿准则》”）两个“软法”性文件中适用。

1991年《跨界环境影响评估公约》（以下简称“《埃斯波公约》”）框架下的议定书——《战略环境评估议定书》（以下简称“《基辅议定书》”）经过联合国欧洲经济委员会成员国的商议，于2003年在基辅正式获得通过，并于2011年生效，其效力不仅局限于欧洲经济委员会的成员国内部，得到广泛批准后将成为全球性条约。到目前为止，《基辅议定书》共有包括欧盟在内的33个缔约方。[18]《基辅议定书》将《埃斯波公约》规定的环境影响评价范围，从拟议项目扩展到拟议计划、规划中，即缔约国有义务进行计划和规划层面战略环境评估，[19] 不仅明确了计划、规划的具体内容，并提出了实施计划、规划层面战略环境评估的程序性义务，包括：确定环境报告的范围、编制环境报告书、咨询当地环境与卫生部门、通知并邀请可能受影响国进行协商、确定是否采纳、监测以及在程序中有公众参与。[20]《基辅议定书》鼓励缔约方在制定政策和立法时考虑环境问题，适当使用计划、规划层面战略环境评估的过程要素，[21] 这并不代表针对政策和法律需要强制性执行战略环境评估程序，而是为政策、法律制定中如何考虑环境因素提供了非限制性框架，将计划与规划层面的战略环境评估提高到政策、法律的决策层面。

此外，2004年联合国环境规划署发布了题为《环境影响评估和战略环境评估：走向一体化方法》的报告，[22] 力图在国际上推广战略环境评估。2020年9月，太平洋区域环境署发布《战略环境评估：太平洋岛屿国家和领地指南》，希望帮助太平

17 《生物多样性公约》缔约方大会第六届会议第VI/7号决议《关于将与生物多样性有关的问题纳入环境评价立法和/或进程及战略性环境评估的准则》。

18 *Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Contex*t, UN website (May. 21, 2003), https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-4-b&chapter=27&lang=en.

19 Art. 2(5) & (6), Art. 4 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

20 Art. 2(5), Art. 6-12 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

21 Art. 2(5), Art. 13 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

22 UNEP, *Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach*, UNEP webstie (Sept. 9, 2020), https://www.unenvironment.org/resources/report/environmental-impact-assessment-and-strategic-environmental-assessment-towards.

洋各国政府确保将环境和社会因素等充分纳入国家和部门的各项发展规划、政策和战略。[23]

二、BBNJ国际谈判关于是否应纳入战略环境评估的讨论

早在特设工作组阶段，欧盟就提出应在ABNJ进行战略环境评估，防止人类活动对海洋生物多样性产生不利影响，并指出当前环境影响评估在ABNJ的适用与在国家管辖范围内的适用存在较大的差距。[24]公海联盟、绿色和平组织、世界自然基金会和自然资源保护委员会也不断强调战略环境评估的作用，并指出BBNJ国际协定需要为战略环境评估确定标准。[25]在BBNJ筹备委员会阶段，战略环境评估受到越来越多国家和代表团的关注。第四届筹备委员会向联合国大会提交的BBNJ问题最终建议性文件，在B节中明确列举了在历次筹备委员会议中争论不休、矛盾难以调和的问题，留待政府间会议的进一步讨论。B节中包括BBNJ国际协定是否应当处理战略环境影响评估问题。[26]

第一次政府间会议中，大会主席拟定的《谈判协助讨论文件》中第5.7条提出以下问题：文书是否需要纳入关于战略环境评估的条款？如果应当纳入，那么战略环境影响的评价范围是什么？关于国家管辖范围以外区域海洋生物多样性的战略环境评估，将在全球一级还是区域一级实施？谁负责实施战略环境评估？如何根

23 Secretariat of the Pacific Regional Environment Programme, *Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories*, SPREP website (Sep. 2020), https://www.sprep.org/sites/default/files/documents/publications/SEA-Guidelines.pdf.

24 IISD, *Summary of The Fourth Meeting of the Working Group on Marine Biodiversity Beyond Areas of National Jurisdiction: 31 May-3 June 2011*, IISD website (Sept. 9, 2020), https://enb.iisd.org/vol25/enb2570f.html.

25 IISD, *Summary of The Eighth Meeting of the Working Group on Marine Biodiversity Beyond Areas of National Jurisdiction: 16-19 June 2014*, IISD website (Sept. 9, 2020), https://enb.iisd.org/oceans/marinebiodiv8/brief/brief_marine_biodiv8.pdf, p. 5.

26 UNGA, Report of the Preparatory Committee established by General Assembly resolution 69/292: Development of an International Legally-binding Instrument 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, A/AC.287/2017/PC.4/2, UN webstie (Jul. 31, 2017), https://undocs.org/A/AC.287/2017/PC.4/2, p. 17.

据战略环境评估的结果采取后续行动？[27] 第二次政府间会议，大会主席拟定的《谈判协助讨论文件》以备选案文的方式推进谈判，关于战略环境评估，在“用语”提出了备选案文以及无案文两种方式，在“环境影响评价”部分作为单独条款，提出了两种备选案文以及无案文方式。第三届政府间会议以 2019 年 5 月联合国大会发布的由 BBNJ 政府间谈判大会主席起草的《〈联合国海洋法公约〉框架下 BBNJ 国际案文草案》为谈判基础，2019 年 11 月 27 日，主席发布了《BBNJ 国际协定案文草案修改稿》，该修订草案将作为第四届政府间会议的谈判基础，由于各国对于是否要将战略环境评估纳入 BBNJ 国际协定以及如何纳入仍存在争议，草案修改稿中保留了案文草案中战略环境评估的有关条款，便于各方对战略环境评估进行进一步讨论。2020 年 9 月起，各方通过在线的方式对 BBNJ 国际协定所涉议题进行了会间讨论，关于环境影响评估的讨论涉及四大议题，包括目标、战略环境评估、环境影响评估的“国际化”，以及环境影响评估的启动门槛和标准等，但各方对于是否应该将战略环境评估纳入 BBNJ 国际协定仍然存在较大分歧。

支持在 BBNJ 国际协定中规定战略环境评估制度的国家和组织主要包括欧盟、英国、澳大利亚、新西兰、加拿大、瑞士、挪威、加勒比共同体、太平洋小岛屿发展中国家、塞内加尔、伊朗、哥斯达黎加、非洲集团，理据至少包括以下三个方面：第一，战略环境评估可以更好地实现 BBNJ 的养护和可持续利用这一目的。加拿大还表示，战略环境评估的范围应根据性质、规模和影响程度来确定。[28] 第二，战略环境评估作为环境影响评估的前期工作，有利于实现 BBNJ 国际协定的目的，便于考虑累积影响，且有一些现有条约实践的支持；同时，有利于促进 ABNJ 划区管理工具（包括海洋保护区）的适用，以及在海洋技术转让和能力建设方面体现经济学上的成本—效益原则。[29] 第三，战略环境评估有利于确保一体化管理，能够更好地实现 BBNJ 国际协定的目的。挪威等国持此立场。

反对在 BBNJ 国际协定中纳入战略环境评估条款的国家主要包括俄罗斯、美国、中国、韩国、古巴、日本等，理据至少包括以下三个方面：第一，在 BBNJ 国际协定中纳入战略环境评估，可能产生与《公约》或区域渔业组织有关职能不一致的情况。例如，美国认为，《公约》第 206 条并没有涵盖战略环境评估，战略环境评

27 UNGA, *Intergovernmental conference on an international legally-binding instrument 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*, First Session, President's Aid to Discussion, A/CONF.232/2018/3, UN website (Jun. 25, 2018), https://undocs.org/A/CONF.232/2018/3, p. 12.

28 IISD, *Summary of the First Session of the Intergovernmental Conference on an International Legally Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 4-17 September 2018*, Earth Negotiations Bulletin, Vol. 25, No. 179, IISD website (Sept. 9, 2020), https://enb.iisd.org/download/pdf/enb25179e.pdf, p. 13.

29 Ibid.

估并不是环境影响评估的一种类型。第二，在ABNJ开展战略环境评估不具备可行性和可操作性。例如，美国和俄罗斯指出，战略环境评估是针对国家管辖范围以内区域开发设计的，并不适用于ABNJ。第三，需要进行战略环境评估的政策、计划和规划的本身合理性值得怀疑，[30]而且各国对战略环境评估的概念、范围、内容、标准、执行主体等诸多问题尚未形成共识。[31]

对于BBNJ协定中是否应当纳入战略环境评估条款的不同立场反映出不同国家和国家集团之间的多边博弈。以欧盟为代表的“环保派”已在ABNJ开展过一些实践，积累了一定的经验和科学信息数据，希冀进一步推行欧盟关于海洋保护区、环境影响评估及战略环境评估的经验，发挥其在ABNJ海洋治理的主导权。77国集团则希望通过制度设计制约和减缓发达国家抢占ABNJ海洋资源，但囿于科学技术、实践能力的不足以及内部意见的分歧，基于惠益分享的考量也可能继续与欧盟捆绑在一起，进一步推动BBNJ国际协定的制定。以美国、俄罗斯等海洋活动大国为代表的“海洋利用派”希望在现有的国际法框架内处理BBNJ问题，对国际海洋秩序的调整持谨慎态度。[32]因此，是否应将战略环境评估纳入BBNJ国际协定是一个涉及各国重要利益、具有重要的理论和应用价值的议题。

三、战略环境评估在BBNJ国际协定中适用之阻碍

（一）在BBNJ国际协定中规定战略环境评估的国际法依据不足，且违反授权开展BBNJ谈判的联大决议

参加BBNJ谈判的各国普遍将BBNJ所涉环评义务与《公约》中的相关规定相联系，认为BBNJ国际协定中的环境影响评估应该是对《公约》相关规定的具体化，而不应超出《公约》的范围。然而，规定战略环境评估却超出《公约》的范畴。

BBNJ国际协定中的环境影响评价义务来源于《公约》第十二部分第四节“监测和环境评价”，包括《公约》第204条“对污染危险或影响的监测”、第205条“报告的发表”和第206条“对各种活动可能的影响进行评价”。《公约》规定，应当进行影响评价的对象为“当事国管辖或控制下的计划中的活动”，[33]但对于如何认定

30 Ibid.

31 IISD, *Summary of the Second Session of the Intergovernmental Conference on an International Legally Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 25 March - 5 April 2019*, Earth Negotiations Bulletin, Vol. 25, No. 195, IISD website (Sept. 9, 2020), https://enb.iisd.org/vol25/enb25195e.html.

32 郑苗壮、刘岩、裘婉飞：《国家管辖范围以外区域海洋生物多样性焦点问题研究》，载贾宇主编：《海洋发展战略文集》，海洋出版社2017年版，第281-282页。

33 《联合国海洋法公约》第206条。

“计划中的活动”存在着不同观点，该争议也成为是否在BBNJ国际协定中纳入战略环境评估的分歧之一。一种观点认为，根据文意解释，“计划中的活动”具有一般性，包括建设项目、规划、计划、政策、法律等，《公约》本身就包含战略环境评估的义务。另一种观点认为，“计划中的活动”指国家管辖或控制下的具体的活动，即项目一级的活动，不包括规划、计划、政策、法律等，《公约》并不规定各国有战略环境评估义务。[34]

“计划中的活动”指国家管辖或控制下的具体的活动，即项目一级的活动，不包括规划、计划、政策、法律等，在国际法中有更加广泛的实践。在国际条约订立方面，《生物多样性公约》第14条规定了“影响评估和尽量减少不利影响”，一方面要求缔约国采取适当的程序，就其可能对生物多样性产生严重不利影响的拟议项目进行环境影响评估，以期避免或尽量减轻这种影响，并酌情允许公众参与；另一方面要求缔约国采取适当安排，以确保其可能对生物多样性产生严重不利影响的方案和政策的环境后果得到适当考虑。[35]《生物多样性公约》第八届缔约方大会决议中明确指出，“project”“activity”“development”这几个术语意义相同，可以互换使用。[36]因此，在《生物多样性公约》及其有关法律文件的语境下，“project”“activity”“development”都用以表示具体的项目，明显与规划、计划、政策等不同。在《埃斯波公约》中，环境影响评估被定义为对拟议活动对环境可能产生的影响进行评估的国家程序。[37]《埃斯波公约》第2条第7款又规定，按照本公约的要求进行环境影响评估，作为一项最低要求，应在拟议活动的项目一级进行。在适当的范围内，各缔约方应努力将环境影响评估的原则应用于政策、计划和规划中。[38]因此，在《埃斯波公约》中环境影响评估的强制性义务仅指项目环境影响评估。当《埃斯波公约》缔约方设法纳入战略环境评估义务时，缔约方采用的是在《埃斯波公约》框架下拟定《基辅议定书》的方式。在将战略环境评估义务纳入条约时，有关公约都对环境影响评估和战略环境评估作出明确区分或对环境

34 Views Expressed by the United States Delegation Related to Certain Key Issues Under Discussion at the Second Session of the Preparatory Committee on the Development of an International Legally-Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity, UN website (Sept. 9, 2016), https://www.un.org/depts/los/biodiversity/prepcom_files/USA_Submission_of_Views_Expressed.pdf, p. 7; Written Submission of the Government of the People’s Republic of China on Elements of a Draft Text of an International Legally Binding Instrument 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, UN website (Apr. 20, 2017), https://www.un.org/depts/los/biodiversity/prepcom_files/streamlined/China.pdf, para. 23.

35 《生物多样性公约》第14条。

36 《生物多样性公约》第八届缔约方大会第VIII/28号决议《关于涵盖生物多样性各个方面的影响评估的自愿性准则》。

37 Art. 1 of Convention on Environmental Impact Assessment in a Transboundary Context.

38 Art. 2(7) of Convention on Environmental Impact Assessment in a Transboundary Context.

影响评估的内涵和外延进行清晰界定，以区分其与战略环境评估。在国际司法实践方面，国际法院在2010年阿根廷诉乌拉圭的乌拉圭河纸浆厂案中指出，一般国际法要求涉及跨界背景下的共享资源开发时，在拟议工业活动可能对跨界环境造成严重有害影响的情况下，应当对其进行环境影响评估。[39] 该案中的“拟议工业活动”是纸浆厂建造的具体行为。国际法院在之后2015年哥斯达黎加诉尼加拉瓜边界地区活动案中引用了乌拉圭河纸浆厂案的论述，并指出环境影响评估义务不仅仅适用于拟议工业活动，而且适用于可能对跨界环境造成严重有害影响的拟议活动。[40] 在该案中的“拟议活动”指沿线道路修建的具体行为，本案中的论述扩大了乌拉圭河纸浆厂案对环境影响评价对象的范围，但仍属于项目一级的具体活动。国际海洋法法庭在关于担保个体和实体从事国际海底区域内活动的国家责任和义务的咨询意见中同样指出，在国际海底区域资源开发时“进行环境影响评估是《公约》规定的直接义务，是习惯国际法的一般义务。”[41] 对可能造成严重跨界环境损害损害的拟议项目进行环境影响评估的义务已成为国际习惯法，[42] 获得习惯国际法地位的环境影响评估义务其评价对象为可能造成严重跨界环境损害损害的拟议项目，并不包括规划、计划等。因此，根据文意解释和当前的国际法实践，实施战略环境评估义务超出了《公约》规定的义务范围。

此外，在BBNJ国际协定中纳入战略环境评估违反授权开展BBNJ谈判的联大决议。特设工作组于2011年达成了关于未来BBNJ国际文书应该处理海洋遗传资源及其惠益分享、包括海洋保护区在内的划区管理工具、环境影响评估、能力建设和技术转让等四大议题的“一揽子协议”，由于战略环境评估并不是环境影响评估的一种类型，战略环境评估亦不应被纳入BBNJ国际协定。授权开展BBNJ政府间谈判的联大第72/249号决议首次明确了BBNJ国际协定的谈判和最终案文应该完全符合《公约》的规定。由于联大决议代表了国际社会就此问题达成的共识，该联大决议中要求的“不损害”《公约》的原则理应得到遵守。[43] 换言之，《公约》不予规制的战略环境评估亦不应被纳入BBNJ国际协定。

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39 Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand *v.* France) Case, ICJ Reports 1995, p. 290, para. 5 (1995).

40 Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica *v.* Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua *v.* Costa Rica), Judgment, ICJ Reports 2015, p. 706, para. 104 (2015).

41 Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, ITLOS Reports 2011, 1 February 2011, p. 50, para. 145 (2011).

42 邓华：《环境影响评估制度在国际法中的演进和实施》，载《中山大学法律评论》2015年13期。

43 施余兵：《BBNJ国际协定下的争端解决机制问题探析》，载《太平洋学报》2020年第6期，第18页。

（二）BBNJ 谈判中各国对战略环境评估的定义存在巨大分歧、战略环境评估理论本身亦存在争议

2019 年 11 月发布的《BBNJ 国际协定案文草案修订稿》第 1（13）条规定了战略环境评估的定义。[44] 该定义直接使用了《基辅议定书》中的规定，强调战略环境评估过程中与项目环境影响评价相关的要素，包括确定环境报告的范围和编写环境报告，进行公共参与和协商，以及在计划或方案中考虑环境报告以及公众参与和协商成果。然而，该定义即便在支持将战略环境评估纳入 BBNJ 国际协定的国家中也未能达成共识，这些国家对于是否应当对战略环境评估设置程序和条件也存在巨大分歧。

从理论上看，当前国际社会不存在普遍接受的战略环境评估的定义。[45] 其主要原因在于，20 世纪 90 年代中期开始，战略环境评估在国际上的实践呈现出愈发多元化的趋势：不仅关注环境影响，也要求将环境因素与社会、经济、健康等因素综合考虑；有的战略环境评估强调过程中应用与项目环境影响评价过程相关的要素，包括信息提供、公众参与；有的战略环境评估的决策形式、决策过程呈现出较强的适应性，向具有灵活性的环境治理手段转变，不仅仅作为一种参与早期决策的辅助工具，[46] 战略环境评估的内涵和外延也随之不断发展变化和拓展，充满争议。此外，战略环境评估是否应该采取基于项目环境影响评估的过程清晰、专业性强的程序，抑或采取更具灵活性和适应性战略环境评估程序，在理论界也存在分歧。而对于如何在 BBNJ 领域实施战略环境评估，现有的文献亦鲜有涉及。

战略环境评估的对象本身亦存在模糊性。如图 1 所示，理论上通常将战略环境评估的对象分为三类，层级由高到低分别为政策——计划——规划。然而，无论是政策、计划还是规划，在不同的国家有着不同的含义，取决于不同的政治和制度背景。[47] 实践中，即使在同一国家也存在难以将所有形式的决策清晰地归类为某一政策、计划或规划的困难。同一层次的计划或规划也有等级上的差别，高层次的计划和规划属于国家层面的计划和规划。而这些计划或规划或可以直接划分为若干项目，或尽管不能分解成若干项目，却可以影响到具体项目的选择和立项。[48] 从战略环境评估的条约法实践看，《基辅议定书》不仅对“战略环境评估”进行术

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44 Art. 1(13) of Revised Draft Text of an 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.

45 Francois Retief, Carys Jones & Stephen Jay, *The emperor's new clothes — Reflections on strategic environmental assessment (SEA) practice in South Africa*, Environmental Impact Assessment Review, Vol. 28:7, p. 506 (2008).

46 耿海清著：《决策中的环境考量：制度与实践》，中国环境出版社 2017 年版，第 63 页。

47 Barry Dalal-Clayton & Barry Sadler, *Strategic Environmental Assessment: A Rapidly Evolving Approach*, ScienceDirect (Oct. 2008), https://pubs.iied.org/pdfs/7790IIED.pdf.

48 尚金城，包存宽著：《战略环境评价导论》，科学出版社 2002 年版，第 91 页。

语界定，并且通过对“计划和方案”进行术语界定[49]以及明确计划和方案适用领域以及不适用领域[50]的方式，才进一步明确了战略环境评估对象及其覆盖面和应用范围，使战略环境评估具有一定的操作性。因此，若在BBNJ国际协定中纳入战略环境评估，则必须对战略环境评估的对象及其覆盖面和应用范围进行明确。但当前BBNJ国际协定的谈判尚未对战略环境评估的对象的覆盖面和应用范围进行讨论。

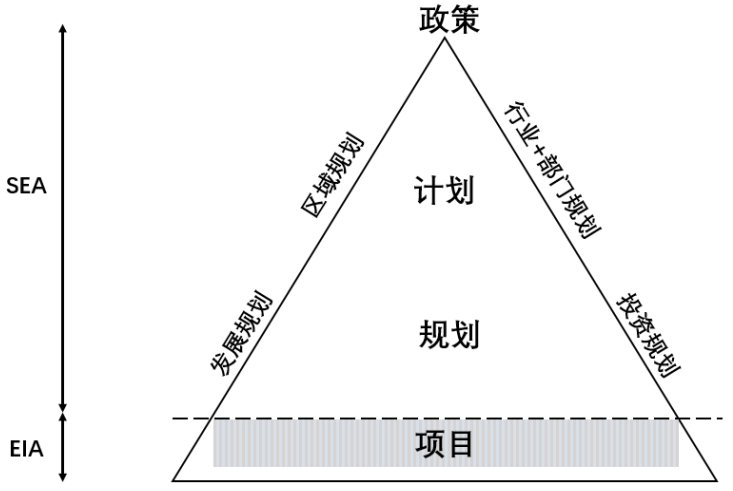

图1 战略环境评估对象的层次划分[51]

因此，在当前理论界对于战略环境评估的定义、过程充满争议、战略环境评估对象本身具有模糊性的情况下，难以为BBNJ国际协定中战略环境评估构建提供夯实的理论基础。BBNJ国际协定谈判中对战略环境评估的概念、范围、程序的探讨不充分且未达成共识，试图在BBNJ领域建立战略环境评估制度将面临严峻挑战。

（三）战略环境评估的条约实践可借鉴性有限

《BBNJ国际协定案文草案修订稿》第28条规定了战略环境评估为一项义务

49 Art. 2(5) of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

50 Art. 4 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

51 Maria Rosário Partidário, *Elements of an SEA framework— improving the added-value of SEA*, Environmental Impact Assessment Review, Vol. 20:6, p. 647-663 (2000).

（shall），主权国家作为评估的主体，应确保对达到第 24 条规定的门槛 / 衡量标准活动的相关计划和规划进行战略环境评估，[52] 并提出战略环境评估的程序适用应比照环境影响评价的程序进行。[53] 该规定直接借鉴《基辅议定书》关于战略环境评估条约立法经验。

《基辅议定书》中关于战略环境评估的规制方式的借鉴意义有限，《基辅议定书》的通过并生效是一个逐渐达成共识的漫长而渐进的过程，来源于欧盟及其成员国充分的理论和实践积累，但目前在全球层面尚不具备该条件。一方面，2003 年《基辅议定书》的订立建立在 1991 年《埃斯波公约》和 1992 年《工业事故跨界影响公约》基础上，《埃斯波公约》和《工业事故跨界影响公约》已建立起缔约方与受影响缔约方在项目环境影响评价方面的信息交流机制、协商机制、调查委员会制度及在公众参与方面，受影响国的公众意见成为起源国考虑的因素之一；另一方面，2003 年《基辅议定书》的订立也受到《欧盟战略环境评估指令》的重要影响，其战略环境评估的核心流程与《欧盟战略环境评估指令》大致相同。而 2001 年《欧盟战略环境评估指令》的最终通过也历经了长达二十余年的谈判和磋商，才最终达成共识。此外，根据《欧盟战略环境评估指令》要求，欧盟成员国已于 2009 年完成指令要求的国内法转换，也成为欧洲部分国家批准《基辅议定书》的动力之一。从当前国际条约法实践看，《基辅议定书》是唯一为规划和计划层面的战略环境评估设置一定规范和程序的国际条约，并让信息交流和磋商成为起源国的强制性义务，使得《基辅议定书》下的战略环境评估由多国参与，评价过程充分考虑对他国影响，一定程度上超出了起源国国内法意义上的战略环境评估。[54]《基辅议定书》虽向所有国家开放，但当前缔约方仅有包括欧盟在内的 33 个国家与组织，并不具有广泛性，大部分国家目前欠缺签署和批准的意愿。因此，在国际文书中纳入战略环境评估义务并为其设置一定的规范和程序，至少需要建立对战略环境评估不断形成共识以及拥有相对一致的战略环境评估体系和实施基础上。

由于资金、技术、理论和实践能力的差距，战略环境评估的体系和实施仍存在南北差异。发达国家大多已在项目环境影响评估系统的基础上建立起战略环境评估制度，尽管发展中国家在近几年有所发展，但整体进程存在明显差距。[55] 从区域

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52 Art. 28(1) of Revised Draft Text of an 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.

53 Art. 28(2) of Revised Draft Text of an 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.

54 徐祥民，孟庆垒等著：《国际环境法基本原则研究》，中国环境科学出版社 2008 年版，第 162 页。

55 Francois Retief, Carys Jones & Stephen Jay, *The emperor's new clothes — Reflections on strategic environmental assessment (SEA) practice in South Africa*, Environmental Impact Assessment Review, Vol. 28:7, p. 504-505 (2008).

层面看，亚洲地区的战略环境评估体系及其实施落后于欧洲和北美地区。[56] 亚洲地区内部，将战略环境评估制度化的国家或地区包括中国、中国香港、中国台湾、韩国、日本、越南、印度尼西亚，但其规制模式和实施状况存在差异。泰国、菲律宾、孟加拉国和斯里兰卡等国家则反对实施战略环境评估。老挝进行战略环境评估的主要动力来源于援助资金，孟加拉则完全依赖资金援助进行战略环境评估，巴基斯坦甚至未对项目环境评估进行立法。[57] 南部非洲的战略环境评估仍处于起步阶段，存在缺乏正式的范围划定程序、与决策制定过程联系并不紧密、缺少正式的评估等问题。[58] 南非作为战略环境评估实施情况较好的发展中国家也尚未对战略环境评估进行立法，对其战略环境评估的有效性产生不利影响。[59] 中美洲和加勒比地区的国家大都对战略环境评估进行了立法，但各国实际实施情况也存在较大差异。[60] 此外，当前实施的战略环境评估仅针对国家管辖范围内区域的有关事项，未有对ABNJ有关事项的规划、计划、政策等进行战略环境评估的实践。因此，BBNJ国际协定借鉴《基辅议定书》关于战略环境评估条约立法经验并不具备广泛且成熟的国际实践基础，《基辅议定书》的借鉴意义有限。

《生物多样性公约》中虽然要求缔约国进行战略环境评估，但受到“尽可能并酌情遵守”“采取适当措施”等限定性措辞的限制，且未对战略环境评估进行定义。《生物多样性公约》缔约国大会通过的《影响评估自愿准则》和《战略环境评估自愿准则》旨在为缔约国提供一个良好的实践指南，但并不具有强制约束力。从《生物多样性公约》的制定背景看，《生物多样性公约》作为南北政治妥协的结果，鼓励更多的国家签署和批准，赋予缔约国很高的自由裁量权，但也为缔约国极低水平地履行战略环境评估义务提供了空间。[61] 因此，《生物多样性公约》在战略环境评估义务规制与履行方面存在缺陷，一定程度上导致了战略环境评估义务法律有效性的缺失。从《生物多样性公约》中的战略环境评估义务内容看，战略环境评估义务虽来源于全球性公约，但在本质上，这种评价仍是缔约国的国内法行为——通过“软法”性文件引导，执行程序遵循国内法程序，[62] 并非真正国际法意义上的

56 [美] 巴里•萨德勒：《战略环境评价手册》，王文杰等译，中国环境科学出版社2012版，第68页。

57 Dennis Victor & P. Agamuthu, *Policy trends of strategic environmental assessment in Asia*, Environmental Science & Policy, Vol. 41, p. 73 (2014).

58 [美] 萨德勒：《战略环境评价手册》，王文杰等译，中国环境科学出版社2012版，第123页。

59 Francois Retief, Carys Jones & Stephen Jay, *The emperor's new clothes — Reflections on strategic environmental assessment (SEA) practice in South Africa*, Environmental Impact Assessment Review, Vol. 28:7, p. 507 (2008).

60 Javier Rodrigo-Ilarri et al., *Advances in Implementing Strategic Environmental Assessment (SEA) Techniques in Central America and the Caribbean*, Sustainability, Vol. 12:10 (2020).

61 王曦主编：《国际环境法与比较环境法评论》，上海交通大学出版社2008年版，第118页。

62 徐祥民，孟庆垒等著：《国际环境法基本原则研究》，中国环境科学出版社2008年版，第162页。

战略环境评估。战略环境评估若要在 BBNJ 领域产生的积极作用，则必须建立在广泛的国家参与和战略环境评估义务得到良好履行的基础上。在需要保障战略环境评估良好履行的情况下，《生物多样性公约》中关于战略环境评估的规制方式的借鉴意义有限。

四、战略环境评估在BBNJ国际协定中适用之不利影响

（一）对国家主权之影响

主权是现代国家的根本属性之一。在 BBNJ 国际协定谈判中，不得损害国家主权，尊重和保障国家主权成为 BBNJ 环境影响评价制度形成进程中各国达成的重要共识。[63] 理论上，战略环境评估的评价对象可能包括计划和规划，也可能包括政策和法律。如何制定政策和法律是一个国家独立行使主权的重要体现，计划和规划则是国家政策的具体体现和实现形式。当前，国家对主要包括能源、自然资源、土地利用、交通、环境保护等专门类计划和规划以及区域发展、市政、农村发展等区域类计划和规划进行战略环境评估，属于行使国家环境资源主权的范畴。针对 ABNJ 有关活动的计划和规划也存在与国家管辖范围内的环境和资源的开发利用的计划和规划相互重叠的可能性。此外，针对国防事务或国内紧急情况服务的计划或规划以及财政预算计划或规划等必然涉及到主权国家的重大核心国家利益，是主权国家必须坚决维护的主权要素。

战略环境评估与国家主权密切相关，战略环境评估在 BBNJ 国家协定中的适用必将对国家主权产生一定的限制。目前 BBNJ 国际谈判中对战略环境评估的概念、范围、过程等充满分歧，理论界对战略环境评估的诸多争议也难以为 BBNJ 国际协定中战略环境评估的构建提供夯实的理论基础，将进一步导致战略环境影响评估制度的构建的困难。在此情况下，若将战略环境评估适用于 BBNJ 国际协定，重要概念及其范围的不确定性必将给主权国家实施、履行、遵守协定带来巨大的不确定性，国家可能面临主权被过度限制或受损的风险。

（二）对发展中国家之影响

发达国家由于经历了“先污染后治理”的阶段，拥有雄厚的经济实力和强大的科技能力、实践能力，因此在环境保护问题上掌握较大的主动性，往往对环境问题

63 Chair’s Understanding of Possible Areas of Convergence of Views and Possible Issue for Further Discussion Emanating on EIA, UN website (Sept. 9, 2020), https://www.un.org/Depts/los/biodiversity/prepcom_files/Prep_Com_II_Chair_overview_to_MS.pdf, p. 11.

提出了较高的标准，而广大发展中国家由于资金和技术的局限性，通常难以达到发展中国家所提出的标准。[64] 在BBNJ国际协定中将战略环境评估作为义务纳入，在当前发展中国家尚未完全建立健全战略环境评估制度的基础上，会为发展中国家带来不合理的负担，让其承担不合理的环境义务。中国代表团曾在BBNJ国际协定谈判中指出，对包括中国在内的大多数发展中国家来说，开展战略环境评估并非易事。[65] 对于部分中低收入国家而言，其实施战略环境评估主要依靠经济与合作发展组织、世界银行等国际组织的资金援助。以秘鲁为例，如果缺乏有关国际组织的资金援助，其本身并不具备安全的国家融资机制来保证战略环境评估的实施。[66]

在大多数发展中国家欠缺在ABNJ开展战略环境评估能力的情况下，在BBNJ协定中纳入战略环境评估条款欠缺合理性和必要性。若在BBNJ国际协定中将战略环境评估作为义务纳入，发展中国家极可能面临着由于资金不足、技术缺陷，战略环境评估报告无法制定或难以达到BBNJ国际协定所提出的ABNJ海洋活动的环境准入要求，从而限制其在ABNJ的活动，成为一种变相的“贸易壁垒”。[67]

（三）对条约有效性之影响

从条约的经济有效性看，条约义务的履行应符合经济学上的成本效益原则。1994年通过的《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》附件二第一节第2条规定，“为尽量减少各缔约国的费用，根据《公约》和本协定所设立的所有机关和附属机构都应具有成本效益。”根据联大第72/249号决议的要求，BBNJ国际协定作为《公约》的第三个执行协定，必须完全符合《公约》的规定，包括上述成本效益原则。[68] 然而，在大多数发展中国家欠缺在ABNJ开展战略环境评估能力的情况下，如果在BBNJ协定中纳入战略环境评估条款，将会影响该协定的有效性。一方面，目前尚没有在ABNJ开展战略环境评估的实践，相关的研究也比较匮乏。另一方面，将战略环境评估的要求纳入BBNJ国际协定将会提高在ABNJ开展的活动的成本，不利于鼓励更多国家在ABNJ进行科学研

64 徐祥民，孟庆垒等著：《国际环境法基本原则研究》，中国环境科学出版社2008年版，第125-126页。

65 郑苗壮等主编：《BBNJ国际协定谈判中国代表团发言汇编》，中国社会科学出版社2019年版，第56页。

66 Juliane Biehl et al., *Implementing strategic environmental assessment in countries of the global South – An analysis within the Peruvian context*, Environmental Impact Assessment Review, Vol. 77, p. 30 (2019).

67 薛黎明，李翠平主编：《资源与环境经济学》，冶金工业出版社2017年版，第301-303页。

68 施余兵：《BBNJ国际协定下的争端解决机制问题探析》，载《太平洋学报》2020年第6期，第17页。

究。

从条约的政治有效性看，判断条约的政治有效性的标准之一在于条约的签署率和批准率。[69] 在ABNJ开展战略环境评估不仅涉及国家主权，也将对主权国家在ABNJ的重大利益产生影响。一般认为，国家主权让渡只有在各国对共同利益存在共识，且能够协调好各国利益和博弈各方收益、实现博弈的多赢以及收益在参与各方之间能够公平分配的情况下才有可能实现。[70] 在战略环境评估的理论和实践尚不成熟、相关国家的利益难以协调的当下，即将战略环境评估纳入BBNJ国际协定，可能会导致国家合作意愿的降低，并使BBNJ国际协定最终得到国家广泛批准的可能性降低；而缺乏国际社会的广泛参与，必然导致BBNJ的养护和可持续利用这一目标难以实现，对BBNJ国际协定的法律有效性亦会产生不利影响。

五、结　论

在ABNJ开展战略环境评估是一个新生事物，其对活动国的科技能力、国内法治的完善，战略环境评估理论和实践的积淀，以及国际社会的整体能力均有较高的要求。然而，目前在ABNJ开展战略环境评估尚面临法律依据不足、理论不成熟、国际条约的可借鉴性有限、国际社会整体实践经验缺乏等诸多挑战。在此情况下，在BBNJ国际协定中规定战略环境评估条款，可能会导致国家主权损害等风险，可能会增加发展中国家不合理的环境负担并限制其在ABNJ开展活动的自由，最终将对BBNJ国际协定的有效性产生消极影响。

当前，BBNJ政府间谈判第四次会议即将召开，由于在前三次政府间谈判中，各国就战略环境评估议题存在较大分歧，预计在第四次会议中，各国就此问题很难达成共识，还需要各国之间更多的协商和妥协。中国政府应当坚持不应在BBNJ国际协定中纳入战略环境评估条款的立场，并明确指出现阶段战略环境评估在BBNJ国际协定中适用的阻碍和可能产生的不利影响。BBNJ国际协定的宗旨是通过有效执行《公约》的相关条款以及进一步的国际合作和协调，确保BBNJ的养护和可持续利用并保持两者之间的平衡。因此，片面提高环保标准，并推动将战略环境评估纳入BBNJ国际协定的做法并不符合国际社会的整体利益。

69　李春林著：《国际环境法中的差别待遇研究》，中国法制出版社2013版，第267页。
70　刘凯著：《国家主权自主有限让渡问题研究》，中国政法大学出版社2013年版，第212页。

On the Applicability of Strategic Environmental Assessment in BBNJ International Agreement

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Abstract: Strategic environmental assessment is recognized as an important tool that can integrate environmental protection and sustainable development into the decision-making process simultaneously. Regarding the current intergovernmental negotiations on BBNJ international agreement, it stands as a topic of considerable disagreement among all parties concerned under the key field of environmental impact assessment as to whether or not the provisions on strategic environmental assessment should be included. This paper analyzes the legal barriers to the application of strategic environmental assessment in BBNJ international agreement and its adverse effects, suggesting that BBNJ international agreement should not provide for the provisions on strategic environmental assessment; and also, it is not in the overall interest of the international community to unilaterally raise environmental standards and promote the inclusion of strategic environmental assessments in BBNJ international agreement.

Key Words: Strategic environmental assessment; BBNJ international agreement; Environmental impact assessment; State sovereignty

Strategic environmental assessment serves as an important tool for simultaneously integrating environmental protection and sustainable development

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into the decision-making process.[1] Currently, human exploitation and utilization of marine resources is expanding to Areas beyond National Jurisdiction (hereinafter "ABNJ"), which puts growing pressure on marine biodiversity and leads to degradation of habitats and over-exploitation of biological resources.[2] Given the absence of relevant international legislation, greater challenges stay in the way of conservation and sustainable use of marine Biological Diversity of Areas Beyond National Jurisdiction (hereinafter "BBNJ"). Against this backdrop, the United Nations General Assembly adopted a resolution in 2004 to establish an Ad Hoc Open-ended Informal Working Group to study issues relating to BBNJ (hereinafter "the Ad Hoc Working Group").[3] In 2015, the United Nations General Assembly, in its resolution 69/292, decided to develop an international legally binding instrument under the framework of the United Nations Convention on the Law of the Sea (hereinafter "the Convention") on the conservation and sustainable use of BBNJ (hereinafter "the BBNJ international agreement"), and to that end, decided to establish a preparatory committee to facilitate negotiations among the parties concerned prior to holding an intergovernmental conference.[4] 2018 marked the beginning of the shift of the negotiations on BBNJ international agreement to the intergovernmental negotiation phase, with three intergovernmental conferences convened by the United Nations so far. The negotiations on BBNJ international agreement aim to reach a "package deal" in four key fields, among which strategic environmental assessment constitutes a topic of considerable disagreement among parties concerned in the key field of environmental impact assessment. Current discussions on this topic spotlight on whether there is a need to include the provisions on strategic environmental assessment in BBNJ international agreement and, if so, how the provisions should be set up. In this regard, this paper highlights the issue of whether the provisions on strategic environmental assessment should

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1 Bram Noble & Kelechi Nwanekezie, *Conceptualizing strategic environmental assessment: Principles, approaches and research directions*, Environmental Impact Assessment Review, Vol. 62, p. 165-173 (2017).

2 UNGA, Oceans and the lLaw of the sSea: , Report of the Secretary-General, 2005. UN Doc. A/60/63/Add.1, UN website (Jul. 5 July, 2005), https://undocs.org/A/60/63/Add.1, para. 1.

3 UNGA, Resolution Adopted by the General Assembly on 17 November 2004, Oceans and the law of the sea, A/RES/59/24, UN website (Feb. 4, 2005), https://undocs.org/en/A/RES/59/24, para. 73.

4 UNGA, Resolution Adopted by the General Assembly on 19 June 2015, Development of an International Legally-binding Instrument under UNCLOS on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, A / RES/69/292, UN website (Jul. 6, 2015), https://undocs.org/A/RES/69/292.

be included in BBNJ international agreement, on which countries are widely divided.

I. Strategic Environmental Assessment and Its Legislative Practice

A. Strategic Environmental Assessment and Environmental Impact Assessment

Strategic environmental assessment (SEA) refers to a systematic, formal and comprehensive assessment process of the environmental impact of the proposed plans, programs, policies, laws and other strategies and their alternatives.[5] In theory, SEA exists both as a special technical tool and a specific environmental management system. In practice, it is also an important tool for supporting decision-making in addition to being a specific technical process.[6] SEA can ensure that environmental issues are taken into account in the development of strategies such as programs, plans and policies.[7] It strengthens and improves the project environmental impact assessment and assesses cumulative impacts, which embraces the concept of sustainable development, and promotes negotiations among various government agencies and parties concerned. It also plays a vital role in increasing public participation in programs, plans and policies.[8]

SEA's origin and development history are closely related to the development of environmental impact assessment system. Viewed from the technical development of the environmental impact assessment system, the 1960s saw the formation of environmental impact assessment in a broad sense (hereinafter "Broad EIA") with

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5 LI Tianwei ed., *Theoretical Method and Pilot Study of Policy Environmental Assessment*, China Environment Press, 2017, p. 2. (in Chinese). At present, there are different translation for relevant academic concepts in China. In this paper, "Environmental Impact Assessment (EIA)" is translated into " 环境影响评估 " in Chinese, while "Strategic Environmental Assessment (SEA)" is translated into " 战略环境评估 " in Chinese, and the broad one covering EIA and SEA is called " 环境影响评价 " in Chinese.

6 LI Tianwei, WANG Huizhi & XU He, *Effectiveness of Strategic Environmental Assessment in China*, China Environment Press, 2017, p. 59. (in Chinese)

7 XU Xinyang ed., *Environmental Assessment*, Chemical Industry Press, 2010, p. 173. (in Chinese)

8 Antonios Souloutzoglou & Anastasia Tasopoulou, *The Methods and Techniques of Strategic Environmental Assessment. Comparative Evaluation of Greek and International Experience*, Sustainability, Vol. 12:8, p. 1 (2020).

a single construction project or a combination of several construction projects as the assessment object. Influenced by the concept of sustainable development, emphasis was placed on the view that government actions such as programs and plans shaped the social environmental behavior from the mid-to-late 1970s to the early 1980s, giving rise to SEA with government actions such as policies, laws, programs and plans as the assessment object. In the late 1980s, Broad EIA targeted not only individual construction projects, but also regional or sectoral development programs at the macro level and products, materials and technologies at the micro-level. From 2000 to the present, developed countries have begun to adopt such assessment forms as sustainable strategic environmental assessment and comprehensive impact assessment based on the original form of Broad EIA, with the assessment elements expanding to the impact of society, economy, culture and population health, and more attention to sustainability and global environmental issues.[9]

Depending on its different process models, SEA can be divided into SEA based on project Broad EIA and SEA not based on project Broad EIA that includes such models as SEA in cabinet decision-making and policy SEA.[10] The former features clear procedure and high professionalism, but it also suffers from insufficient flexibility and low decision-making influence; while the latter has a strong reliance on the government's willingness and ability for its implementation, given its emphasis on flexibility and adaptability, but lack of specific procedure provisions. In light of the available studies, there exist at least seven differences between SEA and environmental impact assessment (EIA) (see Table 1).

9 FANG Qinhua, *Strategic Environmental Assessment of Ecosystem Management in Coastal Areas*, Ph.D. dissertation, Xiamen University, 2006, p. 5-7. (in Chinese)

10 ZHANG Jiwei, JIANG Yuhuan & CHEN Xiaojuan eds., *Environmental Impact Assessment in Areas Beyond National Jurisdiction*, Ocean Press, 2019, p. 196-197. (in Chinese)

Table 1 Main differences between SEA and EIA[11]

Factor	SEA	EIA
Objective	To promote sustainable and resilient development by embedding sound environmental management concepts and practices within policies, plans and programs	To minimize and mitigate environmental impacts of projects by setting specific environmental performance and management standards
Scope	Broad policy, plan or program for development	Specific project and location
Perspective	Broad strategic perspective, more general environmental details	Narrow perspective, high level of site-specific details
Type of process	Multi-stage, flexible and iterative process	Well-defined process, clear beginning and end
Alternatives	Considers a broad range of feasible development alternatives across a development sector, theme or land/ocean scope	Considers a limited number of feasible development alternatives, within the scope of a project
Cumulative impacts	Early warning of cumulative impacts	Limited review of cumulative impacts
Monitoring	Focuses on the outcomes of policy, plan and program implementation	Focuses on measuring actual impacts

B. Domestic Legislation on SEA

Institutionalizing Broad EIA means the institutionalization and legalization of Broad EIA and its procedure, approval, and legal liability.[12] Currently, the environmental impact assessment system has been popularized and developed globally. With regard to SEA, countries have either provided for it in the relevant laws on Broad EIA, or adopted the mode of separate legislation, or set up special provisions in the laws related to environmental protection, or have not yet legislated

11 Secretariat of the Pacific Regional Environment Programme, *Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories*, SPREP website (Sep. 2020), https://www.sprep.org/sites/default/files/documents/publications/SEA-Guidelines.pdf, p. 3.

12 WANG Xi & WAN Jinbo, *Reflections on Legislation of Environmental Impact Assessment in China*, Law Review, 2001, p. 115. (in Chinese)

on it.[13]

The National Environmental Policy Act 1969 in the United States—where Broad EIA and SEA were first introduced into law—mandated all federal agencies and departments to consider and assess the environmental effects of proposals for legislation and other major projects.[14]

China enacted the Environmental Impact Assessment Law of the People's Republic of China in October 2002, and amended it twice in July 2016 and December 2018. Article 2 of the Law states that "Environmental impact assessment mentioned in this Law consists of the analysis, prediction and assessment made of the possible environmental impacts after implementation of plans and completion of construction projects, ways put forth and measures for preventing or mitigating the adverse impacts on the environment, and the methods and systems applied for follow-up monitoring." It follows that the environmental impact assessment stipulated in China includes both environmental impact assessment for projects and strategic environmental assessment targeting, for example, programs. In this regard, the term "environmental impact assessment" (mentioned as "Broad EIA" in this paper) is therefore sometimes understood in domestic environmental legislation to cover strategic environmental assessment, while in international environmental law, it usually refers only to project environmental impact assessment and excludes strategic environmental assessment.

C. International Regulation on SEA

Immediately upon its introduction, the concept of SEA has attracted widespread attention internationally. It has, however, not been widely used internationally relative to the domestic legislative practice of various countries, having only two treaties so far that explicitly provide for SEA.

The Convention on Biological Diversity provides for "impact assessment and minimizing adverse impacts", requiring that each Contracting Party, as far as

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13 Barry Sadler et al., eds, *Handbook of Strategic Environmental Assessment*, translated by WANG Wenjie et al., China Environmental Science Press, 2012; ZHANG Jiwei, JIANG Yuhuan & CHEN Xiaojuan eds., *Environmental Impact Assessment in Areas Beyond National Jurisdiction*, China Ocean Press, 2019. (in Chinese)

14 National Environmental Policy Act of 1969, § 102(4332)(C); see Secretariat of the Pacific Regional Environment Programme, *Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories*, SPREP website (Sept. 2020), https://www.sprep.org/sites/default/files/documents/publications/SEA-Guidelines.pdf, p. 7.

possible and as appropriate, shall introduce appropriate arrangements to ensure that the environmental consequences of its programmes[15] and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account.[16] This article forms the obligatory requirement for SEA under the Convention on Biological Diversity. The Sixth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity adopted a resolution to define SEA as the formalized, systematic and comprehensive process of identifying and evaluating the environmental consequences of proposed policies, plans or programs to ensure that they are fully included and appropriately addressed at the earliest possible stage of decision-making on a par with economic and social considerations.[17] This definition applies to two "soft law" documents, i.e. the 2006 Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment (Voluntary Guidelines for Impact Assessment) and the 2012 Voluntary Guidelines for the Consideration of Biodiversity in Environmental Impact Assessments and Strategic Environmental Assessments in Marine and Coastal Areas (Voluntary Guidelines for Strategic Environmental Assessment).

The Protocol on Strategic Environmental Assessment (Kiev Protocol) under the framework of the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) was formally adopted in Kiev in 2003 through discussion among the member States of the United Nations Economic Commission for Europe (UNECE) and entered into force in 2011, whose effects are not limited to the member States of the UNECE. It will become a global treaty when it is widely ratified. So far, there are 33 parties to the Kiev Protocol, including the EU.[18] The Kiev Protocol extends the scope of Broad EIA under the Espoo Convention from proposed projects to proposed plans and programs, i.e., each Contracting Party has the obligation to ensure a SEA is carried out at the

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15 In the Chinese version of the Convention on Biological Diversity, "programmes" is translated into " 方案 " in Chinese.

16 Art. 14, para. 1 (b) of the Convention on Biological Diversity.

17 Resolution VI/7 of the Sixth Session of the Conference of the Parties to the Convention on Biological Diversity, Integrate Biodiversity Related Issues into Environmental Impact Assessment Legislation and/or Processes and Guidelines for Strategic Environmental Assessments.

18 Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context, UN website (May. 21, 2003), https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-4-b&chapter=27&lang=en.

plan and program level,[19] which not only specifies the specific contents of plans and programs, but puts forward the process obligations for implementing SEA at the plan and program level, including: determining the scope of environmental reports, preparing environmental reports, consulting local environmental and health authorities, notifying and inviting countries that are likely to be affected for consultation, determining the adoption, monitoring and public participation in the process.[20] The Kiev Protocol encourages each Contracting Party to ensure that environmental concerns are considered in the preparation of its proposals for policies and legislation, and to make appropriate use of the process elements of SEA at the plan and program level.[21] Rather than implying a mandatory SEA process for policies and laws, this provides a non-restrictive framework for how environmental considerations are taken into account in policy and law preparation, raising SEA at the plan and program level to the policy and law decision-making level.

In addition, a report entitled Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach[22] was released by the United Nations Environment Programme (UNEP) in 2004 in an effort to spread SEA internationally. With the launch of the Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories in September 2020, the Pacific Regional Environment Programme hopes to help Pacific governments ensure that environmental and social considerations, etc. are fully integrated into national and sectoral development programs, policies and strategies.[23]

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19 Art. 2(5) & (6), Art. 4 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

20 Art. 2(5), Art. 6-12 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

21 Art. 2(5), Art. 13 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

22 UNEP, *Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach*, UNEP website (Sept. 9, 2020), https://www.unenvironment.org/resources/report/environmental-impact-assessment-and-strategic-environmental-assessment-towards.

23 Secretariat of the Pacific Regional Environment Programme, *Strategic Environmental Assessment: Guidelines for Pacific Island Countries and Territories*, SPREP website (Sept. 2020), https://www.sprep.org/sites/default/files/documents/publications/SEA-Guidelines.pdf.

II. Discussion on Whether or Not to Include SEA in BBNJ International Negotiations

The EU has proposed, as early as the stage of the Ad Hoc Working Group, the need to conduct SEA in ABNJ to avoid adverse impacts of human activities on marine biodiversity, and pointed to a large gap between the current application of EIA in ABNJ and in areas of national jurisdiction.[24] The High Seas Alliance, Greenpeace, World Wildlife Fund and the Natural Resources Defense Council have also kept emphasizing the role of SEA, noting the need for BBNJ international agreement to set criteria for SEA.[25] SEA receives increasing attention from countries and delegations during the stage of the Preparatory Committee for BBNJ. The final recommendation document on BBNJ submitted by the Fourth Preparatory Committee to the UN General Assembly clearly listed in section B the issues that have been debated and irreconcilably contradicted in the previous preparatory committee meetings, which are left for further discussion at the intergovernmental conference. Section B covers the issue of whether BBNJ international agreement should address SEA.[26]

Article 5.7 of the President's aid to negotiations during the first intergovernmental conference raised the following question: Would the instrument include provisions on strategic environmental assessments? If so, what would be the scope of such assessments? Would strategic environmental assessments with respect to marine biological diversity of areas beyond national jurisdiction be conducted at the global or regional level? Who would be responsible for conducting of strategic environmental assessments? How would the results of

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24 IISD, *Summary of The Fourth Meeting of the Working Group on Marine Biodiversity Beyond Areas of National Jurisdiction: 31 May-3 June 2011*, IISD website (Sept. 9, 2020), https://enb.iisd.org/vol25/enb2570f.html.

25 IISD, *Summary of The Eighth Meeting of the Working Group on Marine Biodiversity Beyond Areas of National Jurisdiction: 16-19 June 2014*, IISD website (Sept. 9, 2020), https://enb.iisd.org/oceans/marinebiodiv8/brief/brief_marine_biodiv8.pdf, p. 5.

26 UNGA, Report of the Preparatory Committee established by General Assembly resolution 69/292: Development of an International Legally-binding Instrument 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, A/AC.287/2017/PC.4/2, UN website (Jul. 31, 2017), https://undocs.org/A/AC.287/2017/PC.4/2, p. 17.

the strategic environmental assessments be followed-up on?[27] At the second intergovernmental conference, the President's aid to negotiations advanced the negotiations in the form of options. Regarding SEA, two forms, i.e. option and no text, were proposed in the "Use of terms" section, and two options and no text were proposed in the "Environmental impact assessments" section as a separate article. The third intergovernmental conference was based on the Draft International Text of BBNJ under the Framework of the Convention drafted by the President of the BBNJ Intergovernmental Conference released by the UN General Assembly in May 2019. On 27 November 2019, the President released the Revised Draft Text of the BBNJ International Agreement, which will serve as the basis for negotiations at the fourth session of the Intergovernmental Conference. Given that there is still controversy among countries on whether and how to include SEA in BBNJ international agreement, the revised draft retains the relevant provisions of SEA in the draft text to facilitate further discussions on SEA. Inter-session discussions on the issues covered by the BBNJ international agreement have been held online since September 2020, which involve four major issues, namely objectives, SEA, the "internationalization" of EIA, and the threshold and criteria for the initiation of EIA. However, there remains considerable disagreement over whether SEA should be included in the BBNJ international agreement.

Countries supporting the provision of SEA system in the BBNJ international agreement mainly include the EU, the United Kingdom, Australia, New Zealand, Canada, Switzerland, Norway, the CARICOM, the Pacific SIDS, Senegal, Iran, Costa Rica and the African Group. The arguments include at least the following three aspects: first, SEA can better achieve the purpose of conservation and sustainable use of BBNJ. Canada also indicated that the scope of a SEA should be determined on the basis of nature, size and degree of impact.[28] Second, SEA, as a preliminary to EIA, serves the purpose of BBNJ international agreement, facilitates the consideration of cumulative impacts, and is supported by some existing treaty

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27 UNGA, Intergovernmental conference on an international legally-binding instrument 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, First Session, President's Aid to Discussion, A/CONF.232/2018/3, UN website (Jun. 25, 2018), https://undocs.org/A/CONF.232/2018/3, p. 12.

28 IISD, *Summary of the First Session of the Intergovernmental Conference on an International Legally-Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 4-17 September 2018*, Earth Negotiations Bulletin, Vol. 25, No. 179, IISD website (Sept. 9, 2020), https://enb.iisd.org/download/pdf/enb25179e.pdf, p. 13.

practices; it also facilitates the application of ABNJ area-based management tools, including marine protected areas, and reflects the cost-benefit principle of economics in terms of marine technology transfer and capacity-building.[29] Third, SEA contributes to ensuring integrated management and allows better achievement of the purpose of BBNJ international agreement. This position is held by countries such as Norway.

Countries that oppose the inclusion of SEA provisions in BBNJ international agreement mainly include Russia, the United States, China, South Korea, Cuba, Japan, etc. The arguments include at least the following three aspects: first, the inclusion of SEA in BBNJ international agreement may lead to inconsistencies with the Convention or the relevant functions of regional fisheries organizations. For example, the United States argued that SEA is not covered by the Convention Article 206 and that SEA is not a type of EIA. Second, it is not feasible or operable to conduct SEA in ABNJ. For example, the United States and Russia indicated that SEA is designed for exploitation in areas within national jurisdiction and is not applicable to ABNJ. Third, the rationality of the policies, plans and programs that require SEA is doubtful,[30] and no consensus has been reached among countries on the concept, scope, content, criteria, and implementation bodies of SEA.[31]

Discrepancy in positions on the inclusion of SEA provisions in the BBNJ international agreement mirrors the multilateral game between various countries and groups of countries. The "environmentalists" represented by the EU have already carried out some practices in ABNJ countries and accumulated some experience and scientific information data, hoping to further promote the EU experience on marine protected areas, EIA and SEA, thereby bringing into full play its leading role in marine governance in ABNJ. In contrast, the Group of 77 hopes to restrain and slow down the seizure of ABNJ marine resources by developed countries through institutional design, which, however, may continue to be tied to the EU based on benefit-sharing considerations and further promote the development of BBNJ international agreement in light of the lack of technology and practical capacity and the divergent internal opinions. The "ocean

29 Ibid.

30 Ibid.

31 IISD, *Summary of the Second Session of the Intergovernmental Conference on an International Legally-Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 25 March - 5 April 2019*, Earth Negotiations Bulletin, Vol. 25, No. 195, IISD website (Sept. 9, 2020), https://enb.iisd.org/vol25/enb25195e.html.

utilizationists" represented by the United States, Russia and other maritime powers tend to deal with BBNJ issue within the framework of existing international law, remaining cautious about the adjustment of the international maritime order.[32] In this regard, it is a topic of significant theoretical and applied value that involves important interests of countries as to whether the SEA should be included in the BBNJ international agreement.

III. Obstacles to the Application of SEA in BBNJ International Agreement

A. Insufficient International Law Basis for Implementing SEA in BBNJ International Agreement and in Violation of the UNGA Resolution Authorizing BBNJ Negotiations

Countries participating in the BBNJ negotiations generally link the EIA obligations involved in BBNJ to the relevant provisions of the Convention, arguing that the EIA covered by the BBNJ international agreement should be the embodiment of the relevant provisions of the Convention rather than going beyond the scope of the Convention, but providing for SEA beyond the scope of the Convention.

The EIA obligations in BBNJ international agreement are derived from Part XII, Section 4 "Monitoring and Environmental Assessment" of the Convention, including Article 204 "Monitoring of the risks or effects of pollution", Article 205 "Publication of reports", and Article 206 "Assessment of potential effects of activities". It is stipulated in the Convention that the object of impact assessment should be "planned activities under their jurisdiction or control",[33] yet arguments exist on how to define "planned activities", which has become one of the controversies on whether to include SEA in the BBNJ international agreement. Some argue that "planned activities", as interpreted in the context, are general in nature and include construction projects, programs, plans, policies, laws, etc., and that the Convention carries with it the obligation to conduct SEA. Others argue

32 ZHENG Miaozhuang, LIU Yan & QIU Wanfei, *Focal Issues of Marine Biological Diversity Beyond Areas of National Jurisdiction*, in JIA Yu ed., *Collection of Marine Development Strategies*, China Ocean Press, 2017, p. 281-282. (in Chinese)

33 Art. 206 of the United Nations Convention on the Law of the Sea.

that "planned activities" referred to specific activities under a State's jurisdiction or control, i.e., activities at the project level, excluding programs, plans, policies, laws, etc., and that the Convention imposes no SEA obligations on States.[34]

"Planned activities" refer to specific activities under a State's jurisdiction or control, i.e., activities at the project level, excluding programs, plans, policies, laws, etc.", which have a broader practice in international law. In the context of conclusion of international treaty, Article 14 of the Convention on Biological Diversity provides for "impact assessment and minimizing adverse impacts", requiring each Contracting Party, first, to introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures; and second, to introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account.[35] The COP 8 Decisions of the Convention on Biological Diversity clearly stated that the terms "project", "activity" and "development" have the same meaning and can be used interchangeably.[36] It follows that in the context of the Convention on Biological Diversity and its relevant legal documents, "project", "activity" and "development" are used to denote specific projects, apparently different from programs, plans, policies, etc. The Espoo Convention defines EIA as a national procedure for assessing the likely impact of a proposed activity on the environment.[37] It is also provided for in Article 2, paragraph 7, of the Espoo Convention that EIA, as required by this Convention, shall, as a minimum

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34 Views Expressed by the United States Delegation Related to Certain Key Issues Under Discussion at the Second Session of the Preparatory Committee on the Development of an International Legally Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity, UN website (Sept. 9, 2020), https://www.un.org/depts/los/biodiversity/prepcom_files/USA_Submission_of_Views_Expressed.pdf, p.7; Written Submission of the Government of the People's Republic of China on Elements of a Draft Text of an International Legally Binding Instrument 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, UN website (Apr. 20, 2017), https://www.un.org/depts/los/biodiversity/prepcom_files/streamlined/China.pdf, para. 23.

35 Art. 14 of the Convention on Biological Diversity.

36 Decision VIII/28 of the Eighth Conference of the Parties to the Convention on Biological Diversity, Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment, UNEP/CBD/COP/8/31, 2006.

37 Art. 1 of Convention on Environmental Impact Assessment in a Transboundary Context.

requirement, be undertaken at the project level of the proposed activity. To the extent appropriate, the Parties shall endeavor to apply the principles of EIA to policies, plans and programs. Accordingly, the mandatory obligation of EIA in the Espoo Convention refers only to the EIA for projects.[38] In cases where the Parties to the Espoo Convention have sought to incorporate SEA obligations, they have adopted the approach of preparing the Kiev Protocol under the framework of the Espoo Convention. When incorporating SEA obligations into treaties, the conventions concerned have made a clear distinction between EIA and SEA or specified the connotation and extension of EIA in order to distinguish it from SEA. Regarding international judicial practice, the International Court of Justice noted in the 2010 case concerning pulp mills on the River Uruguay (Argentina v. Uruguay) that general international law requires, where the exploitation of shared resources in a transboundary context is involved, an EIA be conducted for proposed industrial activities which are likely to have a significant harmful impact on the transboundary environment.[39] The "proposed industrial activities" in this case refer to the specific acts of pulp mill construction. The International Court of Justice later cited the Pulp Mills on the River Uruguay (Argentina v. Uruguay) case in the Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) in 2015, and noted that the EIA obligation applied not only to the proposed industrial activities, but also to proposed activities that are likely to have a significant harmful impact on the transboundary environment.[40] The "proposed activities" in this case refer to the specific acts of road construction along the route. Despite the fact that the discussion in this case expands the scope of the EIA object of the Uruguay River Pulp Mill case, it is still a specific activity at the project level." In its Advisory Opinion on the Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the International Seabed Area, the International Tribunal for the Law of the Sea also noted that in the context of exploitation of resources in the International Seabed Area, "the obligation to conduct an environmental impact assessment is a direct obligation under the Convention and a

38 Art. 2(7) of Convention on Environmental Impact Assessment in a Transboundary Context.

39 Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand *v.* France) Case, ICJ Reports 1995, p. 290, para. 5 (1995).

40 Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica *v.* Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua *v.* Costa Rica), Judgment, ICJ Reports 2015, p. 706, para. 104 (2015).

general obligation under customary international law".[41] It has become customary international law to conduct an EIA of proposed projects that are likely to cause serious transboundary environmental damage. Regarding the obligation to conduct an EIA that has obtained the status of customary international law,[42] its assessment object is the proposed projects that may cause serious transboundary environmental damage, excluding programs, plans, etc. It is, therefore, appropriate to consider that the implementation of the SEA obligation is beyond the scope of the obligations under the Convention based on the interpretation of the context and current international law practice.

Furthermore, the inclusion of SEA in BBNJ international agreement is contrary to the UN General Assembly resolution authorizing BBNJ negotiations. 2011 witnessed the conclusion of a "package of agreements" by the Ad Hoc Working Group on four main issues that should be addressed in a future BBNJ international instrument: marine genetic resources and benefit-sharing, area-based management tools including marine protected areas, environmental impact assessments, capacity building and technology transfer. As SEA is not a type of EIA, SEA should not be included in the BBNJ international agreement. The UN General Assembly Resolution 72/249, which authorized the intergovernmental negotiations on BBNJ, specified for the first time that the negotiation and final text of the BBNJ international agreement should be in full compliance with the provisions of the Convention. Considering that the UN General Assembly resolution represents the consensus reached by the international community on this issue, the principle of "without prejudice" to the Convention, as called for in the UN General Assembly resolution, should be observed.[43] In other words, SEA should not be included in the BBNJ international agreement if it is not regulated by the Convention.

B. Sharp Divergences in the Definition of SEA in BBNJ Negotiations, and Controversy over the Theory of SEA

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41 Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, 1 February 2011, p. 50, para. 145 (2011).

42 DENG Hua, *Evolution and Implementation of the Environmental Impact Assessment System in International Law*, SUN YAT-SEN University Law Review, Vol. 13:3 (2015). (in Chinese)

43 SHI Yubing, *Exploring Approaches for Dispute Settlement in the Framework of BBNJ Agreement*, Pacific Journal, Vol. 28:6, p. 18 (2020). (in Chinese)

Article 1(13) of the revised draft text of BBNJ international agreement released in November 2019 sets out the definition of SEA.[44] Employing provisions directly from the Kiev Protocol, this definition highlights elements of the SEA process that are relevant to the EIA of a project, including determining the scope and preparation of environmental reports, conducting public participation and consultation, and considering the environmental reports and the results of public participation and consultation in plans or programmes. A consensus on this definition, however, has not been reached even among countries that support the inclusion of SEA in the BBNJ international agreement, whose views are sharply divided on whether procedures and conditions should be placed on SEA.

From a theoretical point of view, no generally accepted definition of SEA exists in the international community currently.[45] This is largely due to the fact that a growing trend towards the diversification of SEA practice internationally has emerged since the mid-1990s: more than concerning environmental impacts, it also requires integrated consideration of environmental factors with social, economic and health factors. Some SEAs stress the application of elements related to the project EIA process, including information provision and public participation. Some show SEAs strong adaptability in the decision-making forms and processes and change to flexible environmental governance tools, serving not just as an aid to early decision-making.[46] Meanwhile, the connotation and extension of SEAs are also constantly evolved and expanded, making them full of controversy. Moreover, divergent views exist within the theoretical community as to whether the SEA should adopt a clear and specialized process based on the project EIA, or a more flexible and adaptive process. Also, little literature is available on how to implement SEA in the BBNJ field.

Ambiguity also exists in the object of SEA. As shown in Figure 1, the objects of SEA are usually divided into three categories theoretically, with the hierarchy ranging from high to low as policy, plan and program. However, whether it is policy, plan or planning, it has different meanings in different countries, depending

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44 Art. 1(13) of Revised Draft Text of an 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.

45 Francois Retief, Carys Jones & Stephen Jay, *The emperor's new clothes — Reflections on strategic environmental assessment (SEA) practice in South Africa*, Environmental Impact Assessment Review, Vol. 28:7, p. 506 (2008).

46 GENG Haiqing, *Environmental Considerations in Decision Making: Institutions and Practice*, China Environmental Press, 2017, p. 63. (in Chinese)

on different political and institutional backgrounds.[47] In practice, difficulties lie in clearly categorizing all forms of decision-making into a particular policy, plan or program, even in the same country. There is also a hierarchical difference between plans or programs at the same level, with high-level plans and programs falling at the national level.[48] Such plans or programs, however, can either be divided directly into projects or, albeit incapable of being broken down into projects, can influence the selection and initiation of specific projects. In terms of treaty law practice on SEA, in addition to defining the terms of "strategic environmental assessment", the Kiev Protocol also further specifies the object of SEA and its coverage and scope of application by defining the terms of "plans and programmes"[49] and specifying the applicable and inapplicable areas of plans and programmes,[50] making SEA operative to a certain extent. In this regard, inclusion of SEA in BBNJ international agreement requires clarification of the object of SEA and its coverage and scope of application, which are yet to be discussed in the current negotiations on BBNJ international agreement.

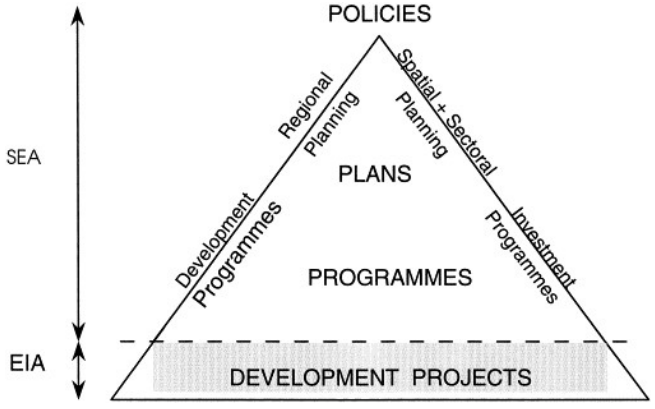

Figure 1 Hierarchical division of SEA objects [51]

Given the controversial definition and process of SEA in the current theoretical

47 Barry Dalal-Clayton & Barry Sadler, *Strategic Environmental Assessment: A Rapidly Evolving Approach*, ScienceDirect (Oct. 2008), https://pubs.iied.org/pdfs/7790IIED.pdf.

48 SHANG Jinwu & BAO Cunkuan, *Introduction to Strategic Environmental Assessment*, Science Press, 2002, p. 91. (in Chinese)

49 Art. 2(5) of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

50 Art. 4 of Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context,.

51 Maria Rosário Partidário, *Elements of an SEA framework— improving the added-value of SEA*, Environmental Impact Assessment Review, Vol. 20:6, p. 647-663 (2000).

community and the ambiguity of the SEA object, it is therefore difficult to provide a solid theoretical foundation for the construction of SEA in BBNJ international agreement. With the inadequate discussion and lack of consensus on the concept, scope and procedure of SEA in the negotiations on BBNJ international agreement, those attempting to establish a SEA system in the field of BBNJ will encounter serious challenges.

C. Limited Reference of Treaty Practice for SEA

Article 28 of the revised draft text of the BBNJ international agreement provides for the SEA as an obligation (shall), and sovereign State, as the subject of the assessment, shall ensure that a strategic environmental assessment is carried out for plans and programs relating to activities, which meet the threshold/criteria established in article 24. It is also provided for that the process of SEA shall follow mutatis mutandis the process of Broad EIA.[52] This article draws directly on the Kiev Protocol's experience with SEA treaty legislation.[53]

There is limited reference significance regarding the regulatory approach to SEA in the Kiev Protocol. The Kiev Protocol's adoption and entry into force involve a long and gradual process of consensus building, stemming from the sufficient theoretical and practical accumulation of the EU and its member states, which is not yet available at the global level. The 2003 Kiev Protocol was established on the basis of the 1991 Espoo Convention and the 1992 Convention on the Transboundary Effects of Industrial Accidents, with the latter two having set up mechanisms for information exchange, consultation, investigation committee systems and public participation between Contracting Parties and the affected Parties in terms of project EIA. The public opinion of the affected Parties has become one of the factors taken into account by the country of origin. Meanwhile, the establishment of the 2003 Kiev Protocol is also significantly influenced by the EU SEA Directive, and its core SEA process is roughly the same as that of the EU SEA Directive. It also took more than 20 years of negotiations and

52 Art. 28(1) of Revised Draft Text of an 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.

53 Art. 28(2) of Revised Draft Text of an 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.

consultations to reach a consensus on the final adoption of the 2001 EU SEA Directive. Additionally, pursuant to the EU SEA Directive, the EU member states have completed the conversion of domestic laws as required by the Directive in 2009, which also serves as one of the driving forces for the ratification of the Kiev Protocol in some European countries. Judging from the current practice of international treaty law, the Kiev Protocol stands as the only international treaty that sets certain norms and procedures for SEA at the plan and program level, and sets information exchange and consultation as mandatory obligation of the country of origin, making the SEA under the Kiev Protocol involving multiple countries and the assessment process fully considering the impact on other countries, which to a certain extent goes beyond the SEA in the sense of the domestic law of the country of origin.[54] Despite being open to all countries, the Kiev Protocol is currently attended by only 33 States Parties, including the EU, which is not widespread, with a lack of willingness on the part of most countries to sign and ratify at the moment. In this regard, the inclusion of SEA obligations in international instruments and the setting of certain norms and procedures, therefore, need to be based, at a minimum, on a growing consensus on SEA and the existence of a relatively consistent SEA system and implementation.

There are still differences in the system and implementation of SEA between the North and the South due to the gap in financial, technical, theoretical and practical capabilities. Most developed countries have established SEA systems on the basis of project EIA systems. Developing countries have been much slower in embracing the concept, although progress has been made in recent years.[55] At the regional level, the SEA system and its implementation in Asia lag behind those in Europe and North America.[56] Countries or regions within Asia that have institutionalized SEA include China, Hong Kong, Taiwan, South Korea, Japan, Vietnam and Indonesia, subject to differences in their regulation models and implementation conditions. Countries like Thailand, the Philippines, Bangladesh and Sri Lanka oppose the implementation of SEA. Laos' main motivation for conducting SEA comes from aid funds, Bangladesh relies entirely on financial

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54 XU Xiangmin & MENG Qinglei et al., *On the Basic Principles of International Environmental Law*, China Environmental Science Press, 2008, p. 162. (in Chinese)

55 Francois Retief, Carys Jones & Stephen Jay, *The emperor's new clothes — Reflections on strategic environmental assessment (SEA) practice in South Africa*, Environmental Impact Assessment Review, Vol. 28:7, p. 504-505 (2008).

56 Barry Sadler et al., eds., *Handbook of Strategic Environmental Assessment*, translated by WANG Wenjie et al., China Environmental Science Press, 2012, p. 68. (in Chinese)

assistance for SEA, and Pakistan does not even have legislation on project environmental assessment.[57] SEA in Southern Africa is still in its infancy and suffers from a lack of formal scope delineation procedures, weak linkages to the decision-making process, and devoid of formal assessments.[58] South Africa, as a developing country with good SEA implementation, has not yet legislated on SEA, which adversely affects the effectiveness of SEA.[59] Most of the countries in Central America and the Caribbean have legislation on SEA, but the actual implementation also varies considerably from country to country.[60] In addition, the currently implemented SEA only addresses matters related to areas within national jurisdiction, leaving out the practice of conducting SEA for programs, plans and policies of ABNJ-related matters. As a result, drawing on the experience of the Kiev Protocol on SEA treaty legislation for the BBNJ international agreement does not have a broad and mature basis in international practice, and the Kiev Protocol has limited reference significance.

Under the Convention on Biological Diversity, States Parties, albeit required to conduct SEA, are subject to restrictive wording like "as far as possible and as appropriate" and "introduce appropriate arrangements", and no definition of SEA is provided. Adopted by the Conference of the Parties to the Convention on Biological Diversity, the Voluntary Guidelines for Impact Assessment and the Voluntary Guidelines for Strategic Environmental Assessment, designed to provide a good practice guide for States Parties, are not mandatory. In the context of its development, the Convention on Biological Diversity, as a result of the political compromise between the North and the South, inspires more signatures and ratifications, confers States Parties a high degree of discretion, and also provides room for a very low level of compliance by States Parties with their SEA obligations.[61] Consequently, the deficiencies of the Convention on Biological Diversity in the regulation and implementation of SEA obligations have, to a

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57 Dennis Victor & P. Agamuthu, *Policy trends of strategic environmental assessment in Asia*, Environmental Science & Policy, Vol. 41, p. 73 (2014).

58 Barry Sadler et al., eds, *Handbook of Strategic Environmental Assessment*, translated by WANG Wenjie et al., China Environmental Science Press, 2012, p. 123. (in Chinese)

59 Francois Retief, Carys Jones & Stephen Jay, *The emperor's new clothes — Reflections on strategic environmental assessment (SEA) practice in South Africa*, Environmental Impact Assessment Review, Vol. 28:7, p. 507 (2008).

60 Javier Rodrigo-Ilarri et al., *Advances in Implementing Strategic Environmental Assessment (SEA) Techniques in Central America and the Caribbean*, Sustainability, Vol. 12:10 (2020).

61 WANG Xi ed., *International and Comparative Environmental Law Review*, Shanghai Jiao Tong University Press, 2008, p. 118. (in Chinese)

certain extent, led to the lack of legal effectiveness of SEA obligations. The content of SEA obligations in the Convention on Biological Diversity shows that the SEA obligations, despite their origins in the global convention, are still essentially an act of domestic law of State Parties—guided by "soft law" documents, the implementation procedure follows the procedure of domestic law[62]—which is not a SEA in the sense of real international law. The positive impact of SEA in the field of BBNJ must be based on extensive national participation and good implementation of SEA obligations. Where good implementation of SEA requires safeguard, the regulatory approach of the Convention on Biological Diversity to SEA has limited reference significance.

IV. Adverse Impact of the Application of SEA in BBNJ International Agreement

A. Impact on State Sovereignty

Sovereignty constitutes one of the fundamental attributes of a modern State. The State sovereignty must not be compromised throughout the negotiation of BBNJ international agreement, while an important consensus has also been reached among countries in the formation process of BBNJ EIA system to respect and safeguard State sovereignty.[63] Theoretically, the objects of SEA may include plans and programs, as well as policies and laws. How policies and laws are enacted is an important manifestation of a State's independent exercise of sovereignty, while plans and programs serve as the concrete embodiment and realization form of national policies. Currently, it is within the scope of exercising State sovereignty over environmental resources for the State to conduct SEA on specialized plans and programs, including energy, natural resources, land use, transportation, and environmental protection, as well as regional plans and programs for regional development, municipal development, and rural development. There is also the possibility that plans and programs for ABNJ-related activities may overlap with those for the exploitation and utilization of environment and resources in areas

62 XU Xiangmin & MENG Qinglei et al., *On the Basic Principles of International Environmental Law*, China Environmental Science Press, 2008, p. 162. (in Chinese)

63 Chair's Understanding of Possible Areas of Convergence of Views and Possible Issue for Further Discussion Emanating on EIA, UN website (Sept. 9, 2020), https://www.un.org/Depts/los/biodiversity/prepcom_files/Prep_Com_II_Chair_overview_to_MS.pdf, p. 11.

within national jurisdiction. Moreover, plans or programs for national defense affairs or domestic emergency services, as well as financial budget plans or programs, necessarily involve the vital core national interests of a sovereign State, making them the elements of sovereignty that a sovereign State must firmly uphold.

The application of SEA, given its close relationship with State sovereignty, will inevitably impose certain limitations on State sovereignty in the context of the BBNJ national agreement. The current international negotiations of BBNJ are fraught with divergent views on the concept, scope and process of SEA, and many controversies in the theoretical community about SEA also make it difficult to provide a solid theoretical foundation for the construction of SEA in BBNJ international agreement, which will further contribute to the difficulty of constructing a SEA system. Under such circumstance, the uncertainty of the important concepts and their scope, in applying SEA to the BBNJ international agreement, will certainly bring great uncertainty to sovereign States in implementing, performing and complying with the agreement, where States may expose themselves to the risk of having their sovereignty excessively limited or compromised.

B. Impact on Developing Countries

Developed countries, having gone through the stage of "pollution before treatment", boast strong economic strength and technological and practical capabilities, making them more proactive in environmental protection issues by setting higher standards for environmental issues.[64] In contrast, the vast number of developing countries usually have difficulty meeting the standards put forward by developing countries as a result of capital and technology limitations. Including SEA as an obligation in the BBNJ international agreement will impose an unreasonable burden to developing countries and make them bear unreasonable environmental obligations, based on the current situation that the developing countries have not yet fully established a sound SEA system. The Chinese delegation had pointed out during the negotiation of the BBNJ international agreement that it is not an easy task for most developing countries,

64 XU Xiangmin & MENG Qinglei et al., *On the Basic Principles of International Environmental Law*, China Environmental Science Press, 2008, p. 125-126. (in Chinese)

including China, to conduct.[65] In the case of some low-and middle-income countries, their implementation of SEA relies mainly on financial assistance from international organizations such as the Organization for Economic Co-operation and Development and the World Bank. Peru, for example, has no secure national financing mechanism of its own to ensure the implementation of SEA in the absence of financial assistance from relevant international organizations.[66]

With most developing countries suffering from a lack of capacity to conduct SEA in the ABNJ, it is not reasonable or necessary to include SEA provisions in BBNJ international agreement. Should SEA be included as an obligation in the BBNJ international agreement, developing countries would most likely suffer from the inability to develop SEA reports or difficulties in meeting the environmental access requirements for ABNJ marine activities as proposed in the BBNJ international agreement due to insufficient funds and technical shortcomings, which would restrict their activities in ABNJ, thus becoming a "trade barrier" in disguise.[67]

C. Impact on the Effectiveness of the Treaty

In terms of the economic effectiveness of the treaty, the fulfillment of treaty obligations should be in line with the principle of cost-effectiveness in economics. It is provided for in Section 1, Article 2, of Annex II to UN General Assembly Resolution 48/263 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, adopted in 1994, that "in order to minimize costs to States Parties, all organs and subsidiary bodies to be established under the Convention and this Agreement shall be cost-effective." As required by the UN General Assembly Resolution 72/249, the BBNJ international agreement, in its role as the third implementation agreement of the Convention, must be fully in line with the provisions of the Convention, including

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65 ZHENG Miaozhuang et al. eds., *Compilation of Statements By the Chinese Delegation BBNJ Negotiations on International Agreements*, China Social Sciences Press, 2019, p. 56. (in Chinese)

66 Juliane Biehl et al., *Implementing strategic environmental assessment in countries of the global South – An analysis within the Peruvian context*, Environmental Impact Assessment Review, Vol. 77, p. 30 (2019).

67 XUE Liming & LI Cuiping eds., *Resources and Environmental Economics*, Metallurgical Industry Press, 2017, p. 301-303. (in Chinese)

the above-mentioned cost-effectiveness principle.[68] However, the inclusion of SEA provisions in the BBNJ international agreement will undermine the effectiveness of the agreement in the case that most developing countries have no capacity to conduct SEA in ABNJ. There is, however, no practice of conducting SEA in ABNJ and a dearth of related research. In the meantime, increase in the cost of activities carried out in ABNJ will arise along with the inclusion of SEA provisions in the BBNJ international agreement, which is to the detriment of encouraging more countries to conduct scientific research in ABNJ.

Judging the political effectiveness of the treaty, the signing rate and ratification rate of the treaty constitute one of the criteria to judge the political effectiveness of the treaty.[69] Conducting SEA in ABNJ involves State sovereignty and also has implications for the vital interests of sovereign States in ABNJ. It is generally accepted that the transfer of State sovereignty is possible only when countries agree on common interests, and can reconcile the interests of countries and the benefits of all parties concerned in the game, with a multi-win situation in the game and a fair distribution of benefits among the participants.[70] The inclusion of SEA in BBNJ international agreement at a time when the theory and practice of SEA are not yet mature and the interests of countries involved are difficult to reconcile may lead to a reduction in the willingness of countries to cooperate and make it less likely that the BBNJ international agreement will eventually be widely ratified by countries. Meanwhile, the absence of extensive participation of the international community will inevitably make it difficult to achieve the goal of conservation and sustainable use of BBNJ, thereby posing an adverse impact on the legal effectiveness of BBNJ international agreement.

V. Conclusion

As a new venture, conducting SEA in ABNJ calls for high demands on the technological capacity of participating countries, the improvement of domestic rule of law, the accumulation of SEA theory and practice, and the overall capabilities

68 SHI Yubing, *Exploring Approaches for Dispute Settlement in the Framework of BBNJ Agreement*, Pacific Journal, Vol. 28:6, p. 17 (2020). (in Chinese)

69 LI Chunlin, *On Differential Treatment in International Environmental Law*, China Legal Publishing House, 2013, p. 267. (in Chinese)

70 LIU Kai, *On the Limited Transfer of National Sovereignty*, China University of Political Science and Law Press, 2013, p. 212. (in Chinese)

of the international community. However, there still exist many challenges facing the conduct of SEA in ABNJ currently, such as insufficient legal basis, immature theory, limited reference of international treaties, and lack of practical experience in the international community as a whole. In this context, mandating the provisions of SEA in the BBNJ international agreement may lead to such risks as damage to national sovereignty and possible increase in the unreasonable environmental burden on developing countries and restrictions on their freedom to carry out activities in the ABNJ, which will eventually contribute negatively to the effectiveness of the BBNJ international agreement.

The fourth session of the intergovernmental conference of BBNJ is now approaching. It is estimated that it will be also particularly difficult for countries to reach a consensus on SEA issue in the fourth session given the considerable disagreement on such issue in the first three intergovernmental conferences, which therefore requires more consultations and compromises among countries. In addition to maintaining its position of not including SEA provisions in the BBNJ international agreement, the Chinese government should also clearly state the obstacles and possible adverse impacts of applying SEA in the BBNJ international agreement at the present stage. As the BBNJ international agreement aims to ensure the conservation and sustainable use of BBNJ and to maintain a balance between them through the effective implementation of the relevant provisions of the Convention and further international cooperation and coordination, it is not in the overall interest of the international community to unilaterally raise environmental standards and promote the inclusion of SEA in the BBNJ international agreement.

Translators: CHEN Jueyu, HUANG Rui
Editor (English): HUANG Yuxin

国际海底区域内与外大陆架矿物资源开发缴费机制比较研究

Klaas Willaert*

内容摘要：鉴于深海采矿的商业利益显著且投资巨大，各国政府和私有企业不仅在国际海底区域（以下简称“区域”）内积极开展勘探和开采活动，还将目光瞄准大陆架上矿物资源丰富的地区。值得注意的是，深海采矿者希望在“区域”内开采的矿物资源在国家管辖范围内的区域中同样存在，但法律边界的重叠导致其适用不同的法律制度，因为大陆架上的活动受沿海国国内立法的管辖，而不受该地区可普遍适用的国际制度的约束。尽管如此，在200海里以外的大陆架上开展开采活动仍需承担向国际海底管理局（以下简称“管理局”）提供财政缴费的类似义务。考虑到该缴费机制已由1982年颁布的《联合国海洋法公约》所确立，有必要比照评估“区域”征收方式和税费制度与外大陆架上现行制度的相关程度，在合理性与平衡性基础上思考深海采矿的费率折扣问题为此，本文拟全面分析、比较现有法律框架以及管理局目前正在讨论的各项建议，并提出看法。

关键词：海洋法　深海采矿　国际海底区域　大陆架　人类共同继承财产　惠益分享

一、引　言

在过去几十年中，包括国家管辖范围外[1]的海床和底土在内的国际海底区域（以下简称“区域”）内的深海采矿持续增长。截至目前，国际海底管理局（以下简称“管理局”）已签发三十份勘探合同，开采阶段已然临近。[2] 尽管“区域”内深海采矿经常成为人们关注的焦点，但值得注意的是，类似活动在国家管辖范围以内的区域

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1 《联合国海洋法公约》序言和第134条。

2 Status of Contracts for Exploration and Related Matters, Including Information on the Periodic Review of the Implementation of Approved Plans of Work for Exploration, ISBA/26/C/4, Annex I, 17 December 2019.

中也正在开展。鉴于深海采矿具有显著的商业利益，各国政府和私有企业无疑都将目光瞄准大陆架上矿物资源丰富的地区。[3] 毕竟“区域”内蕴藏的各种矿物资源（多金属结核、多金属硫化物和富钴铁锰壳）同样存在于多个沿海国家的大陆架上，可利用相同的技术进行开采。[4] 尽管活动相同，但跨越法律界定的边界导致适用不同的管理方案，国际海底法律制度必须让位于沿海国国内法律制度。

在大陆架上开展的深海采矿活动仅受沿海国家相关立法的管制，因此不受制于“区域”内普遍适用的国际制度。然而人类共同继承财产原则[5]和惠益分享的相关义务[6]促成了一项重要的责任，即在外大陆架上开展开采活动需要承担向管理局提供财政缴费等类似责任。[7] 尽管“区域”和外大陆架的缴费机制均由1982年颁布的《联合国海洋法公约》（以下简称“《公约》”）所确立，但前者已被1994年颁布的《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》（以下简称“《1994年协定》”）所废止，[8] 管理局目前正在制定的新制度已趋于成熟。[9] 关于外大陆架开采活动的现有缴费机制是对“区域”对应缴费机制的合理扩展，因此有必要评估该缴费机制与目前尚在制定中的“区域”的征收方式与税费制度的相关程度。

本文旨在批判性地分析《公约》第82条确立的目前仍未启用的缴费机制，并将所有相关要素与管理局内部目前正在考虑和探讨的模式进行对比。首先简述适用于“区域”和大陆架的一般法律框架，然后仔细剖析参数、征收方式和费率，为

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3 Sonia Jind, *It's Only a Matter of Time before Deep-Sea Mining comes to Canada*, The Narwhal (Mar. 26, 2019), https://thenarwhal.ca/its-only-a-matter-of-time-before-deep-sea-mining-comes-to-canada-were-not-ready/; *Scramble for the Indo-Pacific Seabed*, The Diplomat (Nov. 16, 2019), https://thediplomat.com/2019/11/scramble-for-the-indo-pacific-seabed/; *Japan's Grand Plans to Mine Deep-Sea Vents*, BBC (Jan. 7, 2019), https://www.bbc.com/future/article/20181221-japans-grand-plans-to-mine-deap-sea-vents; Anneka Brown, *I See Us Taking the Lead*, Cook Islands News (Oct. 5, 2019), http://www.cookislandsnews.com/national/economy/item/74447-seabed-mining-i-see-us-a-taking-the-lead.

4 Non-living resources of the Continental Shelf Beyond 200 nautical miles: Speculations on the Implementation of Article 82 of the United Nations Convention on the Law of the Sea, ISA Technical Study No. 5, ISA website (April. 1, 2020), https://isa.org.jm/files/files/documents/techstudy5.pdf, p. 24-26（以下简称“ISA第5号技术研究”）。

5 《联合国海洋法公约》第136条。

6 《联合国海洋法公约》第140条。

7 《联合国海洋法公约》第82条。

8 《联合国海洋法公约》附件三曾用第13条第3-10款；《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》附件第八节第2条。

9 参见 Report of the Chair on the outcome of the third meeting of the open ended working group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1, of annex III to the United Nations Convention on the Law of the Sea and section 8 of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 , ISBA/26/C/8, 17 February 2020（以下简称“不限名额工作组第三次会议报告”）。

两者之间进行对比奠定基础。在批判性分析条约文本、管理局文件、法律文献和近期发展的基础上，揭示外大陆架缴费机制是否与最近关于“区域”开采活动财政条款的提议保持一致。两者间的合理的平衡能否实现？或者说外大陆架深海采矿能否享受税率折扣和有利条款？本文提出可能的改善措施和几点重要的思考。

二、两套法律制度:“区域”与大陆架

（一）“区域”

“区域”受全面的国际制度的管制，该制度决定由谁以及在什么条件下可以勘探、开发“区域”的矿物资源。基本原则在《公约》第十一部分以及附件三和四中确立，[10]《1994 年协定》对《公约》进行了修正，[11] 而详细规则由所谓的“《“区域”内矿物资源开发规章》”确立，其中包含管理局颁布的大量规定和程序。管理局负责管理“区域”及其矿物资源，[12] 已颁布采矿活动第一阶段的规则（探矿和勘探）并针对三种不同的资源类别（多金属结核、多金属硫化物和富钴铁锰壳）[13] 制定单独的规定，但尚未采纳开发规章。[14]

国际海底制度的首要原则是根据“区域”及其矿物资源作为“人类共同继承财产”的地位来确定的。[15]《公约》明确了这一理念的重要性并 [16] 以多种方式传达其

10 《联合国海洋法公约》第十一部分、附件三和附件四。
11 《关于执行 1982 年 12 月 10 日〈联合国海洋法公约〉第十一部分的协定》附件。
12 《联合国海洋法公约》第 157 条第 1 款。
13 Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Areaand related matters, ISBA/19/C/17, 22 July 2013（以下简称“开发规章 PMN”）; Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1, 15 November 2010; Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11, 22 October 2012.
14 草案原计划于 2020 年 7 月批准，但目前仍在拟定中，这可以很好地表明现状。参见 Draft Regulations on Exploitation of Mineral Resources in the Area, ISBA/25/C/WP.1, 25 March 2019。
15 《联合国海洋法公约》第 136 条。
16 《联合国海洋法公约》第 136 条未纳入潜在修订范围，禁止缔约国通过修正案或以协议的方式废除。参见《联合国海洋法公约》第 155 条第 2 款和第 311 条第 6 款。

目的，[17] 包括禁止占有、[18] 专为和平目的利用、[19] 海洋环境的保护、[20] 国际合作、海洋科学研究方面的国际合作和知识传播 [21] 以及公平分配“区域”内相关活动产生的财政和其他经济利益。[22] 如各国和商业实体希望在“区域”内开展活动，可向管理局提交申请，工作计划经批准后以合同的方式确立。[23] 但应当注意的是，非国家主体只有在得到缔约国担保的情况下才能提出申请。[24] 担保国负责确保其所担保的企业履行合同条款及对《公约》的义务，如担保国已采用立法并在其法律秩序框架范围内采取措施，合理确保其管辖下的人员有效遵守相关法律法规，被担保方违规时担保国不承担责任。[25] 出于这一担保要求，除国际法框架外的规定获得和持有担保证书的条件的国内立法也发挥了重要作用。[26]

（二）大陆架

在讨论大陆架的制度和沿海国的管辖权问题之前，应明确对这一海洋区域的划分，[27] 法律规定的大陆架包括领海以外领海基线的测量宽度200海里以内的海床和底土，大陆边超过规定200海里时，此范围可扩展至大陆边的外缘。[28] 大陆边

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17 Alex G. Oude Elferink, *The Regime of the Area: Delineating the Scope of Application of the Common Heritage Principle and Freedom of the High Seas*, International Journal of Marine and Coastal Law, Vol. 22:143, p. 154-160 (2007); Aline Jaeckel, Jeff A. Ardron & Kristina M. Gjerde, *Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?*, Marine Policy, Vol. 70:198, p. 199 (2016).

18 《联合国海洋法公约》第137条。

19 《联合国海洋法公约》第141条。

20 《联合国海洋法公约》第145条。

21 《联合国海洋法公约》第143条和第144条。

22 《联合国海洋法公约》第140条。

23 《联合国海洋法公约》第153条第2款和第3款；《联合国海洋法公约》附件三第3条；《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》附件第一节第6条。

24 此原则还有一些细节：如果申请方由不同国籍实体的财团所构成，所有相关国家均需为申请做担保，如果某个实体被另一国家或其国民实施有效控制，该国和官方国籍国都必须作为担保人。参见《联合国海洋法公约》第153条第2款第b项；《联合国海洋法公约》附件三第4条第1款和第3款。

25 《联合国海洋法公约》第139条；《联合国海洋法公约》附件三第4条第4款；Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory Opinion, ITLOS Reports 2011,1 February 2011, p.10.

26 参见 Belgian Law of 17 August 2013 concerning the prospection, exploration and exploitation of the natural resources of the seabed and the subsoil beyond national jurisdiction, BS 16 September 2013, 65612; German Seabed Mining Act 1995, amazonaws (Jun. 6, 1995), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/NatLeg/FDRGermany-en.pdf; United Kingdom Deep Sea Mining Act 1981, GOV.UK (Jul. 28, 1981), http://www.legislation.gov.uk/search?title=&year=1981&number=53&type=ukpga.

27 《联合国海洋法公约》第76条。

28 《联合国海洋法公约》第76条第1款。

构成沿海国家陆地的自然延伸，必须与深海海底加以区分。[29] 为了给出更加明确的法律定义，《公约》给出了确定 200 海里以外大陆架的两个标准：一个是形态标准，用一条线将距大陆坡脚不超过 60 海里的固定点连接起来（Hedberg 公式）；

29 《联合国海洋法公约》第 76 条第 3 款。

另一个是地质标准，以最外各定点为连接成线，在这些点上沉积岩的厚度至少是从这些点到大陆斜坡脚下最短距离的百分之一（Gardiner公式）。[30] 可结合上述标准确定尽可能大的大陆架，但存在绝对限制：固定点不得超过领海基线350海里，也不得超过2500公尺等深线100海里。[31] 为了宣示对外大陆架的主权，沿海国家必须向大陆架界限委员会 (Commission on the Limits of the Continental Shelf) 提交支持划定200海里外大陆架的资料，委员会将提出相关建议并在此基础上最终划定具有约束力的外大陆架界限。[32] 鉴于事关重大利益，许多国家已向大陆架界限委员会提交了划界案，以便延伸其大陆架并扩大其对大陆架丰富自然资源的主张。[33]

“区域”不属于任何国家，因此受到一个全面的国际制度管辖，与此相反，大陆架属于沿海国管辖范围内。沿海国家在在大陆架上行使专属主权，以便勘探和开采海床和底土上的自然资源，而不依赖于占领或明示宣告。[34] 尽管沿海国家的权利不影响上覆水域或上方空域的法律地位，也不得违背或干涉其他国家的航行自由或其他权利的自由（包括铺设或维护海底电缆和管道）[35]，但沿海国家可在

30 在这些计算中，大陆坡脚是一个关键因素。在不存在相反证据的情况下，将底部坡度变化最大的点确定为大陆坡脚。此外，划定200海里以外大陆架的外部界限是指固定点之间不超过60海里的直线。参见《联合国海洋法公约》第76条第4款和第7款。

31 《联合国海洋法公约》第76条第5款。

32 根据大陆架界限委员会的建议划定大陆架界限后，沿海国家必须将所有海图和相关资料提交联合国秘书长保存，联合国秘书长应予以适当公布。但必须注意，所讨论的划界技术和大陆架界限委员会的建议并不妨碍海岸相向或相邻国家之间大陆架的划界问题。划界问题最好通过协议公平解决，但如无法达成协议，各国应通过《联合国海洋法公约》争端解决办法解决争端。参见《联合国海洋法公约》第76条第8款和第10款、第83条。

33 参见 Submissions, through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, pursuant to article 76, paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982, UN website (Apr. 22, 2020), https://www.un.org/Depts/los/clcs_new/commission_submissions.htm; Steinar Løve Ellefmo & Fredrik Søreide eds., *Quantifying the Unknown: Marine Mineral Resource Potential on the Norwegian Extended Continental Shelf*, Nordic Open Access Scholarly Publishing (Nov. 18, 2019), https://press.nordicopenaccess.no/index.php/noasp/catalog/view/81/339/2884-1; Gérard Grignon, *Extension of the Continental shelf beyond 200 nautical miles: an asset for France*, Opinion of the Economic, Social and Environmental Council, Official Journal the French Republic, EESC (Oct. 2013), https://www.eesc.europa.eu/ceslink/resources/docs/13-12-avis-plateau-continental-eng.pdf; *One of the most significant deep-sea mining negotiations is underway at the Commission on the Limits of the Continental Shelf*, DSM Observer (Oct. 17, 2019), https://dsmobserver.com/2019/10/one-of-the-most-significant-deep-sea-mining-negotiations-is-underway-at-the-commission-on-the-limits-of-the-continental-shelf/.

34 《联合国海洋法公约》明确了“自然资源”一词的确切含义：这些资源包括海底和底土的所有矿物和其他非生物资源以及属于固定或无法移动的定居生物的有机体，持续与海底或底土接触者除外。参见《联合国海洋法公约》第77条。

35 但沿海国家有权采取合理措施勘探和开发其自然资源、防止管道污染，并且此类管道的铺设路线须经其同意。参见《联合国海洋法公约》第78、79条。

大陆架上建设人工岛屿、设施和结构并享有授权和管理钻探的专有权。[36] 如果深海采矿公司等其他实体希望在大陆架上进行勘探或开采活动，必须征得沿海国家的明确同意。通常根据国内立法规定的具体程序和条件颁发许可证来表示同意。[37] 关于国家管辖范围内深海采矿的国内立法可由沿海国家自行制定，但必须指出的是，国际法可以通过多种方式在一定程度上干预这些国家制度，确保所有国家都负有保护和保全海洋环境的一般义务，这一义务也适用于国家管辖内的区域。[38] 各国应监测和评估其授权[39]的活动对环境的影响，必须采取和执行防止、减少和控制污染及环境影响的措施，其效力不应低于国际规则和标准。[40] 同时，应当强调的是，确保对沿海国家在外大陆架上采矿实行国际缴费机制。[41]

三、两套缴费机制："区域"与大陆架

（一）"区域"

《公约》第 140 条规定，应从使全人类受益的角度出发在"区域"内开展相关活动，而不受国家地理位置的影响，并应特别考虑发展中国家的利益和需要，管理局明确规定通过适当机制公平、非歧视地分享财政和其他经济收益。[42] 向管理局缴费进而收入分配是实现公平分配"区域"内活动所产生财政和经济收益的最直接机制，也是实现这一重要目标的重要组成部分。[43] 根据《公约》和《1994 年协定》的规定，向承包者收取若干费用：除其他费用外，每次申请或相关修改都需要缴费

36 《联合国海洋法公约》第 80、81 条。

37 参见《库克群岛海底矿物法案》第 4 部分，2019 年 6 月 17 日，https://www.seabedmineralsauthority.gov.ck/s/Seabed-Minerals-Act-2019；《汤加海底矿物法案》第 6 部分，2014 年 7 月 23 日，https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/NatLeg/Tonga-2014.pdf；《基里巴斯海底矿物法案》第 VII 部分，2017 年 4 月 13 日，https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/ki-seabedmins.pdf；《图瓦卢海底矿物法案》第 7 部分，https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/NatLeg/Tuvalu/Tuvalu-2014.pdf。

38 《联合国海洋法公约》第 192、193 条。

39 《联合国海洋法公约》还规定必须公布这些评估结果报告。参见《联合国海洋法公约》第 204-206 条。

40 《联合国海洋法公约》第 194、208 、214 条。

41 见下文 第三部分第二节。

42 《联合国海洋法公约》第 140 条。

43 Aline Jaeckel, Jeff A. Ardron & Kristina M. Gjerde, *Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?*, Marine Policy, Vol. 70:198, p. 199-201 (2016); Jennifer Frakes, *The Common Heritage of Mankind Principle and the Deep Seabed, Outer Space, and Antarctica: Will Developed and Developing Nations Reach a Compromise*, Wisconsin International Law Journal, Vol. 21:409, p. 417-418 (2003).

额外费用。[44] 开采阶段增加年费[45] 和按开采资源价值缴费的费用，可能还包括以利润为基础的收费。[46] 目前管理局《开发规定草案》已经确定这些费用的缴费方式和时间、误差或差错的应对方法、[47] 需要提交的信息、必须保存账簿和记录并且可供检查、[48] 出现违规情况时可以进行的调整、[49] 利息和罚款、[50] 缴费机制和适用费率的修订方法[51] 以及确保财政透明度的方法。[52] 但缴费机制本身和适用的费率仍需在开发规章附录中加以阐述，该附录目前仅载有提示性内容。[53]

在制定财政机制时，管理局及其成员国必须考虑《公约》中包含的一些准则：必须确保管理局获得最优收入、制度应吸引投资和技术并且应始终坚持给予承包者平等的财政待遇。[54]《1994年协定》也给出了指南：付款必须对管理局和承包者公平，费率应在陆地采矿的现行费率范围内，制度不应复杂或征收较高的管理费用并且必须以适当方式确定承包者是否遵守此一制度。[55]《公约》和《1994年协定》似乎均倾向于采用从价特许权使用费率的制度，即根据所开采矿物资源的数量和市场价值缴费费用；或者采用混合模式，该模式还整合了利润分享要素，要求承包

44 《联合国海洋法公约》将提交工作计划申请的费用定为50万美元，但应不定时审查此金额，以确保足以支付管理费用，对于开采合同可提高至100万美元。如果上述费用超过实际管理费用，差额部分将退还申请方。反之，申请方应向管理局缴费差额，但额外金额不得超过原费用的百分之十。此外，续签合同和修改工作计划还需缴纳费用。参见《联合国海洋法公约》附件三第13条第2款；《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》附件第八节第3条；开发规章PMN第19条；《开发规章草案》第86、87条及附件二；Randolph Kirchain, Richard Roth, Frank R. Field, III, Carlos Muñoz-Royo& Thomas Peacock, *Report to the International Seabed Authority on the Development of an Economic Model and System of Payments for the Exploitation of Polymetallic Nodules in the Area*, MIT Materials Systems Laboratory (Jul. 1, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/paysysmodel-3jun.pdf, 第52页（以下简称“MIT报告《经济模式PMN》”）。

45 年费包括自开采合同生效之日起应付的报告费（10万美元）以及自商业生产开始之日起应付并且可从应付特许权使用费中扣除的固定费用。《联合国海洋法公约》拟定年固定费用为100万美元。尽管此规定已被《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》废止，但在即将到来的开采阶段这笔费用似乎仍维持不变。参见《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》附件第八节第1条d项、第2条；《开发规章草案》第84、85条；MIT报告《经济模式PMN》，第52页。

46 《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》；第八节《开发规章草案》第64条。

47 《开发规章草案》第66-70、73条。

48 《开发规章草案》第71-72、74-76条。

49 《开发规章草案》第77-78条。

50 《开发规章草案》第79-80条。

51 《开发规章草案》第81-82条。

52 《开发规章草案》第83条。

53 《开发规章草案》附件四。

54 《联合国海洋法公约》附件三第13条第1款。

55 《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》附件第八节第1条。

者贡献其利润的一部分。[56] 如设计多种模式，承包者可自由选择适用的制度，缴费机制和费率可定期修订，但任何变更都应以非歧视的方式进行并且仅在承包者选择后方可在现有合同中采用。[57] 如引言所述，《公约》已详细阐述缴费机制，给出两种不同的分阶段和分级费率以供选择，但这些规定已被《1994 年协定》废止。[58]

截至目前，管理局及其成员国似乎专注于建立缴费机制，而在建立充分的分配制度方面则进展缓慢。[59] 这些工作由专为拟定适当缴费机制 [60] 而组建的不限名额工作组承担，并以会员国和利益相关方 [61] 的各项建议以及麻省理工学院（Massachusetts Institute of Technology, MIT） 开展的研究为基础。[62] 尽管许多问题尚未解决并且存在若干不确定性因素，[63] 难以进行准确的预测，但缴费机制逐步成形，一些主要特征已然显现。例如就总体方案而言，鉴于《公约》和《1994 年协定》的倾向，并且考虑到采矿活动最初几年预期收入较低以及与之相关且不

56 《联合国海洋法公约》附件三曾用第 13 条第 4 款；《关于执行 1982 年 12 月 10 日〈联合国海洋法公约〉第十一部分的协定》附件第八节第 1 条 c 款。

57 《关于执行 1982 年 12 月 10 日〈联合国海洋法公约〉第十一部分的协定》附件第八节第 1 条 e 款。

58 《联合国海洋法公约》附件三曾用第 13 条第 3-10 款；《关于执行 1982 年 12 月 10 日〈联合国海洋法公约〉第十一部分的协定》（1994）第八节第 2 条。

59 参见 Report of the Finance Committee of International Seabed Authority, ISBA/25/C/31, p. 5-6, 12 July 2019.

60 Report of the Chair on the outcome of the first meeting of an open-ended working group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1, ofannex III to the United Nations Convention on the Law of the Sea and section 8 of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, ISBA/25/C/15, p. 2, 25 February 2019.

61 德国联邦经济事务和能源部、非洲集团和中国中南大学就“区域”内多金属结核开采活动的可行财政模式提出了重要建议。参见 *Analysis of the Economic Benefits of Developing Commercial Deep Sea Mining Operations in Regions where Germany has Exploration Licenses of the International Seabed Authority*, *as well as Compilation and Evaluation of Implementation Options with a Focus on the Performance of a Pilot Mining Test*, ISA website (Sep. 30, 2016), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/bmw.pdf; *African Group Submission on the ISA Payment Regime for Deep-Sea Mining in the Area*, ISA website (Jul. 5, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/agsmitmodelfinal.pdf; LIU Shaojun, *Financial model and economic evaluation of polymetallic nodules development in the Area*, ISA website (Sep. 15, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/comra.pdf.

62 参见 Randolph Kirchain, Frank R Field & Richard Roth, *Financial Regimes for Polymetallic Nodule Mining: A Comparison of Four Economic Models*, MIT Materials Systems Laboratory (Feb. 15, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/mit.pdf；MIT 报告《经济模式 PMN》。

63 MIT 报告《经济模式 PMN》，第 77 页。

可避免的高昂管理费用和实施的复杂性，纯粹的利润分享制度似乎被排除在外。[64] 因此，关于总体缴费方案的选择似乎缩小到从价特许权使用费率制度或混合模式，但在适用费率及其征收方式方面仍存在激烈的讨论。[65]

目前正在讨论的费率是根据深海采矿活动有吸引力的最低回报率拟订的，约为17-18%，[66] 随后选定适当费率实现管理局收益最大化。[67] 但可选范围较大，如固定从价特许权使用费率制度（整个开采活动期间特许权使用费率固定为4%）、两阶段从价特许权使用费率制度（前五年特许权使用费率为2%，此后为6%）、两阶段递增从价特许权使用费率制度（费率随金属价格变化）以及混合制度（固定2%特许权使用费率加五年后22%利润计费比例），这些模式均在讨论范围之内。[68] 尽管各备选办法尚未得到完全认可或放弃，但不限名额工作组建议进一步完善两阶段固定从价特许权使用费率制度和两阶段递增从价特许权使用费率制度，这可能表明了某种倾向。[69]

两阶段递增从价特许权使用费率制度稍后阶段才会列入讨论，但它提供了在不承担行政负担的情况下享受从利（计算）方法带来益处的可能性。该模式在前五年内特许权使用费率固定为2%，此后对其他开采活动采用可变费率（根据结核金属总价值）。在最低5%和最高9%之间浮动的可变费率制度似乎最为平衡，可

64 考虑到有些承包者是国有企业，可能会因地缘政治或其他公共利益而选择亏损经营。还应注意的是，以利润为基础的缴费机制可能导致ISA收入大幅减少，并且私营承包者可能会处于竞争劣势，这似乎违背了所有承包者享受平等财政待遇的规定。参见MIT报告《经济模式PMN》，第70-71、74页；《联合国海洋法公约》附件三第13条第1款c项。

65 除了一般概念和适用费率外，还应注意深海海底开采费用与陆地采矿费用的比例以及环境损害赔偿金和责任金的单独征收额度均为热点话题。参见IISD, *Summary of the Twenty-Fifth Annual Session of the International Seabed Authority (First Part): 25 February – 1 March 2019*, Earth Negotiations Bulletin, Vol. 25, No. 185, IISD webstie (Mar. 4, 2019), http://enb.iisd.org/download/pdf/enb25185e.pdf, p. 3-4, 10.

66 尽管存在争议，但MIT模式偏离了为深海采矿筹集足够资本所需的最低回报率，理由是这种做法仅在承包者拟依据相应财政条款开展开采活动时才有意义。相较于陆地采矿的典型回报率（约为15%），拟议回报率更高，但这一差额应考虑到当代深海采矿相关重大技术和运营风险以及吸引投资和技术相关指令的要求。参见《联合国海洋法公约》附件三第13条第1款b项；MIT报告《经济模式PMN》，第5页。

67 MIT报告《经济模式PMN》，第5页。

68 Report of the Chair on the outcome of the third meeting of the open ended working group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1, of annex III to the United Nations Convention on the Law of the Sea and section 8 of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, ISBA/26/C/8, 17 February 2020.

69 同上注，第4页。

在金属价格较高时获得更高收益，同时在金属价格低时控制管理局的风险敞口。[70] 与提议的两阶段固定从价特许权使用费率制度相比，该模式为管理局产生的收入净现值大致相同，同时对承包者实施相同的有效税率并保证相似的内部收益率。[71] 当然，需要确定多个参数和阈值进而确定金属价格涨跌导致费率升降的时机。[72]

对于目前讨论的费率仍应持有保留态度，而随着审议工作的继续，不限名额工作组的下一个目标是确保费率处于陆地采矿现行费率范围之内。[73] 为了协调费率并保证管理局承包者相较于陆地生产商不存在优劣势，已委托开展最新的比较分析，这可能导致目前正在考虑的费率发生重大变化。[74] 例如，必须考虑基于矿石价值的费率与基于金属价值的费率之间的显著差异。[75] 此外，对于目前正在讨论的所有模式，重点在于多金属结核的开采。现金流模型结构可适用于多金属硫化物和富钴铁锰结壳的开采，但与收取矿物和提取金属的特定成本和收益相比，存在巨大差异，需要构建新的成本和价格预测模型。[76]

（二）外大陆架

如前文所述，沿海国对大陆架的管辖权及其专属主权有一个附带条件。实际

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70 Briefing Note of Third Meeting of the Open-Ended Informal Working Group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1 of Annex III to the United Nations Convention on the Law of the Sea and under section 8 of the Annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, Chair of the Working Group, ISA website (Mar. 27, 2020), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/briefingnote_0.pdf, p. 4.

71 同上注，第 3 页。

72 为了对这些模式进行评价，整个采矿合同期内结核的平均金属总价值被估算为每吨 862 美元。为了评估各模式在不同情况下的结果，低价模拟将平均金属总价值假设为低于每吨 685 美元，高价模拟将平均金属总价值假设为高于每吨 1,050 美元，平均模拟将平均金属总价值假设为介于每吨 845 美元至 868 美元之间（同上注，第 3 页）。

73 《关于执行 1982 年 12 月 10 日〈联合国海洋法公约〉第十一部分的协定》附件第八节第 1 条 b 款。

74 不限名额工作组第三次会议报告，第 3 页。

75 鉴于 ISA 管辖范围仅限于“区域”内的活动，而结核加工通常在陆地上进行并在一定程度上决定了工程的盈利能力，这并不在“区域”的范围之内，有人主张对深海采矿活动从价的特许权使用费必须以结核转让价格为基础，而不应以综合收入为基础，前者代表结核以原始形态离开“区域”时的价值，后者则根据结核中所含金属的价值（包括加工）计算。参见 Comments on the MIT assumptions of the Financial Model, GSR (Mar. 23, 2020), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/gsr_comments_to_mit-model.pdf; Recommending an appropriate valuation methodology for undersea polymetallic nodules, CRU Consulting, ISA website (June 2020), https://isa.org.jm/files/files/documents/CRUslides.pdf；《联合国海洋法公约》第 157 条第 1 款；Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory Opinion, ITLOS Reports 2011, 1 February 2011, p. 94-96.

76 不限名额工作组第三次会议简报，第 5 页；不限名额工作组第三次会议报告，第 3、4 页。

上，相较于设想的“区域”内矿物资源开采缴费机制，对沿海国在外大陆架上进行同样活动也实行了缴费机制。[77] 这不足为奇，这种缴费应视为人类共同继承财产原则[78]的合理扩展以及实现公平分配“区域”内收益[79]的义务。[80] 诚然，外大陆架显然是对“区域”范围的占用，如果不划定大陆架延伸超过200海里的界限，这部分区域将成为国际治理区域，因此《公约》第82条所阐述的扩展可能性和机制可以看作是一种补偿。[81] 仅在开发非生物资源时需要缴费，缴费可以实物或货币付款方式进行。[82] 费用或实物（以一个矿址所产生的所有资源的价值或数量为基础，其比率逐年增加）应每年提交管理局，然后管理局按照公平分配标准将其分配给缔约国。[83] 生产前五年不进行缴费，但在最初五年之后，每年增长率为产值的1%，至第十二年最多增加至7%。但必须注意，发展中国家享有特权，无需针对其纯输入的矿物资源进行缴费。[84] 截至目前，《公约》第82条仍未启用，但加拿大等一些沿海国家已针对外大陆架上的区域签发大型勘探许可，可能即将签发开采许可，而生产活动（五年宽限期之后）将触发向管理局的缴费。[85]

为了最终执行《公约》第82条，管理局已采取初步措施，委托专家开展研究

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77 《联合国海洋法公约》第82条。

78 《联合国海洋法公约》第136条。

79 《联合国海洋法公约》第140条。

80 Report on Article 82 of the United Nations Convention on the Law of the Sea, International Law Association - Committee on the Outer Continental Shelf, International Law Association Reports 2008, p. 1047（以下简称“ILA关于UNCLOS第82条的报告”）; Implementation of Article 82 of the United Nations Convention on the Law of the Sea: Report of the International Workshop convened by the International Seabed Authority in collaboration with the China Institute for Marine Affairs in Beijing (26-30 November 2012), ISA Technical StudyNo. 12, ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/ts12-web.pdf, p. 12（以下简称“ISA第12号技术研究”）; *Issues associated with the implementation of Article 82 of the United Nations Convention on the Law of the Sea*, ISA Technical Study No. 4, ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/tstudy4.pdf, p. 22-23 （以下简称“ISA第4号技术研究”）；ISA第12号技术研究，第87-88页。

81 Aldo Chircop, Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada, in Catherine Banet ed., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 372-373 (2020); Edwin Egede, The Outer Limits of the Continental Shelf: African States and the 1982 Law of the Sea Convention, Ocean Development and International Law, Vol. 35:2, p. 158 (2004); ISA第5号技术研究 , p. x.

82 《联合国海洋法公约》第82条第1款。

83 《联合国海洋法公约》第82条第2、4款。

84 《联合国海洋法公约》第82条第3款。

85 Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Baneted., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 371-394 (2020); ISA第5号技术研究 , p. x.

并组织举办研讨会。[86] 毕竟，管理局不仅是指定的特许权使用费率接收方，还在《公约》中获得明确授权，可针对第 82 条的费用和实物分配采纳相关规则、规定和程序。[87] 这项规定的内容似乎比较简短，但包含诸多复杂性和文本歧义。[88] 因此，ISA 就第 82 条的执行情况提出了几项说明和建议。例如，建议规定沿海国有义务将商业生产的预期日期通知管理局，[89] 虽然沿海国有权选择缴纳实物或者费用，[90] 但出于效率与便捷的考量，鼓励以货币方式缴纳。[91] 但如果沿海国家决定选择用实物缴费，则需要解决以下问题。其一，尚不清楚该条款涉及开采资源的份额，还是应视为更广泛地指任何其他同等价值的实物。[92] 根据 1982 年颁布《联合国海洋法公约》之前的审议情况，大多数国家似乎倾向于将“contributions in kind”解释为资源份额，[93] 但这并不影响交付和接收这些货物方面仍然存在法律、管理和其他实际问题的事实。[94] 考虑到商品价格快速波动，资源份额形式的缴费也更加注重缴费的时间及其价值的计算。[95]

关于接收方，有人强调费用或实物必须“通过管理局”进行，而非“以管理局

86 ISA 第 4 号技术研究；ISA 第 5 号技术研究；ISA 第 12 号技术研究；A study of key terms in Article 82 of the United Nations Convention on the Law of the Sea, ISA Technical Study No. 15 (2016), ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/ts15-web_0.pdf；Outcomes of the international workshop on further consideration of the implementation of article 82 of the United Nations Convention on the Law of the Sea, ISBA/19/A/4, 6 May 2013.

87 《联合国海洋法公约》第 160 条第 2 款 f 项 i 目、第 162 条第 2 款 o 项 i 目。

88 Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Baneted.,The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 376-384 (2020); Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, No. 3, p. 325-330 (2006).

89 ISA 第 4 号技术研究，第 51 页；ISA 第 12 号技术研究，第 22-23 页；ILA 关于 UNCLOS 第 82 条的报告，第 1055 页。

90 但必须强调，沿海国家无法决定将实物缴纳与付款相结合。参见 ILA 关于 UNCLOS 第 82 条的报告，第 1053 页。

91 ISA 第 12 号技术研究，第 24 页。

92 ISA 第 4 号技术研究，第 51-52 页；ILA 关于 UNCLOS 第 82 条的报告，第 1051-1052 页。

93 ISA 第 12 号技术研究，第 20 页和第 22 页。

94 ISA 第 4 号技术研究，第 38 页；ISA 第 12 号技术研究，第 23 页。

95 Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, No. 3, p. 326 (2006)；ILA 关于 UNCLOS 第 82 条的报告，第 1053 页。

为对象”，[96] 暗示应将管理局视为接收方而非收债方，[97] 管理局不应从中受益，应仅发挥将收益分配至最终目的地（即缔约国）的工具性作用。[98] 然而在实践中，首先需要向管理局费用或实物，这将不可避免地导致多个沿海国家与管理局建立长期关系。因此，建议采用谅解备忘录和指导文件等非正式文书，[99] 构建并阐明双方的权利和义务。[100] 针对《公约》第82条制定公平分配标准已纳入《国际海底管理局2019-2023年战略计划》，[101] 同时 [102] 制定“区域”内活动所产生财政和其他经济收益的公平分配机制。[103] 必须指出的是，《公约》第82条没有为管理局规定如何负担与接收和分配收益有关的行政费用的内容，[104] 但期望管理局在无法负担这些费用的情况下承担相关责任并不合理。

费用和实物计算方面的某些细节也仍模糊不清。例如，若在前五年中发生停产，则中断特许权使用费豁免期似乎比较合理，但《公约》第82条文本并未澄清此问题。[105] 术语“annually”的定义也不清晰，因为财政年度可能因管辖范围而异，它也可能指首次生产后届满一年之日。[106] “All production”构成费用或实物的基础，也存在不同的解释，尽管在1982年《联合国海洋法公约》谈判中才使用该术语，

96 《联合国海洋法公约》第82条第4款。

97 尽管《联合国海洋法公约》规定管理局委员会有权“审查管理局应缴纳或应向管理局缴纳的所有款项的收取情况”，但必须强调的是，此权限仅限于管制“区域”内活动的《联合国海洋法公约》第十一部分。如果沿海国家不缴纳费用，似乎仅缔约国（特别是作为缴费主要受益方的发展中国家）才能利用《联合国海洋法公约》第十五部分中规定的争端解决程序采取行动。有人可能认为管理局可就此类问题向国际海洋法法庭（ITLOS）海底争端分庭征求咨询意见，但海底争端分庭是否对此类案件拥有管辖权仍存在争议。参见《联合国海洋法公约》第162条第2款b项；ILA关于UNCLOS第82条的报告，第1061-1062页。

98 ISA第4号技术研究，第37页；ISA第12号技术研究，第88页；ILA关于UNCLOS第82条的报告，第1060-161页；Ted L. McDorman, *The Continental Shelf Regime in the Law of the Sea Convention: A Reflection on the First Thirty Years*, International Journal of Marine and Coastal Law, Vol. 27:743, No. 4, p. 751 (2012); Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law , Vol. 21:323, No. 3, p. 328 (2006).

99 比较ISA第12号技术研究，附录4。

100 ISA第12号技术研究，第24页。

101 Decision of the Assembly of the International Seabed Authority relating to the strategic plan of the Authority for the period 2019−2023, ISBA/24/A/10 (2018), 27 July 2018, p. 7-8.

102 但《联合国海洋法公约》第82条规定的费用或实物分配的公平分配标准必须构成一套独立标准，并考虑给予最欠发达国家和内陆国家额外的优先权。参见《联合国海洋法公约》第82条第4款；ILA关于UNCLOS第82条的报告，第1059页。

103 Report of the Finance Committee, ISBA/24/C/19, p. 5, 13 July 2018.

104 ISA第4号技术研究，第26页，第37-38页。

105 ISA第4号技术研究，第56-57页。

106 ISA第4号技术研究，第32页；ILA关于UNCLOS第82条的报告，第1053-1054页。

但之前的国家实践和简洁性考量似乎支持将“all production”理解为总产量。[107]《公约》还明确指出，产量不包括为开采而使用的资源，可理解为直接辅助开采活动而使用或多次使用的水或天然气等物质。[108] 此外，“value or volume of production”决定了费用或实物的具体数额，这可能会导致争端：对于碳氢化合物，在运输至市场地点和征缴国家税金之前，考虑其位于生产源头的公平货币市场价值[109] 似乎得到普遍认可，但其他矿物并不明确。[110] 无论如何，为了执行这一制度，必须作出明确、一致且直接的解释。沿海国与管理局之间拟议的关于执行《公约》第 82 条的框架协议正朝着正确方向发展，并可能解决许多问题。[111]

四、关于深海采矿费率折扣问题

讨论上述缴费机制时，两种制度都将管理局作为所获收益的最初接收方和后续分配方而造福全人类的利益，其中一种仍在考虑的模式特别值得注意，最有可能被管理局正式引进，与《公约》第 82 条规定的缴费机制具有许多相似之处。实际上，正如目前正在评估的两阶段固定费率制度，外大陆架上开采活动的缴费机制基于从价特许权使用费机制的模式，并采用逐年递增的费率。这些财政模式主要原则之间的相似性不足为奇，因为这两种制度基本上可视为在法律界限另一侧的相互延伸，但也仍存在一些显著差异。首先，在外大陆架上开采矿物不受两级费率的制约，而以每年 1% 递增（最高为 7%）且设有 5 年宽限期，但管理局考虑的两阶段固定特许权使用费率制度并非如此。其次，必须注意《公约》第 82 条规定，发展中国家除在两种制度下的收入分配方面享有特权外[112]，还享有额外的特权，

107 ISA 第 4 号技术研究，第 61 页；ISA 第 12 号技术研究，第 48 页；ILA 关于 UNCLOS 第 82 条的报告，第 1050 页；Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea:the Challenge for Canada*, in Catherine Baneted.,The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 382 (2020).

108 《联合国海洋法公约》第 82 条第 2 款；ILA 关于 UNCLOS 第 82 条的报告，第 1056-1057 页。

109 类比之前就“区域”内矿物开采需向管理局缴费款项的相关规定，可将市场价值确定为相关会计年度内已加工金属的平均价格。参见《联合国海洋法公约》附件三曾用第 13 条第 5 款 b 项。

110 ISA 第 4 号技术研究，第 xv 、33 页；ISA 第 12 号技术研究，第 48 页；Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Baneted.,The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 382 (2020); Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, No. 3, p. 327-328 (2006).

111 ISA 第 12 号技术研究，附录 4.5。

112 《联合国海洋法公约》第 82 条第 4 款、第 140 条第 1 款。

即豁免这些国家对其纯输入矿物资源的税费。[113] 第三，尽管出于效率和便捷性的考虑而建议采用资金划转的方法，但沿海国家有权选择并且可能选择缴纳实物，而这并非“区域”内开采活动相关缴费模式的可选范畴。[114] 最后，应考虑《公约》第82条所规定的缴费机制适用于外大陆架上所有类型的非生物资源，而目前考虑的“区域”内矿物开采缴费模式仅关注多金属结核，需要针对多金属硫化物和富钴铁锰结壳进行调整。[115]

此外，必须强调《公约》第82条缴费机制与管理局目前所探讨模式之间更具一般性的区别：前者的缴费义务仅由沿海国家承担，针对“区域”内开采活动采用的缴费模式适用于承包者，包括非国家实体（私营公司或国有企业）或国家。因此，为了对比各种情况，仅在缔约国作为采矿经营者时才能进行类似对比。实际上，在经营者是非国家实体的情况下，只能看到承包者与在“区域”内接收缴费的实体（管理局）之间存在直接关系，而对于外大陆架上的相同活动，该缴费过程由两部分组成，沿海国家根据其对被许可方征收的税款向管理局缴费。毕竟，沿海国家负有就外大陆架上的开采活动缴纳费用或实物的义务。[116] 尽管如此，仍可合理假定沿海国家需要提供的缴费将反映在对采矿场实际经营者征收的费率中。

比较两阶段固定从价特许权使用费率模式（前五年特许权使用费率为2%，此后为6%）与《公约》第82条所确立的机制（五年宽限期后每年递增1%，最高为7%），可以得出一系列对比结果。假设经营期为30年，根据估计的矿藏开采年限[117]和开采合同期限，[118]简单计算即可发现平均税率差异极小：外大陆架缴费机制的平均税率为5.13%，而目前针对“区域”考虑的两阶段固定从价特许权使用费率模式的平均税率为5.33%。[119] 但所有经济专家都可以证明，计算和比较这些情况下的平均税率没有意义，因为必须考虑收入的净现值。[120] 因此，考虑到特许权使用费率豁免期和从第六年起按1%逐年递增，外大陆架的缴费机制似乎对采矿经营者大为有利。此外，不应忽视一些向大陆架界限委员会提交资料的国家是发展中国家这一事实。[121] 实际上，不可忽视《公约》第82条赋予这些国家的额外特权，因为纯输入国地位将导致免除对相关矿物资源的税费，这一规定并未纳入针对“区

113 《联合国海洋法公约》第82条第3款。
114 《联合国海洋法公约》第82条第1款。
115 不限名额工作组第三次会议报告，第3-4页。
116 《联合国海洋法公约》第82条第1款；ILA关于UNCLOS第82条的报告，第1050页。
117 MIT报告《经济模式PMN》，第16页。
118 《开发规章草案》第20条第1款。
119 鉴于结核每年基准产量估值为300万吨、平均每吨金属总价值为862美元，这0.20%的差异相当于每年5,172,000美元及采矿经营期间总计155,160,000美元。参见MIT报告《经济模式PMN》，第35页；不限名额工作组第三次会议简报，第3页。
120 参见MIT报告《经济模式PMN》，第41页。
121 Submissions to the CLCS, UN website (Apr. 22, 2020), https://www.un.org/Depts/los/clcs_new/commission_submissions.htm.

域”内开采活动提议的缴费机制，可能会对这些国家的平均税率产生重大影响。

尽管存在这些差异，但仍应考虑“区域”内开采活动的缴费机制必须在多大程度上与适用于外大陆架的制度保持一致？一方面，有人认为鉴于这些开采活动发生在外大陆架上，沿海国家可出于勘探和开采自然资源的目的行使排他性的主权权利，因此略低的平均费率和其他特殊待遇比较合理。[122] 但另一方面可以断言，外大陆架对“区域”的范围的实际占用，考虑人类共同继承财产原则[123] 和惠益分享义务，[124] 应受相同规定的约束，不应在费率或可能的豁免方面存在任何差别。如果我们遵循这一推理思路，意味着外大陆架的缴费机制需要与“区域”缴费机制保持一致，必须注意是截至目前尚未执行或适用《公约》第 82 条，尽管此条款已经生效，而正在探讨且纳入管理局考虑范畴的缴费模式也尚未被采纳。此外，即便颁布“区域”内开采活动的缴费机制，这也将以管理局开发规章附录的形式颁布，完全不如一项具有约束力的多边条约。协调两个制度当然是可取的，但在考虑实现这一目标的各种选择时，必须适当地平衡可行性、效率和法律确定性。

五、结　论

本文论证了《公约》第 82 条所规定的外大陆架非生物资源开采缴费机制与目前讨论的“区域”内深海采矿活动管理模式之间并不完全一致的关系。实际上，尽管《公约》第 82 条与管理局正在讨论的一项潜在可行制度（两阶段固定从价特许权使用费率制度）在总体概念上存在一些相似之处，但在目前所考虑的费率和征收方式方面存在一些差异。尽管平均税率的差异似乎极小，但生产前五年特许权使用费率豁免期和从第六年起以 1% 逐年递增的税率具有决定性的作用，很可能使外大陆架制度下的开采比深海采矿更具吸引力。此外，还需要强调的是，发展中国家享有一项额外的特权，即豁免纯输入矿物资源的相关税费。可能有人认为这条条款不会造成重要的影响，特别考虑发展中国家利益和需要完全符合以条约为本的原则，但不应忽视的是，这一特权建立了在发展中国家在两个制度中公平分享利益方面的特殊地位。此外，适用这一例外情况可能会导致更高的管理费用

122　《联合国海洋法公约》第 77 条。
123　《联合国海洋法公约》第 136 条。
124　《联合国海洋法公约》第 82 条第 4 款、第 140 条。

并增加执行的复杂性，管理局能否承担这一责任并不明确。[125]

为了正确看待这一比较和由此产生的各种思考，应强调的是关于“区域”内开采活动缴费机制的审议工作仍在进行之中，有关这一机制的特性（包括一般概念到详细的支付模式）仍有待确定。例如，即将对提议的深海采矿和适用于陆地采矿的特许权使用费率进行比较分析，预计这将导致提议的税费发生变化，进而改变管理局缴费机制与《公约》第82条机制之间的关系。此外有证据表明，《公约》第82条确立的制度还存在若干模糊不清之处，需要通过明确、一致的解释加以解决，然后方可有效地实施这一制度。因此，尽管可以断言等效措施大体上可取，但现阶段试图明确特性和规则的细微差别或加以纠正毫无用处。还必须强调，管理局还需为其他类别的矿物资源设计额外的缴费机制。但在所有缴费机制生效和开采活动开始之前，考虑到这些制度基本上涉及相同的活动，并且在未划定标准200海里以外的延伸部分时外大陆架仍属于“区域”的一部分，应考虑协调这些机制以保持合理的平衡。

翻译：黄宇欣、张晓意

校对：黄锐

125 《联合国海洋法公约》指定管理局为接收方，并规定管理局有权针对第82条规定的公平分配付款和缴费采纳相关规则、规章和程序，但未提及第82条其他方面的适用范围。《联合国海洋法公约》也未明确授权ISA收取此类服务的管理费用。参见《联合国海洋法公约》第160条第2款f项i目、第162条第2款o项i目；ISA第4号技术研究，第26页和第37-38页；Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, No. 3, p. 329 (2006).

Payment Regimes for the Exploitation of Mineral Resources in the International Seabed Area and on the Extended Continental Shelf: Deep Sea Mining at A Discount?

Klaas Willaert*

Abstract: Given the significant commercial interests and huge investments in deep sea mining, it comes as no surprise that States and private enterprises are not only pursuing exploration and exploitation activities in the International Seabed Area (hereinafter "the Area"), but are also targeting mineral-rich patches on the continental shelf. Indeed, it must be noted that the same mineral resources that deep sea mining actors are keen to exploit in the Area, are also available within zones falling under national jurisdiction. However, crossing this legal border results in a different legal regime. Activities on the continental shelf are governed by the national legislation of the coastal State and are, therefore, not subject to the comprehensive international regime applicable to the Area. Nevertheless, a similar duty to provide financial contributions to the International Seabed Authority exists in case of exploitation activities on the continental shelf beyond 200 nautical miles. Taking into account that this payment system was already established by the United Nations Convention on the Law of the Sea back in 1982, it is necessary to assess to what extent the modalities and tariffs relate to the ones that are now being considered for its counterpart in the Area. Can we discern a logical balance or is deep sea mining on the extended continental shelf subject to discount rates and advantageous provisions? In order to clear this up, this article thoroughly analyzes the existing legal framework and the proposals which are currently being discussed

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at the International Seabed Authority, followed by a general comparison and several useful considerations.

Key Words: Law of the sea; Deep sea mining; The Area; Continental shelf; Common heritage of mankind; Equitable benefit-sharing

I. Introduction

In the last decades, deep sea mining in the International Seabed Area (hereinafter "the Area"), comprising the seabed and subsoil beyond national jurisdiction[1], has been on the rise. To date, thirty contracts for exploration have been issued by the International Seabed Authority (hereinafter "ISA") and the exploitation phase is looming.[2] However, despite the fact that the deep sea mining ambitions in the Area are frequently put in the limelight, it has to be noted that similar activities are developing within areas under national jurisdiction. Indeed, given the significant commercial interests attached to deep sea mining, it should come as no surprise that States and private enterprises are also targeting mineral-rich patches on the continental shelf.[3] After all, the same types of mineral resources which can be found in the Area (polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts) also appear on the continental shelf of several coastal States and could be exploited using the same techniques.[4] However, although the activities are identical, crossing this legally defined border results in a different regulatory scheme, which exchanges the international deep seabed regime

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1 Preamble & Art. 134 of the United Nations Convention on the Law of the Sea.

2 Status of Contracts for Exploration and Related Matters, Including Information on the Periodic Review of the Implementation of Approved Plans of Work for Exploration, ISBA/26/C/4, Annex I, 17 December 2019.

3 Sonia Jind, *It's Only a Matter of Time before Deep-Sea Mining comes to Canada*, The Narwhal (Mar. 26, 2019), https://thenarwhal.ca/its-only-a-matter-of-time-before-deep-sea-mining-comes-to-canada-were-not-ready/; *Scramble for the Indo-Pacific Seabed*, The Diplomat (Nov. 16, 2019), https://thediplomat.com/2019/11/scramble-for-the-indo-pacific-seabed/; *Japan's Grand Plans to Mine Deep-Sea Vents*, BBC (Jan. 7, 2019), https://www.bbc.com/future/article/20181221-japans-grand-plans-to-mine-deap-sea-vents; Anneka Brown, *I See Us Taking the Lead*, Cook Islands News (Oct. 5, 2019), http://www.cookislandsnews.com/national/economy/item/74447-seabed-mining-i-see-us-a-taking-the-lead.

4 Non-living Resources of the Continental Shelf Beyond 200 Nautical Miles: Speculations on the Implementation of Article 82 of the United Nations Convention on the Law of the Sea, ISA Technical Study No. 5, ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/techstudy5.pdf, p. 24-26 (hereinafter "ISA Technical Study No. 5").

for the national legal framework of the coastal State.

When taking place on the continental shelf, deep sea mining activities are solely governed by the relevant legislation of the coastal State and are, therefore, not subject to the comprehensive international regime applicable to the Area. Nevertheless, the principle of the common heritage of mankind[5] and the related duty of equitable benefit-sharing[6] necessitated an important nuance, providing for a similar duty to make financial contributions to the ISA in case of exploitation activities on the extended continental shelf.[7] Although separate payment mechanisms for both the Area and the extended continental shelf were established by the 1982 United Nations Convention on the Law of the Sea (UNCLOS), the former provisions were annulled by the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (hereinafter "the 1994 Agreement")[8] and a new system – which is beginning to take shape – is now being developed by the Authority.[9] Given that the existing payment system for exploitation activities on the extended continental shelf serves as a logical extension of its counterpart in the Area, it is pertinent to assess to what extent it relates to the mechanisms that are now being considered for the Area in terms of modalities and tariffs.

The objective of this article is to critically analyze the payment mechanism established by Article 82 of UNCLOS, which has remained dormant up till now, and compare all relevant elements to the models which are currently being considered and discussed within the ISA. Following a concise overview of the general legal frameworks applicable to the Area and the continental shelf, the parameters, modalities and rates are carefully dissected, setting the table for an interesting comparison between these two counterparts. On the basis of a critical analysis of treaty provisions, ISA documents, legal literature and recent developments, this

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5 Art. 136 of the United Nations Convention on the Law of the Sea.

6 Art. 140 of the United Nations Convention on the Law of the Sea.

7 Art. 82 of the United Nations Convention on the Law of the Sea.

8 Former Art. 13(3)-(10) of Annex III of the United Nations Convention on the Law of the Sea; Section 8(2) of Annex of Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea.

9 See Report of the Chair on the outcome of the third meeting of the open ended working group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1, of annex III to the United Nations Convention on the Law of the Sea and section 8 of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, ISBA/26/C/8, 17 February 2020 (hereinafter "Report of Third Meeting Open-Ended Working Group").

article aims to reveal whether the payment system for the extended continental shelf is in line with the recent proposals regarding the financial terms of exploitation activities in the Area. Can we discern a logical balance or is deep sea mining on the extended continental shelf subject to discount rates and advantageous provisions? Possible corrections and important considerations are suggested and the article is rounded off by a brief conclusion, summarizing the main findings of the research.

II. Two Legal Regimes: The Area vs. Continental Shelf

A. The Area

The Area is governed by a comprehensive international regime, which determines by whom and under what conditions its mineral resources can be prospected, explored and exploited. The fundamental principles are set out in Part XI and Annexes III and IV of UNCLOS,[10] as amended by the 1994 Agreement[11], while the detailed rules are established in the so-called "Mining Code", encompassing an extensive set of regulations and procedures issued by the ISA. The ISA, which is tasked to manage the Area and its mineral resources,[12] already issued rules for the first phases of mining activities (prospecting and exploration), divided into separate sets of regulations for three distinct categories of resources (polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts),[13] but has yet to adopt exploitation regulations.[14]

The overarching principle of the international deep seabed regime is defined by the status of the Area and its mineral resources as "common heritage of

10 Part XI & Annexes III-IV of the United Nations Convention on the Law of the Sea.

11 Annex of the 1994 Agreement.

12 Art. 157(1) of the United Nations Convention on the Law of the Sea.

13 Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters, ISBA/19/C/17, 22 July 2013; Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1, 15 November 2010; Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11, 22 October 2012.

14 A draft version, which was originally scheduled to be approved in July 2020, is however being developed and provides a good indication of the current state of play, see Draft Regulations on Exploitation of Mineral Resources in the Area, ISBA/25/C/WP.1, 25 March 2019.

mankind".[15] The UNCLOS clearly confirms the crucial importance of this concept[16] and expresses its objectives in various ways,[17] including a ban on appropriation,[18] exclusive use for peaceful purposes,[19] protection of the marine environment,[20] international cooperation and knowledge dissemination with respect to marine scientific research,[21] and equitable sharing of financial and economic benefits derived from activities in the Area.[22] States and commercial entities wishing to pursue activities in the Area can apply to the ISA, and when a plan of work is approved, this takes the form of a contract.[23] It should however be noted that non-State actors can only file an application if they are sponsored by a State.[24] The sponsoring State bears the responsibility to ensure that the companies they are sponsoring act in accordance with the terms of their contract and their obligations under the UNCLOS, although infractions of the sponsored party do not result in State liability if the sponsoring State has adopted legislation and has taken measures which are, within the framework of its legal order, reasonably appropriate to secure effective compliance by persons under its jurisdiction.[25] Because of this

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15 Art. 136 of the United Nations Convention on the Law of the Sea.

16 Art. 136 of the United Nations Convention on the Law of the Sea is excluded from potential revisions and it is prohibited for States parties to deviate from it through an amendment or by way of an agreement in derogation thereof, see Art.155(2) & Art. 311(6) of the United Nations Convention on the Law of the Sea.

17 Alex G. Oude Elferink, *The Regime of the Area: Delineating the Scope of Application of the Common Heritage Principle and Freedom of the High Seas*, International Journal of Marine and Coastal Law, Vol. 22:143, p. 154-160 (2007); Aline Jaeckel, Jeff A. Ardron & Kristina M. Gjerde, *Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?*, Marine Policy, Vol. 70:198, p. 199 (2016).

18 Art. 137 of the United Nations Convention on the Law of the Sea.

19 Art. 141 of the United Nations Convention on the Law of the Sea.

20 Art. 145 of the United Nations Convention on the Law of the Sea.

21 Arts. 143-144 of the United Nations Convention on the Law of the Sea.

22 Art. 140 of the United Nations Convention on the Law of the Sea.

23 Art. 153(2)-(3) of the United Nations Convention on the Law of the Sea; Art. 3 of Annex III of the United Nations Convention on the Law of the Sea; Section 1(6) of Annex of Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea.

24 There are some nuances to this principle: if the applicant constitutes a consortium of entities of different nationalities, all States concerned will have to sponsor the application, and if an entity is effectively controlled by another State or its nationals, both this State and the State of official nationality must act as sponsor, see Art. 153(2)(b) of the United Nations Convention on the Law of the Sea; Art. 4(1) & (3) of Annex III of the United Nations Convention on the Law of the Sea.

25 Art. 139 of the United Nations Convention on the Law of the Sea; Art. 4(4) of Annex III of the United Nations Convention on the Law of the Sea; Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory Opinion, ITLOS Reports 2011, 1 February 2011, p. 10.

sponsorship requirement, national legislation defining the conditions to obtain and maintain a certificate of sponsorship also plays an important role, in addition to the international legal framework.[26]

B. The Continental Shelf

Before we can turn to the regime governing the continental shelf and the competences of the coastal State, the delineation of this maritime zone should be clearly explained.[27] The legal continental shelf comprises the seabed and subsoil beyond the territorial sea up to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, although it may be extended to the outer edge of the continental margin when this exceeds the stipulated 200 nautical miles.[28] This continental margin constitutes the natural prolongation of the land mass of a coastal State, which must be discerned from the deep ocean floor.[29] To promote legal clarity, the UNCLOS determines two criteria to establish a continental shelf beyond 200 nautical miles: one is a morphological criterion, resulting in a line that connects fixed points not further than 60 nautical miles from the foot of the continental slope (Hedberg formula), and the other is a geological criterion, resulting in a line that connects fixed points where the thickness of sedimentary rocks is at least one percent of the shortest distance from those points to the foot of the continental slope (Gardiner formula).[30] These criteria can be combined in order to establish the largest possible continental shelf, but there are absolute limits: the fixed points may not exceed 350 nautical miles from the baselines of the territorial sea or go further than 100 nautical miles from

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26 See Belgian Law of 17 August 2013 concerning the prospection, exploration and exploitation of the natural resources of the seabed and the subsoil beyond national jurisdiction, BS 16 September 2013, 65612; German Seabed Mining Act 1995, amazonaws (Jun. 6, 1995), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/NatLeg/FDRGermany-en.pdf; United Kingdom Deep Sea Mining Act 1981, GOV.UK (Jul. 28, 1981), http://www.legislation.gov.uk/search?title=&year=1981&number=53&type=ukpga.

27 Art. 76 of the United Nations Convention on the Law of the Sea.

28 Art. 76(1) of the United Nations Convention on the Law of the Sea.

29 Art. 76(3) of the United Nations Convention on the Law of the Sea.

30 The foot of the continental slope, which is a crucial element in these calculations, is determined as the point of maximum change in the gradient at its base, in the absence of evidence to the contrary. Furthermore, the delineation of the outer limits of the continental shelf beyond 200 nautical miles implies straight lines which do not exceed 60 nautical miles between fixed points, see Art. 76(4) & (7) of the United Nations Convention on the Law of the Sea.

the 2500 meter isobath.[31] In order to claim an extended continental shelf, coastal States must submit information supporting the establishment of a continental shelf beyond 200 nautical miles to the Commission on the Limits of the Continental Shelf (hereinafter "CLCS"), which issues recommendations on the basis of which extended continental shelf limits can be considered final and binding.[32] Given the major interests at stake, many countries have made submissions to the CLCS in order to extend their continental shelf and expand their claims on the abundant natural resources that are located there.[33]

In contrast to the Area, which does not belong to any State and is therefore governed by a comprehensive international regime, the continental shelf falls under the jurisdiction of the coastal State. On the continental shelf, the coastal State exercises exclusive sovereign rights – which do not depend on occupation or express proclamation – for the purpose of exploring and exploiting natural resources

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31 Art. 76(5) of the United Nations Convention on the Law of the Sea.

32 Once the limits of the continental shelf are established according to the recommendations of the Commission on the Limits of the Continental Shelf, the coastal State must deposit all charts and relevant information to the UN Secretary-General, who shall give due publicity thereto. However, it must be noted that the discussed delineation techniques and recommendations of the CLCS are without prejudice to the question of delimitation of the continental shelf between States with opposite or adjacent coasts. Delimitation issues should ideally be solved by agreement, in order to achieve an equitable solution, but in case no agreement can be reached, States should resort to the dispute settlement options of the Law of the Sea Convention, see Arts. 76(8)-(10) & 83 of the United Nations Convention on the Law of the Sea.

33 See Submissions, through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, pursuant to article 76, paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982, UN website (Apr. 22, 2020), https://www.un.org/Depts/los/clcs_new/commission_submissions.htm; Steinar Løve Ellefmo & Fredrik Søreide eds., *Quantifying the Unknown: Marine Mineral Resource Potential on the Norwegian Extended Continental Shelf*, Nordic Open Access Scholarly Publishing (Nov. 18, 2019), https://press.nordicopenaccess.no/index.php/noasp/catalog/view/81/339/2884-1; Gérard Grignon, *Extension of the Continental shelf beyond 200 nautical miles: an asset for France*, Opinion of the Economic, Social and Environmental Council, Official Journal the French Republic, EESC (Oct. 2013), https://www.eesc.europa.eu/ceslink/resources/docs/13-12-avis-plateau-continental-eng.pdf; *One of the most significant deep-sea mining negotiations is underway at the Commission on the Limits of the Continental Shelf*, DSM Observer (Oct. 17, 2019), https://dsmobserver.com/2019/10/one-of-the-most-significant-deep-sea-mining-negotiations-is-underway-at-the-commission-on-the-limits-of-the-continental-shelf/.

located on the seabed and in the subsoil.[34] Although its rights do not affect the legal status of the superjacent waters or airspace above and may not infringe or interfere with navigation or other rights and freedoms of other States (including the laying or maintenance of submarine cables and pipelines)[35], the coastal State can build artificial islands, installations and structures on the continental shelf and has the exclusive right to authorize and regulate drilling.[36] If other entities, like for example deep sea mining companies, want to conduct exploration or exploitation activities on the continental shelf, the express consent of the coastal State has to be obtained. Usually, this consent is expressed by the granting of licenses in accordance with specific procedures and conditions established in national legislation.[37] This domestic legislation on deep sea mining within national jurisdiction may be designed at the coastal State's discretion, but it has to be mentioned that there are a number of ways through which international law – to a certain degree – interferes with these national regimes. First of all, it is important to note the general obligation of all States to protect and preserve the marine environment, a duty which also applies to areas under national jurisdiction.[38] States shall monitor and evaluate the environmental effects of activities which they authorize[39] and measures to prevent, reduce and control pollution and environmental effects – which shall be no less effective than the international rules and standards – must be adopted and enforced.[40] Secondly, it should be highlighted that an international payment

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34 The UNCLOS clarifies what the term "natural resources" exactly entails: these consist of all mineral and other non-living resources of the seabed and subsoil, together with living organisms belonging to sedentary species, which are either immobile or are unable to move except in constant physical contact with the seabed or subsoil, see Art. 77 of the United Nations Convention on the Law of the Sea.

35 However, the coastal State has the right to take reasonable measures for the exploration and exploitation of its natural resources and for the prevention of pollution from pipelines, and the delineation of the course for the laying of such pipelines is subject to its consent, see Arts. 78-79 of the United Nations Convention on the Law of the Sea.

36 Arts. 80-81 of the United Nations Convention on the Law of the Sea.

37 See Seabed Minerals Act of the Cook Islands 2019, Part 4, GOV.CK (Jun. 17, 2019), https://www.seabedmineralsauthority.gov.ck/s/Seabed-Minerals-Act-2019; Tonga Seabed Minerals Act 2014, Part 6, amazonaws (Jul. 23, 2014), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/NatLeg/Tonga-2014.pdf; Kiribati Seabed Minerals Act 2017, Part VII, amazonaws (Apr. 13, 2017), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/ki-seabedmins.pdf; Tuvalu Seabed Minerals Act 2014, Part 7, https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/NatLeg/Tuvalu/Tuvalu-2014.pdf.

38 Arts. 192-193 of the United Nations Convention on the Law of the Sea.

39 The UNCLOS moreover stipulates that reports of the results of these assessments must be published, see Arts. 204-206 of the United Nations Convention on the Law of the Sea.

40 Arts. 194, 208 & 214 of the United Nations Convention on the Law of the Sea.

mechanism is imposed on coastal States for mineral exploitation on the extended continental shelf.[41]

III. Two Payment Systems: The Area vs. Extended Continental Shelf

A. The Area

Article 140 of UNCLOS stipulates that activities in the Area shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States and taking into particular consideration the interests and needs of developing States, and the ISA is explicitly mandated to provide for the equitable, non-discriminatory sharing of financial and other economic benefits through any appropriate mechanism.[42] As arguably the most direct mechanism to realize equitable sharing of financial and economic benefits derived from activities in the Area, the payment of fees to the ISA and the subsequent distribution of the revenue constitutes one of the vital components of this important objective.[43] As stipulated in the UNCLOS and the 1994 Agreement, several fees are charged to contractors: among others, every application or related modification entails the payment of a premium.[44] During the exploitation phase, these fees are supplemented by annual

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41 *Infra* Section III-B.

42 Art. 140 of the United Nations Convention on the Law of the Sea.

43 Aline Jaeckel, Jeff A. Ardron & Kristina M. Gjerde, *Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?*, Marine Policy, Vol. 70:198, p. 199-201 (2016); Jennifer Frakes, *The Common Heritage of Mankind Principle and the Deep Seabed, Outer Space, and Antarctica: Will Developed and Developing Nations Reach a Compromise*, Wisconsin International Law Journal, Vol. 21:409, p. 417-418 (2003).

44 The UNCLOS fixed the fee to submit an application at $500,000 for a plan of work, but this amount shall be reviewed from time to time in order to ensure that it covers the administrative costs and could be raised to $1,000,000 with respect to exploitation contracts. If the premium exceeds the actual administrative cost, the difference will be refunded to the applicant. In the opposite case, the applicant shall pay the difference to the Authority, provided that any additional amount may not exceed 10 percent of the original fee. Apart from that, fees are also charged for the renewal of a contract and the amendment of a plan of work, among others, see Art. 13(2) of Annex III of the United Nations Convention on the Law of the Sea; Section 8(3) of Annex of Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea; Art. 19 of Exploration Regulations PMN; Arts. 86-87 & Appendix II of Draft Regulations on Explo itation of Mineral Resources in the Area; Randolph Kirchain, Richard Roth, Frank R. Field, Carlos Muñoz-Royo & Thomas Peacock, *Report to the International Seabed Authority on the Development of an Economic Model and System of Payments for the Exploitation of*

fees[45] and payments according to the value of the mined resources, possibly in combination with a profit-based charge.[46] The current Draft Regulations on exploitation of mineral resources in the Area of the ISA already determine how and when these fees shall be paid and what happens in case of an error or a mistake,[47] which information needs to be submitted and how the books and records must be kept and can be inspected,[48] which adjustments can be made in case of irregularities,[49] which interests and penalties can be imposed,[50] how the payment system and the applicable rates can be revised,[51] and how financial transparency will be ensured.[52] However, the payment system itself and the applicable rates still need to be elaborated in an appendix to the exploitation regulations, which only contains indicative content for now.[53]

While developing a financial mechanism, ISA and its member States have to take into account a number of guidelines that were included in the UNCLOS: optimum revenues for the ISA must be ensured, the system should attract investments and technology, and equality of financial treatment for contractors should always be upheld.[54] The 1994 Agreement also offers guidance: payments have to be fair to both the ISA and the contractor, the tariffs shall be within the range of those prevailing in respect of land-based mining, the system should not be complicated or impose major administrative costs, and there must be adequate means of determining compliance by the contractor.[55] Both the UNCLOS and

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Polymetallic Nodules in the Area, MIT Materials Systems Laboratory (Jul. 1, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/paysysmodel-3jun.pdf, p. 52 (hereinafter "MIT Report Economic Model PMN").

45 The annual premiums consist of a reporting fee ($100,000), due from the effective date of an exploitation contract, and a fixed fee, which needs to be paid from the date of commencement of commercial production and may be credited against the payable royalties. The UNCLOS estimated this annual fixed fee at $1,000,000. Although this provision was annulled by the 1994 Agreement, the amount of the fee appears to be maintained in the upcoming exploitation phase, see Section 8(1)(d) & (2) of Annex of the 1994 Agreement; Arts. 84-85 of Draft Regulations on Exploitation of Mineral Resources in the Area; MIT Report Economic Model PMN, p. 52.

46 Section 8(1)(c) of Annex of the 1994 Agreement; Art. 64 of Draft Regulations on Exploitation of Mineral Resources in the Area.

47 Arts. 66-70 & 73 Draft Regulations on Exploitation of Mineral Resources in the Area.

48 Arts. 71-72 & 74-76 Draft Regulations on Exploitation of Mineral Resources in the Area.

49 Arts. 77-78 Draft Regulations on Exploitation of Mineral Resources in the Area.

50 Arts. 79-80 Draft Regulations on Exploitation of Mineral Resources in the Area.

51 Arts. 81-82 Draft Regulations on Exploitation of Mineral Resources in the Area.

52 Arts. 83 Draft Regulations on Exploitation of Mineral Resources in the Area.

53 Appendix IV of Draft Regulations on Exploitation of Mineral Resources in the Area.

54 Art. 13(1) of Annex III of the United Nations Convention on the Law of the Sea.

55 Section 8(1) of Annex of the 1994 Agreement.

the 1994 Agreement seem to favor an ad valorem royalty system, where fees are paid according to the quantity and market value of the mineral resources which are mined, or a hybrid model which also integrates elements of profit-sharing, obligating contractors to contribute a percentage of the profit they make.[56] In case multiple models are designed, contractors may freely choose the applicable regime, and the payment system and rates can be revised periodically, although any changes shall be applied in a non-discriminatory manner and may only be introduced in existing contracts at the election of the contractor.[57] As mentioned in the introduction, the UNCLOS already elaborated a payment system, leaving a choice between two different mechanisms with phased and layered rates, but these provisions were annulled by the 1994 Agreement.[58]

So far, few progress towards an adequate distribution system can be reported,[59] as ISA and its member States seem to focus all their attention on the development of a payment mechanism. These efforts are channeled through an open-ended working group, specifically established to elaborate a suitable payment regime[60], and build on the various proposals of member States and stakeholders[61] and the

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56 Former Art. 13(4) of Annex III of the United Nations Convention on the Law of the Sea; Section 8(1)(c) of Annex of the 1994 Agreement.

57 Section 8(1)(e) of Annex of the 1994 Agreement.

58 Former Art. 13(3)-(10) of Annex III of the United Nations Convention on the Law of the Sea; Section 8(2) of Annex of the 1994 Agreement.

59 See Report of the Finance Committee of International Seabed Authority, ISBA/25/C/31, p. 5-6, 12 July 2019.

60 Report of the Chair on the outcome of the first meeting of an open-ended working group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1, of annex III to the United Nations Convention on the Law of the Sea and section 8 of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, ISBA/25/C/15, p. 2, 25 February 2019.

61 Important suggestions regarding possible financial models for polymetallic nodule mining activities in the Area were made by the German Federal Ministry for Economic Affairs and Energy, the African Group and the Chinese Central South University, see *Analysis of the Economic Benefits of Developing Commercial Deep Sea Mining Operations in Regions where Germany has Exploration Licenses of the International Seabed Authority*, *as well as Compilation and Evaluation of Implementation Options with a Focus on the Performance of a Pilot Mining Test*, ISA website (Sep. 30, 2016), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/bmw.pdf; *African Group Submission on the ISA Payment Regime for Deep-Sea Mining in the Area*, ISA website (Jul. 5, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/agsmitmodelfinal.pdf; LIU Shaojun, *Financial model and economic evaluation of polymetallic nodules development in the Area*, ISA website (Sep. 15, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/comra.pdf.

research conducted by the Massachusetts Institute of Technology (MIT).[62] Despite a number of unanswered questions and several sources of uncertainty[63], which make it very hard to provide accurate predictions, the payment system is increasingly taking shape and some of the main features can already be perceived. In terms of general concept, for example, a pure profit-sharing system seems to be ruled out, given the preferences of the UNCLOS and the 1994 Agreement, the low expected revenues during the first years of mining activities and the high administrative costs and complex enforcement which are inevitably linked to it.[64] Therefore, the choice regarding a general payment concept appears to be narrowed down to either an ad valorem royalty system or a hybrid model, but intense discussions still exist with respect to the applicable rates and the modalities thereof.[65]

The rates which are currently being discussed were designed on the basis of the minimum attractive rate of return for deep sea mining activities, which amounts to roughly 17-18 percent,[66] and were subsequently selected with a view to maximize the return to the ISA.[67] However, a wide array of options are available,

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62 See Randolph Kirchain, Frank R Field & Richard Roth, *Financial Regimes for Polymetallic Nodule Mining: A Comparison of Four Economic Models*, MIT Materials Systems Laboratory (Feb. 15, 2019), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/mit.pdf; MIT Report Economic Model PMN.

63 MIT Report Economic Model PMN, p. 77.

64 Taking into account that some of the contractors are State enterprises, which might choose to operate at a loss because of geopolitical or other public interests, it should also be noted that establishing a profit-based payment system could result in significantly less revenue for the ISA and possible competitive disadvantages for private contractors, which does not seem to be in accordance with the prescribed equality of financial treatment for all contractors, see MIT Report Economic Model PMN, p. 70-71, 74; Art. 13(1)(c) of Annex III of the United Nations Convention on the Law of the Sea.

65 Apart from the general concept and the applicable rates, it should also be noted that both the ratio between the fees for deep seabed exploitation and the charges applicable to land-based mining, as well as the height of a separate levy for environmental damage and liability are hot topics, see IISD, *Summary of the Twenty-Fifth Annual Session of the International Seabed Authority (First Part): 25 February – 1 March 2019*, Earth Negotiations Bulletin, Vol. 25:185, IISD website (Mar. 4, 2019), http://enb.iisd.org/download/pdf/enb25185e.pdf, p. 3-4, 10.

66 Although contested, the MIT models depart from the minimum return required to raise sufficient capital for deep sea mining, arguing that this exercise is only meaningful if contractors are prepared to conduct exploitation activities under the financial terms. The proposed return is higher in comparison to the typical figures in land-based mining (approximately 15 percent), but this difference is justified by the significant technological and operational risks associated with contemporary deep sea mining and is in accordance with the directive to attract investments and technology, see Art. 13(1)(b) of Annex III of the United Nations Convention on the Law of the Sea; MIT Report Economic Model PMN, p. 5.

67 MIT Report Economic Model PMN, p. 5.

as a flat rate ad valorem only royalty system (fixed 4% royalty rate over the entire duration of the exploitation activities), a two-stage fixed ad valorem only royalty system (2% royalty rate for the first five years followed by a 6% rate thereafter), a two-stage progressive ad valorem only royalty system (which allows for changing rates in function of metal prices) and a hybrid system (fixed 2% royalty rate complemented by a profit-based rate of 22% after the first five years) are all up for discussion.[68] Although none of these options are yet fully endorsed or discarded, the open-ended working group suggested further refining the two-stage fixed ad valorem royalty system and the two-stage progressive ad valorem royalty system, which might indicate a certain preference.[69]

The two-stage progressive ad valorem royalty system was only included in the discussions at a later stage, but offers the possibility to enjoy some of the advantages of a profit-based approach without the administrative burdens. It would maintain a fixed 2% royalty rate over the first five years, followed by a variable rate (in accordance with the gross metal value of the nodules) for the remainder of the exploitation activities. A system providing for a variable rate fluctuating between a minimum of 5% and a maximum of 9% appeared to be the most balanced, demonstrating significant ability to capture upside gain if metal prices are high, while limiting the ISA's risk exposure if metal prices are low.[70] In comparison to the proposed two-stage fixed ad valorem only royalty system, this model produces approximately the same net present value of revenues for the ISA, while imposing the same effective tax rate and guaranteeing a similar internal rate of return for contractors.[71] Of course, several parameters and threshold values would need to be established in order to determine when increasing or declining metal prices would

68 Report of the Chair on the outcome of the third meeting of the open ended working group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1, of annex III to the United Nations Convention on the Law of the Sea and section 8 of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, ISBA/26/C/8, 17 February 2020.

69 *Ibid*, p. 4.

70 Briefing Note of Third Meeting of the Open-Ended Informal Working Group of the Council in respect of the development and negotiation of the financial terms of a contract under article 13, paragraph 1 of Annex III to the United Nations Convention on the Law of the Sea and under section 8 of the Annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982*,* Chair of the Working Group, ISA website (Mar. 27, 2020), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/briefingnote_0.pdf, p. 4 (hereinafter "Briefing Note of Third Meeting Open-Ended Working Group").

71 Ibid, p. 3.

give rise to higher or lower rates.[72]

The currently discussed rates for the above-mentioned models have to be taken with a grain of salt, however, as deliberations continue and the next objective of the open-ended working group is to make sure that the tariffs are within the range of those prevailing in respect of land-based mining.[73] In order to align the rates and guarantee that ISA contractors are neither advantaged nor disadvantaged in relation to land-based producers, an updated comparative analysis was commissioned and this could lead to important changes to the rates currently under consideration.[74] For example, the significant difference between rates based on ore value and rates based on metal value must be taken into account.[75] Moreover, for all models which are now under discussion, it has to be noted that the focus is on the exploitation of polymetallic nodules. The cash flow model structure could be adapted to the exploitation of polymetallic sulphides and cobalt-rich ferromanganese crusts, but the specific costs and revenues associated with the retrieval of these minerals and the extraction of the metals will be quite different, requiring new cost models and price forecasts.[76]

B. The Extended Continental Shelf

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72 For the purpose of evaluating these models, the average gross metal value of the nodules over the entire duration of the mining contract was estimated at $862 per ton. To assess the results of the models in different situations, low price simulations assumed average gross metal values below $685 per ton, high price simulations were based on average gross metal values above $1,050 per ton and average simulations relied on average gross metal values between $845 and $868 per ton (ibid, p. 3).

73 Section 8(1)(b) of Annex of the 1994 Agreement.

74 Report of Third Meeting Open-Ended Working Group, p. 3.

75 Given that the jurisdiction of the ISA is limited to activities in the Area, and the processing of the nodules – which normally takes place on land and partly determines the profitability of the operations – falls outside this scope, it is argued that the ad valorem royalty rates imposed on deep sea mining activities must be based on the nodule transfer price, representing the value of a nodule in its raw form when it leaves the Area, and not on the fully integrated revenue, which is calculated on the basis of the value of the metals contained in the nodules and therefore includes processing, see Comments on the MIT assumptions of the Financial Model, GSR (Mar. 23, 2020), https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/gsr_comments_to_mit-model.pdf; Recommending an appropriate valuation methodology for undersea polymetallic nodules, CRU Consulting, ISA website (Jun. 2020), https://isa.org.jm/files/files/documents/CRUslides.pdf; Art. 157(1) of the United Nations Convention on the Law of the Sea; Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory Opinion, ITLOS Reports 2011, 1 February 2011, p. 94-96.

76 Briefing Note of Third Meeting Open-Ended Working Group, p. 5; Report of Third Meeting Open-Ended Working Group, p. 3-4.

As mentioned earlier in this article, the jurisdiction of the coastal State and its exclusive sovereign rights on the continental shelf come with a caveat. Indeed, comparable to the envisioned payment regime for exploitation of mineral resources in the Area, a contribution mechanism for the same activities on the extended continental shelf is imposed on coastal States.[77] However, this should come as no surprise, as such contributions should be considered a logical extension of the common heritage of mankind principle[78] and the duty to realize equitable sharing of benefits[79] applicable to the Area.[80] Indeed, the extended continental shelf is evidently at the expense of the Area and would be part of this internationally governed zone if no extension of the continental shelf beyond the regular 200 nautical miles would have been established, so the extension possibility and the mechanism elaborated by Article 82 of UNCLOS can be seen as a *quid pro quo*.[81] Contributions are only required in respect of the exploitation of non-living resources and can be made in kind or through monetary payments.[82] The payments or contributions are to be submitted annually to the ISA, which shall then distribute them to the States parties in accordance with equitable sharing criteria, and are based on the value or volume of all produced resources at a site, with a rate that increases through the years.[83] No contributions are due for the first five years of production, but after this initial period, the rate increases by one percent of the

77 Art. 82 of the United Nations Convention on the Law of the Sea.
78 Art. 136 of the United Nations Convention on the Law of the Sea.
79 Art. 140 of the United Nations Convention on the Law of the Sea.
80 Report on Article 82 of the United Nations Convention on the Law of the Sea, International Law Association - Committee on the Outer Continental Shelf, International Law Association Reports 2008, p. 1047 (hereinafter "ILA Report on Article 82 of UNCLOS"); Implementation of Article 82 of the United Nations Convention on the Law of the Sea: Report of the International Workshop convened by the International Seabed Authority in collaboration with the China Institute for Marine Affairs in Beijing (26-30 November 2012), ISA Technical Study No. 12, ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/ts12-web.pdf, p. 12 (hereinafter "ISA Technical Study No. 12"); Issues associated with the implementation of Article 82 of the United Nations Convention on the Law of the Sea, ISA Technical Study No. 4, ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/tstudy4.pdf, p. 22-23 (hereinafter "ISA Technical Study No. 4").
81 Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Banet ed., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 372-373 (2020); Edwin Egede, *The Outer Limits of the Continental Shelf: African States and the 1982 Law of the Sea Convention*, Ocean Development and International Law, Vol. 35:2, p. 158 (2004); ISA Technical Study No. 5, p. x; ISA Technical Study No. 12, p. 87-88.
82 Art. 82(1) of the United Nations Convention on the Law of the Sea.
83 Art. 82(2) & (4) of the United Nations Convention on the Law of the Sea.

value of production each year, with a maximum of seven percent from the twelfth year on. However, it must be noted that developing countries enjoy a prerogative, as they are exempt from making contributions in respect of mineral resources of which they are net importers.[84] Article 82 of UNCLOS has remained dormant up till now, but some coastal States, like for example Canada, have issued significant exploration licenses for areas on the extended continental shelf, which might soon lead to exploitation licenses and production activities that would (after the five year grace period) trigger contributions to the ISA.[85]

In order to pave the way for the eventual implementation of Article 82 of UNCLOS, the ISA has taken initial steps by commissioning expert studies and organizing workshops.[86] After all, the ISA is not only designated as the recipient of these royalties, but is clearly empowered by the UNCLOS to adopt rules, regulations and procedures on the distribution of payments and contributions made pursuant to article 82.[87] The content of this provision might look rather short and simple, but contains a number of complexities and textual ambiguities.[88] Therefore, several clarifications and recommendations were made with regard to the implementation of Article 82. For example, it was suggested to introduce an obligation for coastal States to notify the ISA of the anticipated date of commercial production[89] and, although coastal States have the right to choose whether they want to submit payments or contributions in kind[90], they should preferably be

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84 Art. 82(3) of the United Nations Convention on the Law of the Sea.

85 Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Banet ed., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 371-394 (2020); ISA Technical Study No. 5, p. x.

86 ISA Technical Study No. 4; ISA Technical Study No. 5; ISA Technical Study No. 12; A study of key terms in Article 82 of the United Nations Convention on the Law of the Sea, ISA Technical Study No. 15, ISA website (Apr. 1, 2020), https://isa.org.jm/files/files/documents/ts15-web_0.pdf; Outcomes of the international workshop on further consideration of the implementation of article 82 of the United Nations Convention on the Law of the Sea, ISBA/19/A/4, 6 May 2013.

87 Arts. 160(2)(f)(i) & 162(2)(o)(i) of the United Nations Convention on the Law of the Sea.

88 Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Banet ed., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 376-384 (2020); Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, p. 325-330 (2006).

89 ISA Technical Study No. 4, p. 51; ISA Technical Study No. 12, p. 22-23; ILA Report on Article 82 of UNCLOS, p. 1055.

90 It must be stressed, however, that coastal States cannot decide to combine payments with contributions in kind, see ILA Report on Article 82 of UNCLOS, p. 1053.

encouraged to make monetary transfers for the sake of efficiency and simplicity.[91] However, if a coastal State does decide to provide contributions in kind, there are some questions that need to be resolved. For one, it is unclear whether the term entails a share of the mined resources, or should be seen as more broadly referring to any other contributions of equivalent value.[92] Based on the deliberations preceding the adoption of the UNCLOS, the majority appears to lean towards interpreting "contributions in kind" as a share of the resources[93], but this does not detract from the fact that legal, administrative and practical issues remain with regard to the delivery and reception of these goods.[94] Taking into account rapid fluctuations of commodity prices, contributions in the form of a share of the resources also put significantly more emphasis on the timing of these contributions and the calculation of their value.[95]

With regard to the recipient, it has been stressed that the payments or contributions have to be made "through the Authority" and not "to the Authority"[96], implying that the ISA – which should be seen as a recipient, rather than a debt collector[97] – should not benefit from it and only fulfills an instrumental role to get the contributions to their final destination, that is, the States parties.[98] Nevertheless, in practice, payments or contributions will need to be made in the first instance

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91 ISA Technical Study No. 12, p. 24.

92 ISA Technical Study No. 4, p. 51-52; ILA Report on Article 82 of UNCLOS, p. 1051-1052.

93 ISA Technical Study No. 12, p. 20, 22.

94 ISA Technical Study No. 4, p. 38; ISA Technical Study No. 12, p. 23.

95 Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, p. 326 (2006); ILA Report on Article 82 of UNCLOS, p. 1053.

96 Art. 82(4) of the United Nations Convention on the Law of the Sea.

97 Although the UNCLOS stipulates that the Council of ISA is empowered to "review the collection of all payments to be made by or to the Authority", it must be stressed that this competence is limited to Part XI of the UNCLOS, governing activities in the Area. In case of non-payment by a coastal State, it appears that only the States parties (and in particular the developing States which are the main beneficiaries of these contributions) can act by using the dispute settlement procedures set out in Part XV of the UNCLOS. It could be argued that the ISA may refer such issues to the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS) for an advisory opinion, but it is debatable whether the Seabed Disputes Chamber has jurisdiction in these cases, see Arts. 162(2)(p) & 191 of the United Nations Convention on the Law of the Sea; ILA Report on Article 82 LOSC, p. 1061-1062.

98 ISA Technical Study No. 4, p. 37; ISA Technical Study No. 12, p. 88; ILA Report on Article 82 of UNCLOS, p. 1060-161; Ted L. McDorman, *The Continental Shelf Regime in the Law of the Sea Convention: A Reflection on the First Thirty Years*, International Journal of Marine and Coastal Law, Vol. 27:743, p. 751 (2012); Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, p. 328 (2006).

to the ISA, which will inevitably lead to several coastal States being engaged in a long-term relationship with the ISA. Therefore, informal instruments, such as memoranda of understanding and guidance documents,[99] are recommended to structure and clarify the rights and obligations of both parties.[100] The development of equitable sharing criteria for Article 82 of UNCLOS is included in Strategic Plan 2019-2023 of the ISA[101] and will be undertaken in parallel[102] with the elaboration of an equitable sharing mechanism for financial and other economic benefits derived from activities in the Area.[103] It must be noted that Article 82 of UNCLOS does not make provision for the ISA to cover its own administrative costs related to the reception and distribution of the revenues[104], but it seems unreasonable to expect the ISA to take on these responsibilities without the possibility to recover overhead costs.

With regard to the calculation of the payment and contributions, some of the details also remain ambiguous. For example, it would appear reasonable to interrupt the royalty-free period during the first five years if production is suspended, but the text of Article 82 of UNCLOS does not provide any clarity on this issue.[105] The same could be said about the term "annually", as financial years may vary by jurisdiction and it may also refer to the anniversary date of first production.[106] "All production", constituting the basis of the payments or contributions to be made, also lends itself to various interpretations, although the use of this term during the negotiations preceding the UNCLOS, established State practice and simplicity considerations seem to support the meaning of "all production" as gross production.[107] The UNCLOS also explicitly States that production does not include

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99 Cf. ISA Technical Study No. 12, Annex 4.

100 ISA Technical Study No. 12, p. 24.

101 Decision of the Assembly of the International Seabed Authority relating to the strategic plan of the Authority for the period 2019−2023, ISBA/24/A/10, p. 7-8, 27 July 2018.

102 Nevertheless, the equitable sharing criteria for the distribution of payments or contributions under Article 82 of UNCLOS must constitute a separate set, taking into account the additional priority that is given to least developed and land-locked States, see Art. 82(4) of the United Nations Convention on the Law of the Sea; ILA Report on Article 82 of UNCLOS, p. 1059.

103 Report of the Finance Committee, ISBA/24/C/19, p. 5, 13 July 2018.

104 ISA Technical Study No. 4, p. 26, 37-38.

105 ISA Technical Study No. 4, p. 56-57.

106 ISA Technical Study No. 4, p. 32; ILA Report on Article 82 of UNCLOS, p. 1053-1054.

107 ISA Technical Study No. 4, p. 61; ISA Technical Study No. 12, p. 48; ILA Report on Article 82 of UNCLOS, p. 1050; Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Banet ed., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden,

resources used in connection with exploitation, which must be interpreted as the introduction or re-introduction of physical elements such as water or gas that are utilized to directly assist in the exploitation activities.[108] Furthermore, the meaning of "value or volume of production", which determines the exact amount of the payments or contributions due, could lead to disputes: for hydrocarbons, it seems generally accepted to take into account the fair monetary market value[109] at the well-head, before transportation to the market location and national taxation, but this is less clear for other minerals.[110] In any case, clear, consistent and transparent interpretations will need to be applied in order to implement this regime. The proposed framework for model agreements between coastal States and the ISA regarding the implementation of Article 82 of UNCLOS represents a step in the right direction and might solve a significant amount of the issues.[111]

IV. Deep Sea Mining at a Discount?

When considering the payment regimes discussed above, both of which involve the ISA as an initial recipient and subsequent distributor of the acquired revenue for the benefit of mankind as a whole, it is particularly notable that one of the models which is still under consideration and can therefore be seen as a frontrunner to be officially introduced by the ISA, shows a number of conceptual similarities with the payment regime installed by Article 82 of UNCLOS. Indeed, just like the two-stage fixed rate system which is currently being assessed, the payment mechanism for exploitation activities on the extended continental shelf is based on an ad valorem royalty model and applies a rate which increases through

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Brill Nijhoff, Chapter 16, p. 382 (2020).

108 Art. 82(2) of the United Nations Convention on the Law of the Sea; ILA Report on Article 82 of UNCLOS, p. 1056-1057.

109 In analogy with former provisions regarding the payments that need to be made to the ISA with respect to mineral exploitation in the Area, the market value could be determined as the average price for the processed metals during the relevant accounting year, see former Art. 13(5)(b) of Annex III of the United Nations Convention on the Law of the Sea.

110 ISA Technical Study No. 4, p. xv, 33; ISA Technical Study No. 12, p. 48; Aldo Chircop, *Implementation of Article 82 of the United Nations Convention on the Law of the Sea: the Challenge for Canada*, in Catherine Banet ed., The Law of the Seabed – Access, Uses, and Protection of Seabed Resources, Leiden, Brill Nijhoff, Chapter 16, p. 382 (2020); Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, p. 327-328 (2006).

111 ISA Technical Study No. 12, Annex 4.5.

the years. The parallels between the main principles of these financial models are not particularly surprising, as the two systems can essentially be seen as each other's extension on the other side of the legal boundary. However, a number of prominent differences can be discerned. First of all, mineral exploitation on the extended continental shelf is not governed by a two-tiered rate, as it gradually increases by one percent each year to a maximum of seven percent, and a grace period of five year is observed, which is not the case for the two-stage fixed ad valorem only royalty system considered by the ISA. Secondly, it must be noted that Article 82 of UNCLOS provides developing countries, on top of their privileged status in terms of distribution of revenue in both regimes,[112] with an additional prerogative by stipulating that these States are exempt from making contributions in respect of mineral resources of which they are net importers.[113] Thirdly, although it is recommended to make monetary transfers for the sake of efficiency and simplicity, coastal States have the right to choose and might opt to provide contributions in kind, which is not an option in the suggested payment models regarding exploitation activities in the Area.[114] Finally, it should be taken into account that the payment regime established by Article 82 of UNCLOS applies with respect to all types of non-living resources located on the extended continental shelf, while the payment models currently considered for the exploitation of minerals in the Area are only focusing on polymetallic nodules and will have to be adapted for polymetallic sulphides and cobalt-rich ferromanganese crusts.[115]

Furthermore, a more general distinction between the payment regime of Article 82 of UNCLOS and the models currently under discussion at the ISA must be emphasized: while the payment duty in the former rests solely on coastal States, the payment model to be adopted for exploitation activities in the Area applies to contractors, which can be both non-State actors (private companies or State enterprises) or States. Therefore, for the sake of comparing these situations, similar scenarios can only be staged if the mining operator is a State. Indeed, in other cases, wherein the operator is a non-State actor, we will only see a direct relationship between the contractor and the entity receiving the contributions (the ISA) in the Area, while for the same activities on the extended continental shelf this payment process will be twofold, with the coastal State making contributions to the

112 Arts. 82(4) & 140(1) of the United Nations Convention on the Law of the Sea.
113 Art. 82(3) of the United Nations Convention on the Law of the Sea.
114 Art. 82(1) of the United Nations Convention on the Law of the Sea.
115 Cf. Report of Third Meeting Open-Ended Working Group, p. 3-4.

ISA on the basis of levies it has imposed on its licensee. After all, the obligation to make payments or contributions in kind with respect to exploitation activities on the extended continental shelf rests solely with the coastal State.[116] Nonetheless, it is fair to assume that the contributions which the coastal State is required to make, will be reflected in the rates that are imposed on the actual operators of the mining sites.

When comparing the rates currently considered for the proposed two-stage fixed ad valorem only royalty model (2% royalty rate for the first five years followed by a 6% rate thereafter) and the mechanism established by Article 82 of UNCLOS (five year grace period followed by an increase of 1% each year to a maximum of 7%), a number of observations can be made. Assuming an operation period of 30 years, based on the estimated lifetime of a mine[117] and the term of an exploitation contract,[118] a quick calculation reveals that the difference in average tax rate is minimal: the extended continental shelf payment system amounts to an average rate of 5.13%, while the currently considered two-stage fixed ad valorem only royalty model for the Area comes down to an average rate of 5.33%.[119] However, any economist can testify that calculating and comparing the average tax rates in these situations is pointless, as the net present value of the revenues must be taken into account.[120] Therefore, given the royalty-free period and the gradually increasing rate of 1% from the sixth year on, the payment regime of the extended continental shelf appears to be significantly more favorable to mining operators. Moreover, the fact that several States which made submissions to the CLCS are developing countries should not be neglected.[121] Indeed, the additional privileges provided to these States by Article 82 of UNCLOS are not something to be taken lightly, as net importer status results in an exemption from making contributions in respect of the mineral resources concerned, a provision which is not included in

116 Art. 82(1) of the United Nations Convention on the Law of the Sea; ILA Report on Article 82 of UNCLOS, p. 1050.

117 MIT Report Economic Model PMN, p. 16.

118 Art. 20(1) of Draft Regulations on exploitation of mineral resources in the Area.

119 Taking into account an estimated baseline production scale of three million ton of nodules per year and an average gross metal value of $862 per ton, this difference of 0.20% would represent $5,172,000 per year and $155,160,000 over the lifetime of a mining operation, see MIT Report Economic Model PMN, p. 35; Briefing Note of Third Meeting Open-Ended Working Group, p. 3.

120 See MIT Report Economic Model PMN, p. 41.

121 Submissions to the CLCS, UN website (Apr. 22, 2020), https://www.un.org/Depts/los/clcs_new/commission_submissions.htm.

the proposed payment mechanisms for exploitation activities in the Area and might have a significant effect on the average tax rates imposed on these States.

Notwithstanding these differences, it should be pondered to what extent the payment system for exploitation activities in the Area must coincide with the one applicable to the extended continental shelf? On the one hand, you could argue that a slightly lower average rate and other perks are justified in light of the location of these exploitation activities, taking place on the extended continental shelf where coastal States may exercise exclusive sovereign rights for the purpose of exploring and exploiting natural resources.[122] On the other hand, however, it can be asserted that the extended continental shelf is clearly at the expense of the Area and should – in light of the principle of the common heritage of mankind[123] and the duty of equitable benefit-sharing[124] – therefore be governed by the same provisions, leaving no room for any differences in rates or possible exemptions. If we follow this line of reasoning, this entails that the payment regime of the extended continental shelf would need to be aligned with the payment system of the Area, but it must of course be noted that Article 82 UNCLOS, despite the fact that it has not been implemented or applied to date, is already in force, while the discussed payments models under consideration of the ISA are not adopted yet. Furthermore, even when a payment system for exploitation activities in the Area would be enacted, this would take the form of an appendix to the ISA exploitation regulations, which does not at all prevail over the content of a binding multilateral treaty. Additional alignment is certainly desirable, but feasibility, efficiency and legal certainty will have to be properly balanced when considering the options to attain that goal.

V. Conclusion

In this article, it was demonstrated that the relationship between the payment system for exploitation of non-living resources on the extended continental shelf, embedded in Article 82 of UNCLOS, and the models currently discussed to govern deep sea mining activities in the Area is not entirely commensurate. Indeed, despite several parallels between Article 82 of UNCLOS and one of the frontrunners in the ongoing discussions at the ISA (two-stage fixed ad valorem

122 Art. 77 of the United Nations Convention on the Law of the Sea.
123 Art. 136 of the United Nations Convention on the Law of the Sea.
124 Arts. 82(4) & 140 of the United Nations Convention on the Law of the Sea.

only royalty system) in terms of general concept, there are some differences in the rates and modalities which are currently considered. Although the discrepancy in average tax rate seems minimal, the royalty-free period during the first five years of production and the gradually increasing rate of 1% from the sixth year on appear to be decisive and will most likely render the extended continental shelf regime more attractive for deep sea mining purposes. Moreover, it also needs to be highlighted that developing States enjoy an additional privilege in the form of an exemption to provide contributions in respect of mineral resources of which they are net importers. It could be argued that the effects of this provision will not be significant and fit perfectly within the treaty-based principle of particular consideration for the interests and needs of developing States, but it should not be neglected that this prerogative comes on top of the special status of developing States with regard to the equitable sharing of benefits in both regimes. Other than that, the application of this exception might result in higher administrative costs and more complex enforcement, and it is not clear whether the ISA is capable to take up this role.[125]

To put this comparison and the resulting considerations in perspective, it should however be stressed that deliberations regarding a suitable payment system for exploitation activities in the Area are still ongoing and decisions pertaining to a wide array of characteristics of this mechanism, ranging from the general concept to the most detailed modalities, have yet to be made. For example, the forthcoming comparative analysis between the royalty rates suggested for deep sea mining and the ones applicable to land-based mining is expected to lead to changes in the proposed tariffs, which would in turn alter the relationship between the ISA payment system and the mechanism of Article 82 of UNCLOS. On top of that, it has been demonstrated that the regime established by Article 82 of UNCLOS is plagued by several ambiguities, which will need to be resolved through clear and consistent interpretation before the system can be implemented effectively. Therefore, although it can be stated that largely equivalent measures are certainly

125 The UNCLOS designates the ISA as the recipient and stipulates that the ISA is empowered to adopt rules, regulations and procedures on the equitable sharing of payments and contributions made pursuant to Article 82, but no competences with regard to the other aspects of Article 82 are mentioned and the UNCLOS does not expressly authorize the ISA to recover administrative costs for such services, see Art. 160(2)(f)(i) & 162(2)(o)(i) of the United Nations Convention on the Law of the Sea; ISA Technical Study No. 4, p. 26, 37-38; Michael Lodge, *The International Seabed Authority and Article 82 of the United Nations Convention on the Law of the Sea*, International Journal of Marine and Coastal Law, Vol. 21:323, p. 329 (2006).

desirable, it is not useful to try and identify which features and rules should be nuanced or corrected at this stage. After all, it must also be stressed that the ISA will have to design additional payment regimes for the other categories of mineral resources. Before all payment systems enter into force and exploitation activities are started, the alignment of these mechanisms should however be considered in order to maintain a logical balance, taking into account that it essentially concerns the same activities and the extended continental shelf would be part of the Area if no extension beyond the standard 200 nautical miles would have been established.

国际海底区域内区域环境管理计划的法律地位

董世杰 *

内容摘要: 区域环境管理计划是国际海底管理局（以下简称“管理局”）所采取的，保护海洋环境免受国际海底国际海底区域内活动可能有害影响的措施。区域环境管理计划必须在海洋环境保护和资源开发利用之间保持平衡。“无区域环境管理计划，无开发活动”应当作为一般原则被遵守，并保持例外灵活性。制订区域环境管理计划不是管理局的义务，或者至少不是结果义务而只是一项行为义务。区域环境管理计划都应具有法律拘束力，而且每一项区域环境管理计划只对其覆盖的特定区域内的行为者具有拘束力。

关键词: 国际海底区域　区域环境管理计划　法律地位

根据《联合国海洋法公约》（以下简称“《公约》”）第 145 条的规定，需要对国际海底区域内的活动采取必要措施，以切实保护海洋环境免受这些活动可能产生的有害影响。国际海底区域面积广阔，正如陆地环境一样，国际海底区域内不同区域之间的海洋环境存在很大差异。虽然中文表述相近，但是国际海底区域对应的是“the Area”，而“区域环境管理计划”中的区域对应的是“region”，前者包含后者。基于生态、生物多样性以及生态系统结构和功能等诸多科学标准，可将国际海底区域划分为若干个区域（regions）。要想有效保护国际海底区域内的海洋环境，需要根据不同区域的具体情况，因地制宜采取保护措施，区域环境管理计划就属于此类措施。它作为一种区域性的环境保护措施，既弥补了针对整个国际海底区域的环保措施过于原则、概括而缺乏针对性的不足，也解决了针对具体合同区的环保措施只见树木不见森林的缺陷。每一项区域环境管理计划将结合本区域海洋环境的具体情况，贯彻落实整个国际海底区域的环保措施，给本区域内合同区的环保措施提供指导。由此可见，区域环境管理计划是作为沟通上下的中间一

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层环保措施。

由于国际海底区域内存在若干区域，每个区域制订一项区域环境管理计划，所以国际海底区域内会出现若干个区域环境管理计划（regional environmental management plans，以下简称“REMPs”）。区域环境管理计划是区域性的全面环境管理计划，为保护具体区域内的海洋环境作出系统、全面的安排。它为国际海底管理局（以下简称“管理局”）的有关机构、承包者及其担保国提供积极主动的划区管理工具（area-based management tool），以支持兼顾资源开发和养护的明智决策。[1] 很明显，区域环境管理计划必须在海洋环境保护和资源开发利用之间保持平衡。反之，要么不利于海洋环境保护，要么阻碍资源开发利用。

虽然目前国际海底区域内只有“克拉里昂 - 克利珀顿区环境管理计划”，但管理局对于国际海底区域内其他部分制订区域环境管理计划雄心勃勃。秘书长2018年所提交的《关于制订国际海底区域的区域环境管理计划的初步战略》建议，将下一步制订区域环境管理计划的优先地区初步确定为大西洋中脊、印度洋三交点脊和结核带地区，以及西北太平洋和南大西洋的海山。[2] 同样，在目前讨论的“开发规章”中，区域环境管理计划也是备受关注的问题。尽管区域环境管理计划已经成为国际海底区域的热点议题，但仍充满诸多不确定性，无论是其概念、要素、法律地位，还是其制订、实施、审查，目前均无定论。本文着重分析区域环境管理计划的法律地位，就区域环境管理计划与开发活动的关系、管理局是否有制订区域环境管理计划的义务、区域环境管理计划是否具有法律拘束力予以探讨。该问题属于区域环境管理计划最为核心的问题，不仅涉及区域环境管理计划与开发活动的关系，还涉及到区域环境管理计划与国际海底区域内活动参与者的关系。

一、区域环境管理计划与开发活动的关系

目前，在国际海底区域内只存在勘探活动，但随着深海采矿技术的进步，在国际海底区域内进行开发活动已不再遥远。唯有在开发阶段，才能进行商业生产，从而获取收益。管理局正在制定的“开发规章”正是为了顺应这一趋势而采取的应对措施。相较于勘探活动，开发活动会带来更大的海洋环境损害的风险，为此有必要采取诸多有效环保措施，其中就包括区域环境管理计划。在“开发规章”的谈判过程中，区域环境管理计划与开发活动的关系是各方所关注的重点，主要围绕“区域环境管理计划是否需要作为开发活动的前提条件”而争执不下。解决这

1 参见 Preliminary strategy for the development of regional environmental management plans for the Area, Report of the Secretary-General, ISBA/24/C/3, paras. 2, 5.

2 参见 Preliminary strategy for the development of regional environmental management plans for the Area, Report of the Secretary-General, ISBA/24/C/3, para. 12.

一问题的关键在于如何平衡国际海底区域内的资源开发利用与海洋环境保护。

（一）“开发规章草案”关于区域环境管理计划与开发活动关系的规定

虽然法律和技术委员会在2019年公布修订后的“开发规章草案”中没有明确提及区域环境管理计划与开发活动的关系，但其相关规定已在一定程度上暗示了区域环境管理计划与开发活动的关系。“开发规章草案”第7条第3款规定了每份请求核准工作计划的申请书应附有的相关文件，其中就包括“根据第47条并以本规章附件四所规定格式编制的环境影响报告”“根据第48条和本规章附件七编制的环境管理和监测计划”以及“根据本规章第59条和附件八编制的关闭计划”。[3]这意味着请求核准工作计划的申请书中必须包含环境影响报告、环境管理和监测计划、关闭计划。而通过对“开发规章草案”其他条款的分析可知，这些附件均需以区域环境管理计划的存在为前提。例如，根据“开发规章草案”第47条第3款的规定，环境影响报告应采用管理局在本规章附件四中规定的格式，并且“应符合相关区域环境管理计划的目标和措施”，即必须以相关区域环境管理计划先于环境影响报告存在为前提。根据“开发规章草案”第48条第3款的规定，环境管理和监测计划应涵盖管理局在本规章附件七中规定的主要方面，并且“应符合相关区域环境管理计划”，即相关区域环境管理计划应当先于环境管理和监测计划而存在。根据“开发规章草案”附件八“关闭计划”的规定，关闭计划的编制和实施“应遵守相关的区域环境管理计划”，即区域环境管理计划应当先于关闭计划而存在。

如上所述，根据“开发规章草案”相关条款的规定，申请者若想实施开发活动，必须提交申请书。而作为申请书必要组成部分的环境影响报告、环境管理和监测计划以及关闭计划的编写，必须符合相关区域环境管理计划。这就意味着，相关区域环境管理计划应当先于环境影响报告、环境管理和监测计划以及关闭计划而存在，也应当先于申请书而存在。因此，就国际海底区域内的特定区域而言，根据“开发规章草案”的规定，在未制订区域环境管理计划之前，申请者是无法编写完整申请书的，自然也无法进行开发活动。

秘书处在其2019年编写的《促进制订区域环境管理计划的指导意见》中指出，一般而言，如果同时考虑区域环境管理计划区内的所有不同区域，更有可能发现冲突最小的方案。在初期，在区域范围内仔细研究高矿物价值区和高养护价值区，更能发现支持双赢的空间布局。如果在初期没有予以考虑，那么发现得以使矿产价值和养护价值最优化的空间解决方案（spatial solutions）的可能性会受限。

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3 参见 Draft regulations on exploitation of mineral resources in the Area, Prepared by the Legal and Technical Commission, ISBA/25/C/WP.1, Regulation 7.

系统养护规划（systematic conservation planning）和跨部门海洋空间规划（multi-sector marine spatial planning）的最佳实践表明，在任何区域分配之前进行区域环境管理计划的分析，将为空间考量提供最优选择，并且减少在后续阶段产生冲突的可能性。[4] 秘书处在上述文件中指出了一种使矿物价值和养护价值最优化的理想方案，即在任何区域分配之前制订区域环境管理计划。根据《公约》附件三第3条第4款（b）项的规定，无论是在勘探阶段还是开发阶段，承包者都会获得对特定区域内特定种类资源的专属权利，故均涉及区域分配问题。因此，秘书处所强调的“任何区域分配之前”，似乎是要求区域环境管理计划先于勘探和开发活动而存在，而不仅仅是要求区域环境管理计划先于开发活动而存在。遗憾的是，秘书处此种最优方案只有在最理想状态下方能实现，即拟制订区域环境管理计划的特定区域是一张“白纸”，且管理局已经充分掌握相关科学信息，由管理局基于兼顾开发和养护的立场，先对该特定区域进行空间布局设计，制订区域环境管理计划，然后再实施勘探或开发活动。

原始海洋科学数据是区域环境管理计划赖以存在的基础，在国际海底区域内收集原始科学数据，是一项耗资巨大的工作。考虑到管理局预算有限，其中2019-2020年用于区域环境管理计划的预算仅有67万美元，[5] 承包者自然便成为这些数据的主要提供者。相比于承包者，管理局更像是原始数据的加工者，通过组织研讨会对原始数据整理和分析，进而制订出符合实际情况的区域环境管理计划并组织实施。换言之，如果没有承包者的参与，管理局根本无法充分掌握特定区域的相关科学信息。若想让承包者积极进行数据收集，目前最为有效的方式便是通过勘探合同，对承包者施加在合同区内从事环境基线研究的义务。这也就意味着，在实践中，在任何区域分配之前制订区域环境管理计划不具有可行性。因此，秘书处的最优方案必须对现实进行一定程度的妥协。事实上，“克拉里昂 - 克利珀顿区环境管理计划”就体现了这一妥协，在区域环境管理计划制订的前后，克拉里昂 - 克利珀顿区内都存在一定数量的多金属结核勘探合同。先于区域环境管理计划而存在的勘探活动，给该管理计划的制订提供了大量的科学信息；迟于区域环境管理计划而出现的勘探活动，在申请时则必须符合该管理计划的内容。由于意识到管理局需要承包者持续收集样本并全面报告环境数据，以支持制订区域环境管

4 参见 International Seabed Authority Secretariat, *Guidance to facilitate the development of Regional Environmental Management Plans*, ISA website (Nov. 2019), https://www.isa.org.jm/files/files/documents/remp_guidance.pdf, p. 22.

5 参见 Decision of the Assembly of the International Seabed Authority relating to the budget of the Authority for the financial period 2019–2020, ISBA/24/A/11, para. 1; Proposed budget for the International Seabed Authority for the financial period 2019–2020, ISBA/24/A/5-ISBA/24/C/11, paras. 57-60; Proposed budget for the International Seabed Authority for the financial period 2019–2020, Corrigendum: Annexes I and II, ISBA/24/A/5/Corr.1-ISBA/24/C/11/Corr.1, p. 4.

理计划，理事会在其决定中敦促所有承包者遵守提交报告的要求，并使其环境数据能够方便且公开地获取。[6] 由此可见，在实践层面上，区域环境管理计划难以先于特定区域内所有勘探活动而存在，而区域环境管理计划则可先于特定区域内所有开发活动存在。

（二）关于区域环境管理计划与开发活动关系的主要立场

尽管法律和技术委员会起草的最新“开发规章草案”中有相关条款暗示了区域环境管理计划应当作为开发活动前提，但各方仍未就该问题达成一致，且至少存在两种不同的立场。

1. 严格遵守“无区域环境管理计划，无开发活动”

许多国家明确表示“无区域环境管理计划，无开发活动”。荷兰早在 2014 年就指出，管理局有义务制订一项区域环境管理计划，以此作为授予指定区块开发合同的条件之一。[7] 澳大利亚也认为，区域环境管理计划必须在授予开发许可之前就已经存在。[8] 密克罗尼西亚认为，相关区域发布工作计划之前，必须制订区域环境管理计划，密克罗尼西亚支持并鼓励这一要求。[9] 新西兰建议在“开发规章草案”第 8 条“申请书覆盖的区域”中，增加“申请的区块必须被相关区域环境管理计划所涵盖”，在特定区域制订区域环境管理计划之前，不应进行采矿活动。[10]

一些国际组织也表达了“无区域环境管理计划，无开发活动”的立场。世界自然保护联盟（International Union for Conservation of Nature）认为，有必要就

6 参见 Decision to the Council of the International Seabed Authority relating to the report of the Chair of the Legal and Technical Commission, ISBA/23/C/18, para. 13.

7 参见 The environmental management plan in the regulatory framework for mineral exploitation in the Area: Explanatory note, submitted by the Netherlands, ISBA/20/C/13, para.12.

8 参见 Submission from Australia on Draft Regulations on Exploitation of Mineral Resources in the Area October 2019, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 1.

9 参见 Comments on the Draft Regulations of the International Seabed Authority on the Exploitation of Mineral Resources in the Area, submitted by the Government of the Federated States of Micronesia, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 1.

10 参见 New Zealand’s Submission on the Draft Regulations on Exploitation of Mineral Resources in the Area, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 2.

区域环境管理计划单列一条，并作为考虑工作计划的前提条件。[11]“深海管理倡议（Deep-Ocean Stewardship Initiative）”认为，“开发规章”应当明确规定只有当区域环境管理计划存在时方可提交工作计划，而不只是像“开发规章草案”第47和第48条只是暗含了这层意思。[12]深海保护联盟（Deep Sea Conservation Coalition）也认为，区域环境管理计划被纳入“开发规章”且具有强制性，应作为批准工作计划的前提，否则不能在合同或勘探许可的问题上有进展，[13]该联盟甚至还质疑是否应在未通过区域环境管理计划的区域内授予勘探合同。[14]但正如上文在分析，要求区域环境管理计划先于特定区域内所有勘探活动而存在，在实践层面不具有可行性。

此外，皮尤慈善信托基金会（Pew Charitable Trusts）所资助的“规章项目（Code Project）”的第五份报告，也对“无区域环境管理计划，无开发活动”作了比较详细的论述。该报告指出，不应在任何无区域环境管理计划的区域进行采矿活动。“开发规章草案”第47条第3款（c）项和第48条第3款（b）项的暗示几乎明确表达了这一观点。但该报告认为，任何模糊性均应被清除，需要在“开发规章草案”中另加一项规定来阐明，法律和技术委员会在审查工作计划时，将评估申请者的环境保护计划，以确认其与相关区域环境保护计划的一致性。[15]该报告还建议在“开发规章草案”第13条中增加以下内容：“法律和技术委员会不能审查工作计划的申请书，直到相关区域的区域环境管理计划获得通过；在评估工作计划的申请书时，法律和技术委员会应考虑拟议的工作计划在多大程度上遵守或考虑了相关的区域环境管理计划；法律和技术委员会应不建议核准任何注定不符合相关区域环

11 参见 IUCN Comments on the 2019 ISA Draft Regulations on exploitation of mineral resources in the Area ISBA/25/C/WP.1 (22 March 2019), in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019.

12 参见 Commentary on “Draft Regulations on Exploitation of Mineral Resources in the Area” issued on 25 March 2019 by the ISA (ISBA/25/C/WP.1), submitted by Deep-Ocean Stewardship Initiative, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019.

13 参见DSCC Submission on March 22 Version of Draft ISA Exploitation Regulations, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 3, 10.

14 参见 Summary of the Twenty-fifth Annual Session of the International Seabed Authority (First Part): 25 February – 1 March 2019, Earth Negotiations Bulletin , Vol. 25, No. 185, 4 March 2019, p. 5.

15 参见 Fifth Report of the Code Project, Part One: Small Papers on Big Issues, Brief Descriptions and Commentaries on Six Leading Issues Raised by the Most Recent Draft Exploitation Regulations of the International Seabed Authority, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 2.

境管理计划的申请书（例如提议在特别环境利益区内进行勘探和开发活动）。”[16]

2. 允许“无区域环境管理计划，无开发活动”的例外情形

相较于上述各方严格坚持“无区域环境管理计划，无开发活动”的立场，德国的立场更加灵活。德国认为，原则上在区域环境管理计划存在之前，不进行开发活动；制订区域环境管理计划是有效保护海洋环境免受国际海底区域内活动有害影响的必要措施。但同时也应避免仅仅凭借阻碍制订或通过相应的区域环境管理计划来阻挠授予开发许可这一情形的出现。[17] 基于这一立场，德国对“开发规章草案”中的相关条款，提出了具体的修改建议。

其中，在第 2 条“基本政策和原则”的（e）款中增加“确保在各自区域允许进行开发活动之前，管理局制订区域环境管理计划，但也要防止任何滥用区域环境管理计划阻碍工作计划”。这表明德国原则上坚持“无区域环境管理计划，无开发活动”，但同时也留有余地。德国对第 15 条第 2、3 款中所增加的内容，都是对“无区域环境管理计划，无开发活动”这一基本立场的具体阐释，并且强调区域环境管理计划对开发活动的约束。[18]

最值得注意的是德国对“开发规章草案”第 44 条“一般义务”所提的修改意见，其中就“无区域环境管理计划，无开发活动”这一基本原则规定了例外情形，即“除非理事会已就特定区域通过了一项区域环境管理计划，否则法律和技术委员应不考虑工作计划的申请书；一旦就无区域环境管理计划的区域提交了工作计划的申请书，在顾及“1994 年协定”第二节（笔者检阅发现，应为“第一节”）第 15 条 b、c 款的情况下（taking into account Section 2, Article 15 b/c of the 1994 Agreement），对于该区域的区域环境管理计划的起草，应作为优先事项且不得受到任何不当延误。”[19]

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16 参见 Fifth Report of the Code Project, Part Two: Annotations & Commentary on ISA Draft Exploitation Regulations of March 2019 (ISBA/25/C/WP.1), in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 12.

17 参见 Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 4.

18 参见 Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 8, 13, 14.

19 参见 Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 17, 18.

从德国援引《1994年协定》[20]附件第一节第15条b、c款不难看出，德国将区域环境管理计划视为管理局的规则、规章或程序。其中，b款对制订区域环境管理计划设定时限，以督促计划的制订。而c款则规定在限定时间内无法制订区域环境管理计划、同时又有开发工作计划的申请书等待核准的情况下，理事会可以绕开区域环境管理计划，直接根据《公约》中的规定和理事会可能已暂时制定的任何规则、规章和程序，或根据《公约》内所载的准则和本附件内的条款和原则以及对承包者不歧视的原则，审议和暂时核准该工作计划。不过值得注意的是，虽然德国规定了例外情形，但给出的处理方法却比较微妙。针对就无区域环境管理计划的区域提交工作计划的申请书的情况，德国仍然力主尽快起草区域环境管理计划，所谓“顾及第15条b、c款”似乎只是对“尽快起草区域环境管理计划”的限定。但正如上文所述，第15条c款与尽快起草区域环境管理计划无关，如果德国还是一味强调尽快制订区域环境管理计划，根本没有必要提及该款规定。除非德国还想暗示，必要时在没有区域环境管理计划的区域可以核准开发工作计划。不过遗憾的是，德国并未更为大胆地迈出这一步，明确表示将第15条c款作为例外情况下绕开区域环境管理计划来核准开发活动的依据。印度尼西亚赞同德国的观点，认为存在完善的区域环境管理计划和开采试验，是管理局授予开发许可的前提。[21]值得注意的是，印度尼西亚似乎只接受了德国观点中所强调的“无区域环境管理计划，无开发活动”这一基本原则，并未提及德国所暗示的例外情形。

德国观点的逻辑很清晰，即“无区域环境管理计划，无开发活动”可以作为一般原则，但不应当绝对化，要允许例外情形的存在。很明显，德国希望能够在资源开发利用与海洋环境保护之间保持平衡，而不是完全偏向于海洋环境保护的价值取向。

3. 对现有立场的评析

就目前情况来看，区域环境管理计划作为开发活动的前提条件是大势所趋，“无区域环境管理计划，无开发活动”作为一般原则应该没有什么悬念，争论焦点已经转移到是否要设置例外情形上。其关键在于国际海底区域内资源的商业开发是否已经迫在眉睫。如果已迫在眉睫，为防止区域环境管理计划的制订遭到有意拖延，则可以考虑设置例外情形。反之，如果商业开发还未可期，则可以等待制订区域环境管理计划。当然，从有备无患的法律技术角度而言，任何时候设置例外情形都是必要的：一方面是为了长远考虑，有必要保持灵活性，以免日后出现意想

20 “《1994年协定》”系“《关于执行1982年12月10日〈联合国海洋法公约〉第十一部分的协定》”简称。

21 参见 General Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Government of Republic of Indonesia, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 4.

不到的特殊情况；另一方面则是海洋环保的诉求在例外情形下仍可以被有效顾及。虽然没有区域环境管理计划，但《公约》《1994 年协定》“探矿和勘探规章”以及将来制定的“开发规章”中都含有大量关于海洋环保的规定，因此法律和技术委员会、理事会在审查和核准工作计划的申请书时，仍然会将海洋环保作为重点审查对象，不会出现完全偏向资源开发利用的价值取向。

二、管理局在制订区域环境管理计划上的义务

管理局是否有制订区域环境管理计划的义务，主要探讨管理局制订区域环境管理计划到底是基于义务还是自主选择。荷兰认为管理局有义务制订区域环境管理计划。[22] 秘书处在其 2018 年提交的《国际海底区域内矿产资源开发规章草案与区域环境管理计划的关系》报告中指出，理事会决定制订区域环境管理计划的依据是《公约》所分配给理事会的权力和职能，鉴于《公约》中已经包含理事会制订区域环境管理计划的权力，理事会就没有必要再通过制订有关区域环境管理计划的规章来约束自己。[23] 就该报告的表述来看，秘书处似乎在强调，理事会制订区域环境管理计划已经有《公约》的充分授权。至于理事会是否负有制订区域环境管理计划的义务，秘书处似乎持否定立场，认为理事会没有必要再通过规章来约束自己。

通过对《公约》第 145 条和《1994 年协定》附件第一节第 5 条的分析可以发现，尽管管理局在海洋环保方面负有诸多义务，其中既包括采取各种必要措施的一般性要求，也包括针对一些活动需要制定适当的规则、规章和程序，[24] 但并未具体要求管理局采取哪些措施或制定何种规则、规章和程序，只要求这些措施、规则、规章或程序能够切实保护海洋环境免受各种活动的不利影响即可。因此，《公约》和《1994 年协定》在规定管理局负有海洋环保义务的同时，也给管理局留有很大裁量空间去选择其认为最有效的方式履行环保义务。就区域环境管理计划而言，其只是当下管理局所认为的一种有效履行环保义务的方式，《公约》和《1994 年协定》中并未规定管理局负有制订区域环境管理计划的具体义务。

《公约》和《1994 年协定》没有规定管理局负有制订区域环境管理计划的义务，并不意味着管理局不能够给自己创设一项制订区域环境管理计划的义务。除

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22 参见 The environmental management plan in the regulatory framework for mineral exploitation in the Area: Explanatory note, submitted by the Netherlands, ISBA/20/C/13, para. 9.

23 参见 Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans, ISBA/25/C/4, paras. 4-8.

24 参见 Myron H. Nordquist, Satya Nandan, Shabtai Rosenne & Michael Lodge eds., *United Nations Convention on The Law of The Sea 1982, Volume VI*, Brill Nijhoff, 2003, paras. 145. 8(a), 145. 8(b).

了《公约》和《1994年协定》这两项纲领性文件，管理局所制定的规则、规章和程序同样具有法律拘束力，同样可以给管理局设定义务。因此，管理局可以通过制定规则、规章或程序，给自己设定制订区域环境管理计划的义务。当然，管理局可以给自己设定义务，并不等于必须给自己设定义务，关键在于是否有现实需要，即区域环境管理计划对于国际海底区域内的资源利用是否必不可少。而这主要即指区域环境管理计划与开发活动的关系。如果严格坚持区域环境管理计划是开发活动的前提，那么为了早日实现商业开发，有必要督促管理局尽快制订区域环境管理计划，为此给管理局设定一项制订区域环境管理计划的义务是可行的。反之，如果只是原则上坚持区域环境管理计划是开发活动的前提，同时允许例外情形，则不宜给管理局设定该义务，以免管理局在制订区域环境管理计划陷入僵局时，仍必须先履行制订义务，从而无法绕开计划制订的僵局而直接批准开发活动。

本文倾向于“无区域环境管理计划，无开发活动”存在例外情形，不宜给管理局设定制订区域环境管理计划的义务。当然，如果执意给管理局施加制订区域环境管理计划的义务，也只能给管理局施加一项行为义务，而绝不能是结果义务。作为一项行为义务，管理局只要证明自己已尽力，即便最终未制订出区域环境管理计划，也已履行了义务。在此情况下，管理局仍可以绕开制订区域环境管理计划的僵局而直接批准开发活动。

三、区域环境管理计划的法律拘束力问题

区域环境管理计划是否有法律拘束力，主要探讨其能否给国际海底区域内的行为者施加义务。需要指出的是，区域环境管理计划是否有法律拘束力，取决于管理局采用何种形式制订区域环境管理计划。管理局是否负有制订区域环境管理计划的义务，无关区域环境管理计划是否具有法律拘束力的问题。

（一）关于区域环境管理计划是否有法律拘束力的争议

关于区域环境管理计划是否具有法律拘束力，在法律和技术委员会2019年修订的“开发规章草案”中已有明确立场。其中，第2条“基本政策和原则”中明确规定保护海洋环境要“符合包括区域环境管理计划在内的管理局环境政策”。第47条“环境影响报告”明确要求，环境影响报告“应符合相关区域环境管理计划的目标和措施”。第48条“环境管理和监测计划”规定，环境管理和监测计划“应符合相关区域环境管理计划”。附件八“关闭计划”规定，关闭计划的编制和实施“应遵守相关的区域环境管理计划”。总之，“开发规章草案”已将区域环境管理计划视为一项必须遵守的义务，但同时也将其归类为“环境政策”。

在讨论“开发规章草案”的过程中，关于区域环境管理计划本身是否具有法律拘束力的问题，各方争议较大。例如，荷兰、德国、印度尼西亚和深海保护联盟均认为区域环境管理计划的规定应具有法律拘束力，给承包者施加了义务。[25] 秘书处则认为这些区域环境管理计划本身并不是法律文件（legal instruments），而是环境政策文件（instruments of environmental policy）。这些规定不取代《公约》规定的具体法律权利和义务，也不取代管理局的规则、规章和程序。相反，鉴于需要对国际海底区域内活动的发展采取预防性办法，这些规定澄清了理事会打算如何适用这些规则、规章和程序。秘书处还认为，就“克拉里昂 - 克利珀顿区环境管理计划”而言，给包括秘书处、承包者、担保国和研究人员在内的诸多行为体，规定了他们应实施的众多活动，这些建议不是以有拘束力的法律义务形式来表达的。[26] 日本与秘书处持相同立场，认为区域环境管理计划本身不是法律文件而是环境政策文件，这一点应在“开发规章”中阐明。[27] 新加坡也认为区域环境管理计划本身不具有法律拘束力。[28] 韩国表示目前将区域环境管理计划纳入有法律拘束力的文件是有挑战的。[29]

由此可见，关于区域环境管理计划是否具有法律拘束力，两派观点旗鼓相当。但值得注意的是，秘书处在分析该问题时提出了两个概念——“法律文件”和“环境政策文件”，其中“法律文件”具有法律拘束力，而“环境政策文件”不具有法律拘束力。本文认为，在《公约》第十一部分的语境下，不能简单地将“环境政策文件”

25 参见 The environmental management plan in the regulatory framework for mineral exploitation in the Area: Explanatory note, submitted by the Netherlands, ISBA/20/C/13; Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany; General Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Government of Republic of Indonesia, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019; DSCC Submission on March 22 Version of Draft ISA Exploitation Regulation, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019.

26 参见 Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans, ISBA/25/C/4, para. 4.

27 参见 Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Government of Japan, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 14.

28 参见 Summary of the Twenty-fifth Annual Session of the International Seabed Authority (First Part): 25 February – 1 March 2019, Earth Negotiations Bulletin, Vol. 25, No. 185, 4 March 2019, p. 5.

29 参见 Comments by Republic of Korea on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, para. 1.3.

等同于没有法律拘束力的文件。在《公约》第十一部分中有四个与“政策（policy）”相关的概念——关于“国际海底区域内活动的政策（policies relating to activities in the Area）”“生产政策（production policies）”“一般政策（general policies）”和“具体政策（specific policies）”。[30] 其中，第150条的标题是“关于国际海底区域内活动的政策”，但从其“国际海底区域内活动应以一种方式实施以便…(Activities in the Area shall … be carried out in such a manner as to…)”的表述中可知，该条规定的所谓“政策”，事实上都是国际海底区域内活动应当遵守的基本原则。[31] 第151条的标题虽然是“生产政策”，但是其所含的10款规定在调整所有行为者的生产活动时，均全部使用“应当（shall）”这一措辞，明显具有法律拘束力。同样，《1994年协定》附件第六节标题虽为“生产政策”，其所规定的内容多为管理局要遵守的关于“生产政策”的众多原则。[32] 第162条第1款规定，“理事会应有权制定管理局应遵守的具体政策”，从该表述可知“具体政策”同样具有法律拘束力。尽管第160条规定大会有权制定“一般政策”，但未明确规定“一般政策”是否具有法律拘束力。不过这一问题可以通过分析第162条的内容来解决。根据第162条的规定，理事会在制定“具体政策”时，应遵守《公约》和大会制定的“一般政策”。由此可见，“一般政策”居于“具体政策”的上位。此外，根据《1994年协定》附件第三节的规定，“一般政策”应由大会与理事会合作制定， “一般政策”的制定程序显然要比“具体政策”更严格。故在此情形下，既然《公约》赋予“具体政策”以法律拘束力，那么“一般政策”理应具有法律拘束力。

如上所述，《公约》第十一部分中“关于国际海底区域内活动的政策”“生产政策”“一般政策”和“具体政策”，均具有法律拘束力。由此便引发另一个问题：秘书处所认为的“环境政策文件”到底是属于四个概念中的哪一种，还是自成一类？关于这一问题，在理事会批准“克拉里昂 - 克利珀顿区环境管理计划”的决定中能够找到一定线索。理事会在叙述批准该管理计划的法律依据时，专门提及《公约》第162条，强调对于管理局权限范围以内的任何问题或事项，理事会有权制定管理局所应遵循的“具体政策”。[33] 值得注意是，该决定中并未提及第162条第2款（o）项中所规定的理事会临时制定并适用规则、规章和程序及其修正案的权力。

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30 参见《联合国海洋法公约》第150、151、160和162条，以及Section 3, para. 1 & Section 6 of the Annex of the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of10 December 1982.

31 参见Myron H. Nordquist, Satya Nandan, Shabtai Rosenne & Michael Lodge eds., *United Nations Convention on the Law of The Sea 1982, Volume VI*, Brill Nijhoff, 2003, para. 150.1.

32 参见Myron H. Nordquist, Satya Nandan, Shabtai Rosenne & Michael Lodge eds., *United Nations Convention on The Law of The Sea 1982, Voume VI*, Brill Nijhoff, 2003, para. 151.1.

33 参见Decision of the Council relating to an environmental management plan for the Clarion-Clipperton Zone, ISBA/18/C/22.

本文认为，理事会之所以未援引第 162 条第 2 款（o）项，是因为理事会不愿如此而非不能如此。根据第 162 条第 2 款（o）项的规定，理事会能够临时制定的规则、规章和程序及其修正案“应涉及（relate to）国际海底区域内的探矿、勘探和开发以及管理局的财务管理和内部行政”。很明显，理事会能够临时制定规则、规章和程序及其修正案的事项，只要与“国际海底区域内的探矿、勘探和开发以及管理局的财务管理和内部行政”存在关联即可。按照这一理解，理事会有权就国际海底区域内环境保护问题，临时制定规则、规章和程序及其修正案，因为环保问题必然与探矿、勘探和开发有所关联。这一解读也得到了理事会实践的支持，例如，理事会在“关于《国际海底区域内多金属结核探矿和勘探规章》修正案及有关事项的决定”中指出，经修正的规章自理事会通过之日起临时适用。[34] 很明显，理事会的这一决定的依据便是第 162 条第 2 款（o）项中临时制定规则、规章和程序及其修正案的权力。该规章虽是“探矿和勘探规章”，但其中含有许多关于海洋环保的规定，特别是该规章的第五部分专门规定了“保护和保全海洋环境”。由此可见，海洋环保已经成为国际海底区域内探矿、勘探和开发的必要组成部分，理事会当然可以就此临时制定规则、规章和程序及其修正案。因此，理事会在批准区域环境管理计划时，既可以依据其制定“具体政策”的权力，也可以依据其临时制定规则、规章和程序及其修正案的权力，理事会在决定中只提及了前者而未提及后者，表明了其对于“具体政策”的倾向。如前文所述，“具体政策”具有法律拘束力，所以在理事会看来，区域环境管理计划具有法律拘束力。然而，理事会为什么不将区域环境管理计划视为其临时制定的规则、规章和程序及其修正案？本文认为，主要原因在于二者适用范围的差异。一项区域环境管理计划只适用于国际海底区域内特定区域，即便区域环境管理计划具有法律拘束力，在适用范围上也应有明确限制，即每一项区域环境管理计划只对特定区域内的行为者有拘束力，不能像《公约》《1994 年协定》以及管理局规则、规章和程序那样，对整个国际海底区域内的行为者具有普遍拘束力。

无论支持还是反对区域环境管理计划具有法律拘束力，都有其合理担忧。在支持者看来，如果区域环境管理计划不具有拘束力，则很难要求承包者遵守区域环境管理计划，难以实现区域环境管理计划的目标。反对者则担心，一旦赋予区域环境管理计划法律拘束力，可能会对承包者施加新的义务；且区域环境管理计划目标的实现未必需要赋予其法律拘束力，完全可以在“开发规章”中要求根据区域环境管理计划中的目标对承包者的环境管理和监测计划进行评估。如果承包者的环境管理和监测计划无法对这些目标作出充分贡献，则需要加以修订，或以不充

34 参见 Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters, ISBA/19/C/17, para. 2.

分为由予以拒绝。[35]

（二）区域环境管理计划法律约束力的实践功能

区域环境管理计划是否需要被赋予法律拘束力的关键，在于区域环境管理计划是否给国际海底区域内的行为者增加了新任务。如果确实给行为者增加了新任务，为了避免新任务未被完成而导致区域环境管理计划的效果大打折扣，就有必要赋予区域环境管理计划以法律拘束力。反之，如果未给行为者增加新任务，则没有必要赋予法律拘束力。纵观区域环境管理计划，“特别环境利益区（areas of particular environmental interest）”是其最大创新和核心要素，最能集中体现保护国际海底区域内海洋环境的诉求。根据法律和技术委员会的观点，特别环境利益区内禁止采矿活动。[36]在《理事会有关克拉里昂-克利珀顿区环境管理计划的决定》中，理事会指出，从本决定通过之日（即2012年7月26日）起的五年期间内，或在法律和技术委员会或理事会进行进一步审查前，不再批准请求核准在附件所述有特别环境利益区进行勘探或开采的工作计划申请书。由于在特别环境利益区内禁止采矿活动，根据这一要求，无论是申请者提出申请书，还是管理局审查申请书，特别环境利益区都是不能触及的红线。因此，特别环境利益区就是区域环境管理计划给国际海底区内行为者增加的一项重要任务。要想所有行为者不打折扣的完成该任务，比较恰当的做法就是赋予区域环境管理计划以法律拘束力。反之，若是不给区域环境管理计划施加法律拘束力，则可能为今后突破特别环境利益区进行采矿活动留下隐患。正因如此，皮尤慈善信托基金会所资助的“规章项目”的第五份报告就明确指出，尽管通过区域环境管理计划将特别环境利益区认定为非采矿区，但仍不是强制性的，除非在“开发规章草案”中明确禁止特别环境利益区内的采矿活动。[37]

综上所述，尽管对于区域环境管理计划到底是“环境政策”还是“管理局的规则、规章或程序”尚无定论，但无论最终采用何种形式，区域环境管理计划都应具有法律拘束力，且每一项区域环境管理计划只对其覆盖的特定区域内的行为者具有拘束力。

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35 参见 Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans, ISBA/25/C/4, para. 7.

36 参见 Environmental Management Plan for the Clarion-Clipperton Zone, ISBA/17/LTC/7, para. 39.

37 参见 Fifth Report of the Code Project, Part Two: Annotations & Commentary on ISA Draft Exploitation Regulations of March 2019 (ISBA/25/C/WP.1), in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 13.

四、结论

通过上文关于区域环境管理计划法律地位的分析，可以得出以下几点结论：首先，“无区域环境管理计划，无开发活动”可以作为一般原则，但不应绝对化，而应允许例外情形的存在，以便能够在资源开发利用与海洋环境保护之间取得平衡，而不是完全偏向于海洋环境保护的价值取向；其次，不宜给管理局设定制订区域环境管理计划的义务，如果执意给管理局施加制订区域环境管理计划的义务，那么只能是一项行为义务而非结果义务；最后，无论区域环境管理计划采用何种形式，都应具有法律拘束力，且每一项区域环境管理计划只对其覆盖的特定区域内的行为者具有拘束力。

The Legal Status of Regional Environmental Management Plans in the International Seabed Area

DONG Shijie*

Abstract: Regional environmental management plans (hereinafter "REMPs") are taken by the International Seabed Authority (hereinafter "the Authority") as measures to protect marine environment from harmful effects which may arise from activities in the international Seabed Area. It is important for REMPs to keep balance between protection of marine environment and utilization of resources. As a general principle, "no REMPs, no exploitation" should be observed. Meanwhile, exceptions should be allowed to this principle for maintaining flexibility. It is not appropriate to impose an obligation on the Authority to establish REMPs. Even if the Authority is imposed an obligation to establish REMPs, this obligation can only be obligation of conduct rather than obligation of result. In addition, REMPs should be legal binding, and each REMP should only be legal binding on all participants of the specific region.

Key Words: The International Seabed Area; Regional Environmental Management Plans; Legal status

As provided in Article 145 of the United Nations Convention on the Law of the Sea (UNCLOS), it is important to take necessary measures with respect to activities in the International Seabed Area (hereinafter "the Area"), in order to effectively protect the marine environment from the harmful effects that may arise

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from such activities. The Area covers a large area and, similar to the terrestrial environment, the marine environment varies greatly by regions within the Area. Despite the similarity of their expressions in Chinese (the Area and region correspond to " 区域 " and 区域 in Chinese respectively), the former embraces the latter. The Area can be divided into several regions based on a number of scientific standards concerning ecology, biodiversity, ecosystem structure and function. Effective protection of the marine environment in the Area requires locally tailored protection measures depending on the specific conditions of each area, of which the regional environmental management plan falls into this category. This kind of plan, as a regional environmental protection measure, not only remedies the deficiency that the environmental protection measures of the Area are too principled, generalized and lack of pertinence, but also resolves the defect of missing the forest for the trees in terms of the environmental protection measures targeted at specific contract regions. In each of the regional environmental management plans, environmental protection measures of the Area will be implemented by taking into account the specific conditions of the marine environment in the region, with guidance on environmental protection measures for the contract regions within the Area. Thus, it can be seen that the regional environmental management plan serves as an environmental protection measure in the middle to link up all the processes.

Given that the Area may house a number of regions, each with a regional environmental management plan, it follows that several regional environmental management plans (hereinafter "REMPs") will emerge within the international seabed area. A REMP refers to a comprehensive environmental management plan at the regional level that offers systematic and comprehensive arrangements for the protection of the marine environment in a specific region. It supports informed decision-making that balances resource exploitation with conservation by providing a proactive area-based management tool for relevant organs of the International Seabed Authority (hereinafter "the Authority"), as well as contractors and their sponsoring States.[1]Apparently, it is important for REMPs to strike a balance between the protection of marine environment and the exploitation and utilization of resources, failing which it will either be detrimental to marine environmental protection or impede resource exploitation and utilization.

The Authority maintains a strong ambition regarding the development of

1 See Preliminary strategy for the development of regional environmental management plans for the Area, Report of the Secretary-General, ISBA/24/C/3, paras. 2, 5.

REMPs for other parts of the Area, notwithstanding the fact that there is only the Environmental Management Plan for the Clarion-Clipperton Zone currently available in the Area. As per the *Preliminary strategy for the development of regional environmental management plans for the Area* submitted by the Secretary-General in 2018, the priority regions for development of REMPs in the Area have been identified on a preliminary basis as the Mid-Atlantic Ridge, the Indian Ocean triple junction and nodule-bearing province, as well as the North-west Pacific and South Atlantic for seamounts.[2]Similarly, the REMPs also constitute an issue of concern in Exploitation Regulations currently under discussion. REMPs, albeit a hot topic in the Area, are still fraught with uncertainty, both in terms of the concept, elements and legal status, and their development, implementation and review. With a focus on analyzing the legal status of REMPs, this paper discusses the relationship between REMPs and the exploitation activities, whether the Authority has the obligation to develop REMPs, and whether REMPs are legally binding force. This issue goes to the heart of REMPs, which involves not only the relationship between REMPs and exploitation activities, but also that between REMPs and participants in the activities in the Area.

I. Relationship between Regional Environmental Management Plans and Exploitation Activities

Currently, only exploration activities are carried out in the Area, but with advances in deep-sea mining technology, it is no longer a distant prospect for carrying out exploitation activities in the Area. Only in the exploitation phase can commercial production be carried out to generate revenue. The Exploitation Regulations being developed by the Authority are precisely a response to this trend. Exploitation activities will pose a greater risk of damage to the marine environment than exploration activities, making it necessary to take a number of effective environmental protection measures, including REMPs. Over the course of negotiations on the Exploitation Regulations, the relationship between REMPs and exploitation activities has been a major concern of all parties involved, with disputes centering on whether REMPs are required as a prerequisite for exploitation activities. The key to solving this issue lies in how to find a balance between the

2 See Preliminary strategy for the development of regional environmental management plans for the Area, Report of the Secretary-General, ISBA/24/C/3, para. 12.

exploitation and utilization of resources and the protection of marine environment in the Area.

A. Provisions of the Draft Exploitation Regulations on the Relationship between REMPs and Exploitation Activities

No explicit reference is made to the relationship between REMPs and exploitation activities in the revised Draft Exploitation Regulations published by the Legal and Technical Commission in 2019, but its relevant provisions have implied to some extent such relationship. It has been provided for in Regulation 7, paragraph 3, of the Draft Exploitation Regulations that each application for approval of a plan of work shall be accompanied by relevant documents, including "An Environmental Impact Statement prepared in accordance with Regulation 47 and in the format prescribed by annex IV to these Regulations," "An Environmental Management and Monitoring Plan prepared in accordance with regulation 48 and annex VII to these Regulations," and "A Closure Plan prepared in accordance with regulation 59 and annex VIII to these Regulations."[3] In this regard, the application for approval of a plan of work must cover an environmental impact statement, an environmental management and monitoring plan, and a closure plan, all of which, by analysis of other provisions of the Draft Exploitation Regulations, are subject to the existence of REMPs. For example, in accordance with Regulation 47, paragraph 3, of the Draft Exploitation Regulations, the environmental impact statement shall be in the format prescribed by the Authority in annex IV to these Regulations and "shall be in accordance with the objectives and measures of the relevant REMP", i.e., provided that the relevant REMP exists prior to the environmental impact statement .Pursuant to Regulation 48, paragraph 3, of the Draft Exploitation Regulations, the environmental management and monitoring plan shall cover the main aspects prescribed by the Authority in annex VII to these Regulations and "shall be in accordance with the relevant REMP", i.e., the relevant REMP shall precede the environmental management and monitoring plan. As provided in Annex VIII Closure Plan of the Draft Exploitation Regulations, the closure plan shall be prepared and implemented "in accordance with the relevant REMP", i.e., the REMP shall precede the closure plan.

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3 See Draft regulations on exploitation of mineral resources in the Area, Prepared by the Legal and Technical Commission, ISBA/25/C/WP.1, Regulation 7.

As mentioned above, an application must be submitted by the applicant who wishes to carry out exploitation activities in accordance with the relevant provisions of the Draft Exploitation Regulations. The preparation of the environmental impact statement, the environmental management and monitoring plan and the closure plan, which are necessary components of the application, must be in accordance with the relevant REMPs. It implies that the relevant REMPs should exist prior to the environmental impact statement, the environmental management and monitoring plan and the closure plan, as well as prior to the application. Therefore, in the case of specific regions within the Area, an applicant cannot prepare a complete application and naturally cannot proceed with exploitation activities until a REMP has been prepared, in accordance with the Draft Exploitation Regulations.

In its *Guidance to facilitate the development of Regional Environmental Management Plans* prepared in 2019, the Secretariat noted that, in general, there are more possibilities for identifying the least conflicting outcomes when all regions within the REMP area can be considered simultaneously. Early, a closer look at both areas of high mineral value and of high conservation value can increase the probability of identifying spatial configurations that support win-win outcomes. In case of out of consideration in the initial stage, the possibilities for finding spatial solutions that optimize both mineral value and conservation value may be limited. Best practices in systematic conservation planning and multi-sector marine spatial planning suggest that conducting REMP analysis prior to any region allocations would provide the optimal options for spatial consideration and lower the likelihood for conflicts at later stages of the process. [4] In the above-mentioned document, the Secretariat identified an ideal solution that optimizes mineral and conservation values, namely the development of REMPs prior to any region allocation. In accordance with Article 3, paragraph 4(b), of Annex III to UNCLOS, contractors are conferred with exclusive rights to specific categories of resources in a particular area, both in the exploration and exploitation stages, which all involve the issue of region allocation. Therefore, the "prior to any region allocation" emphasized by the Secretariat appears to require the existence of REMPs prior to exploration and exploitation activities, not just the existence of REMPs prior to exploitation activities. However, such an optimal solution of the Secretariat can

4 See International Seabed Authority Secretariat, *Guidance to facilitate the development of Regional Environmental Management Plans*, ISA website (Nov. 2019), https://www.isa.org.jm/files/files/documents/remp_guidance_.pdf, p. 22.

only be achieved in an ideal situation where the specific regions for which the REMPs are to be developed is a "blank sheet of paper" and the Authority already has sufficient scientific information to design the spatial layout of the specific regions and develop the REMPs before implementing exploration or exploitation activities, based on the position of balancing exploitation and conservation.

The collection of the primary marine scientific data in the Area, on which the REMPs are based, is a costly exercise. Considering the Authority's limited budget, of which its budget for the REMP for 2019-2020 is only $670,000,[5] the contractor naturally becomes the main provider of these data. The Authority is more of a processor of primary data than a contractor, which organizes workshops to collate and analyze the primary data, and then develops a REMP in line with the actual situation and organizes its implementation. In other words, the Authority would not be able to fully grasp the relevant scientific information for a given region without the involvement of contractors. Currently, the most effective way to get contractors to actively engage in data collection is to impose on contractors an obligation to conduct an environmental baseline study in the contract region through exploration contracts, making it infeasible in practice to develop a REMP prior to any region allocation. As a result, the optimal solution of the Secretariat must be compromised with reality. Such compromise is in fact reflected in the Environmental Management Plan for the Clarion-Clipperton Zone, where a certain number of contracts on exploration for polymetallic nodules existed in the Clarion-Clipperton Zone both before and after the development of the REMP. Exploration activities that precede the REMP provide a great deal of scientific information for the development of such plan, while exploration activities that occur after the REMP must conform to the contents of such plan at the time of application. The Council, in its Decision, urged all contractors to comply with their reporting requirements and to make their environmental data readily and publicly available, noting that the Authority needs all contractors to collect samples consistently and to fully report environmental data to support the development of REMPs.[6] It can

5 See Decision of the Assembly of the International Seabed Authority relating to the budget of the Authority for the financial period 2019–2020, ISBA/24/A/11, para. 1; Proposed budget for the International Seabed Authority for the financial period 2019–2020, ISBA/24/A/5-ISBA/24/C/11, paras. 57-60; Proposed budget for the International Seabed Authority for the financial period 2019–2020, Corrigendum: Annexes I and II, ISBA/24/A/5/Corr. 1-ISBA/24/C/11/Corr. 1, p. 4.

6 See Decision to the Council of the International Seabed Authority relating to the report of the Chair of the Legal and Technical Commission, ISBA/23/C/18, para. 13.

be concluded that at a practical level, a REMP can hardly precede all exploration activities in a given region, while it can precede all exploitation activities in a given region.

B. Main Positions on the Relationship between REMPs and Exploitation Activities

In spite of the relevant provisions of the latest Draft Exploitation Regulations prepared by the Legal and Technical Commission, which imply that REMPs are required as a prerequisite for exploitation activities, the parties involved have not yet reached an agreement on the issue, and there are at least two different positions.

1. Strictly Observing "no REMPs, no exploitation"

Many countries have explicitly stated "no REMPs, no exploitation". The Netherlands has noted as early as 2014 that the Authority was obliged to develop a REMP as a requirement for granting contracts for exploitation in designated blocks.[7] Australia remains the view that REMPs must be in place prior to an exploitation permit being granted.[8] Micronesia believes that REMPs must be adopted prior to the issuance of a plan of work for the relevant region of the Area. Micronesia supports and encourages such a requirement.[9] New Zealand proposes to add "The areas under application must be covered by a relevant REMP" to Regulation 8 "Area covered by an application" of the Draft Exploitation Regulations, stating that mining shall not occur in a particular region until there is a REMP in place.[10]

Some international organizations have also expressed the position of "no

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7 See The environmental management plan in the regulatory framework for mineral exploitation in the Area: Explanatory note, submitted by the Netherlands, ISBA/20/C/13, para. 12.

8 See Submission from Australia on Draft Regulations on Exploitation of Mineral Resources in the Area October 2019, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 1.

9 See Comments on the Draft Regulations of the International Seabed Authority on the Exploitation of Mineral Resources in the Area, submitted by the Government of the Federated States of Micronesia, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 1.

10 See New Zealand's Submission on the Draft Regulations on Exploitation of Mineral Resources in the Area, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 2.

REMPs, no exploitation". IUCN (International Union for Conservation of Nature) suggests there is a need for a separate article on REMPs as a precondition to consideration of a plan of work.[11] The Deep-Ocean Stewardship Initiative (DOSI) argues that the Exploitation Regulations should specify that a plan of work can only be submitted if a REMP is in place, rather than just implied in Regulations 47 and 48 of the Draft Exploitation Regulations.[12] The Deep Sea Conservation Coalition (DSCC) considers that REMPs need to be incorporated in the Exploitation Regulations and made mandatory as a prerequisite for approving Plans of Work, otherwise no progress can be made on the issue of contracts or exploration licenses.[13] DSCC even questions whether exploration contracts should be granted in areas where a REMP has not been adopted.[14] However, as analyzed above, the requirement for REMPs to precede all exploration activities in a particular region is not feasible at the practical level.

In addition, the Fifth Report of the Code Project funded by Pew Charitable Trusts also discusses "no REMPs, no exploitation" in detail. The report states that no mining should occur in any region without a REMP, a view that is almost explicitly expressed by the implication of Regulation 47, paragraph 3(c) and Regulation 48, paragraph 3(b), of the Draft Exploitation Regulations. The report argues that any ambiguity should be removed and that an additional provision should be added to the Draft Exploitation Regulations to specify that a review of a plan of work by the Legal and Technical Commission will assess the applicant's plans for environmental protections to verify consistency with the pertinent

11 See IUCN Comments on the 2019 ISA Draft Regulations on exploitation of mineral resources in the Area ISBA/25/C/WP.1 (22 March 2019), in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019.

12 See Commentary on "Draft Regulations on Exploitation of Mineral Resources in the Area", issued on 25 March 2019 by the ISA (ISBA/25/C/WP.1), submitted by Deep-Ocean Stewardship Initiative, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019.

13 See DSCC Submission on March 22 Version of Draft ISA Exploitation Regulations, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 3, 10.

14 See Summary of the Twenty-fifth Annual Session of the International Seabed Authority (First Part): 25 February – 1 March 2019, Earth Negotiations Bulletin, Vol. 25, No. 185, 4 March 2019, p. 5.

REMP.[15] The report also recommends that the following be added to Regulation 13 of the Draft Exploitation Regulations: "the Commission cannot conduct its review of an application unless and until there is a REMP adopted for the relevant region; the Commission should consider the extent to which the proposed plan of work complies with or otherwise takes into account the relevant REMP, in assessing an application; the Commission should not recommend approval of any application deemed to be non-conforming with the relevant REMP (for example, by proposing exploration or exploitation activities within a Area of Particular Environmental Interest)."[16]

2. Allowing for Exceptions to "no REMPs, no exploitation"

In comparison to the above-mentioned parties' strict adherence to the position of "no REMPs, no exploitation", Germany's position is more flexible. Germany believes that, in principle, no exploitation should be prior to existing REMPs, and that the decision to establish a REMP is a necessary measure to ensure the effective protection of the marine environment from harmful effects that may arise from activities in the Area. At the same time, a situation should be avoided whereby the granting of exploitation licenses could be prevented simply by blocking the further development and adoption of the respective REMP.[17] Based on this position, Germany has proposed specific suggestions for amending the relevant provisions in the Draft Exploitation Regulations.

Among them, in paragraph (e) of Regulation 2 "Fundamental policies and principles", it is recommended to add "Ensure that Regional Environmental Management Plans are adopted by the Authority before exploitation activities are permitted in the respective areas, while preventing any misuse of Regional

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15 See Fifth Report of the Code Project, Part One: Small Papers on Big Issues, Brief Descriptions and Commentaries on Six Leading Issues Raised by the Most Recent Draft Exploitation Regulations of the International Seabed Authority, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 2.

16 See Fifth Report of the Code Project, Part Two: Annotations & Commentary on ISA Draft Exploitation Regulations of March 2019 (ISBA/25/C/WP.1), in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 12.

17 See Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 4.

Environmental Management Plans to block Plans of Work." This implies that Germany adheres to "no REMPs, no exploitation" in principle, but at the same time leaves some leeway. Germany's addition to Regulation 15, paragraphs 2 and 3 is a specific interpretation of the basic position of "no REMPs, no exploitation", as well as the emphasis on the constraints of REMPs on exploitation activities.[18]

Most notably, Germany's proposed amendment to Regulation 44 "General obligations" of the Draft Exploitation Regulations provides for exceptions to the basic principle of "no REMPs, no exploitation", i.e., "An application for a plan of work shall not be considered by the Commission until and unless a Regional Environmental Management Plan has been adopted by the Council for the particular area concerned. In the event that an application for a plan of work is submitted for an area where no such Regional Environmental Management Plan exists, the drafting of a Regional Environmental Management Plan applicable to the area in concern shall be prioritized and adopted without any undue delay, taking into account Section 2 (which upon review by the author should be "Section 1"), Article 15 b/c of the 1994 Agreement."[19]

As can be seen from Germany's reference to Section 1, Article 15 b/c of the Annex to the 1994 Agreement[20] that Germany regards REMPs as rules, regulations or procedures of the Authority. Among them, paragraph b sets a time frame for the development of a REMP in order to facilitate the development of such a plan. Paragraph c, for its part, provides that where a REMP cannot be developed within a time limit and an application for an exploitation work plan pending approval, the Council may bypass the REMP, and deliberate and provisionally approve the plan of work directly in accordance with the provisions of UNCLOS and any rules, regulations and procedures that the Council may have temporarily established, or in accordance with the guidelines contained in UNCLOS and the provisions and principles contained in the present annex as well as the principle of non-discrimination against contractors. It is worth noting, however, that the handling

18 See Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 8, 13, 14.

19 See Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 17, 18.

20 Short for Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

given by Germany in response to the exceptions provided is rather subtle. In the case of applications for plans of work for regions without REMPs, Germany continues to advocate drafting REMPs as soon as possible, the so-called "taking into account Article 15 b/c" seems to be a restriction on "drafting REMPs as soon as possible". Yet as noted above, Article 15c has nothing to do with the drafting REMPs as soon as possible, making reference to this provision not at all necessary if Germany is still bent on developing a REMP as soon as possible, unless Germany also wishes to imply that exploitation work plan can be approved, if necessary, in regions where there is no REMP. Unfortunately, Germany did not take such a bold step, explicitly stating Article 15c as the basis for exceptionally bypassing the REMPs to approve exploitation activities. Indonesia shares and supports Germany's view that the existence of a fully developed REMP and mining test is the prerequisite for granting the exploitation licenses by the Authority.[21] It is worth noting that Indonesia seems to have accepted only the basic principle of "no REMPs, no exploitation" emphasized in Germany's view, without mentioning the exceptions implied by Germany.

Germany presents a clear logic in its view, i.e., "no REMPs, no exploitation" can be used as a general principle, but should not be absolute—exceptions should be allowed. Apparently, Germany hopes to maintain a balance between the exploitation and utilization of resources and the protection of marine environment, rather than completely favoring the value of marine environmental protection.

3. Comment on the Existing Positions

As things stand now, there is a trend to make REMPs as a prerequisite for exploitation activities, and there seems to be no doubt on "no REMPs, no exploitation" being a general principle. The focus of the debate has shifted to whether or not to set exceptions, and the key is whether the commercial exploitation of resources in the Area is imminent. Exceptions may be considered if there is an imminent need to prevent intentional delays in the development of REMPs. On the other hand, if commercial exploitation is not yet in sight, it may be possible to wait for the development of a REMP. Needless to say, it is necessary to set up exceptions at all times from the legal-technical point of view of preparedness. First, it is necessary to maintain flexibility for the sake of long-term consideration in order to

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21 See General Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Government of Republic of Indonesia, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 4.

avoid unexpected exceptional circumstances in the future. Second, it can allow the claims of marine environmental protection to be effectively accommodated even in exceptional circumstances. Since UNCLOS, the 1994 Agreement, the Regulations on Prospecting and Exploration and the future Exploration Regulations all contain extensive provisions on marine environmental protection, regardless of the absence of REMPs, the Legal and Technical Commission and the Council will still focus on marine environmental protection when reviewing and approving applications for plans of work, leaving no value bias in favor of resource exploitation.

II. Obligations of the Authority in the Development of REMPs

Whether the Authority has the obligation to develop a REMP is largely a matter of whether the Authority's development of a REMP is based on obligations or independent choice. The Netherlands believes that the Authority has an obligation to develop a REMP.[22] In its 2018 report on the *Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans*, the Secretariat noted out that the basis for the Council's decision to establish REMPs stems from the powers and functions allocated to the Council under UNCLOS. But the Council does not need to have a regulation in place to bind itself in making such a decision, given that its powers to establish a REMP are already embedded in UNCLOS.[23] Insofar as it is stated in the report, the Secretariat appears to be emphasizing that the Council already has a full mandate under UNCLOS to develop a REMP, and it appears to take a negative position on whether the Council has an obligation to develop a REMP, arguing that there is no need for the Council to bind itself through regulation.

Based on the analysis of Article 145 of UNCLOS and Section 1, Article 5 of the Annex to the 1994 Agreement, the Authority bears a number of obligations concerning marine environmental protection, including the general requirements for taking all necessary measures, as well as the need to establish appropriate rules,

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22 See The environmental management plan in the regulatory framework for mineral exploitation in the Area: Explanatory note, submitted by the Netherlands, ISBA/20/C/13, para. 9.

23 See Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans, ISBA/25/C/4, paras. 4-8.

regulations and procedures for certain activities,[24] however, there is no specific requirement as to what measures or rules, regulations and procedures the Authority is required to take or establish, but only a requirement that the measures, rules, regulations or procedures be effective in protecting the marine environment from the adverse effects of various activities. In this regard, UNCLOS and the 1994 Agreement impose obligations on the Authority to protect marine environment, while leaving a great deal of discretion to the Authority to choose what it considers to be the most effective way to meet its environmental protection obligations. The REMP is only one way of effectively fulfilling the Authority's environmental protection obligations as currently perceived, and UNCLOS and the 1994 Agreement impose no specific obligation on the Authority to develop a REMP.

However, despite the absence of an obligation on the Authority to develop a REMP under UNCLOS and the 1994 Agreement, it does not mean that the Authority cannot create such an obligation for itself. In addition to the two fundamental documents—UNCLOS and the 1994 Agreement, the rules, regulations and procedures established by the Authority are also legally binding and may also impose obligations on the Authority. It is thus possible for the Authority to set itself an obligation to develop a REMP through the adoption of rules, regulations or procedures. Certainly, inasmuch as the Authority may create obligations for itself, it does not follow that it must create obligations for itself. The key lies in whether there is a practical need, i.e., whether the REMP is essential for the use of resources in the Area, mainly in terms of the relationship between REMP and exploitation activities. Provided that a REMP is strictly adhered to as a prerequisite for exploitation activities, it is necessary to urge the Authority to develop a REMP at an early date in order to achieve commercial exploitation soon. It is, therefore, feasible to set an obligation for the Authority to develop a REMP. Conversely, in case that insisting the REMP only in principle is the prerequisite for exploitation activities, while allowing exceptions, it is not appropriate to set the obligation for the Authority to develop a REMP, lest the Authority still has to fulfill its obligation to develop a REMP when it is in a stalemate in the development of such plan, and thus unable to approve exploitation activities directly bypassing the stalemate of developing a REMP.

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24 See Myron H. Nordquist, Satya Nandan, Shabtai Rosenne & Michael Lodge eds., *United Nations Convention on The Law of The Sea 1982, Volume VI*, Brill Nijhoff, 2003, paras. 145. 8(a), 145. 8(b).

This paper favors the view that there are exceptions to "no REMPs, no exploitation", and that it is not appropriate to impose an obligation on the Authority to develop a REMP. If an obligation to develop a REMP is insisted upon, only an obligation of conduct can be imposed on the Authority, by no means an obligation of result. Regarding an obligation of conduct, the Authority is deemed as has fulfilled its obligations as long as it proves that it has exhausted its efforts, even if it has not finally developed a REMP. In this case, the Authority can still directly approve exploitation activities, bypassing the stalemate of developing a REMP.

III. Issue of the Legal Binding Force of REMPs

Whether a REMP is legally binding is largely a matter of whether it can impose obligations on the participants in the Area. It should be noted that whether a REMP has legal binding force depends on the form in which the REMP is developed by the Authority. The issue whether the REMP is legally binding is not relevant to the Authority's obligation to develop the REMP.

A. Dispute on Whether the REMP Is Legally Binding

The Draft Exploitation Regulations revised by the Legal and Technical Commission in 2019 has presented a clear position on whether the REMP is legally binding. Among its provisions, Regulation 2 "Fundamental policies and principles" clearly provide that the protection for the marine environment should be "in accordance with the Authority's environmental policies, including regional environmental management plans". Regulation 47 "Environmental Impact Statement" clearly requires that the environmental impact statement shall be "in accordance with the objectives and measures of the relevant regional environmental management plan". Regulation 48 "Environmental Management and Monitoring Plan" stipulates that the environmental management and monitoring plan shall be "in accordance with the relevant regional environmental management plan". Annex VIII "Closure Plan" specifies that the closure plan shall be prepared and implemented "in accordance with the relevant regional environmental management plan". In summary, the Draft Exploitation Regulations have regarded the REMP as an obligation that must be complied with, and also classified it as an "environmental policy".

During the discussion of the Draft Exploitation Regulations, there is

considerable debate as to whether the REMP itself is legally binding. For example, the Netherlands, Germany, Indonesia and the DSCC argued that the provisions of the REMP should be legally binding and imposed obligations on contractors.[25] The Secretariat holds the opinion that these REMPs are instruments of environmental policy, instead of legal instruments. They do not supersede specific legal rights and obligations under UNCLOS, nor do they replace the rules, regulations and procedures of the Authority. Rather, they clarify how the Council intends to apply those rules, regulations and procedures, given the need for a precautionary approach to the development of activities in the Area. The Secretariat also considers that for example, the Environmental Management Plan for the Clarion-Clipperton Zone spells out the various activities that should be undertaken by various actors, including the secretariat, contractors, sponsoring States and scientific researchers. Such recommendations are not expressed in the form of binding legal obligations.[26] Japan shares the Secretariat's position that REMPs are not legal instruments per se, but instruments of environmental policy, which should be clearly stated in the Exploitation Regulations.[27] Singapore also argues that REMPs are not legally binding.[28] South Korea indicates that it is challenging to incorporate REMPs into legally binding documents currently.[29]

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25 See The environmental management plan in the regulatory framework for mineral exploitation in the Area: Explanatory note, submitted by the Netherlands, ISBA/20/C/13; Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Federal Republic of Germany, General Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Government of Republic of Indonesia, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019; DSCC Submission on March 22 Version of Draft ISA Exploitation Regulation, in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019.

26 See Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans, ISBA/25/C/4, para. 4.

27 See Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), submitted by the Government of Japan, in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 14.

28 See Summary of the Twenty-fifth Annual Session of the International Seabed Authority (First Part): 25 February – 1 March 2019, Earth Negotiations Bulletin, Vol. 25, No. 185, 4 March 2019, p. 5.

29 See Comments by Republic of Korea on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1), in Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, para. 1. 3.

It can be seen from the above analysis that the views of the two schools are neck and neck on whether a REMP is legally binding. It is worth noting, however, that the Secretariat has analyzed the issue by introducing two concepts: "legal instruments" and "instruments of environmental policy", where the former is legally binding and the latter are not. This paper holds that "instruments of environmental policy" cannot be simply equated with documents that are not legally binding in the context of Part XI of UNCLOS, where there are four concepts related to "policy": "policies relating to activities in the Area", "production policies", "general policies" and "specific policies".[30] Among them, Article 150 is entitled "Policies relating to activities in the Area", however, it can be seen from its statement that "Activities in the Area shall...be carried out in such a manner as to..." that the so-called "policy" set forth in this article is in fact the basic principle that activities in the Area should abide by.[31] Despite being titled "Production policies", Article 151 contains 10 paragraphs that all use the word "shall" to regulate the production activities of all actors, which is clearly legally binding. Similarly, Section 6 of the annex to the 1994 Agreement, albeit entitled "Production policy", provides for numerous principles of the "Production policy" to which the Authority is subject.[32] It is provided for in Article 162, paragraph 1 that "The Council shall have the power to establish the specific policies to be pursued by the Authority", which suggests that "specific policies" are also legally binding. Notwithstanding the power of the Assembly to establish "general policies" under Article 160, it is not clear whether "general policies" are legally binding. However, this issue can be resolved by analyzing the contents of Article 162, which provides for that the Council, in establishing "specific policies", shall be subject to UNCLOS and the "general policies" established by the Assembly. It follows that "general policies" take precedence over "specific policies". Additionally, "general policies" shall be established by the Assembly in cooperation with the Council under Section 3 of the annex to the 1994 Agreement, indicating that the establishment procedure of

30 See Art. 150, 151, 160, 162 of the United Nations Convention on the Law of the Sea; Section 3, para. 1 & Section 6 of the Annex of the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

31 See Myron H. Nordquist, Satya Nandan, Shabtai Rosenne & Michael Lodge eds., *United Nations Convention on The Law of The Sea 1982, Volume VI*, Brill Nijhoff, 2003, para. 150. 1.

32 See Myron H. Nordquist, Satya Nandan, Shabtai Rosenne & Michael Lodge eds., *United Nations Convention on The Law of The Sea 1982, Volume VI*, Brill Nijhoff, 2003, para. 151. 1.

"general policies" is more stringent than that for "specific policies". In this context, the "general policies" should be legally binding, in view of the fact that UNCLOS confers legal binding force on "specific policies".

As noted above, "policies relating to activities in the Area", "production policies", "general policies" and "specific policies" set forth in Part XI of UNCLOS are all legally binding. As a result, an issue arises regarding to which of the four concepts the Secretariat considers the "instruments of environmental policy" belong, or whether they constitute a category unto themselves? With regard to this issue, some clues can be found in the Council's decision to approve the Environmental Management Plan for the Clarion-Clipperton Zone. In describing the legal basis for approving such a management plan, the Council specifically referred to Article 162 of UNCLOS, which emphasizes the Council's power to establish the "specific policies" to be pursued by the Authority on any question or matter within the competence of the Authority.[33] There is a point here that no reference is made in the decision to the power of the Council to provisionally establish and apply rules, regulations and procedures and their amendments as provided for in Article 162, paragraph 2(o). In the view of this paper, the reason why the Council did not invoke Article 162, paragraph 2(o), is mainly because the Council is unwilling rather than unable to do so. Pursuant to Article 162, paragraph 2(o), the rules, regulations and procedures that can be provisionally established by the Council and any amendments thereto "shall relate to prospecting, exploration and exploitation in the Area and the financial management and internal administration of the Authority". It is clear that the Council is able to provisionally establish rules, regulations and procedures and matters amendments thereto, provided that they relate to "prospecting, exploration and exploitation in the Area and the financial management and internal administration of the Authority". Based on this understanding, the Council has the power to provisionally establish rules, regulations and procedures and amendments thereto with respect to environmental protection issues in the Area, as such issues are necessarily related to prospecting, exploration and exploitation. This interpretation is also supported by the practice of the Council. For example, in its *Decision relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters*, the Council noted that the amended Regulations apply provisionally from

33 See Decision of the Council relating to an environmental management plan for the Clarion-Clipperton Zone, ISBA/18/C/22.

the date of their adoption by the Council.[34] Such decision of the Council is clearly based on the power to provisionally establish rules, regulations and procedures and amendments thereto provided for in Article 162, paragraph 2(o). Despite being the "Regulations on Prospecting and Exploration", the regulations still contain numerous provisions on marine environmental protection, especially the Part V thereof, which is dedicated to the "Protection and preservation of the marine environment". We can therefore draw from the above that marine environmental protection has evolved into a necessary component of prospecting, exploration and exploitation in the international seabed area, in respect of which the Council can provisionally establish rules, regulations and procedures and amendments thereto. In this regard, the Council, in approving REMPs, may rely either on its power to establish "specific policies" or on its power to provisionally establish rules, regulations and procedures and amendments thereto. The Council's reference only to the former rather than to the latter in its decision indicates its tendency towards "specific policies". Since, as noted earlier, "specific policies" have legal binding force, REMPs are also legally binding from the perspective of the Council. In this case, why does the Council not regard REMPs as the rules, regulations and procedures and amendments thereto it has provisionally established? This paper holds the opinion that the main reason may lie in the difference in the scope of application of the two. A REMP applies only to specific regions within the Area. Even if the REMP is legally binding, there should be clear restrictions on the scope of application, i.e., each REMP is bound only on actors in a specific region, which cannot be as universally binding as UNCLOS, the 1994 Agreement and the rules, regulations and procedures of the Authority on actors in the entire Area.

Both proponents and opponents on whether REMPs are legally binding have their rational concerns. In the view of proponents, it will be hard to require contractors to comply with REMPs and achieve the objectives of REMPs if they are not binding. As for opponents, they are concerned that REMPs, once given legally binding force, may impose new obligations on contractors. Moreover, it is not necessarily required to make REMPs legally binding in order to achieve the objectives of REMPs. A more effective way to achieve the same objective may be to require that the environmental management and monitoring plans of contractors

34 See Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters, ISBA/19/C/17, para. 2.

be assessed against objectives in the REMPs. Should they not contribute sufficiently to those objectives, the contractors' environmental management and monitoring plans would need to be revised or rejected as inadequate.[35]

B. Practical Function of the Legal Binding Force of REMPs

The key to whether REMPs need to be legally binding lies in whether REMPs add new tasks to actors in the Area. In case new tasks are added to actors, it is necessary to empower REMPs with legal binding force in order to prevent the effectiveness of the REMPs from being significantly reduced due to the failure of accomplishing the new tasks. In contrast, no legal binding force needs to be given to REMPs in case of no new tasks added. Taking a look at a REMP, the "areas of particular environmental interest" constitute its most innovative and core element that best focuses on the need to protect the marine environment in the Area. No mining is allowed in areas of particular environmental interest according to the Legal and Technical Commission.[36] In the *Decision of the Council relating to an environmental management plan for the Clarion-Clipperton Zone*, the Council noted that for a period of five years from the date of the present decision (i.e., 26 July 2012) or until further review by the Legal and Technical Commission or the Council, no application for approval of a plan of work for exploration or exploitation should be granted in areas of particular environmental interest referred to in the annex. Given the prohibition of mining in the areas of particular environmental interest, pursuant to this requirement, the areas of particular environmental interest stand as a red line that cannot be touched, both in terms of the applications submitted by applicants and the review by the Authority. In this respect, the areas of particular environmental interest constitute an important task added by REMPs to actors in the Area. It is more appropriate for REMPs to be legally binding in order for all actors to accomplish this task without compromise. On the contrary, failure to impose legal binding force on REMPs may leave a hidden danger for breaking through the areas of particular environmental interest to carry out mining in the future. For this reason, the Fifth Report of the Code Project funded by the Pew Charitable Trusts specifies that areas of particular

35 See Relationship between the draft regulations on exploitation of mineral resources in the Area and regional environmental management plans, ISBA/25/C/4, para. 7.

36 See Environmental Management Plan for the Clarion-Clipperton Zone, ISBA/17/LTC/7, para. 39.

environmental interest are identified through REMPs as non-mining areas, but they have no regulatory force unless the mining is prohibited within them in the Draft Exploitation Regulations.[37]

To sum up, notwithstanding the absence of final conclusion as to whether a REMP falls within "instruments of environmental policy" or "rules, regulations or procedures of the Authority", REMPs should be legally binding regardless of the form they ultimately take, and each REMP is only binding on actors in the specific region it covers.

IV. Conclusion

Based on the above analysis of the legal status of REMPs, this paper draws the following conclusions: First, "no REMPs, no exploitation" can be used as a general principle, but should not be absolute—exceptions should be allowed, in order to maintain a balance between the exploitation and utilization of resources and the protection of marine environment, rather than completely favoring the value of marine environmental protection. Second, it is not appropriate to impose an obligation on the Authority to establish REMPs. Even if the Authority is imposed an obligation to establish REMPs, this obligation can only be an obligation of conduct rather than an obligation of result. Finally, REMPs should be legally binding regardless of the form they ultimately take, and each REMP is only binding on actors in the specific region it covers.

Translators: CHEN Jueyu, HUANG Yuxin
Editor (English): HUANG Rui

37 See Fifth Report of the Code Project, Part Two: Annotations & Commentary on ISA Draft Exploitation Regulations of March 2019 (ISBA/25/C/WP.1), in Compilation of the proposals and observations sent by other member States of the Authority, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37, December 2019, p. 13.

后疫情时代航运业船员权益的法律保障

吴蔚 黄如青 *

内容摘要：随着新冠肺炎疫情在全球范围内不断蔓延，航运业的发展遭遇各种挑战与风险，船员的健康权益和劳动权益也受到了损害。一方面受疫情影响各国防控措施不断升级，客观上影响了船舶靠岸、船员换班，另一方面则是船员劳动权益法律体系与救助制度自身存在漏洞。基于国际海洋法框架下船员权益的保障条款和相关国家责任，国际海事组织、国际劳工组织和世界卫生组织等相关国际组织就疫情影响下的船员工作履约及救助问题作出了指导性建议。后疫情时代的航运界应建立完善的船员权益法律体系的构建，保障船员合法权益，保证船员身心健康，为船员营造一个良好的工作环境和氛围，提高船员社会地位，推动航运业的良性发展与运转。

关键词：新冠肺炎疫情 航运治理 船员救助

当前，尽管新冠肺炎疫情在世界范围内得到了一定控制，但欧美国家的疫情防控情况仍不容乐观，全球范围内疫情还有卷土重来的可能。大规模的疫情暴发和蔓延已经对各行各业产生了严重的影响，航运业作为国际贸易供应链上的关键环节和国际旅游业的重要组成部分，也遭遇了严峻的挑战。航运市场资源紧缩、运输成本剧增、船舶管理难度增加。后疫情时代，航运业治理首要问题是恢复全球的航运业、妥善解决船舶疫情防控和救助感染船员等。

当今全球90%的贸易，[1] 尤其是大宗贸易，依赖海上运输开展。为数众多的海员既是支撑这一行业的坚实基础，也是重大风险来临时最为脆弱的一环。虽然船员工作具有极大风险性，但是我国现行的劳动法并未对船员的劳动特殊性有区

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1 吴蔚：《救助伤病海员彰显公共卫生命运共同体理念》，载法制网2020年04月14日，http://www.legaldaily.com.cn/commentary/content/2020-04/14/content_8169500.htm。

别体现，[2] 新冠病毒的全球蔓延，已对海员的工作生活带来了诸多负面影响，[3] 船员的各项劳动权利却未被赋予充分的法律保障。目前，我国现行法律法规涉及船员权益保障大致分为两大类：一类是劳动法相关的法律法规，例如《中华人民共和国劳动法》《中华人民共和国劳动合同法》和《中华人民共和国社会保险法》，另一类是针对船员管理的相关法律法规，例如《中华人民共和国船员条例》《中华人民共和国海船船员值班规则》和《中华人民共和国海船船员适任考试和发证规则》。现有法律在船员管理、行业适任方面的规约较多，而对船员权益保障的规约却并不明晰，甚至有所缺失。一旦出现船员权益纠纷，海事监管部门与劳动行政部门极易因法律规范不明确不予管辖，导致船员合理诉求难以实现。如船员难以在疫情期间实现正常换班和行使遣返权，船员劳务履约情况受疫情影响，导致其劳务报酬求偿权难以得到公平落实、感染新冠肺炎后工伤认定困难等问题。

一、海员生命权、健康权的保障困境

尽管根据《2006 年海事劳工公约》规则 4.1 规定，船舶应当配备随船医疗人员。但在此次疫情期间，众多船舶未能提供足够的资源，以满足船员的随船医疗救治需要。船舶由于途径疫区而出现船员确诊或疑似感染新冠肺炎的事件屡见不鲜，如旅客和船员 3711 人中共计感染 705 人的日本邮轮“钻石公主号”；[4] 船员在换班或遣返途中感染新冠肺炎的情况也时有发生，如美国航母“罗斯福号”与法国航母“戴高乐号”上发生的新冠病毒扩散。[5]

这一情况主要系两方面因素引起：第一，新冠肺炎系突发传染性疾病，而按照现有规定，船上配套的医疗资源和医护水平很难做到有效救治；第二，各港口国的疫情防控措施一定程度上也加剧了随船医疗资源的短缺，导致船舶难以靠岸进行补给。

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2 官玮玮：《中国船员劳动权益保障问题及对策研究》，载《产业与科技论坛》2018 年第 9 期，第 38 页。

3 于洪江、金雷：《我国和国际劳工组织连线磋商疫情期间海员劳动权益问题》，载澎湃新闻网 2020 年 4 月 5 日，https://www.thepaper.cn/newsDetail_forward_6848178。

4 日本横滨母港始发的邮轮“钻石公主号”于 2020 年 2 月 3 日中途返回横滨港，在 2 月 5 日检测出确诊病例后，日本政府立刻采取了封船隔离措施，船上旅客和船员 3711 人中，感染人数共计 705 人。参见谭洪卫：《从日本钻石公主号邮轮病毒感染事件引发的关于紧急事态应对的若干思考》，载文汇网 2020 年 3 月 2 日，http://www.whb.cn/zhuzhan/rd/20200302/329862.html。

5 2020 年 6 月，法国“戴高乐号”航空母舰上共有 1081 人确诊感染新冠，占了全舰总人数的一半，美军航母“罗斯福号”也相继中招。参见《一千多名船员感染，法国航母成超级感染源，只能用高压水冲洗甲板！》，载快资讯 2020 年 4 月 20 日，https://www.360kuai.com/pc/9d72414820f77070a?cota=3&kuai_so=1&sign=360_57c3bbd1&refer_scene=so_1。

在本次疫情中，多数港口国救济便利提供不足，未能采取有效措施使在港船舶上的海员充分、及时地获得医疗救济。在世界卫生组织宣布将新冠肺炎疫情认定为国际公共卫生紧急事件后，陆续有一百多个国家加强了本国港口针对所有14天内靠近或经停、始发于感染国家的船舶的检疫程序，严格把控船上人员的入境数量和健康状况，越南、[6]新加坡等沿海国家甚至直接禁止船上人员入境。[7]

这一现象，一方面是港口国出于对本国疫情防控和公共卫生安全的考虑，严格约束外国船舶和人员入境，而在港口管理上普遍依赖“一刀切”政策，即直接拒绝一切外籍船舶和海员入境或通行所引起的；另一方面，也是当下国际法中对于港口国向船只及海员提供便利等相关规定的不一致所引起。例如，依据《国际卫生条例》在第二十八条，[8]缔约国不应当出于公共卫生理由阻止船舶上下乘员、装卸货物或储备用品，或添加燃料、水、食品和供应品。而依据《国际海港制度公约》第十六条，港口国可基于国家公共卫生安全的考量拒绝外国船舶进入本国港口，拒绝相关人员过境。

在国际范围内，伤病海员救助机制拘束力缺失也危及船员的生命权和健康权。船员的救助义务在国际法上既不构成强制性规范，相关国际公约也未规定实质性的权利救济机制和国家责任。理论上，大多数的国际条约（非习惯法规则）只对缔约国具有法律拘束力，国际条约法律效果的实现要基于缔约国接受并履行规范。根据《维也纳条约法公约》第53条规定，一般国际法强制规范是指“国家之国际社会全体接受并公认为不许损抑且仅有以后具有同等性质之一般国际法规律始得更改之规范”，换言之，国际强行法规范是不能通过国家的双边或多边条约予以排除适用和更改的。另外，国际法委员会曾明确一些国际义务即“普遍性义务”的履行将对整个国际社会产生法律利益，违反此类义务的国家应承担国家责任。[9]由此可见，上述关于船员健康权的国际公约条款并不符合强行法规范的构成，对伤病船员的救助义务也很难被认定为对整个国际社会产生法律利益的“普遍性义务”，更遑论国际海事组织、国际劳工组织、世界卫生组织等所颁布的一系列技术性指导文件，就性质而言属于国际法的软法范畴，完全不具有强制拘束力。

二、海员劳动权、薪酬权的保障缺位

6 《越南提高警戒：严格管控中日韩船舶，禁止一切疫区国家人员入境！》，载搜航网2020年2月27日，http://www.sofreight.com/news_42337.html。

7 《紧急预警！禁止和取消，各国港口对曾停靠中国的船舶靠港最新要求！》，载搜狐网2020年2月6日，https://m.sohu.com/a/371018745_99918184/。

8 《国际卫生条例》第28条。

9 Report of the International Law Commission on the work of its twenty-eighth session, 3 May - 23 July 1976, Official Records of the General Assembly, Thirty-first session, Supplement No. 10, p. 99.

（一）海员薪酬待遇和医疗补助落实不到位

受疫情影响，海员的合理劳务报酬求偿难以实现，特别是海员的假期延长或待派延期，[10] 依据《中华人民共和国船员条例》2020 年修订版第二十六条规定，用人单位应当继续发放年假延长的海员年休假期间的工资；依据第二十五条规定，用人单位应正常发放待派海员待派期间的工资且不低于海员用人单位所在地人民政府公布的最低工资。

《2006 年海事劳工公约》中并无限制海员在船时间的明确表述，但标准 A2.4 规定了海员每工作一个月最低享有 2.5 日带薪年休假的权利，A2.5.2.2 规定了海员从上船服务到可以行使遣返权之间的期限应少于 12 个月，则可以推定海员在船上服务期限最长为连续 11 个月左右，具体的服务期限要参考不同国家和地区的相关规定。针对上述延期服务的情况，根据《中华人民共和国劳动法》《中国海员集体协议》2020 年修订版和《中华人民共和国船员条例》2020 年修订版等法律法规的规定，海员在就业协议约定服务期限外超期服务的，船东应当支付超期补贴，通常额外的超期补贴按照《中华人民共和国劳动法》规定并参照国际惯例高于海员的原薪酬。[11]但在实施过程中，海员的合理劳务报酬求偿权难以得到保障。

伤病海员的“工伤”认定缺乏权威、统一的标准，这也影响到船员的权益。世界各国就海员“工伤”赔偿相关的法律法规有所区别，如英国《1995 年商船航运法》（Merchant Shipping Act 1995）并未提及工伤赔偿的责任分配，只在第四十五条规定了船东应承担海员接受医疗救治时的合理费用且不得拖延；我国依据《海员伤病亡处理行业建议标准》采取“1+1”模式，海员工伤赔偿包括依据《工伤保险条例》得到的补偿和船东的一次性伤残或死亡补偿两个部分。由此可见，对于相对弱势的海员一方，工伤赔偿金是伤病补偿的重要部分。海员在疫情期间感染新冠能否享有“工伤”待遇目前在行业内并无权威、统一的标准，若海员因履行工作义务而感染新冠受到损失，船东仅依据《2006 年海事劳工公约》规定支付医疗相关费用，可能会导致伤病海员得不到公平合理的费用补偿。

感染新冠的情形能否被认定为“工伤”是维护海员合法权益的关键问题，也是维护海员就业协议当事人责任承担的公平合理性的必然要求，但并不意味着只要海员感染新冠就可以享受工伤待遇。在疫情期间部分海员感染新冠是否属于“工

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10 如国务院办公厅发布《关于延长 2020 年春节假期的通知》中将春节假期延长至 2 月 2 日，包括海员在内的劳动工作者春假、年假延长，待派海员被迫无法按期履约。参见中国政府网 2020 年 1 月 27 日，http://www.gov.cn/zhengce/content/2020-01/27/content_5472352.htm。

11 付本超、赵斐、王一平：《经略海洋战略实施中船员人身权益保护研究》，载《山东法官培训学院学报》2019 年第 6 期，第 131-140 页。

伤”[12]并不容易界定。依据我国《工伤保险条例》第十四条、[13]第十五条规定，[14]海员如果遇到以下情形推定为工伤是较为合理的：一是海员在履行服务期间因开展防疫相关作业而感染，如在船上进行疫情防控、医学隔离工作时接触疑似和确诊病例，下船采购必要物资或运送物资而感染等；二是海员在履行服务期间依据政府指令协助运输抗疫救援应急物资或完成其他防控任务而不得不前往疫区；若海员在换班或遣返中途感染、正常履行工作义务意外感染则不应认定为工伤。目前，包括我国在内的许多航运业发达的国家都未明确海员是否属于“因履行工作义务感染新冠可享受工伤待遇”的人员，因此海员感染新冠是否属于“工伤”并不能一概而论。现实情况例如“钻石公主号”这类船舶在海上锚泊隔离期间，海员被隔离并接受医学检测和观察，并为旅客提供相应服务，维持隔离秩序；或者按照政府和船公司的指令运输救灾物资，性质属于履行职责的“相关工作人员”；若感染新冠，属于“工伤”，其他情形，例如上下班途中感染新冠，则不属于“工伤”。[15]

（二）海员的换班、遣返权利行使不便

依据《2006年海事劳工公约》规则2.5所规定，在守则所规定的情形和条件下，海员有权利得到遣返且无需承担费用；各成员国应为停靠在其港口或通过其领水或内水的船舶上工作的海员的遣返和船上人员的换班提供便利；经修正的《2003年修订海员身份证件公约的公约（修订本）》第六条第七款规定，各成员国应尽可能在最短时间内批准持有效海员身份证件及护照的海员登船或遣返的入境请求。2020年5月6日，国际海事组织向成员国发布了12步解决方案，以协助解决海员换班问题，为成员国妥善处理海员换班和遣返相关工作提供了详细的指导和建议，呼吁各成员国可视本国港口地区疫情防控情况，在保证感染风险不会增加的情况下，适当调整港口防疫措施，积极参与12步方案，推进换班路线图的落实，为海员入境提供最大限度的便利。但是，12步解决方案在实际操作中依然停留在“纸上谈兵”的层面，落实极为困难。目前仍有许多国家拒绝海员出入境换班和

12 依据人社部《关于因履行工作职责感染新型冠状病毒肺炎的医护及相关工作人员有关保障问题的通知》，海员是否属于“相关人员”并无定论。但在《工伤保险条例》相关规定中，“在抢险救灾等维护国家利益、公共利益活动中受到伤害的”，视同工伤。

13 《工伤保险条例》第14条：职工有下列情形之一的，应当认定为工伤：（一）在工作时间和工作场所内，因工作原因受到事故伤害的；（二）工作时间前后在工作场所内，从事与工作有关的预备性或者收尾性工作受到事故伤害的；（五）因工外出期间，由于工作原因受到伤害或者发生事故下落不明的；

14 《工伤保险条例》第15条：职工有下列情形之一的，视同工伤：（一）在工作时间和工作岗位，突发疾病死亡或者在48小时之内经抢救无效死亡的；（二）在抢险救灾等维护国家利益、公共利益活动中受到伤害的。

15 陈鹏：《新冠肺炎疫情下船员法律权益保障问题研究与对策》，载《中国水运》，2020年第5期，第9页。

遣返、上岸接受医疗服务，海员服务合同的执行存在一定困难，出现了大量船东和中介组织侵害海员合法权益的情况。

（三）海员履约与违约的责任认定规则不清

受新冠肺炎疫情影响，海员可能会碰到不能及时登船履行服务合同义务、合同期满或约定服务期满不能遣返以及续约和超期工作等突发情形，存在承担违约责任的可能。对疫情性质的认定会直接影响到海员承担违约责任的程度以及就业协议的效力问题，由于各船旗国针对民事合同纠纷的法律制度不同，则适用依据和解释结果不尽相同。根据《中华人民共和国民法典》第一百八十条规定，“不可抗力”是指“不能预见、不能避免和不能克服的客观情况”，是法定免责条款，对合同当事人具有约束力。因此，如果将“不可抗力”扩大解释为世界范围内的流行疫病，那么海员可以援引不可抗力条款延期履行合同，或者免除部分或全部的违约责任。

2020 年 2 月 10 日，全国人大常委会法工委发言人指出，受政府疫情防控措施影响导致当事人无法履行合同、实现合同目的的，可援引不可抗力相关法律规定，部分或全部免除责任。随后中国国际贸易促进委员会发布公告，受新型冠状病毒感染的肺炎疫情的影响，导致无法如期履行或不能履行国际贸易合同的企业，可向其申请办理与不可抗力相关的事实性证明。[16] 参考以往的司法实践，中华人民共和国最高人民法院曾在 2003 年针对“非典”疫情发布的《关于在防治传染性非典型肺炎期间依法做好人民法院相关审判、执行工作的通知》中认定其为法定的不可抗力情形，[17] 新冠肺炎疫情相较于“非典”更为严重、影响范围更广，将新冠肺炎疫情认定为不可抗力不仅符合法理基础和司法实践，而且顺应社会需求。由此可以看出，依据我国法律规定，新冠肺炎疫情导致当事人不能履行合同的情形可以被解释为不可抗力事件。但是在英美法系国家，不可抗力免责事由是没有明确法律规定的，仅援引“不可抗力”也不一定能够免责。海员服务合同中只有一部分明确地将流行病、疾病隔离视为“不可抗力”情形，能否免责、减责要结合具体的事实和合同的具体内容及性质作出判断。[18]

对于海员就业服务合同中不可抗条款的解释，要综合考虑疫情对合同履行的影响程度和各国适用的合同法规则来判断，盲目援引“不可抗力免责条款”也可能

16 《全国人大常委会法工委：因疫情防控不能履行合同属不可抗力》，载新浪网 2020 年 2 月 10 日，https://finance.sina.com.cn/china/gncj/2020-02-10/doc-iimxyqvz1797181.shtml。

17 《最高人民法院关于在防治传染性非典型肺炎期间依法做好人民法院相关审判、执行工作的通知》，法 [2003]72 号，2003 年 6 月 11 日发布。

18 张文广：《正确适用不可抗力制度》，载《中国远洋海运》2020 年第 6 期，第 72 页。

导致海员服务合同当事人风险利益分担有失公平。目前相关国际组织和各成员国并未达成统一的解释标准，对海员履约责任承担的认定问题上众说纷纭，一定程度上也导致了部分海员合同权利因疫情受到损害时难以得到救济。

三、完善船员权益的法律保障及相关机制

（一）完善航运及船员权益保障的相关法律制度

众所周知，法律规范具有滞后性，包括《国际卫生条例（2005）》在内的相关国际公约、技术指导和包括《中华人民共和国船员条例》《中华人民共和国海船船员职业保障管理规定》在内的各国相关法律法规，在疫情中或多或少暴露了船员权益保障方面的法律漏洞，无法高效地应对突发公共卫生事件为船员带来的损害和风险。同时，相关国际公约、国际组织的指导性规范与各国国内法之间都或多或少存在冲突，国内法与国际法的衔接上存在一定的问题，需要对国际法转化适用和立法调整，也需要落实细化内容细化、加强针对性、明确责任主体等任务，针对大规模突发公共卫生事件下船员的权益保障和权利救济问题，出台更为详实的操作指导。就目前国际法和国内法对船员权益保障规定方面的漏洞而言，诸如《1989年国际救助公约》和《国际海上人命安全公约》等涉及到船员救助问题的国际公约，均未涉及重大公共卫生事件情形下的责任分配和权利救济，《中华人民共和国船员条例》仅规定了对船员劳动权益保障和用人单位监督检查的机构为劳动保障行政部门，却没有进一步细化监督流程和奖惩办法。我国批准加入《2006年海事劳工公约》，但在国内法方面，《中华人民共和国船员条例》并未直接将《2006年海事劳工公约》中涉及船员人身权益保障的相关规定体现在国内立法中。[19] 在船员权益保障及损害赔偿上，并未与国际条约相适应，也会造成司法实践中的困难，影响船员权益有效保障。

结合国际卫生组织、国际海事组织、国际劳工组织相关公约和条约，我国应结合新发展、新情况，进一步明确重大疫情下相关的国际公约的解释和适用，从程序法和实体法两方面对机构职责、国家责任、船员权益和协调救济机制进行补充和完善，牵头设立专门机构负责船员权益保障协调指导工作，做到统筹国际、国内两个大局；同时呼吁世界各国发扬人道主义精神，积极参与伤病船员救助，响应国际海事组织秘书长Kitack Lim呼吁，承认船员的“key workers”身份，给予船员与

19 陈鹏：《浅析〈船员条例〉对国际劳工组织公约国内化的立法实践（上）》，载《中国海事》，2009年第10期。

医务人员同等的待遇，为维护船员合法权益和生命健康安全贡献一份力量。[20] 赋予船员们“key workers”的身份，不仅是对船员在抗疫物资运输中所作贡献的认可，更是保障船员合法权益的关键措施，也有利于减少针对船员的歧视和不平等对待。

我国的航运和海事相关法律制度应结合《国际卫生条例》《2006 年海事劳工公约》的有关规定，以及我国现有社会保障、医疗卫生和防疫法律制度，从国家总体安全观的高度，对我国在海上交通和港口管控提出建议，修改现行的《中华人民共和国海上交通安全法》和《中华人民共和国港口法》，[21] 全面修订《中华人民共和国船员条例》，着手研究、制定、执行船员法，在海洋强国战略下，建立与海上交通强国相适应的船员管理与权益保障法律体系，尤其是增加保障船员合法人身权益的相关法律法规，完善船员人身权益损害赔偿法律制度；[22] 结合国家卫生防疫、检验检疫以及世界卫生组织、国际海事组织以及国际劳动组织的行业健康防疫标准和卫生指南，完善船上防疫部署、完善船员医疗手册、无线电医疗指南，同时加强船员疫情防控能力和突发公共卫生事件应急的能力，最终提出符合我国航运业发展且切实规范和保障船员合理合法权益的法律法规政策，建立海洋强国不可或缺的船员管理和权益保障的法律体系。

我国不仅要加快船员权益相关法律法规的立改废释，还应在防疫政策和港口、船舶管理制度上为船员作出适当调整。第一，贯彻落实相关国际公约宗旨和条款内容，逐步完善船员劳动权益和健康安全保障方面的法律法规，明确责任主体和法律后果，确保船舶优先权担保下船员工资和社会福利请求权的实现；第二，针对包括新冠肺炎疫情在内的各类重大公共卫生事件，制定具体的技术指南和指导政策，加强船舶检查监督，在行政程序上为船员提供便利，如办理船员适任证书期限酌情延期、进行船员远程培训、调整船员换班遣返过境政策等，同时加强船员健康安全信息通报和交流工作，减少疫情传播扩散的可能性；第三，在疫情期间提供服务的船员承受了比正常时期工作时更高的生命健康风险，超期工作的船员还面临身心疲惫情况下的超负荷作业，国家可以考虑对船员疫情期间所得薪资适度减免个人所得税，提高船员工作的积极性和船舶航行的稳定性；第四，加强海事劳动主管部门、船东协会以及船员工会之间的联系与合作，对船员就业协议中的权

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20 2020 年 6 月 25 日为国际海员日，国际海事组织将 2020 年的国际海员日主题拟定为“Seafarers are Key Workers”，呼吁公众了解海员在抗击新冠肺炎疫情中作出的牺牲和贡献，认识船员在全球供应链运转中的重要作用。参见《2020 年“世界海员日”主题：Key Workers! ... IMO：该任性时要任性！》，载海事服务网 6 月 23 日，https://www.cnss.com.cn/html/cydt/20200623/336559.html。

21 陈鹏：《新冠病毒肺炎疫情下的船员权益保障问题》，载《中国海事》，2020 年第 4 期，第 23 页。

22 付本超、赵斐、王一平：《经略海洋战略实施中船员人身权益保护研究》，载《山东法官培训学院学报》，2019 年第 6 期，第 139 页。

利义务内容进行标准化的调整，[23] 对重大疫情下延期遣返换班、带薪年假、超期服务以及社会保险缴纳和工资偿付等问题制定明确、统一的标准，在合理范围内为船员争取最大的利益；第五，加快建立高效的船舶监督检查和船员劳动争议解决机制，发挥海事主管部门的专业性，为船员合法权益的救济提供平台；最后，在涉外海事诉讼中准确适用相关国际公约、国际惯例及外国法，充分考虑大陆法与普通法，以及国际惯例中关于不可抗力相关规则的差异性，船东、船员服务合同的制定和履行方面准确适用，与国际法治接轨。[24]

（二）完善航运业治理的国际合作机制

无论是从人道主义的角度还是从管辖权的角度，船旗国、港口国、船员国籍国以及船舶公司国籍国等相关国家均有义务保障船员的健康权。在全球性突发公共卫生事件的防控背景下，国家间的责任分配和管辖权冲突问题凸显，因此，建设和完善疫情防控下的国际合作和信息共享机制至关重要。

相关国家应强化与国际海事相关组织之间的合作，建立船舶疫情动态检测与信息交流平台，以便沿海国根据船舶疫情防控情况及时做出政策调整，以为伤病船员接受救助提供便利。加强国家间突发公共事件港口应急协调能力与医疗卫生防疫科研方面的技术合作，为伤病船员的救助工作打好坚实的医疗基础。建立国家间突发公共卫生事件应急合作交流磋商机制，对船员救助、权利救济、管辖权冲突和责任承担等问题达成一致意见，为保障船员尤其外派船员的合法权益提供有力的政治保证。

（三）切实改善船员的海上工作生活环境

海上工作环境与陆地工作环境的区别很大，船舶航行工作与海上生活对船员的身体、心理素质要求更高，当船员体力不断消耗、心理压力不断增加，加上单调乏味的特殊工作环境和复杂精密的船舶机械操作，以及饮食作息的不规律与不健康，都会使船员的生理、心理疲劳明显加剧，这也是海上事故发生的主要原因之一。[25] 受疫情影响，大部分在船服务的船员不仅要承受感染新冠的风险，还面临过度劳累而合法权益却得不到保障的问题。

一方面，应当加强社会舆论宣传和普法教育，提高船员的维权意识，了解重大

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23 李桢：《海事劳工公约要求下的船旗国管理评析》，载《中国海事》2011年第1期，第33页。

24 司玉琢：《妥善处理涉疫情涉外海事纠纷 展现我国司法担当》，载中国法院网2020年6月18日，https://www.chinacourt.org/article/detail/2020/06/id/5308248.shtml。

25 王子海：《船员疲劳的原因及对策》，载《中国水运》2009年第1期，第35页。

公共卫生事件影响下可争取的权利与待遇，以及争议解决的途径和主管部门，熟悉流程和步骤；提高船东的法律意识，尊重船员的合法劳动权益，切实提高疫情期间海员的工作待遇和生活质量；提高全社会对航运业的认知程度和对船员社会地位的重视程度，增强社会对船员的尊重。

另一方面，船东应做好船舶防疫工作，定期消毒杀菌，定期评估船员心理健康状况，监测船员身体状况；对待疑似感染船员、确诊或康复船员时，应当公平公正，避免出现歧视；积极为伤病船员提供医疗救助，重视心理呵护，保证船员精神心理健康；[26] 尽可能提高船员工作生活环境的舒适度，降低船员接触传染源的可能性，改善船员饮食质量，提高船员身体素质。[27]

（四）提高港口的船员服务水平

传统港口的运营管理模式在全球性重大疫情影响下弊病凸显。疫情暴发初期，许多沿海国为了严格防疫，关闭了部分港口或严格把控船舶停靠和过境、船员上岸的情况。在疫情彻底消除之前，各国的防控手段和措施也不会放松，受大环境影响，大部分港口低效运转的情况在短时间内很难有所改善。

因此，在确保重大公共卫生事件应急水平的前提下，应对标国际标准，改善港口国际经贸竞争力和经济发展质量，提高航运自由程度，规范船舶经营，为船员出入境提供便利，保障船员合法权益，才是未来港口改革和发展的方向。2020 年 6 月 1 日，中共中央、国务院颁发了《海南自由贸易港建设总体方案》，也为重大公共卫生事件影响下保障船员合法权益提供了宝贵的建设性建议。该方案的制度设计施行更加便利的出入境管理政策，优化出入境边防检查管理，赋予自贸港边检机关一定程度的自由裁量权，在重大疫情出现时对船员出入境的管控也具有一定的自由度，这将为船员的换班和遣返带来极大的便利。我国应加强港口的医疗救助水平，同时加快绿色智能船舶和智慧港口建设，加强港口公共卫生防控救治体系建设，建立传染病和突发公共卫生事件监测预警、应急响应平台和决策指挥系统，提高早期预防、风险研判和及时处置能力，为伤病船员的医疗救助和船舶疫情的防控提供高效的制度保证。

四、结　语

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26 《在 COVID-19 的背景下调整公共卫生和社会措施时的注意事项的附件》，载世界卫生组织网站，https://apps.who.int/iris/bitstream/handle/10665/332050/WHO-2019-nCoV-Adjusting_PH_measures-Workplaces-2020.1-chi.pdf。

27 《经济社会文化权利委员会第 14 号一般性意见》，E/C.12 /2000 /4，2020 年 8 月 11 日，第 15 段。

新冠肺炎疫情暴发至今，全球范围仍有大量船员在海上漂泊，面临着超负荷的工作时间与任务。目前，许多国家为了防控疫情，对港口人员往来依旧采取严格的把控措施，船员换班难，归家遥遥无期，伤病船员的救助不够及时，合法劳动权益受到侵害却救济无门。为了缓解大规模公共卫生事件背景下船员工作和维权的困境，推动船员权益保障法律体系的进步和完善刻不容缓。

相关国际公约的缔约国、沿海国和船旗国等国家不仅应严格遵守国际法的相关规定，以保障船员的各项人权与合同权利，更应有意识地建立交流合作机制和信息共享平台：一方面，要在国际法框架内加强船员服务合同的规范化，对突发公共卫生事件有明确的定性，对“不可抗力”情形做出合理的解释与适用，保障船员各项劳动权利的实现，改善船员工作环境和福利待遇；另一方面，在国内法范畴内加快船员相关法律法规的立、改、废、释，建立和完善船员合同纠纷的调解、仲裁和诉讼机制，提高船员权利救济的及时性、公平性和便利性。同时，船东和中介组织也应不断增强契约意识，响应国际劳工组织和相关船员权益保障组织的呼吁，以人为本，认可并感激船员在疫情中做出的牺牲，关注船员身心健康，合理提高船员待遇和地位，积极承担合同责任，为船员营造良好的工作氛围，切实保障船员的各项合法权利。

Legal Protection of Seafarers' Rights and Interests of Shipping Industry in the Post-Pandemic Era

WU Wei HUANG Ruqing*

Abstract: As the COVID-19 pandemic spreads around the world, it poses various challenges and risks to the development of the shipping industry, which has also harmed the health and labor rights of seafarers. As a result of the epidemic, countries continue to upgrade their prevention and control measures, which objectively affects the docking of ships and the shift changes of seafarers; meanwhile, there exist loopholes in the legal system and assistance system of seafarers' labor rights and interests. Based on the provisions on the protection of seafarers' rights and interests under the framework of the international laws of the sea and relevant state responsibilities, international organizations such as the International Maritime Organization (IMO), the International Labour Organization (ILO) and the World Health Organization (WHO) have issued guidance on issues related to seafarer performance and assistance under the impact of the pandemic. For the shipping industry in the post-pandemic era, it is necessary to establish a perfect legal system for seafarers' rights and interests, with a view to protecting their legitimate rights and interests and ensuring their physical and mental health; it is also important to create a good working environment and atmosphere for seafarers and enhance their social status, thereby boosting the healthy development and operation of the shipping industry.

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Key Words: COVID-19 Pandemic; Shipping governance; Seafarer assistance

While the current COVID-19 pandemic has been controlled to a certain extent worldwide, the situation in Europe and the United States brooks no optimism, leaving the possibility of a resurgence of the pandemic on a global scale. The pandemic outbreak and spread on a large scale has led to a serious impact on various industries. As a key link in the international trade supply chain and an important component of the international tourism industry, the shipping industry has also faced severe challenges, such as the tightening of resources in the shipping market, dramatic rise in transportation costs, and difficulties in ship management. In the post-pandemic era, the top priority in the governance of the shipping industry is to restore the global shipping industry, properly solve such problems as epidemic prevention and control on ships and assist infected seafarers.

90% of today's global trade,[1] especially bulk trade, depends on maritime transport. The large number of seafarers constitutes the solid foundation to support the industry, while also being the most vulnerable link in times of major risk. In spite of the extremely risky nature of seafarers' work, the prevailing Labor Law of China makes no distinction regarding the labor particularity of seafarers.[2] The global spread of COVID-19 has resulted in many negative effects on seafarers' work and life,[3] yet their labor rights have not been given sufficient legal protection. Currently, China's prevailing laws and regulations concerning the protection of seafarers' rights and interests can be broadly divided into two categories: laws and regulations concerning the labor law, such as the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, and the Social Insurance Law of the People's Republic of China, as well as laws and regulations concerning seafarer management, such as Regulation of the People's Republic of China on Seamen, On-Duty Rules of Seamen of the People's Republic of China, and Rules of the People's Republic of China for the Competency

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1 WU Wei, *Assisting Sick and Injured Seafarers Highlights the Concept of a Community with a Shared Future for Public Health*, LegalDaily (Apr. 14, 2020), http://www.legaldaily.com.cn/commentary/content/2020-04/14/content_8169500.htm. (in Chinese)

2 GUAN Weiwei, *On the Protection of Labor Rights and Interests of Chinese Seafarers and the Countermeasures,* Industrial & Science Tribune, Vol. 17:9, p. 38 (2018). (in Chinese)

3 YU Hongjiang & JIN Lei, *China Negotiates via Video Link with the International Labour Organization on the Labor Rights and Interests of Seafarers During the Epidemic*, ThePaper (Apr. 5, 2020), https://www.thepaper.cn/newsDetail_forward_6848178. (in Chinese)

Examination, Evaluation and Certification of Seafarers Serving in Seagoing Ships. Although there are many stipulations in the existing laws on the management of seafarers and industry competency, those on the protection of seafarers' rights and interests are not clear, or even absent. In case of a dispute over seafarers' rights and interests, it is very likely that the maritime regulatory authorities and labor authorities will refuse to accept such a case due to unclear legal norms, making it difficult for seafarers to realize their reasonable demands. For example, it is difficult for seafarers to change shifts as normal and exercise their right of repatriation during the epidemic; the impact of the epidemic on seafarers' performance of labor service makes it difficult for their labor compensation claims to be treated fairly; and it is difficult to identify the work injury after the seafarer is infected with COVID-19.

I. The Plight of Protection of Seafarers' Rights to Life and Health

It is stipulated in Regulation 4.1 of the Maritime Labour Convention 2006 that ships should be equipped with medical personnel on board. However, many ships failed to provide sufficient resources to meet the medical needs of their seafarers during the outbreak. It is not uncommon for ships to appear confirmed or suspected cases of COVID-19 as a result of passing through epidemic areas, such as the Japanese cruise ship Diamond Princess,[4] which had a total of 705 confirmed cases among the 3,711 passengers and seafarers; it also occurs when a seafarer is infected with COVID-19 during a shift change or repatriation, as was the case with the spread of COVID-19 aboard the US aircraft carrier Roosevelt and the French

4 The cruise ship Diamond Princess that departed from its home port in Yokohama, Japan, returned back on 3 February 2020. The Japanese government immediately quarantined the ship after a confirmed case of the disease was detected on 5 February 2020, and 705 of the 3711 passengers and seafarers on board were infected. See TAN Hongwei, *Several Thoughts on the Emergency Response from the Infection Incident of the Japanese Diamond Princess Cruise Ship*, WHB (Mar. 2, 2020), http://www.whb.cn/zhuzhan/rd/20200302/329862.html. (in Chinese)

aircraft carrier Charles de Gaulle.[5]

There are mainly two causes that contribute to this situation. First, COVID-19 is an emerging infectious disease. Under current regulations, it is difficult to achieve effective treatment with the supporting medical resources and medical level on board. Second, the epidemic prevention and control measures of various port states have also exacerbated to some extent the shortage of onboard medical resources due to the difficulty of docking for resupply.

Most of the port states' relief facilities were inadequate during this pandemic and they failed to take effective measures to enable onboard seafarers in port to receive medical relief in a full and timely manner. After the WHO declared the COVID-19 outbreak a Public Health Emergency of International Concern (PHEIC), more than 100 countries have successively strengthened quarantine procedures at their ports for all ships approaching or passing through and departing from the countries with cases within 14 days, strictly controlling the entry number and health status of people on board. Some coastal countries like Vietnam[6] and Singapore even directly banned the entry of people on board.[7]

This situation occurs because port states strictly restrict the entry of foreign ships and personnel due to concerns about their epidemic prevention and control and public health and safety, and they generally conduct a single policy towards port management, i.e., directly refusing the entry or passage of all foreign ships and seafarers. In addition, this situation is also the result of the inconsistency in the provisions of current international laws regarding the provision of facilitation by port states to ships and seafarers. It is stipulated in Article 28 of the International Health Regulations that ships shall not be prevented by States Parties for public health reasons from embarking or disembarking,[8] discharging or loading cargo or

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5 In June 2020, a total of 1,081 people on the French aircraft carrier Charles de Gaulle were diagnosed with COVID-19, accounting for half of the total number of people on board, and the US aircraft carrier Roosevelt was also hit. Refer to *Over a Thousand Seafarers Infected, the French Aircraft Carrier Becomes a Super Source of Infection and Has to Wash the Deck with High-pressure Water!*, 360kuaiNetwork (Apr. 20, 2020), https://www.360kuai.com/pc/9d72414820f77070a?cota=3&kuai_so=1&sign=360_57c3bbd1&refer_scene=so_1. (in Chinese)

6 *Vietnam on Heightened Alert: Strictly Control Ships of China, Japan and South Korea, Ban All Entry of People from Infected Countries!*, Sofreight Network (Feb. 27, 2020), http://www.sofreight.com/news_42337.html. (in Chinense)

7 *Emergency Alert! Prohibitions and Cancellations. Latest Requirements of Ports Around the World for Ships that Have Called at China's ports!*, SohuNetwork (Feb. 6, 2020), https://m.sohu.com/a/371018745_99918184/. (in Chinese)

8 Art. 28 of the International Health Regulations.

stores, or providing fuel, water, food and supplies, while according to Article 16 of the Convention and Statute on the International Regime of Maritime Ports, a port state may refuse foreign ships to enter its own port and relevant personnel to transit on the basis of national public health and security considerations.

Internationally, the right to life and health of seafarers is also endangered by the lack of a binding assistance mechanism for sick and injured seafarers. The duty to assist seafarers does not constitute a peremptory norm under the international laws, nor do relevant international conventions provide for substantive right relief mechanisms or state responsibilities. Theoretically, most international treaties (non-customary rules) are only legally binding on the States Parties, therefore, the realization of the legal effect of an international treaty is based on the acceptance and implementation of the norms by States Parties. As stipulated in Article 53 of the Vienna Convention on the Law of Treaties, a peremptory norm of general international laws (jus cogens) is "a norm accepted and recognized by the international community of states as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international laws having the same character". In other words, international jus cogens cannot be excluded from application and modification through bilateral or multilateral treaties between states. Moreover, the International Law Commission has made it clear that the performance of some international obligations, known as "obligations erga omnes", will give rise to legal benefits for the international community as a whole, and that states that violate such obligations should bear state responsibilities.[9] In view of this, the provisions of the above-mentioned international conventions on the right to health of seafarers do not conform to the composition of the jus cogens, and the duty to assist sick and injured seafarers can hardly be recognized as an "obligation erga omnes" bringing legal interests to the international community as a whole, not to mention the series of technical guidance documents issued by the IMO, the ILO and the WHO, which by their nature belong to the soft law category of international laws and are not binding at all.

II. Absence of Protection of Seafarers' Right of Labor and Remuneration

9 Report of the International Law Commission on the work of its twenty-eighth session, 3 May - 23 July 1976, Official Records of the General Assembly, Thirty-first session, Supplement No. 10, p. 99.

A. Improper Implementation of Seafarers' Remuneration and Medical Benefits

The pandemic has made it difficult for seafarers to obtain reasonable remuneration and compensation for their services, especially in the case of extended holiday and leave or extensions of leave pending dispatch.[10] According to Article 26 of the Regulation of the People's Republic of China on Seamen (2020 Revision), the employer shall continue to pay the seafarer with extended annual leave the wage of the period of annual leave. According to Article 25 of the Regulation of the People's Republic of China on Seamen (2020 Revision), the employer shall normally pay the seafarer pending dispatch at least the minimum wage announced by the people's government of the place where the seafarer's employer is located.

While the Maritime Labour Convention 2006 does not explicitly limit seafarers' time on board the ship, Standard A2.4 provides that seafarers are entitled to a minimum of 2.5-day paid annual leave for each month of work, and A2.5.2.2 provides that the period between seafarers' service on board and exercise of the right of repatriation should be less than 12 months, therefore, it can be presumed that the maximum period of service on board a ship is approximately 11 consecutive months. The specific service period should be subject to the relevant regulations of different countries and regions. Regarding the above-mentioned extended service, pursuant to the provisions of the Labor Law of China, the Collective Bargaining Agreement of Chinese Seafarers (2020 Edition) and the Regulation of the People's Republic of China on Seamen (2020 Revision), where a seafarer serves beyond the service period agreed upon in the employment agreement, the shipowner shall pay an overtime allowance, which is usually higher than the original salary of seafarers in accordance with the provisions of the Labor Law and with reference to international practice.[11] However, in the process of implementation, it is difficult to

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10 For example, the General Office of the State Council issued *The Notice on the Extension of the Spring Festival Holiday in 2020*, which extended the Spring Festival holiday to 2 February, and the spring break and annual leave of workers, including seafarers, were extended, resulting in the inability of seafarers pending dispatch to perform as scheduled. See China Government Network (Jan. 27, 2020), http://www.gov.cn/zhengce/content/2020-01/27/content_5472352.htm. (in Chinese)

11 FU Benchao, ZHAO Fei & WANG Yiping, *On the Protection of Seafarers' Personal Rights and Interests in the Implementation of Maritime Strategy*, Shandong Judges Training Institute Journal, Vol. 35:6, p. 131-140 (2019). (in Chinese)

guarantee the seafarers' right of reasonable remuneration for their services.

There is a lack of authoritative and unified standards for determining the "work-related injury" of sick and injured seafarers, which also affects seafarers' rights and interests. Laws and regulations concerning compensation for seafarers' "work-related injury" differ around the world. For example, the Merchant Shipping Act 1995 of the United Kingdom does not mention the assignment of liability for work-related injury compensation, but only provides in Article 45 that shipowners shall bear the reasonable costs of medical treatment for seafarers without delay. China adopts the "1+1" model based on the Recommended Industry Standard for the Treatment of Injuries, Diseases and Deaths of Seafarers, whereby the compensation for work-related injury of seafarers consists of two parts, namely the compensation received under the Regulation on Work-related Injury Insurance and the shipowner's lump-sum compensation for disability or death. This indicates that the work-related injury compensation is also an important part of injury and illness compensation for the relatively disadvantaged seafarers. Currently, there is no authoritative and unified standard in the industry on whether seafarers infected with COVID-19 during the epidemic are entitled to the treatment of "work-related injury". If seafarers are infected with COVID-19 and suffer a loss as a result of the performance of their work obligations, the shipowner's payment of medical-related expenses solely under the Maritime Labour Convention 2006 may result in the sick or injured seafarer not being fairly and reasonably compensated.

Whether or not the infection of COVID-19 can be recognized as a "work-related injury" is not only the key issue to protect the legitimate rights and interests of seafarers, but also the inevitable requirement of maintaining the fairness and rationality of the responsibilities of the parties to the seafarers' employment agreement, which, however, does not mean that seafarers can enjoy the treatment of work-related injury once they are infected with COVID-19. It is not easy to define whether some seafarers infected with COVID-19 during the epidemic

belong to the case of "work-related injury".[12] According to Articles 14[13] and 15[14] of Regulation on Work-Related Injury Insurance of China, it is more reasonable for seafarers to presume that a seaman suffers a work-related injury under the following circumstances: First, a seafarer is infected due to epidemic prevention-related work in the course of performing his/her service, such as exposure to suspected and confirmed cases during epidemic prevention and control work on board and medical quarantine, and disembarkation to purchase necessary materials or transport materials. Second, a seafarer who has to go to an infected area as per the government orders to assist in the transportation of emergency supplies for epidemic prevention and rescue or to complete other prevention and control tasks during the performance of his/her service; accidental infection of seafarers during the shift change or repatriation and normal performance of work obligations should not be recognized as a work-related injury. At present, many countries with the well-developed shipping industry, including China, have not made it clear whether seafarers belong to those who "can enjoy work-related injury treatment if they are infected with COVID-19 as a result of fulfilling their work obligations". Therefore, it cannot be generalized whether seafarers infected with COVID-19 shall be regarded to have suffered from "work-related injury". In real-life situations, for example, when ships such as the Diamond Princess are quarantined at anchor at sea, seafarers are quarantined and subjected to medical testing and observation, and provide corresponding services to passengers to maintain the quarantine order; or transport disaster relief materials in accordance with the instructions of the

12 According to *The Notice of Issues Concerning the Guarantee of Medical Staff and Other Related Staff Infected with Novel Coronavirus (COVID-19) Pneumonia Due to Performance of Duties* issued by the Ministry of Human Resources and Social Security, it is inconclusive whether seafarers belong to "relevant personnel". However, in the relevant provisions of the Regulation on Work-Related Injury Insurance, "those who are injured when dealing with an emergency or providing disaster relief or in other activities for maintaining the state benefits or public benefits shall be regarded to have suffered from the work-related injury".

13 It is stipulated in Article 14 of Regulation on Work-Related Injury Insurance that an employee shall be ascertained to have suffered from work-related injury if: a. He/she is injured from an accident within the working hours and the working place due to his/her work; b. he/she is injured from an accident within the working place before or after the working hours for doing preparatory or finishing work related to his/her job; c. his/her whereabouts are unknown due to his/her injury or accident during his/her trip for performing duties.

14 It is stipulated in Article 15 of Regulation on Work-Related Injury Insurance that an employee shall be regarded to have suffered from the work-related injury if: a. During the working hours and on the post, he/she dies from a sudden disease or dies within 48 hours due to ineffective rescue; b. he/she is injured when dealing with an emergency or providing disaster relief or in other activity for maintaining the state benefits or public benefits.

government and shipping companies, the nature of which belongs to the "relevant personnel" who perform their duties; if they are infected with COVID-19, it is a "work-related injury"; while in other situations, such as infected with COVID-19 during commuting to and from work, the case does not belong to "work-related injury".[15]

B. Inconvenience for Seafarers to Change Shifts and Exercise Their Rights of Repatriation

Based on the provisions of Regulation 2.5 of the Maritime Labour Convention 2006, seafarers have the right to repatriate at no cost under the circumstances and conditions provided for in the Convention; member states shall facilitate the repatriation and shift change of seafarers working on the ships that call at their ports or pass through their territorial or internal waters. Article 6, paragraph 7, of the Seafarers' Identity Documents Convention (revised in 2003) stipulates that the member states shall, in the shortest possible time, approve the entry request for embarkation or repatriation of seafarers with valid seafarers' identity documents and passports. On 6 May 2020, the IMO issued a 12-step plan to its member states to assist in solving issues related to seafarers' shift changes, providing detailed guidance and suggestions for member states to properly handle seafarers' shift change and repatriation. Member states are called upon to appropriately adjust their port epidemic prevention and control measures in the light of the epidemic prevention and control situation in their port areas, while ensuring that the risk of infection will not increase, and to actively participate in the 12-step plan, so as to promote the implementation of the shift roadmap to provide maximum convenience for seafarers to enter the country. In practice, however, this 12-step plan still remains at the level of "empty talk" and is extremely difficult to implement. Currently, there are still many countries that refuse seafarers' entry-exit shift change, repatriation, and disembarkation for medical services. The enforcement of seafarers' service contracts is faced with certain difficulties, with a large number of shipowners and intermediary organizations infringing on the legitimate rights and interests of seafarers.

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15 CHEN Peng, *On the Protection of Seafarers' Legal Rights and Interests under COVID-19 and Countermeasures,* China Water Transport, Vol. 26:5, p. 9 (2020). (in Chinese)

C. No Clear Rules for Determining Seafarers' Liability for Pperformance and Breach of Contract

As a result of the COVID-19 pandemic, seafarers may encounter unexpected situations such as not being able to board the ship in time to fulfill their service contract obligations, not being able to repatriate at the end of the contract or the agreed service period, not being able to renew the contract, and work beyond the contractual period, which may result in liability for breach of contract. The determination of the nature of the pandemic will have a direct impact on the extent to which seafarers bear liability for breach of contract and the effectiveness of employment agreements. Since flag states have different legal regimes for civil contract disputes, the basis for application and interpretation will vary. According to Article 180 of the Civil Code of China, "force majeure" means "any objective circumstance that is unforeseeable, unavoidable and insurmountable". It is a statutory exclusion clause that is binding on the parties to the contract. Therefore, if "force majeure" is interpreted broadly to mean a worldwide pandemic, seafarers may invoke the force majeure clause to postpone the performance of the contract or exempt part or all of the liability for breach of contract.

On 10 February 2020, the spokesman for the Legislative Affairs Commission of the Standing Committee of the National People's Congress pointed out that the parties affected by the government's epidemic prevention and control measures, resulting in their inability to perform the contract and achieve the purpose of the contract, could invoke force majeure-related legal provisions to partially or fully waive their liability. Later on, the China Council for the Promotion of International Trade announced that enterprises that are unable to perform or fail to perform international trade contracts as scheduled as a result of the COVID-19 pandemic can apply to them for factual proof related to force majeure.[16] With reference to previous judicial practice, the Supreme People's Court recognized it as a statutory situation of force majeure[17] in the Notice on Effectively Implementing Relevant

16 Legislative Affairs Commission of the Standing Committee of the National People's Congress, *Failure to Perform the Contract Due to Epidemic Prevention and Control is Force Majeure*, Sina (Feb. 10, 2020), https://finance.sina.com.cn/china/gncj/2020-02-10/doc-iimxyqvz1797181.shtml. (in Chinese)

17 Noticeof the Supreme People's Court on Effectively Implementing Relevant Trial and Enforcement Work of the People's Court During the Prevention and Control of SARS. See Bulletin of the Supreme People's Court of the People's Republic of China, Vol. 4 (2003). (in Chinese)

Trial and Enforcement Work of the People's Court During the Prevention and Control of SARS issued in 2003 in response to the SARS epidemic. COVID-19 is more serious and has a wider range of influence than SARS. The recognition of COVID-19 as force majeure not only conforms to the legal basis and judicial practice, but also conforms to the needs of the society. It can be seen that under Chinese law, the inability of the parties to perform the contract due to COVID-19 can be interpreted as an event of force majeure. However, in common law countries, there is no clear legal provision for the exclusion of liability for force majeure, and invoking "force majeure" alone does not necessarily exempt the parties from liability. Only some of the seafarers' service contracts explicitly consider epidemic diseases and disease quarantine as "force majeure". Whether the liability can be exempted or reduced should be judged in combination with the specific facts and the specific content and nature of the contract.[18]

As for the interpretation of the force majeure clause in the seafarers' employment service contract, it is necessary to make a judgment by comprehensively considering the impact of the pandemic on the performance of the contract and the applicable contract law rules of various countries. Blindly invoking the "force majeure exclusion clause" may also lead to unfair sharing of risks and interests among the parties to the seafarers' service contract. Currently, no unified interpretative standard has been agreed upon by the relevant international organizations and member states, and views on the responsibility of seafarers for performance are divergent, which to a certain extent makes it difficult for some seafarers to get relief when their contractual rights are damaged by the epidemic.

III. Improvement of the Legal Protection of Seafarers' Rights and Interests and Related Mechanisms

A. Refinement in the Legal Systems Concerning the Shipping Industry and Protection of Seafarers' Rights and Interests

It is well known that legal norms have a delayed nature. Regarding relevant international conventions including the International Health Regulations (2005), technical guidance, and relevant laws and regulations of various countries,

18 ZHANG Wenguang, *Correct Application of Force Majeure System*, Maritime China, Vol. 25:6, p. 72-74 (2020). (in Chinese)

including China's Regulation on Seamen and Regulations on the Administration of Professional Security of Seafarers, there exist more or less legal loopholes of protection of seafarers' rights and interests exposed under the epidemic, making them fail to effectively deal with the damage and risks brought to seafarers by public health emergencies. Meanwhile, there are also certain conflicts between the relevant international conventions, the guiding norms of international organizations and domestic laws and inter-state laws and regulations. Problems existing in the convergence between domestic and international laws require the adaptation of international law and legislative adjustment, as well as the refinement of content, strengthening of pertinence, and clarification of responsibility subjects, and the issuance of more detailed operational guidance on the protection and relief of seafarers' rights and interests in large-scale public health emergencies. As for the loopholes in current international and domestic laws on the protection of seafarers' rights and interests, international conventions such as the International Convention on Maritime Search and Rescue and the International Convention for the Safety of Life at Sea, which deal with the assistance of seafarers, do not involve the distribution of responsibilities and rights relief in case of major public health incidents. China's Regulation on Seamen only provides that the administrative department of labor and social security assumes the responsibility for protecting seafarers' labor rights and interests and supervising and inspecting employers, however, there is no further detailed supervision process and methods of rewards and punishments. China has ratified and entered into force the Maritime Labour Convention 2006. As for domestic law on the protection of seafarers' labor and personal rights and interests, the Regulation of the People's Republic of China on Seamen doesn't directly reflect the relevant provisions on the protection of personal rights and interests of seafarers in the domestic legislation of China.[19] The protection of seafarers' rights and interests and compensation for damages are not in line with international treaties, which may also cause difficulties in judicial practice and affect the effective protection of seafarers' rights and interests.

It is suggested that China should, in combination with the relevant conventions and treaties of the WHO, the IMO and the ILO, further clarify how to apply and interpret the relevant international conventions under a major epidemic in the light

19 CHEN Peng, *Analysis of the Legislation Practice of the Regulation on Seamen on the ILO Conventions in China* (Part I), China Maritime Safety, Vol. 28:10, p. 30-36 (2009). (in Chinese)

of new developments and circumstances, supplement and improve the agency responsibility, state responsibility, seafarers' rights and interests and coordination relief mechanism from two aspects of procedural law and substantive law, and take the lead in setting up a special agency to coordinate and guide the protection of seafarers' rights and interests, so as to coordinate the international and domestic situation. At the same time, we can call on countries worldwide to carry forward the spirit of humanitarianism and actively participate in the assistance of sick and injured seafarers, and respond to the appeal of Kitack Lim, Secretary-General of the IMO, to recognize the status of seafarers as "key workers" and to treat seafarers and medical personnel equally, thus contributing to the protection of seafarers' legitimate rights and interests.[20] Endowing seafarers with the status as "key workers" is not only a recognition of their contribution to the transportation of epidemic control materials, but also a key measure to protect their legitimate rights and interests, and helps reduce discrimination and unequal treatment against them.

With regard to China's shipping and maritime legal regimes, the relevant provisions of the International Health Regulations and the Maritime Labour Convention 2006 should be incorporated, in combination with China's existing social security, medical and health and epidemic prevention legal regime, to propose the establishment of China's maritime traffic and port control from the perspective of the overall national security concept, and amend the current Maritime Traffic Safety Law and Port Law.[21] A comprehensive revision of the Regulation on Seamen should be conducted, and a study on the formulation and implementation of the Seafarer Law should start. Efforts should be made under the strategy of maritime power to establish a legal system for seafarer management and protection of seafarers' rights and interests that fit a maritime power. In particular, it is necessary to add relevant laws to protect the legitimate personal rights and interests of seafarers, and improve the legal regime of compensation for damage

20 25 June 2020 is the Day of the Seafarer. The IMO has designated the theme of the Day of the Seafarer 2020 as "Seafarers are Key Workers", calling on the public to understand the sacrifices and contributions made by seafarers in the fight against the COVID-19 pandemic, and their important role in the operation of the global supply chain. Refer to *Theme of the Day of the Seafarer 2020: Key Workers!... IMO: Be Bold When You Are Bold!*, see CNSS (Jun. 23, 2020), https://www.cnss.com.cn/html/cydt/20200623/336559.html.

21 CHEN Peng, *Protection of Seafarers' Rights and Interests Under the COVID-19 Pandemic*, China Maritime Safety, Vol. 26:4, p. 23 (2020). (in Chinese)

to seafarers' personal rights and interests.[22] By combining with the national health and epidemic prevention, inspection and quarantine, as well as the industry health and epidemic prevention standards and health guidelines of the WHO, the IMO and the ILO, we should improve the deployment of epidemic prevention on ships, perfect the seafarers' Medical Manual and Radio Medical Guide, and strengthen the seafarers' ability to prevent and control the epidemic and deal with public health emergencies. Eventually, the laws, regulations and policies that are in line with the development of China's shipping industry and effectively standardize and protect the reasonable and legitimate rights and interests of seafarers are proposed, so as to establish an indispensable legal system for the management and protection of seafarers' rights and interests.

More than accelerating the enactment, amendment, repeal and interpretation of laws and regulations related to seafarers' rights and interests, it is also necessary to make appropriate adjustments for seafarers on the epidemic prevention policy and the port and ship management system. First, we should implement the purposes and provisions of the relevant international conventions and clauses, gradually perfect the laws and regulations on the labor rights and interests of seafarers and the protection of health and safety, and specify the subject of responsibility and legal consequences, so as to ensure the realization of the claim for seafarers' wages and social benefits under the guarantee of a maritime lien. Second, we should formulate specific technical guidelines and guiding policies for various major public health incidents, including the COVID-19 pandemic, strengthen ship inspection and supervision, and provide convenience for seafarers in administrative procedures, such as the extension of the time limit for handling seafarer competency certificates, remote training for seafarers, adjustment of transit policies for seafarer shift change and repatriation, etc. Meanwhile, the communication and exchange of the health and safety information of seafarers should be strengthened to reduce the possibility of the spread of the pandemic. Third, seafarers who provide services during the pandemic are exposed to higher life and health risks than during normal work, and those who work overtime are also faced with overload work under the condition of physical and mental exhaustion. The state can consider appropriately reducing or waiving the individual income tax on the salaries of seafarers during the pandemic,

22 FU Benchao, ZHAO Fei & WANG Yiping, *On the Protection of Seafarers' Personal Rights and Interests in the Implementation of Maritime Strategy*, Shandong Judges Training Institute Journal, Vol. 35:6, p. 139 (2019). (in Chinese)

so as to improve their enthusiasm and the stability of ship navigation. Fourth, we should strengthen the contact and cooperation among competent authorities of maritime labor, shipowners' associations and seafarer unions, standardize the contents of rights and obligations in seafarer employment agreements,[23] and set clear and unified standards for delayed repatriation and shift change, paid annual leave, extended service, social insurance payment and wage payment under a major epidemic, so as to strive for the maximum interests within a reasonable scope for seafarers. Fifth, we should accelerate the establishment of an efficient mechanism for ship supervision and inspection and the settlement of labor disputes for seafarers, to give full play to the professionalism of the maritime authorities and provide a platform for the relief of seafarers' legitimate rights and interests. Finally, we should precisely apply relevant international conventions, international practices and foreign laws to foreign-related maritime proceedings, fully taking into account the differences between continental law and common law, as well as the relevant rules of force majeure in international practice, in order to accurately apply the performance and rules of the service contract for shipowners and seafarers, thereby aligning with the international rule of law.[24]

B. Perfection of the International Cooperation Mechanism for Governance of the Shipping Industry

It is the duty of the relevant states, including the flag ones, the port ones, the states of nationality of seafarers, and those of nationality of the shipping company, to safeguard seafarers' right to health, regardless of whether it is from a humanitarian or a jurisdictional point of view. In the context of global public health emergency prevention and control, issues concerning responsibility distribution and jurisdiction conflict between countries have become highlighted, making it critical to establish and improve mechanisms for international cooperation and information sharing in outbreak prevention and control.

Relevant countries should strengthen cooperation with relevant international maritime organizations to establish a platform for dynamic detection and

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23 LI Zhen, *Comments of Flag StateControl under the Maritime Labor Convention 2006*. China Maritime Safety, Vol. 66, p. 33 (2011).

24 SI Yuzhuo, *Properly Handling Epidemic-Related Foreign Maritime Disputes and Demonstrating China's Judicial Responsibility*, ChinaCourt (Jun. 18, 2020), https://www.chinacourt.org/article/detail/2020/06/id/5308248.shtml. (in Chinese)

information exchange of epidemic situation on ships, so that coastal countries can make timely policy adjustments according to the situation of epidemic prevention and control on ships, thus facilitating the assistance to sick and injured seafarers. Technical cooperation should be strengthened in terms of port emergency response coordination and medical, health and epidemic prevention research between countries, so as to lay a solid medical foundation for the assistance of sick and injured seafarers. An inter-state mechanism for cooperation and consultation on response to public health emergencies should be established, with a consensus reached on such issues as seafarer assistance, rights relief, jurisdiction conflict and responsibility, so as to provide a strong political guarantee for protecting the legitimate rights and interests of seafarers, especially those who are dispatched.

C. Effective Improvement on the Working and Living Environment of Seafarers at Sea

Given the great difference between the working environment on the sea and on the land, the ship navigation work and life at sea require higher physical and psychological quality of seafarers. The physiological and psychological fatigue of seafarers will be aggravated when they are under constant physical strength consumption and increasing psychological pressure, coupled with the monotonous and tedious special working environment and the complicated and precise operation of ship machinery, as well as irregular and unhealthy diet and rest. This is also one of the main causes of maritime accidents.[25] As a result of the epidemic, most of the seafarers serving on board are not only exposed to the risk of being infected with COVID-19, but also face the problems of overwork and lack of protection for their legitimate rights and interests.

First, public opinion publicity and law education popularization should be strengthened to raise seafarers' awareness of safeguarding their rights, enabling them to understand the rights and treatment that can be fought for under the influence of major public health incidents and the means and competent authorities for dispute settlement, and to familiarize them with the process and steps; the legal awareness of shipowners should be raised to respect the legitimate labor rights and interests of seafarers, and effectively improve the working treatment and quality

25 WANG Zihai, *The Causes and Countermeasures of Seafarers' Fatigue*, China Water Transport, Vol. 12:1, p. 9 (2009). (in Chinese)

of life of seafarers during the epidemic; it is also necessary to raise the society's awareness and attention to the shipping industry and the social status of seafarers, and enhance the social respect for seafarers.

Second, shipowners should make effective ship epidemic prevention, conduct regular disinfection and sterilization, and evaluate the mental health status of seafarers on a regular basis to monitor their physical condition; seafarers suspected of infection, diagnosed or recovered should be dealt with in a fair and impartial manner to avoid discrimination; medical assistance should be actively provided for sick and injured seafarers, with emphasis laid on psychological care to ensure their mental health;[26] efforts should be made to maximize the comfort of the working and living environment of seafarers, reduce the possibility of exposure to the source of infection, and improve the diet quality of seafarers to enhance their physical fitness.[27]

D. Improvement on the Service Level of Seafarers in Port

The traditional port operation and management model has shown its weaknesses in the face of a major global epidemic. Early in the outbreak of the disease, many coastal countries closed some of their ports or strictly controlled the berthing and transit of ships and the disembarkation of seafarers in order to strictly prevent and control the epidemic. Until the epidemic is completely eradicated, countries will not relax their prevention and control measures, and the inefficient operation of most ports will be difficult to improve in a short period of time due to the general environment.

Therefore, on the premise of ensuring the emergency level of major public health events, it is the future direction of port reform and development to align with international standards, improve the competitiveness of international economy and trade and the quality of economic development of ports, enhance the degree of freedom of shipping, regulate the operation of ships, facilitate the entry and exit of seafarers, and protect the legitimate rights and interests of seafarers. The Master Plan for the Construction of Hainan Free Trade Port, issued by the CPC Central

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26 WHO, *Considerations for Adjusting Public Health and Social Measures in the Context of COVID-19*, WHO (May 10, 2020), https://apps.who.int/iris/bitstream/handle/10665/332050/WHO-2019-nCoV-Adjusting_PH_measures-Workplaces-2020.1-chi.pdf.

27 Committee on Economic, Social and Cultural Rights - General Comment No. 14 (E/C.12/2000/4, 11 August 2000), para. 15.

Committee and the State Council on 1 June 2020, also provides valuable and constructive advice for protecting the legitimate rights and interests of seafarers in the event of a major public health incident. The plan is designed to implement more convenient entry-exit management policies, optimize entry-exit border inspection management, grant a certain degree of discretion to the free trade port border inspection organs, and provide a certain degree of freedom to control the entry and exit of seafarers in the event of a major epidemic, which will greatly facilitate seafarers' shift change and repatriation. The plan also strengthens the level of medical assistance in port, accelerates the construction of green intelligent ships and smart ports, strengthens the construction of port public health prevention, control and treatment system, establishes a monitoring and early warning platform for infectious diseases and public health emergencies, emergency response platform and decision-making command system, improves the capabilities of early prevention, risk research and timely disposal, and provides efficient system guarantee for medical assistance for sick and injured seafarers and epidemic prevention and control in ships.

IV. Conclusion

So far since the COVID-19 outbreak, a huge number of seafarers worldwide are still drifting at sea, suffering overloaded working hours and tasks. Many countries still impose strict controls on the movement of people between ports to prevent and control the epidemic, which leads to difficulties in shift changes, long delays in returning home, lack of timely assistance for sick and injured seafarers, and lack of a way to relieve the infringement of legitimate labor rights and interests. In order to alleviate the plight of seafarers' work and rights protection in the context of large-scale public health incidents, it is urgent to push forward the progress and improvement of the legal system of protecting seafarers' rights and interests.

In addition to strictly abiding by the relevant provisions of international law to protect the human and contractual rights of seafarers, states parties to the relevant international conventions, coastal states and flag states should consciously establish exchange and cooperation mechanism and information sharing platform: On the one hand, the standardization of seafarer service contracts should be strengthened under the framework of international law, with a clear definition of public health emergencies and a reasonable interpretation and application of force majeure, so as to ensure the realization of seafarers' labor rights and improve their working

environment and welfare. On the other hand, efforts should be made to speed up the enactment, amendment, repeal and interpretation of laws and regulations concerning seafarers within the scope of domestic law, establish and improve the mediation, arbitration and litigation mechanism of seafarer contract disputes, and enhance the timeliness, fairness and convenience of rights relief for seafarers. In the meantime, shipowners and intermediary organizations should continue to enhance contract awareness and respond to the appeal of the ILO and relevant organizations for the protection of seafarers' rights and interests. They should be people-oriented, recognize and appreciate the sacrifices made by seafarers in the pandemic. They should also pay attention to the physical and mental health of seafarers, reasonably improve the treatment and status of them, actively assume contractual responsibilities, create a good working atmosphere for, and effectively protect the legitimate rights of seafarers.

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中国远洋渔业履约白皮书

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前　言

中国远洋渔业自1985年起步，根据相关双边渔业合作协议或安排，在合作国家管辖海域开展互利共赢的入渔合作。上世纪90年代以来，根据《联合国海洋法公约》等相关国际法，中国开始发展公海渔业，积极行使开发利用公海渔业资源的权利，同时全面履行相应的资源养护和管理义务。截至2019年底，中国拥有合法远洋渔业企业178家，批准作业的远洋渔船2701艘，其中公海作业渔船1589艘，作业区域分布于太平洋、印度洋、大西洋公海和南极海域，以及其他合作国家管辖海域。

中国远洋渔业始终坚持走绿色可持续发展道路，致力于科学养护和可持续利用渔业资源，促进全球渔业的可持续发展。通过严格控制船队规模，强化规范管理，打击非法捕捞，提高质量效益，努力建设布局合理、装备优良、配套完善、管理规范、负责任和可持续的远洋渔业产业。

中国已加入养护大西洋金枪鱼国际委员会（ICCAT）、印度洋金枪鱼委员会（IOTC）、中西太平洋渔业委员会（WCPFC）、美洲间热带金枪鱼委员会（IATTC）、北太平洋渔业委员会（NPFC）、南太平洋区域渔业管理组织（SPRFMO）、南印度洋渔业协定（SIOFA）、南极海洋生物资源养护委员会（CCAMLR）等区域渔业管理组织（RFMO）。按照上述区域渔业管理组织要求履行成员义务，并对尚无RFMO管理的部分公海渔业履行船旗国应尽的勤勉义务，是确保国际渔业资源可持续利用的需要，也是促进中国远洋渔业在国际渔业管理框架下可持续发展的需要。

为使国际社会充分了解中国远洋渔业管理原则立场、政策措施和履约成效，特发表本白皮书。本白皮书主要介绍中国履行船旗国、港口国和市场国的义务，实施远洋渔业监管，促进渔业资源科学养护和可持续利用的各项制度规定和措施做法，以及为提升履约绩效、促进全球渔业可持续发展开展的科学支撑、国际合作、基础设施和能力建设等内容。

一、全面履行船旗国义务

（一）实行远洋渔业许可制度。根据《中华人民共和国渔业法》，中国建立了远洋渔业许可制度和远洋渔船登记、检验等制度。2003 年制定《远洋渔业管理规定》并于 2020 年 4 月全面修订后重新发布实施，建立了全面的远洋渔业管理制度和措施。根据上述规定，所有中国远洋渔船均应当办理登记、检验、取得捕捞许可证或经批准后方可作业。同时，根据有关区域渔业管理组织要求，对在相关区域内作业的远洋渔船，按规定履行注册程序。

（二）实行投入和产出控制措施。为科学养护渔业资源，中国在“十三五”期间严格控制远洋渔业规模，原则上不再批准新增远洋渔业企业和远洋渔船，将远洋渔船总量控制在 3000 艘以内。严格遵守各区域渔业管理组织关于捕捞渔船的船数和吨位限额制度、分鱼种捕捞配额制度，严格执行有关禁渔区、禁渔期的养护管理措施。

（三）建立远洋渔业数据收集和报送体系。中国高度重视远洋渔业基本生产统计和有关数据的收集报送，建立了涵盖远洋渔业企业和远洋渔船信息、船位监测、渔捞日志、转载、国家观察员、信息船、港口采样、科学调查及探捕等全方位的远洋渔业数据采集体系，并按照有关区域渔业管理组织的相关规定，及时报送各类渔业数据，履行渔业数据收集和报送义务。

（四）推行并完善渔捞日志制度。远洋渔船渔捞日志是最重要的科学数据采集来源。2008 年，原农业部办公厅发布《关于规范金枪鱼渔业渔捞日志的通知》，规范渔捞日志填报工作，并根据区域渔业管理组织要求提交渔捞数据和报告，参与分析工作。在公海鱿鱼、围网、拖网等其他渔业种类方面，也逐步开展了渔捞日志填报工作。目前远洋渔业企业渔捞日志报告率已达 100%，填报质量逐年提高。在此基础上，积极推进电子渔捞日志试点工作，提高数据报送效率。

（五）推行并完善国家观察员制度。派遣观察员随船进行实时记录是国际通行的一种渔业科学数据采集方式。从 2001 年起，中国开始探索派遣国家观察员，2016 年原农业部印发《远洋渔业国家观察员管理实施细则》，推进国家观察员派遣工作的规范化、制度化、程序化，中国远洋渔业国家观察员派遣工作得到稳步加强。目前中国远洋渔业的国家观察员派遣人数和覆盖率均达到有关RFMO的要求。

（六）主动实施公海自主休渔。为加强公海渔业资源养护，积极履行勤勉义务，中国于 2020 年开始，每年在西南大西洋和东太平洋公海相关海域分别试行为期三个月的鱿鱼渔业自主休渔。根据要求，以鱿鱼为主捕对象的所有中国籍远洋渔船在休渔期间不得进入休渔区生产作业。同时开展鱿鱼资源动态监测、国家观察员派遣、试行电子渔捞日志等工作，逐步建立起公海鱿鱼资源养护与管理的科学规范措施，促进全球公海鱿鱼渔业可持续发展。

（七）全面提升履约绩效水平。近年来，在印度洋金枪鱼委员会、大西洋金枪鱼养护国际委员会、南极海洋生物资源养护委员会等 RFMO 中，中国远洋渔业履约成绩都排名前列，特别是与其他公海捕捞方相比，履约水平逐年提升。为切实

提高企业履行国际公约和依法生产能力，促进远洋渔业规范有序发展，2019年，农业农村部办公厅印发《关于试行开展远洋渔业企业履约评估工作的通知》，对远洋渔业企业及其渔船的年度履约情况进行量化评定，并以履约评估成绩作为实施奖惩措施的依据。

二、严格实施远洋渔业监管

（一）加强远洋渔船船位监控。为强化远洋渔业管理、保障远洋渔船航行安全、维护合法作业秩序，中国于2006年探索实行远洋渔船船位监控，2014年正式发布《远洋渔船船位监测管理办法》，2019年修订后重新发布实施。根据要求，中国对远洋渔船实行24小时船位监测，所有远洋渔船均须安装并正常开启船位监测系统（VMS），每小时自动报告1次船位，远高于每4小时1次的国际通行报送频率；同时建立远洋渔船越界预警和报警机制，严防渔船误入或未经批准进入他国管辖海域。

（二）加强公海渔获转载监管。中国坚持实施合法渔获转载管理制度，在切实加强监管的同时，满足远洋渔船合理作业需求。2020年，农业农村部印发《关于加强远洋渔业公海转载管理的通知》，对全面建立公海转载监管制度提出要求，包括自2021年1月1日起，所有中国渔船公海转载活动均需提前申报和事后报告，为远洋渔船提供渔获物转载服务的运输船需逐步配备观察员或安装视频监控系统。RFMO另有规定的，按其规定执行。

（三）推动开展公海登临检查。中国支持在有关国际法框架内，开展以打击非法渔业活动为目的的公海登临检查。2020年，中国开始在北太平洋渔业委员会注册执法船，正式启动北太平洋公海登临检查工作，切实履行成员国义务，为北太平洋区域内公海执法提供有力保障。同时，逐步推动按程序向其他区域渔业管理组织派遣执法船，有效参与国际社会打击公海非法捕捞的共同行动。

（四）逐步建立远洋渔船港口检查制度。中国支持通过港口监管加强打击非法、不报告和不管制（IUU）渔业活动，积极研究加入联合国粮农组织（FAO）《关于预防、制止和消除非法、不报告和不管制捕捞的港口国措施协定》，开展部门协调，逐步提高港口检查能力。在加入上述协定之前，从个案着手，积极推动履行港口国义务。2016年，中国配合CCAMLR成功在国内港口扣押处置了一艘外籍渔船非法转载南极犬牙鱼渔获物案件。2018年起，将中国加入的相关区域渔业管理组织公布的IUU渔船名单通报各港口，拒绝此类渔船进港以及在中国港口进行卸货、补给、加油等活动。

（五）实施远洋水产品进出口监管。根据相关RFMO养护管理措施要求，中国严格实施水产品进出口监管，积极履行市场国义务。对进出中国的大目金枪鱼、

剑鱼、蓝鳍金枪鱼以及南极犬牙鱼产品实施进口查验监管和出口认证。根据欧盟、韩国、智利等进口国（地区）要求，对相关出口产品进行合法性认证，并根据其核查要求进行调查反馈，确保渔获物出口合法合规、来源可追溯。中国与俄罗斯签署政府间打击非法捕捞协定，对原产自俄罗斯的部分产品实施进口监管，阻止非法捕捞产品进入我国市场，确保在我国市场流通的产品来源合法。

（六）严厉打击非法捕鱼活动。中国坚决支持并积极配合国际社会打击各种非法渔业活动。《远洋渔业管理规定》中明确规定，禁止远洋渔业企业和远洋渔船从事、支持或协助 IUU 渔业活动。对相关国家和国际组织等提供的有关中国渔船涉嫌违规线索，中方均认真予以调查，以“零容忍”态度，对调查核实的违规远洋渔业企业和渔船采取罚款、暂停渔船作业、暂停或取消企业从业资格、将违规船长和管理人员列入从业人员“黑名单”等措施进行严厉处罚，持续推进远洋渔业规范有序发展。

三、促进资源可持续利用

（一）主张资源长期可持续利用原则。中国坚持走绿色可持续发展道路，正确处理渔业资源养护与开发利用的关系，一贯主张在科学评估的基础上进行长期可持续的合理利用。积极研究捕捞策略（Harvest strategy）方法在渔业可持续管理中的运用。支持和主张配额和捕捞能力的合理转让，控制捕捞能力总量。严格遵守区域渔业管理组织的捕捞限额制度和资源恢复计划，遵守对兼捕种类和生态系统的养护措施。

（二）支持生态和环境友好型捕捞。中国支持环境和生态友好型渔具及捕捞方式的研发和推广应用，优化渔具选择性，保护珍稀濒危物种；遵守国际组织通过的关于垃圾污染物排放的规定，降低捕捞对海洋生态系统的负面影响；禁止公海大型流刺网作业。根据有关 RFMO 要求，中国科研机构和企业在南极磷虾拖网船上开展针对误捕海洋哺乳动物的释放试验；在金枪鱼围网渔船上试验使用生态型人工集鱼装置，在金枪鱼延绳钓渔船上开展生态型钓钩（如圆形钩）使用试验，重视研发和推广使用有助于降低鲨鱼、海龟、海鸟等海洋动物误捕及海洋生态系统危害的渔具和作业方式，为金枪鱼延绳钓渔船按照 RFMO 要求配备脱钩器等海龟释放和保护装置。

（三）重视基于生态系统的渔业管理。基于生态系统的渔业管理（EBFM）是国际渔业管理应用较多的重要方法。中国重视基于生态系统的渔业资源养护和可持续利用，支持 EBFM 理论和方法的研究与实践。坚持在捕捞目标鱼种的同时，兼顾生态相关种类资源的可持续问题，注重评估和管理兼捕种类资源状态，特别是鲨鱼、蝠鲼、海龟、海鸟和哺乳动物，鼓励并参与有关的信息采集和科学研究。

注重海洋捕捞渔获物的最大化利用，鼓励充分利用兼捕渔获物。例如，农业农村部关于金枪鱼渔业管理的文件明确规定，延绳钓渔船应充分利用兼捕的鲨鱼，且不得取鳍抛体（禁捕物种除外）。

（四）关注气候变化与渔业可持续问题。中国一贯高度重视气候变化问题，把积极应对气候变化作为关系经济社会发展全局的重大任务。关注和倡导开展渔业应对气候变化评估，并开展有关预警性研究。2019年，支持中西太平洋渔业委员会通过气候变化研究提案，将考虑气候变化对高度洄游性鱼类资源和有关国家特别是发展中成员经济和食物安全的潜在影响提上日程。中国愿积极开展气候变化与渔业资源及其生态系统可持续关系方面的合作研究工作。

四、强化远洋渔业科学支撑

（一）不断加强科技和管理支撑。中国坚持加强远洋渔业的科技和管理支撑体系建设。成立远洋渔业国际履约研究中心，开展相关科学研究，提高在有关区域渔业管理组织的履约质量和能力。建立由渔业主管部门、远洋渔业协会、科研单位相结合、通力合作的管理和履约支撑体系。

（二）切实加强资源调查与监测。积极运用捕捞渔船和科学调查船开展渔业相关数据收集和样本采集，开展公海渔业资源长期调查监测，研究捕捞对象和生态相关种类的丰度变化，跟踪监测资源动态，为可持续利用公海渔业资源、保护相关种类资源提供科学依据。同时，根据有关合作国家要求，协助入渔国开展渔业资源科学调查，开展可持续利用和保护研究。

（三）积极开展资源养护管理研究。中国坚持以资源评估和最佳科学信息作为提出养护和管理建议、作出管理决策的重要依据。支持科研人员参加区域渔业管理组织的研究活动和会议，以资源评估为重点，开展鱼类种群生物学和栖息地、基于生态系统的渔业管理、休渔效果评价、电子监控和电子渔捞日志研发与试验等研究工作。研究人员担任RFMO科学工作组、科学委员会主席、副主席的人数逐渐增多，中国科学家的专业水平和所作贡献不断得到国际同行的认可。

（四）充分合理分享科学数据。中国主张充分合理开展数据共享和研究工作，使科学数据在管理决策中尽可能发挥最大作用，同时切实保障数据安全。中国愿同各区域渔业管理组织的有关科学家一道，充分利用来源科学的观察员采集数据、渔捞数据等数据信息，加强科学研究，为资源长期可持续利用和养护作出应有的贡献。

五、推进基础设施和能力建设

（一）支持渔船更新改造，扩大高效节能装备应用。中国支持发展环境友好型、高效节能的远洋渔船更新改造，鼓励采用安全高效、节能减排的船用装备和技术，严格限制过大更新远洋渔船尺度，最大化降低捕捞活动对海洋环境及生态系统的影响。

（二）建设远洋渔业信息系统，加强信息化管理。注重和加强远洋渔业信息化建设，建立远洋渔业管理信息系统，加强远洋渔业项目的统一管理；建立远洋渔业服务平台，结合船位监测系统，加强船位监测和避免渔船越界的预警能力；建设中国远洋渔业数据中心系统，科学管理生产统计报告、渔捞日志数据、观察员数据等。

（三）开展履约技术培训，提高从业人员履约能力。通过多种途径和形式提高远洋渔业从业人员、管理人员的履约技术水平。成立农业农村部远洋渔业培训中心，每年举办远洋渔业企业从业人员培训、远洋渔业职业经理人国际渔业资源养护和管理知识培训等，促进远洋渔业管理人员履约能力提升。依托科研教育机构，加强远洋渔业专业人才培养。

（四）加强海上安全生产，积极参与国际救助。通过提升船载、岸基通讯装备水平，建立海上互救保障机制，保障渔船生产和船员安全。与有关国家和组织合作，积极参与全球海上救助。中国远洋渔船近年多次成功搜救秘鲁、毛里求斯等国渔船渔民，积极履行生命优先的国际义务。例如，2018 年 3 月 5 日，“中水 702”船在太平洋岛国所罗门海域救起在海上漂泊 20 多天的 3 名当地渔民，受到救助者和所罗门政府的高度评价。

六、加强远洋渔业国际合作

（一）开展双边合作交流。中国政府积极与有关国家（地区）开展对话和交流，就公海渔业资源养护、区域渔业管理、打击 IUU 等广泛领域开展合作。中国与美国、澳大利亚、新西兰、俄罗斯、日本、韩国、阿根廷、欧盟等国家（地区）建立有双边渔业会谈或对话机制，定期交流意见，加深彼此理解，共同推动全球可持续渔业发展和渔业治理。同时，注重与渔业资源国建立友好合作关系，与非洲、南太、南美、亚洲相关国家签订双边合作协议，通过合作积极促进当地就业和经济发展，实现互利共赢。例如，2019 年，中国与太平洋岛国农业渔业部长举行会议，签署《楠迪宣言》，推进渔业可持续发展领域合作。

（二）加强多边合作交流。中国积极参与联合国、联合国粮农组织等多边渔业事务，注重与濒危野生动植物种国际贸易公约（CITES）、世界贸易组织（WTO）等相关国际组织开展涉渔事务交流，全面参与相关区域渔业管理组织事务。将公海作业渔船列入 FAO 全球渔船记录，加强与国际海事组织（IMO）合作，鼓励远

洋渔船申请注册IMO编号（部分作业渔船强制申请）。此外，中国重视与有关非政府组织开展交流与合作。

（三）参与国际和区域渔业治理。中国致力于扩大和加强国际合作，积极参与国际和区域渔业治理，开展公海重要渔业资源监测和气候变化影响评估，推进公海鱿鱼、金枪鱼等资源养护与管理研究，开展兼捕物种资源评估和大洋性哺乳动物养护研究、生态系统可持续监测和评价等工作，为全球渔业可持续发展提供助力。

（四）支持发展中国家渔业发展。中国一贯支持其他发展中国家，特别是发展中小岛国和最不发达国家发展渔业及社区经济，在技术、人才和资金等方面，始终力所能及地给予帮助；支持RFMO在制定资源养护和管理措施时，充分考虑发展中小岛国和最不发达国家的特殊需求和实际困难。积极践行“一带一路”倡议和“海洋命运共同体”理念，通过开展入渔和租赁等互利共赢合作，支持发展中国家开展渔业基础设施建设、资源调查等，帮助其发展渔业和扩大就业。

结　语

回首过去，中国远洋渔业发展和国际履约成就显著。远洋渔业船队装备和管理水平取得大幅提升，船队规模和捕捞能力得到有效控制，渔船和渔获物监管取得显著成效，履约数据采集和报送体系初步建立，履约能力以及参与国际渔业研究与管理的能力显著增强，在所加入的区域渔业管理组织中总体履约成绩位居前列。

展望“十四五”，中国将进一步加强管理制度创新和能力建设，履行《联合国海洋法公约》和中国所参加的区域性渔业条约等规定的成员义务，严格遵守养护管理措施，严格控制船队规模，严厉打击IUU渔业活动，严格规范渔业行为，促进远洋渔业高质量发展。同时，中国将继续坚持创新、协调、绿色、开放、共享的发展理念，推动“海洋命运共同体”建设，通过多双边合作与对话，积极参与全球海洋渔业治理，促进全球渔业资源科学养护和长期可持续利用。作为负责任的发展中大国，中国将结合自身远洋渔业发展实践，为实现联合国《2030年可持续发展议程》目标14“保护和可持续利用海洋及海洋资源以促进可持续发展”作出积极贡献。

《中华海洋法学评论》稿约

《中华海洋法学评论》（*China Oceans Law Review*），国际刊号：ISSN 1813-7350，国内刊号：CN-35（Q）第 0017 号，电子刊号：ISSN 2518-6906，是中英双语全文对照的海洋法学期刊。前身为创刊于 2005 年的《中国海洋法学评论》，自 2019 年起由半年刊改为季刊。

本刊由厦门大学南海研究院、大连海事大学海法研究院、香港理工大学董浩云国际海事研究中心、澳门大学法学院和台湾师范大学政治学研究所联合办刊，是海洋法领域中英双语对照的优秀国际学术期刊。

本刊秉承“大中华、大海法”的办刊宗旨，力求刊发海内外与海洋法律、海洋政策相关的一切优秀研究成果，热忱欢迎广大专家、学者不吝赐稿，兹立稿约如下：

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《中华海洋法学评论》编辑部

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