ENVIRONMENTAL OBLIGATIONS AND LIABILITY OF PRIVATE CONTRACTORS

Potential Use of Sponsoring States of Convenience in the Deep Seabed Mining Regime

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List of abbreviations

1994 Implementation Agreement	Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982
Advisory Opinion	Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber)
ARSIWA	Articles on Responsibility of States for Internationally Wrongful Acts
BBNJ Agreement	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
BMJ	Blue Minerals Jamaica Ltd.
CIIC	Cook Islands Investment Corporation
Draft Exploitation Regulations	Draft Regulations on Exploitation of Mineral Resources in the Area
Declaration of Principles	1970 Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction
EIA	Environmental Impact Assessment
EU	European Union
Exploration Regulations	Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, and Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area
Exploration Regulations for Polymetallic Nodules in the Area	Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area
Exploration Regulations for Polymetallic Sulphides	Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area

Exploration Regulations for Cobalt-rich Ferromanganese Crusts	Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area
GSR	Global Sea Mineral Resources NV
ICJ	International Court of Justice
ILC	International Law Commission
IMO	International Maritime Organisation
ITLOS	International Tribunal for the Law of the Sea
ISA	International Seabed Authority
ISBA	International Seabed Authority
IUCN	International Union for the Conservative of Nature
LOSC	Law of the Sea Convention
LTC	Legal and Technical Commission
Marawa	Marawa Research and Exploration Ltd.
NORI	Nauru Ocean Resources Inc.
OMS	Ocean Mineral Singapore Pte. Ltd.
OECD	Organisation for Economic Co-operation and Development
OSPAR Convention	Convention for the Protection of the Marine Environment of the North-East Atlantic
PCA	Permanent Court of Arbitration
Rio Declaration	Rio Declaration on Environment and Development
SDC	Seabed Disputes Chamber
TOML	Tonga Offshore Mining Ltd.
UKSRL	United Kingdom Seabed Resources Ltd.
UN	United Nations

UNCITRAL	United Nations Commission on International Trade Law
UNCLOS	United Nations Convention on the Law of the Sea
UNCLOS I	First United Nations Conference on the Law of the Sea
UNCLOS II	Second United Nations Conference on the Law of the Sea
UNCLOS III	Third United Nations Conference on the Law of the Sea
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGA	United Nations General Assembly
VCLT	Vienna Convention on the Law of Treaties

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PART I: INTRODUCTION

Chapter 1: Introduction

1.1 General contextualisation of the problem

The ocean floor and its subsoil area beyond the national jurisdiction of States, known as 'the Area', are considered a common heritage of mankind.[1] In order to prospect, explore or exploit these regions, States must abide by a comprehensive international legal framework established mainly in Part XI and Annexes III and IV of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), as modified by the 1994 Implementation Agreement;[2] and by the rules, regulations, and procedures of the International Seabed Authority (ISA), namely, the Mining Code.[3] These fundamental regulations are provided by the ISA, which UNCLOS established to administrate the deep seabed mining in the Area and its mineral resources, namely polymetallic nodules, polymetallic sulphides, and cobalt-rich ferromanganese crusts.[4]

The ISA, as the major international organisation responsible for activities in the Area, has entered into various contracts for exploration activities with States, State enterprises, and corporations.[5] At the time of writing, the Authority has already adopted the *Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area*; the *Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area*; the *Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area*; the *Decision of the Assembly of the International Seabed Authority Concerning Overhead Charges for the Administration and Supervision of Exploration Contracts*; and *Certain Recommendations for Guidance of the Contractors*.[6] Adoption of these regulations, jointly referred to as the so-called 'Mining Code', has

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[1] *United Nations Convention on the Law of the Sea* (UNCLOS), adopted 10 December 1982, United Nations General Assembly, Art. 1(1). It is worth mentioning that the term 'common heritage of mankind' is outdated. Currently, the term 'common heritage of humankind' is mostly implemented. However, this work will keep the original wording by UNCLOS. *UNCLOS*, Preamble.

[2] *UNCLOS*. Art. 136; *UNCLOS*, Art. 137; *UNCLOS*, Part XI; *UNCLOS*, Annexes III; *UNCLOS*, Annexes IV.

[3] International Seabed Authority, *The Mining Code* (2023), <https://isa.org.jm/mining-code> (accessed 17 July 2023).

[4] *UNCLOS*. Art. 157(1).

[5] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[6] *Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area* (Polymetallic Nodules Exploration Regulation), 25 July 2013, ISA Doc. ISBA/19/A/9; *Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area* (Polymetallic Sulphides Exploration Regulation), 15 November 2010, ISA Doc. ISBA/16/A/12 Rev. 1; *Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area* (Cobalt-rich Ferromanganese Crusts Exploration Regulation), 22 October 2012, ISA Doc. ISBA/18/A/11; International Seabed

been described as the 'ultimate regulatory phase in developing the common heritage of mankind'.[7] Currently, the ISA is working on the development of the *Regulations on Exploitation of Mineral Resources in the Area*.[8]

Despite its large scope, the international legal framework for deep seabed mining activities is far from perfect. Since the deep seabed mining sector proposed to regulate its own activities prior to the commencement of activities of exploitation, this has resulted in the observation of numerous flaws in the regulations. Naturally, this absence of clarification would reflect on the regulation of environmental obligations and liability. This issue was one among several that led to

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Authority, *Decision of the Assembly of the International Seabed Authority concerning overhead charges for the administration and supervision of exploration* (25 July 2013), ISA Doc. ISBA/19/A/12, <https://isa.org.jm/files/files/documents/isba-19a-12_0.pdf> (accessed 15 December 2022); International Seabed Authority, *Decision of the Council of the International Seabed Authority relating to the procedures and criteria for the extension of an approved plan of work for exploration pursuant to section 1, paragraph 9, 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* (23 July 2015). ISA Doc. ISBA/21/C/19*, <https://isa.org.jm/files/files/documents/isba-21c-19_6.pdf> (accessed 15 December 2022); International Seabed Authority, *Recommendations for the guidance of contractors on the relinquishment of areas under the exploration contracts for polymetallic sulphides or cobalt-rich ferromanganese crusts* (23 July 2019), ISA Doc. ISBA/25/LTC/8, <https://isa.org.jm/files/files/documents/isba_25_ltc_8-e.pdf> (accessed 15 December 2022); International Seabed Authority, *Recommendations for the guidance of contractors for the reporting of actual and direct exploration expenditure* (14 April 2015), ISA Doc. ISBA/21/LTC/11, <https://isa.org.jm/files/files/documents/isba-21ltc-11_1.pdf> (accessed 15 December 2022); International Seabed Authority, *Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area* (30 March 2020), ISA Doc. ISBA/25/LTC/6/Rev.1 - (Replaced by ISBA/25/6/Rev.2), <https://isa.org.jm/files/files/documents/26ltc-6-rev1-en_0.pdf> (accessed 15 December 2022); International Seabed Authority, *13-39287 (E) Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration* (12 July 2013), ISA Doc. ISBA/19/LTC/14, <https://isa.org.jm/files/files/documents/isba-19ltc-14_0.pdf> (accessed 15 December 2022); International Seabed Authority, *Recommendations for the guidance of contractors on the content, format and structure of annual reports* (4 August 2015), ISA Doc. ISBA/21/LTC/15, <https://isa.org.jm/files/files/documents/isba-21ltc-15_1.pdf> (accessed 15 December 2022).

[7] Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 158; International Seabed Authority, *Draft Regulations on Exploitation of Mineral Resources in the Area* (22 March 2019), ISA Doc. ISBA/25/C/WP.1, < https://isa.org.jm/mining-code/draft-exploitation-regulations> (accessed 19 February. 2023).

[8] *Draft Regulations on Exploitation of Mineral Resources in the Area*; currently, the ISA has been discussing if the moratorium, the 'two-year rule', for the exploitation phase will be extended based on an extension of the moratorium or based on precautionary pause. British Institute of International and Comparative Law, *Deep Seabed Mining & International Law: Is a Precautionary Pause Required?* (London, United Kingdom: BIICIL, 2023).

the submission of a request for an Advisory Opinion to the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS).[9]

The Seabed Disputes Chamber in its Advisory Opinion entitled *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*[10] was called upon to answer three questions: 1. What are the legal responsibilities and obligations of States Parties to the Convention with respect to the sponsorship of activities in the Area in accordance with the Convention, in particular Part XI, and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982?;[11] 2. What is the extent of liability of a State Party for any failure to comply with the provisions of the Convention in particular Part XI, and the 1994 Agreement, by an entity whom it has sponsored under Article 153, paragraph 2(b), of the Convention?;[12] and, 3. What are the necessary and appropriate measures that a sponsoring State must take in order to fulfil its responsibility under the Convention, in particular Article 139 and Annex III, and the 1994 Agreement?[13]

In answering the first question, the Disputes Chamber stated that Part XI of UNCLOS expressly encourages the participation of all States in activities in the Area, with due regard to the

[9] International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6.

[10] International Tribunal for the Law of the Sea, *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber)*, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, 15; Tullio Scovazzi, 'The Contribution of the Tribunal to the Progressive Development of International Law', in ITLOS, *The Contribution of the International Tribunal for the Law of the Sea to the Rule of Law: 1996–2016* (Leiden, Netherlands: Brill Nijhoff, 2018), 118-160; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 205-230; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 133-143; Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525.

[11] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 72.

[12] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 164.

[13] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 212.

special interests and needs of developing states.[14] However, in contrast to some provisions of UNCLOS that give preferential treatment to developing States,[15] the Seabed Disputes Chamber concluded that none of the provisions related to obligations and liability of sponsoring States grants preferential treatment to developing States, giving the same treatment as to the sponsoring developed States.[16] This conclusion, at least in theory, would prevent parent corporations based in developed States from setting up subsidiaries in developing States with the purpose of being subjected to more flexible regulations on obligations and liability.[17] In other words, it may prevent the creation of sponsoring States of 'convenience'.[18] The establishment of a system of convenience sponsorship would jeopardise the overall standards of protection of the marine environment,[19] with considerable repercussions for the environmental obligations and liability that sponsored contractors must comply with.

In order to engage in deep seabed mining activities in the Area, entities other than States shall have a sponsorship from a State, which carries the responsibility to ensure compliance with

[14] 'The effective participation of developing States in activities in the Area shall be promoted as specifically provided for in this Part, having due regard to their special interests and needs, and in particular to the special need of the land-locked and geographically disadvantaged among them to overcome obstacles arising from their disadvantaged location, including'. *UNCLOS,* Art. 148.

[15] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 157; in the same sense, see *UNCLOS,* Art. 143(3); *UNCLOS,* Art. 144(2); *UNCLOS,* Art. 8 and 9; *UNCLOS,* Annex III.

[16] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 158.

[17] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159.

[18] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159; Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 136; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 15; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193; Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116, 137; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 669-671; Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 214; Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021); Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 475.

[19] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159.

the environmental rules.[20] These same sponsored entities must also be effectively controlled by a State, or more than one State if more than one exercises control over them, in order to receive their sponsorship certification.[21] Nonetheless, this statement of the Seabed Disputes Chamber does not prevent private parent corporations based in developed States from using sponsoring States of convenience. Aiming to circumvent stricter rules, primary companies can create subsidiaries based in developing States. This happens because the notion of effective control present in the provisions of UNCLOS is unclear. The Authority in its interpretation of effective control in the previous applications for plans of work for contracts for exploration activities, has adopted the understanding of 'effective control' as a synonym of 'regulatory control'.[22] In practice, the ISA reviews this formal requirement by only checking the proof of registration in the sponsoring State and the presence of the sponsorship certificate.[23] The mere incorporation or conferring of nationality by one State, regardless of whether this private entity is a subsidiary of a parent foreign

[20] Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*; James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 661-680; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189.

[21] *UNCLOS*, Art. 153(2)(b); *UNCLOS*, Art. 4(3), Annex III; Gwenaëlle Le Gurun, 'Annex III Article 12', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2198; see also International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 12–21.

[22] International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10; Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 138; Gwenaëlle Le Gurun, 'Annex III Article 4', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2139; Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 147-18; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*.

[23] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en> (accessed 15 December 2022), para. 12–21.

corporation, is sufficient to guarantee a sponsorship with a potential State.[24] Therefore, this system may favour the creation of a sponsorship of convenience system.

On initial examination, this appears to be a mutually beneficial arrangement for both private entities and sponsoring States. Through these agreements, States that do not have enough financial, technical and technological capacity may be able to economically benefit from activities in the Area. However, this can also allow flaws in the sponsorship regime to arise, especially flaws that may be to the advantage of the flexible application of environmental obligations and liability.

Each State aiming to conduct deep seabed mining activities in the Area must comply with UNCLOS, the 1994 Implementation Agreement, and the Mining Code.[25] Besides that, each sponsoring State must enforce the international legal framework on its respective sponsored contractors through its own national legislation.[26] If the sponsoring State does not properly comply with its obligation to ensure that the contractors over which it exercises control respect their environmental obligations, the sponsoring State will be liable for any environmental damages originating from the activities of the contractor.[27] Yet, despite the potential risk of being held liable for an inadequate incorporation of the international legal framework, sponsoring States retain a

[24] see International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10; para. 20-22; International Seabed Authority, *Issues related to the sponsorship of contracts for exploration in the Area, monopolization, effective control and related matters* (21 June 2016), ISA Doc. ISBA/22/LTC/13, para. 5–7 and 11; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10; see International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 12–21; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 671.

[25] *UNCLOS,* Art. 2, Annex III.

[26] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 158; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 3; Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 174.

[27] *UNCLOS*, Art. 22, Annex III; *UNCLOS*, Art. 139(2); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 166 and 167; Hui Zhang, 'The Sponsoring States` Obligation to Ensure In The Development Of The International Seabed Area' (2013) 28(4) *The International Journal of Marine and Coastal Law* 681, 685-686.

considerable degree of flexibility in how they are expected to incorporate these environmental obligations and liability regulations. This flexibility can be noticed in several ways, such as the presence or absence of specific environmental obligations; the model of liability that the sponsoring State chooses to apply internally; the enforcement of decisions; the necessity of insurance or compensation funds; and so on. The potential exists for a forum shopping system to emerge, whereby sponsoring States of convenience are sought by contractors in order to gain an advantage. This could lead to disputes between States to attract potential contractors.

1.2 Research question and delimitation of analysis

1.2.1 Main research problem

Considering all the above mentioned, this project proposes as the main research question: Do the environmental obligations and liability in the legal framework for deep seabed mining enable the creation of a sponsorship of convenience system?

1.2.2 Delimitation of analysis

This research question is situated within the broader context of the international legal framework governing deep seabed mining, and the extent to which it allows for the flexibilization of the sponsorship regime. Moreover, such flexibilization allows the creation of a system of sponsorships of convenience by sponsoring States and their private contractors, which aim to avoid stricter obligations and liability regulations. Accordingly, in answering this main research question, the research will discuss in each of its chapters issues related to the following questions: how the deep seabed mining regime is regulated and what are the structure and powers of the ISA (Chapter 2); what is the role of private contractors in the deep seabed mining regime (Chapter 3); what are the international environmental obligations of private contractors in the deep seabed mining regime (Chapter 4); what is the international environmental liability of private contractors in the deep seabed mining regime (Chapter 5); and, finally, what are the environmental obligations and liability of the sponsored contractors in national legislation (Chapter 6). Additionally, it is worth noticing that each of the chapters will rely on the main question by emphasising how each issue affects the debate on the sponsorship of convenience. Thus, with the exception of the chapter answering the first issue, all other chapters will have dedicated sections on the sponsorships of convenience.

1.2.3 Hypothesis

The hypothesis developed throughout the work is that, based on the discretion of the States to incorporate the international legal framework for deep seabed mining, there are no legal boundaries to prevent the formation of a forum shopping system that benefits sponsorships of convenience through the flexibilisation of their own legislation. Following the same reasoning, the international environmental obligations and liability as currently established by the international legal framework for deep seabed mining do not provide any mechanism to efficiently stop sponsoring States of convenience from creating flexible legislation to incentivise private corporations to opt for their sponsorship. The proposed solution to mitigate this problem is the standardised application of a strict liability approach, relying on a compensation fund to guarantee a complete reparation against any environmental damage caused by the contractors. Nevertheless, there are no practical limitations to the formation of a forum shopping system that encourages sponsorships of convenience.

1.3 Relevance and State of the Art

This research seeks to contribute to the broader investigation into deep seabed mining and, more specifically, on the sponsoring States of convenience regime under international law. There is a main reason why the issue of the environmental obligations and liability in the deep seabed mining regime and the sponsorships of convenience was chosen for this research.

Due to the imminence of the exploitation phase with the ongoing drafting of the Exploitation Regulations, the absence of substantive regulations related to the issue of the sponsoring States of convenience makes the debate urgently necessary. Despite the existence of a legal framework to be applied and other alternative sources such as the Advisory Opinion on *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area*, the current exploration contracts, and the standards pertaining to deep seabed mining, there appears to be some level of avoidance surrounding the problem even with some well-known examples associated with sponsoring States of convenience.

To date, legal doctrine has addressed some peripheral aspects of this issue, but has not yet engaged in a comprehensive examination of whether private corporations as contractors could

avoid stricter rules through the use of States of convenience as sponsors. Moreover, even when related topics are addressed, authors focus only on the environmental obligations and liability of States Parties to UNCLOS with respect to the sponsorship of activities in the Area as addressed by the Advisory Opinion of the Seabed Disputes Chamber of ITLOS, and do not consider relevant loopholes that can be used as justifications to breach the sponsoring State regime, especially by private contractors.[28]

In UNCLOS, the legal framework for Deep Seabed Mining is mainly contained in Part XI, Annex III, and Annex IV.[29] However, UNCLOS does not properly present the obligations and liability that sponsoring States and sponsored entities must comply with. Part XII offers a slight glimpse of obligations to protect and preserve the marine environment, but the lack of standards and guidelines for the implementation of these provisions made it necessary to include more detailed regulations through the Mining Code and the Advisory Opinion *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*.[30]

With regard to the Mining Code, the Exploration Regulations include a series of environmental obligations addressed to all actors involved in deep seabed mining activities. For example, Part V of the Exploration Regulations deals with the protection and preservation of the

[28] David Freestone, 'Responsibilities and Obligations of States and Entities with Respect to Activities in the Area' (2011) 105(4) *The American Journal of International Law* 755, 755-761; Cymie Payne, 'State Responsibility for Deep Seabed Mining Obligations', in Virginie Tassin Campanella, *Seabed Mining and the Law of the Sea*. (Oxford, United Kingdom: Routledge (forthcoming), 2023), 5-6; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 247; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 2; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 83; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 480.

[29] *UNCLOS,* Part XI; *UNCLOS*, Annex III; *UNCLOS*, Annex IV.

[30] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), 15; Tullio Scovazzi, 'The Contribution of the Tribunal to the Progressive Development of International Law', in ITLOS, *The Contribution of the International Tribunal for the Law of the Sea to the Rule of Law: 1996–2016* (Leiden, Netherlands: Brill Nijhoff, 2018), 118-160; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 133-143; Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525.

marine environment,[31] while Draft Exploitation Regulations reserved Part IV to delve into this matter.[32] At the same time that the Mining Code was being developed, the Seabed Disputes Chamber had the opportunity to clarify and develop these obligations and liability in its Advisory Opinion on *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*.[33]

As any sponsored entity, private corporations are bound to comply with environmental obligations.[34] Such obligations are part of the obligations to ensure related to the obligation of due diligence of the sponsoring States and sponsored entities[35] and the direct obligations that sponsoring States must ensure, such as: the obligation to assist the authority,[36] precautionary approach,[37] best environmental practices,[38] guarantees in an emergency order,[39] available resources of compensation,[40] and environmental impact assessment.[41] The proper enforcement of

[31] *Polymetallic Nodules Exploration Regulation,* Part V; *Polymetallic Sulphides Exploration Regulation,* Part V; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Part V.
[32] *Draft regulations on exploitation of mineral resources in the Area*, Part IV.
[33] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), 15.
[34] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 100; *UNCLOS*, Art. 153(4); *UNCLOS*, Annex IV, Art. 4(4).
[35] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117-120; Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169; Timo Koivurova, 'Due Diligence' (2013), in Rüdiger Wolfrum. *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020); Julian Aguon and Julie Hunter, 'Second Wave Due Diligence: The Case for Incorporating Free, Prior, and Informed Consent into the Deep Sea Mining Regulatory Regime' (2008) 38 *Stan. Envtl. L.J.* 3; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 248-253; Irini Papanicolopulu, 'Due Diligence in the Law of the Sea', in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds.), *Due Diligence in the International Legal Order* (Oxford, United States: Oxford University Press, 2020), 147-162.
[36] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 124.
[37] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 125-135.
[38] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 136-137.
[39] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 138.
[40] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 139-140.
[41] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 141-150.

these obligations on the private contractors will be the responsibility of the sponsoring States through their respective national legislation.[42]

However, at the international level, no specific enforcement action can be taken directly against private contractors where they fail to comply with one of their environmental obligations or for damage to the marine environment.[43] The enforcement can turn into a complex issue if considered in relation to the aspects of liability in the deep seabed mining regime. The discretion enjoyed by States over how the international legal framework can be incorporated in enacted national legislation for deep seabed mining may contribute or not to a flexible and less strict implementation of the obligations and liability of private contractors.[44] The lack of a precise standard for the incorporation of the international legal framework within national legislation can be well illustrated by the absence of consistency in how these laws impose liability for non-compliance with the obligations – for instance, in issues regarding the breach of obligation, the termination of the sponsorship, reparation, dispute settlement, and the stringency of the liability. Despite all the inconsistencies, there is nothing that prevents States from internalising the international legal framework in any particular manner, as long as they do not misinterpret it and not jeopardise its content.

Moreover, as verified, this model of obligation and liability by itself does not prevent private corporations from acting as contractors to take advantage of the deep seabed mining system. This could potentially result in a system of forum shopping, whereby sponsorships are

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[42] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218, 221, and 222; *Polymetallic Nodules Exploration Regulation,* Reg. 30; *Polymetallic Sulphides Exploration Regulation,* Reg. 32; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 32; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 7(2)(d); *UNCLOS,* Art. 139(1) and (2); *UNCLOS,* Art. 153(2) and (4); *UNCLOS*, Art. 4(4), Annex III.

[43] Steven R. Ratner, 'Corporations and Human Rights: A Theory of Legal Responsibility' (2001) 111 *Yale Law Journal* 443, 488; Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 6; Harold Hongju Koh, 'Separating Myth from Reality About Corporate Responsibility Litigation' (2004) 7(2) *Journal of International Economic Law* 263, 265.

[44] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 231 and 232; International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 8; Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10; Leonardus Gerbera and Renee Grogan, 'Challenges of Operationalizing Good Industry Practice and Best Environmental Practice in Deep Seabed Mining Regulation' (2020) *114 Marine Policy* 103257 1, 4; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 210; Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327.

granted on the basis of convenience. Among the current ongoing exploration contracts with the ISA, 9 out of 31 have been directly or indirectly conducted by private corporations.[45] 3 of these contracts are directly conducted by subsidiary corporations with parent corporations based in developed States,[46] and 2 contracts have been conducted indirectly by corporations from developed States through partnerships with national companies of developing States.[47] Additionally, the analysis of these private contractors accentuates another issue. From these 9 mentioned contracts, 6 are conducted in reserved areas designated to developing States conduct activities.[48]

The answer proposed to the research problem goes as follows: the liability imposed on private contractors must be strict, regarding the non-compliance with their respective environmental obligations.[49] Unlike the fault-based liability imposed on sponsoring States, strict

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[45] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[46] International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules in the Area by Nauru Ocean Resources Incorporated. Executive Summary* (21 June 2011), ISA Doc. ISBA/17/LTC/L.4; International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited. International Seabed Authority* (19 July 2011), ISA Doc. ISBA/17/C/15; International Seabed Authority, *Decision of the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules submitted by Blue Minerals Jamaica Ltd.* (10 December. 2021), ISA Doc. ISBA/26/C/27/Rev.1.

[47] International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Marawa Research and Exploration Ltd. International Seabed Authority* (26 July 2012), ISA Doc. ISBA/18/C/25; International Seabed Authority, *Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation. International Seabed Authority* (21 July 2014), ISA Doc. ISBA/20/C/29.

[48] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022); International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Ocean Mineral Singapore Pte Ltd*. (25 February 2014), ISA Doc. ISBA/20/C/7; International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022); International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022); International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022).

[49] Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4; Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean*

liability is independent of the fault of the contractor.[50] The international legal framework, as will be presented in the pertinent chapter, does not impose any barrier against this understanding. It depends solely on the interpretation of the term 'wrongful act'.[51] However, hardly any private contractor will be inclined to accept such strict liability due to the excessive burden imposed on them or on their respective insurances.[52] To make it acceptable, the establishment of a

Yearbook 313, 327; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 372; Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 224; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 185.

[50] Isabel Feichtner, 'Contractor Liability for Environmental Damage Resulting from Deep Seabed Mining Activities in The Area' (2020) 114 *Marine Policy* 1; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4; Pradeep Singh and Julie Hunter, 'Protection of the Marine Environment: The International and National Regulation of Deep Seabed Mining Activities', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequenses and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 361; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 352.

[51] Louise Angélique de La Fayette, 'International Liability for Damage to the Environment', in Malgosia Fitzmaurice, David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 325; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 185; Isabel Feichtner, 'Contractor Liability for Environmental Damage Resulting from Deep Seabed Mining Activities in The Area' (2020) 114 *Marine Policy* 1; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 352; Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327.

[52] Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 230-231; Rüdiger Wolfrum and Petra Minnerop, 'Elements of Coherency in the Conception of International Environmental Liability Law', in R. Wolfrum, C. Langenfeld and P. Minnerop (eds.), *Environmental Liability in International Law: Towards a Coherent Conception* (Berlin, Germany: Erich Schmidt Verlag, 2005), 506; see also Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (3 edn., Cambridge, United Kingdom: Cambridge University Press, 2012), 735-804; Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327; Isabel Feichtner, 'Contractor Liability for Environmental Damage Resulting from Deep Seabed Mining Activities in The Area' (2020) 114 *Marine Policy* 1, 7-8; Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 210; Ling Zhu, *Compulsory Insurance and Compensation for Bunker Oil Pollution Damage* (Berlin, Germany: Springer, 2006), 211 and 212; Erik Røsæg, 'Compulsory Maritime Insurance' (2000) 258 *SIMPLY* 1, 9; Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 571; Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 213; Michael Faure, *Deterrence, Insurability, and Compensation in Environmental Liability: Future Development in the European Union* (Berlin, Germany: Springer 2003), 126 and 127; Michael Faure and David Grimeaud, 'Financial Assurance Issues of Environmental Liability' (2000) *European Center for Tort and Insurance*

compensation fund to support the activity in the Area would be welcome, so as to make it economically viable to the private corporations.[53]

Furthermore, the current practice of the ISA with regard to the approval of applications of a plan of work for activities in the Area may also facilitate sponsorship of convenience. The Legal and Technical Commission, when examining an application for eligibility of plans of work for contractors to engage in activities in the Area, seems to observe only formal requirements, interpreting the required effective control merely as a regulatory control. Moreover, the LTC does not go beyond what the applicant submitted, whether or not it is dealing with a possible sponsoring State of convenience.[54]

This research will also contribute to discussions concerning the application of the obligations and liability in the legal framework for deep seabed mining and the sponsorships of convenience with a novel approach to the problem. Many commentators have highlighted

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Law, iv; Ling Zhu, *Compulsory Insurance and Compensation for Bunker Oil Pollution Damage* (Berlin, Germany: Springer, 2006), 213 and 214; Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327.

[53] *Draft regulations on exploitation of mineral resources in the Area*, Regs. 54-56; Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 278; Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 230-231; Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 7; Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*; Ilias Bantakes, 'Trust Funds' (October 2010), in Rüdiger Wolfrum (eds.), Max Planck Encyclopedias of International Law (Oxford, United Kingdom: Oxford University Press, 2004-2020).

[54] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), 3-5; International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Marawa Research and Exploration Ltd.* (18 July 2012), ISA Doc. ISBA/18/C/18, <https://digitallibrary.un.org/record/732869?ln=en> (accessed 15 December 2022), 3–4; International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022), 3 and 4; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022), 2 and 3.

deficiencies of the current legal framework, which may lead to the unintentional creation of sponsorships of convenience and a forum shopping system, signalling to the recurrent avoidance by researchers, sponsoring States, contractors, and the ISA in approaching this problem.[55] However, none have addressed such specific issues in a comprehensive manner regarding the relationship between the sponsorship of convenience and the obligations and liability that private contractors must comply with.[56] Some authors have only briefly discussed the sponsorships of

[55] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 136; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 15; Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 11; International Seabed Authority, *Seabed Authority and Nauru Ocean Resources Inc Sign Contract for Exploration* (2023), International Seabed Authority; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193**;** James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*, 23; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10; Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116; Michael Lodge, 'Satya Nandan's Legacy for the Common Heritage of Mankind', in Michael Lodge and Myron Nordquist (eds.), *Peaceful Order in the World's Oceans – Essays in honour of Satya N. Nandan* (London, United Kingdom: Brill Nijhoff, 2014), 293-294; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 669-671; Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021); Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199; Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023).

[56] Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 475; see also Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 559-582; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213; see also Rosemary Rayfuse, 'The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link: Addressing Enforcement Gaps in the Legal Regime for Areas Beyond National Jurisdiction', in Alex. G. Oude Elferink and Erik. J. Molenaar (eds.), *The Legal Regime of Areas beyond National Jurisdiction: Current Principles and Frameworks and Future Directions* (Leiden, Netherlands: Martinus Nijhoff, 2010),165-190; Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 147-181; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 8-10; Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 71-72 and 84; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime'

convenience issue in their analysis of how it could be a mechanism to manipulate the sponsoring States regime.[57] In effect, the narrow scope of these works prevents them from focusing on those

(2019) 33 *Ocean* Yearbook, 364-367; Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 248-249; Miriam Mafessanti, 'Responsibility for Environmental Damage Under International Law: Can MNCs Bear the Burden? ... and How?' (2009) 17 *Buff. Envtl. L.J.* 87, 90; Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327; Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 278; Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 137 and 138; Michael Faure and Ton Hartlief, 'Compensation Funds versus Liability and Insurance for Remedying Environmental Damage' (1996) 5(4) *RECIEL* 321, 321-327; Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 6 and 7; Alan Boyle, 'Globalising Environmental Liability: The Interplay Of National And International Law' (2005) 17(1) *Journal of Environmental Law* 3, 12; Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 316-326; Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116; Robin R. Churchill, 'Facilitating (Transnational) Civil Liability Litigation for Environmental Damage by Means of Treaties: Progress, Problems, and Prospect' (2001) 12(1) *Yearbook of International Environmental Law* 3, 3–41.

[57] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 136; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 15; Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 11; International Seabed Authority, *Seabed Authority and Nauru Ocean Resources Inc Sign Contract for Exploration* (2023), International Seabed Authority; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193; James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*, 23; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10; Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116; Michael Lodge, 'Satya Nandan's Legacy for the Common Heritage of Mankind', in Michael Lodge and Myron Nordquist (eds.), *Peaceful Order in the World's Oceans – Essays in honour of Satya N. Nandan* (London, United Kingdom: Brill Nijhoff, 2014), 293-294; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 669-671; Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021); Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199; Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023); Ximena Hinrichs Oyarce, 'Sponsoring States in the Area: Obligations, liability and the Role of developing States' (2018) 95 *Marine Policy* 317; Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017); Elsa Kelly, 'The Precautionary Approach in the Advisory Opinion Concerning the Responsibilities and Obligations of States and Entities with Respect to Activities in the Area', in ITLOS, *The Contribution of the International Tribunal for the Law of the Sea to the Rule of Law: 1996–2016* (Leiden, Netherlands: Brill Nijhoff, 2017), 45-57; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of

scenarios. In turn, other authors have undertaken deeper research into how sponsorships of convenience could be a problem for the regime by presenting more detailed examples of how some sponsoring States have already started to use the sponsorship system in order to obtain economic benefits.[58] While these studies are valuable and capable of identifying the practice on the subject, the research thesis will have a different focus. It will examine the possible legality and the possible consequences of this practice under international law. Additionally, this research will put into question the convenient existence of this gap in the sponsoring States regime, a matter still unexplored in legal literature.

States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459; Tullio Scovazzi, 'The Contribution of the Tribunal to the Progressive Development of International Law', in ITLOS, *The Contribution of the International Tribunal for the Law of the Sea to the Rule of Law: 1996–2016* (Leiden, Netherlands: Brill Nijhoff, 2018), 118-160; Hui Zhang, 'The Sponsoring States` Obligation to Ensure In The Development Of The International Seabed Area' (2013) 28(4) *The International Journal of Marine and Coastal Law* 681; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 2021.

[58] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 136; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 15; Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 11; International Seabed Authority, *Seabed Authority and Nauru Ocean Resources Inc Sign Contract for Exploration* (2023), International Seabed Authority; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193; James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*, 23; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10; Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116; Michael Lodge, 'Satya Nandan's Legacy for the Common Heritage of Mankind', in Michael Lodge and Myron Nordquist (eds.), *Peaceful Order in the World's Oceans – Essays in honour of Satya N. Nandan* (London, United Kingdom: Brill Nijhoff, 2014), 293-294; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 669-671; Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021); Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199; Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023); Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 155-184; Joanna Dingwall, 'Commercial Mining Activities in the Deep Seabed beyond National Jurisdiction: the International Legal Framework', in Catherine Banet, *The Law of the Seabed: Access, Uses, and Protection of Seabed Resources* (Leiden, Netherlands: Brill Nijhoff, 2020) 139-162; Pradeep Singh, 'The two-year deadline to complete the International Seabed Authority's Mining Code: Key outstanding matters that still need to be resolved', (2021) 134 *Marine Policy* 1.

As for the international practice of considering the obligations and liability with respect to activities in the Area, the research will benefit from scholarly analysis that discusses whether these sponsorships are lawful or not and the conditions to be observed in their implementation. Nonetheless, the present work will focus on the specific question of whether the environmental obligations and liability present in the legal framework for deep seabed mining enable the creation of a sponsorship of convenience system to private contractors.

1.4 Methodology

This research seeks to examine whether the internalisation of the environmental obligations and liability included in the international legal framework for deep seabed mining enables the creation of a sponsorship of convenience system. With this in mind, the research follows, simultaneously, a horizontal reasoning, to the extent that it will focus on the practice of States of interpreting and applying the relevant international legal framework within their own respective legislation; and a vertical reasoning, as it will turn to the interpretations of international institutions (ITLOS, the ISA, Seabed Disputes Chamber, and other relevant treaty bodies) to elucidate what these norms require from States.

The objective of this research is not to provide an exhaustive description and analysis of the practice of a set of States in relation to the sponsorship regime. Instead, it will identify more generally different groups of common practices among States and assess their compatibility under the Law of the Sea. This will be achieved through the analysis of the international legal framework, national legislation, decisions in administrative and judicial proceedings, and sponsorship, exploration and exploitation contracts.

Due to linguistic barriers, the research will focus on States that make such documents available in English. However, the research will not omit to analyse legislation and documents from other States that have other official languages. For this purpose, the research will make use of unofficial translations and secondary bibliographies regarding these cases.

The number of States and contractors that allow deeper access to proceedings, especially administrative ones, is sometimes limited and restricted to State officials or corporate actors in specific cases. In view of that, the research will initially focus on States that allow access to such

documents, namely: Belgium, China, the Cook Islands, Czech Republic, France, Germany, Japan, Kiribati, Nauru, Singapore, Tonga, and the United Kingdom.[59] However, a more detailed focus will be given to the legislation of States that have private corporations as sponsored contractors, such as: Belgium, the Cook Islands, Nauru, Singapore, Tonga and United Kingdom. Jamaica, despite having a private contractor in its sponsorship, will not be included in this detailed analysis due to the lack of an enacted deep seabed mining national legislation. However, the present work will not neglect to give some consideration to it.

Additionally, the research will focus on the current private corporations working as contractors that have ongoing exploration contracts at the ISA, namely: Nauru Ocean Resources Inc., Tonga Offshore Mining Limited, Global Sea Mineral Resources NV, United Kingdom Seabed Resources Ltd., Marawa Research and Exploration Ltd., Ocean Mineral Singapore Pte. Ltd., Cook Islands Investment Corporation, and Blue Minerals Jamaica Ltd.[60] This approach does not exclude other exploration contracts with other sponsored entities. The focus on these private contractors is a consequence of the eventuality of sponsorships of convenience only being manifested by private contractors.

Thus, the research will be centred on four groups of interest in establishing contracts for activities in the Area. The first two are States with enacted national legislation that regulate deep seabed mining and States with private corporations as sponsored contractors. The second half of the interest groups are private parent corporations and subsidiary corporations with ongoing contracts.

In assessing whether these practices are compatible with International Law, the research will adopt the parameters of UNCLOS, 1994 Implementation Agreement, the Mining Code, exploration contracts, national legislation, and other international treaties and documents that may be applicable. Also, the rules, regulations, and procedures of the ISA and the current and future decisions or advisory opinions of the Seabed Disputes Chamber will be considered as well.

[59] International Seabed Authority, *National Legislation Database*, <https://www.isa.org.jm/exploration-contracts> (accessed 17 December 2022).
[60] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

1.5 Structure of analysis

The structure of this work is as follows: Following this introduction, this work will, in the second chapter, analyse the deep seabed mining regime by presenting its historical development starting from the United Nations Conferences on the Law of the Sea (UNCLOS I, UNCLOS II, and UNCLOS III), which consequently led to the creation of the legal framework for the activities in the Area with UNCLOS, 1994 Implementation Agreement and Mining Code; in this same section, the chapter will demonstrate how the dispute settlement system in activities in the Area works by focusing in its main organ body, the Seabed Disputes Chamber. After an overview of the legal framework, the project follows to the analysis of the Mining Code and presents in detail the prospecting, exploration and exploitation system, essential phases to the ISA permitting mining in the international seabed. With all this background, the project will focus on the International Seabed Authority, specifically on its powers and functions, institutional organisation, decision-making within the Authority, and enforcing powers. This chapter is essential to the work as a whole due to the necessity to establish the basis and the background necessary for a deeper analysis of the problem of the sponsorships of convenience.

The third chapter will present the role of private contractors in the deep seabed mining regime. First, the chapter will demonstrate the classification of private contractors for the purposes of this work by delimiting their scope, whether they can be classified as entities with international personality, and what the requirements are for these private contractors to acquire the nationality of their sponsoring States. The second section will focus on the process of concession of sponsorship by the ISA, the current contracts conducted by the ISA, and the private contractors conducting activities in the Area. In its last section, the chapter will focus on the problem of the sponsorships of convenience by demonstrating its general characteristics at the international level. This chapter concludes that private corporations are exercising a key role in the deep seabed mining regime, and, with this influence, they bring some inconsistencies to the requirement of effective control, thus creating a tendency to benefit the formation of sponsorships of convenience.

In the fourth and fifth chapters, the work will, respectively, analyse the international environmental obligations and liability of private contractors under the sponsorship regime. The chapters will respectively detail the international obligations and liability that the sponsoring States and sponsored entities must comply with and are subject to. Nonetheless, as demonstrated by the

title of these chapters, they will emphasise the international environmental obligations and liability of private contractors. Within this framework, both chapters in their fourth sections will be able to delve into the specific aspects of the obligations and liability that are pertinent to the problem of the sponsorships of convenience and the proposed hypothesis.

The conclusion of these chapters can be elaborated from two perspectives. First, from the perspective of international environmental obligations, despite the sponsored contractors having to comply with such international environmental obligations, there is no specific standard that the sponsoring State must apply to regulate the compliance. Second, from the perspective of the international environmental liability, the implementation of these regulations becomes increasingly more complex. The discretion of the sponsoring states to regulate their respective national legislation may create inconsistencies and disparities, especially due to the lack of a precise standard of liability to be applied. The chapter proposes as solution the possibility of application of a strict liability system for the private contractors, that would impose a liability for any possible damage arising from the respective deep seabed mining activities in the Area. In order to mitigate the burden of the sponsored contractors, such proposal must be followed by the establishment of a compensation fund as envisaged by the Seabed Disputes Chamber in its Advisory Opinion and supported by the Mining Code.

In the sixth chapter, the environmental obligations and liability in the national legislation of the sponsored contractors will be verified. The first section will clarify which State possesses enacted legislation that focuses on deep seabed mining activities in the Area. The second section will demonstrate how States incorporate the international legal framework, and which are the obligations and liability that contractors must comply with according to these national legislations. Consecutively, the third section will specifically evaluate the environmental obligations and liability at the national level of sponsoring states with private contractors and to what extent those might contribute to a sponsorship of convenience regime. The conclusion demonstrates the lack of uniformity of the national legislations not only regarding their standardisation but also the inconsistency in the incorporation of the international environmental obligations and liability. Based on that, the chapter concludes that the current situation of the national legislation for deep seabed mining supports a forum shopping system that benefits the creation of sponsoring States of convenience for private contractors.

PART II: THE DEEP SEABED MINING REGIME AND THE ROLE OF PRIVATE CONTRACTORS

Chapter 2: The deep seabed mining regime under the International Seabed Authority

The regime for activities in the Area is a new reality for the law of the Sea. The current exploration activities and the imminent exploitation of the area beyond national jurisdiction since the development of the current Draft Exploitation Regulations by the Authority made deep seabed mining an increasing field. There are, however, uncertainties concerning the regulations for the ISA to administrate such activities. In that sense, this work must deal with the sponsorship regime in order to establish the basis for the activities in the Area.

The Area is a vast marine space located seaward 200 nautical miles from the baseline, or beyond the extended continental shelf. The term "Area" is a synonym for 'the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction'.[61] Unlike other maritime zones that are regulated by the respective national legislation of the States, the Area is governed by the principle of the common heritage of mankind.[62] This means that all solid, liquid, or gaseous mineral resources located in the Area and the sea-bed beneath this zone are governed by this principle.[63]

According to Tanaka, this definition implies three distinct elements.[64] The first element is the non-appropriation of the resources of the Area. This element is present in UNCLOS, Article 137: 'No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof'.[65] In other words, the resources of the Area must be equally shared since 'no such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognised'.[66] The second element provides that all resources must benefit mankind as a whole.[67] The ISA is responsible for providing the 'equitable sharing of financial and other economic benefits derived from activities in the Area

[61] *UNCLOS,* Art. 1(1).
[62] *UNCLOS,* Art. 136.
[63] *UNCLOS,* Art. 133(a) and 137(2).
[64] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 219-220.
[65] *UNCLOS,* Art. 137(1).
[66] *UNCLOS,* Art. 137.
[67] *UNCLOS,* Art. 140(1).

through any appropriate mechanism, on a non-discriminatory basis, in accordance with article 160, paragraph 2(f)(i)'.[68] The third element is that the Area shall be used for peaceful purposes.[69]

Activities in the Area shall be organised, carried out and controlled by the Authority on behalf of mankind as a whole in accordance with UNCLOS and the rules, regulations and procedures of the Authority.[70] According to the Seabed Disputes Chamber, activities in the Area include: drilling, dredging, coring, and excavation; disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents; and construction and operation or maintenance of installations, pipelines and other devices related to such activities.[71] All States parties to UNCLOS are *ipso facto* members of the Authority.[72] As further detailed in this chapter, the ISA is composed by the Assembly, the Council, the Economic Planning Commission, the Legal and Technical Commission, the Secretariat, the Finance Committee, and the Enterprise.[73]

Activities in the Area can be carried out by the Enterprise and any other State or non-State contractors, including private contractors.[74] These contractors other than the Enterprise must be 'State enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, when sponsored by such States, or any group of the foregoing which meets the requirements provided in this Part and in Annex III'.[75] These contractors must submit a plan of work sponsored by a State to be approved by the Council. In order to be sponsored, the contractor must either be a national of a State Party or effectively controlled by it or one of its nationals.

All Sponsoring States, developed or developing, must fulfil the same obligations. This equality of treatment aims to avoid the creation of a regime of sponsorships of convenience – similarly to what happened with the flags of convenience phenomenon – promoting a 'uniform

[68] *UNCLOS,* Art. 140(2); *UNCLOS,* Art. 160(2)(f)(i).
[69] *UNCLOS,* Art. 141.
[70] *UNCLOS,* Art. 153.
[71] Nonetheless, 'the provisions considered in the preceding paragraphs confirm that processing and transporting as mentioned in Annex IV, article 1, paragraph 1, of the Convention are excluded from the notion of "activities in the Area"'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 87; see also *UNCLOS*, Art. 17(2)(f), Annex III.
[72] *UNCLOS,* Art. 156(2).
[73] *UNCLOS,* Art. 156(8).
[74] *UNCLOS,* Art. 153(2).
[75] *UNCLOS,* Art. 153(2)(b).

application of the highest standards of protection of the marine environment, the safe development of activities in the Area and protection of the common heritage of mankind'.[76]

Nonetheless, some relevant differences between the obligations of the contractors in their application for a plan of work are worth noting.[77] For instance, the five-year programme of activities must be individually developed by the contractor and annexed to its individual plan of work for a contract with the purpose of setting out the specific activities that the contractor will undertake in this time frame,[78] which are revised every five years until completing its fifteen years contract.[79] The distinction between contracts lies in the fact that each contractor is subject to varying clauses, contingent upon the year of their acceptance. Consequently, contracts can only be revised with the consent of the contractor with the ISA, since the standard clauses and the Exploration Regulations themselves are incorporated into the contracts, and possible amendments do not apply to previous contracts.[80]

The sponsorship will imply to the sponsoring State the responsibility to ensure the obligations to their respective sponsored contractors:

> States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part. The same responsibility applies to international organizations for activities in the Area carried out by such organizations.[81]

[76] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159; moreover: 'These observations do not exclude that rules setting out direct obligations of the sponsoring State could provide for different treatment for developed and developing sponsoring States'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 160.

[77] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 149.

[78] *Polymetallic Nodules Exploration Regulation,* Annex III, Schedule 2; *Polymetallic Sulphides Exploration Regulation,* Annex III, Schedule 2; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex III, Schedule 2.

[79] *Polymetallic Nodules Exploration Regulation,* Reg. 28; *Polymetallic Sulphides Exploration Regulation,* Reg. 30; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 30; *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 58(1) and (4).

[80] *Exploration Regulations*, Annex IV, Schedule 2; *UNCLOS,* Art. 19, Annex II; *Exploration Regulations*, Annex III, Sec. 24; for a deeper analysis, see David Hartley, 'Guarding the Final Frontier: The Future Regulations of the International Seabed Authority' (2012) 26 *Temple International & Comparative Law Journal* 335.

[81] *UNCLOS,* Art. 139(1).

Moreover, the obligations of sponsoring State are not limited to the obligation to ensure, which are called 'direct obligations'.[82] They include: the obligation to assist the Authority in the exercise of control over activities in the Area; the obligation to apply a precautionary approach; the obligation to apply best environmental practices; the obligation to take measures to ensure the provision of guarantees in the event of an emergency order by the Authority for protection of the marine environment; the obligation to ensure the availability of recourse for compensation in respect of damage caused by pollution; and the obligation to conduct environmental impact assessments.[83] Additionally, as will be further analysed, some of these direct obligations apply to contractors.

The sponsoring States shall be liable if they fail to carry out their responsibility to ensure.[84] No residual liability shall be imposed from wrongful acts committed by the sponsored contractors if the sponsoring State fulfils its obligation in accordance with the international legal framework for deep seabed mining.[85]

Once concluded the above explanation, first, the chapter will focus on demonstrating the historical developments of the deep seabed regime since the first dilemmas between technologically developed States and developing States involving minerals in the seabed until the creation of UNCLOS and its parallel agreements. Second, the work will focus on the main international legal framework necessary for activities in the Area, namely UNCLOS, the 1994 Implementation Agreement, and Mining Code. Consecutively, the chapter delves in the same section into the dispute settlement system established by UNCLOS to deal with contentious disputes and advisory opinions related to activities in the Area, the Seabed Disputes Chamber. However, when dealing with the Advisory Opinion *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, the section will focus on the general characteristics of this Advisory Opinion, leaving a more detailed analysis to the fourth and fifth chapters.

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[82] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 121.
[83] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 122.
[84] *UNCLOS,* Art. 139(2).
[85] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 189.

Moreover, the chapter can move on to clarify the three-phase system of the ISA to contractors conduct activities in the Area, which are: prospecting, exploration, and exploitation. After that, the chapter can finally aim to explain the International Seabed Authority. First, this section focuses on the powers and functions of the ISA. Second, the chapter explains the institutional structure of the ISA with details of its main organs, such as the Assembly, the Council, the Economic Planning Commission, the Legal and Technical Commission, the Secretariat, the Finance Committee, and the Enterprise; followed by decision-making and enforcement powers of the Authority.

2.1 Historic developments

The first discovery of the presence of minerals in the deep seabed goes back to the *HMS Challenger* expedition in 1872-1876 in the Kara Sea in the Arctic Ocean.[86] This event started a myriad of new possible frontiers to be conquered and resources to be explored. However, due to technological and practical limitations, the commercial potential of the minerals discovered in the deep sea was not fully realised for nearly a century.[87] It was only in the 1950s that polymetallic nodules were proven to contain valuable minerals such as nickel, copper and cobalt.[88] Such discoveries, in parallel with technological advances, grew the interest related to the deep seabed minerals.

[86] James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 115; Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 74; Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 223; Jason Nelson, 'The Contemporary Seabed Mining Regime: A critical Analysis of the Mining Regulations promulgated by the International Seabed Authority' (2005) *Colorado Journal of International Environmental Law and Policy* 27, 30; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 49-70.

[87] Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 223.

[88] Jean-Pierre Levy, 'The International Sea-Bed Area', in René-Jean Dupuy and Daniel Vignes, *A Handbook on the New Law of the Sea (vol. 1)* (Hague, Netherlands: Académie de droit international de La Haye, 1991), 595-602; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 24.

Disagreement existed regarding the legal nature of the seabed beyond national jurisdictions with two views related to its resources.[89] The first view perceived the international seabed and its resources as *res communis* and subjected to the same principle of common heritage of mankind; therefore, the mining resources could be considered a common heritage of mankind and not susceptible to expropriation by a particular subject.[90] The second view regarded the international seabed as *res nullius*, allowing that States would be able to claim titles over areas that they exercise occupation and use.[91] However, the high technological requirements for such activities in the seabed manifested another problem, especially for the developing States.[92] The absence of technological expertise in complex mining activities could lead to the creation of a selected group of developed States that might be favoured by these minerals, in contrast not only to developing States in general but, more specifically, to landlocked States that probably do not have a technologically developed marine industry.[93] These disadvantages between developed and

[89] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 74.

[90] 'In recent years, the nature and extent of the common heritage principle has once again become a subject for discussion in the context of the management of marine biodiversity, and specifically marine genetic resources, in areas beyond national jurisdiction. Whilst it is generally agreed that the Convention provides the overarching legal framework for conservation and management of marine resources, views are deeply divided on the adequacy of that framework and the means of implementation. On the one hand some States argue that marine genetic resources should be considered part of the common heritage of mankind, in the same way as the mineral resources of the deep seabed, even though Part XI specifically excludes from its ambit anything other than mineral resources. That is, they should not be subject to appropriation, but should be administered through an international regime which also provides for the equitable sharing of financial and other economic benefits. Others argue that marine genetic resources are essentially open access resources, like high seas fisheries, and that the list of high seas freedoms set out in Article 87 of the Convention is not intended to be exhaustive'. Michael Lodge, 'The International Seabed Authority and the Exploration and Exploitation of the Deep Seabed' (2014) 47(1) *Revue Belge de Droit International / Belgian Review of International Law* 129, 135; Donald Rothwell and Tim Stephens. *The International Law of the Sea* (London, United Kingdom: Hart, 2010), 120; Jack Barbekenbus, *Deep Seabed Resources: Politics and Technology* (New York: The Free Press, 1979), 30; Aline Jaeckel, Kristina M. Gjerde and Jeff A. Ardon, 'Conserving the common heritage of humankind – Options for the deep-seabed mining regime' (2017) 78 *Marine Policy* 150, 190-199.

[91] Jack Barbekenbus, *Deep Seabed Resources: Politics and Technology* (New York: The Free Press, 1979), 30–32; Jon Van Dyke and Christopher Yuen, 'Common Heritage v. Freedom of The High Seas: Which Governs the Seabed?' (1981) 9 *San Diego L. Rev.* 493, 514–519; Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 225.

[92] Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 224 and 225; Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 179; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 24

[93] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 74-75; Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 223 and 224.

developing States could be problematic for the creation of future regulations related to deep seabed mining.[94]

In this respect, the Maltese Ambassador Arvid Pardo made a historic speech in 1967 as a supplementary item on the agenda of the twenty-second session of the General Assembly in which he called for the necessity to regulate the deep seabed and its resources as a 'Common Heritage of Mankind'.[95] In this regard, no State would be able to make revindications or claim right to areas of the seabed beyond the national jurisdictions and its resources. The proposal of Pardo was well received by the great majority of States, especially developing ones.[96] Nevertheless, the concept of common heritage of mankind was rapidly transformed into a pivotal instrument in the discussion between developing States and technologically advanced States.[97]

Consequently, this matter was discussed by the thirty-five State *ad hoc Committee on the Peaceful Uses of the Seabed and the Ocean Floor Beyond the Limits of National Jurisdiction* in 1968. The committee was responsible for preparing a preliminary study of the legal, technical, scientific and economic matters relating to the seabed. The work of the committee contributed to the future UNCLOS III and a possible agreement in deep seabed mining.[98]

The development of the International Seabed Authority is not easy to summarise, and even the willingness to try would not result in a few words. The debate on this matter took a long 25 years path through the *ad hoc* Committee, the Seabed Committee, UNCLOS III, the Preparatory Commission, and the UN Secretary-General's Informal Consultations on Part XI until the 1994

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[94] Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 120; Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 179; see Alfredo C. Robles Jr., 'The 1994 Agreement on Deep Seabed Mining: Universality vs. the Common Heritage of Humanity' (1996) 12(5-6) *World Bulletin: Bulletin of the International Studies of the Philippines* 20; Ram P. Anand, *Legal Regime of the Sea-Bed and the Developing Countries* (Leiden, Netherlands: Brill, 1977); for a third world approach of international law of this debate, see Surabhi Ranganathan, 'Ocean Floor Grab: International Law and the Making of an Extractive Imaginary' (2019) 30(2) *The European Journal of International Law* 573, 573-600; see also Surabhi Ranganathan, *Strategically Created Treaty Conflicts and the Politics of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2015).

[95] see United Nations General Assembly, *United Nations General Assembly Twenty-Second Session Official Records. First Committee, 1515th Meeting* (1 November 1967), UN Doc. A/C.1/PV.1515, <https://www.un.org/depts/los/convention_agreements/texts/pardo_ga1967.pdf> (accessed 17 December 2022).

[96] Robert Friedheim, *Negotiating the new ocean regime* (Columbia, United States: University of South Carolina Press,1992), 240.

[97] Nasila S. Rembe, *Africa and the International Law of the Sea: A Study of the Contribution of the African States to the Third United Nations Conference on the Law of the Sea* (Leiden, Netherlands: Brill Nijhoff, 1989), 31–34.

[98] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 27.

Implementation Agreement relating to the Implementation of Part XI of the United Nations.[99] Part XI was the largest part of the Convention, naturally, because it was the most difficult part to negotiate.[100] The fact that the negotiations took a long period to be concluded might be justified by the difficulty in solving issues regarding the nature of the regime of Part XI, only settled with the 1994 Implementation Agreement.[101]

Following the mentioned *ad hoc* Committee, the Seabed Committee took place from 1969 to 1973, and it was constituted of a legal sub-committee working with paragraph 2(a) of the resolution 2467 A(XIII) of the General Assembly and an economic and technical sub-committee working with the paragraph 2(b) of the same resolution to deal with issues with relevance to the concept of the common heritage of mankind.[102] As a result from the sessions, the United Nations General Assembly (UNGA) adopted a series of resolutions of relevance to the issue of deep seabed mining.[103] From these resolutions, two are worth mentioning. The first is the 1969 resolution on

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[99] Michael Wood, 'The Evolution of the International Seabed Authority', in Alfonso Ascencio-Herrera and Myron Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 43.

[100] 'In the 1960s, it was the need for a legal regime to govern the use of the resources of the seabed and ocean floor beyond the limits of national jurisdiction for the benefit of mankind as a whole that inspired the international community to review and revise the law of the sea as set out in the 1958 Geneva Conventions. Following initial study of the issues through an Ad Hoc Committee of the United Nations General Assembly (1967–1968), and more detailed consideration of the issues in the Sea-bed Committee (1969–1973), the question of the legal regime for deep seabed mining was to become the most complex issue before UNCLOS III'. Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), vi

[101] In that sense, see Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), vi.

[102] see UNGA. Examination of the question of the reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interests of mankind. United Nations. *A/RES/2467 A(XXIII).*

[103] In that sense, see United Nations General Assembly, *Conclusion of a convention on the prohibition of the use of nuclear weapons* (18 December 1967*)*, UN Doc. A/RES/2340 (XXII), < https://documents-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/236/75/PDF/NR023675.pdf?OpenElement> (accessed 21 July 2023); United Nations General Assembly, *Examination of the question of the reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interests of mankind* (21 December 1968), UN Doc. A/RES/2467 (XXIII); *A/RES/2754 (XXIV)* (15 December 1970); United Nations General Assembly, *Reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction and use of their resources in the interests of mankind, and convening of a conference on the law of the sea* (21 December 1971), UN Doc. A/RES/2881(XXVI); United Nations General Assembly, *Reservation exclusively for peaceful purposes of the seabed and the ocean floor and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction and use of their resources in the interests of mankind, and convening of a conference on the law of the sea* (17 December 1970), UN Doc. A/RES/2750 (XXV); United Nations General Assembly, *Reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction and use of their resources in the interests of mankind, and convening of a conference on the law of the sea* (18 December 1972), UN Doc. A/RES/3029 (XXVII); United Nations General Assembly, *Reservation exclusively for peaceful purposes of the*

the *Question of the Reservation Exclusively for Peaceful Purposes of the Sea-Bed and Ocean Floor, and the Subsoil, Thereof, Underlying the High Seas Beyond the Limits of Present National Jurisdiction, and the Use of Their Resources in the Interests of Mankind*,[104] which states that the exploration of the seabed and ocean floor beyond the limits of national jurisdiction must be for the benefit of mankind as a whole and must take into account the needs of the developing states. The second resolution is the 1970 *Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction* (Declaration of Principles), which expanded the concept of the 'Area' by establishing it as the common heritage of mankind.[105] Additionally, the resolution prescribed the use of the Area only for peaceful purposes[106] and the establishment of an international regime for the Area through an international universal agreement.[107] Such regime was used as a foundation for the Part XI of UNCLOS. However, this system became problematic for the developed States since they disagreed with the bureaucracy of the institutions established and the deviation from the rules of the market economy, leading them to consider the declaration of principles only as a mere political statement of intent.[108] Nevertheless, with the purpose of encouraging developed states that had not ratified UNCLOS, it was notably altered by the 1994 Implementation Agreement, giving the regime more emphasis on

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sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction and use of their resources in the interests of mankind, and convening of the Third United Nations Conference on the Law of the Sea (16 November 1973), UN Doc. A/RES/3067 (XXVIII); United Nations General Assembly, *Third United Nations Conference on the Law of the Sea* (17 December 1974*)*, UN Doc. A/RES/3334 (XXIX); United Nations General Assembly, *Third United Nations Conference on the Law of the Sea* (12 December 1975), UN Doc. A/RES/3483 (XXX); United Nations General Assembly, *Third United Nations Conference on the Law of the Sea* (10 December 1975), UN Doc. A/RES/31/63 (XXXI); Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 26 and 27.

[104] see United Nations General Assembly, *Question of the reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interest of mankind* (15 December 1969), UN Doc. A/RES/2574(XXIV).

[105] *Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction* (Declaration of Principles), adopted 12 December 1970, A/RES/25/2749; Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 528.

[106] *UNGA, A/RES/2749(XXV),* Para. 2 and 5.

[107] *UNGA, A/RES/2749(XXV),* Para. 9.

[108] Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 528; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 28; Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 227 and 228.

the market economy and less on the founding redistributive function[109] – thus, changing the original purposes of the system proposed by UNCLOS.

The final text of the Convention was the result of UNCLOS III (1972-1982).[110] At the end of UNCLOS I, four Geneva Conventions and an optional protocol on dispute resolution were concluded,[111] while UNCLOS II did no further developments in this regard. The conferences were not considered a complete success because they did not fulfil their main role: codifying in a single legal instrument the customary practice of States regarding the Law of the Sea.[112] Unlike the two previous conferences, UNCLOS III aimed to be far more ambitious,[113] as: a) it encompassed the Law of the Sea in its widest possible range; b) promoted the broad participation and consensus of the international community and; c) produced one agreement with a single understanding, without

[109] Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 528; 'The Convention set in place a parallel system which only imperfectly reflected the imperatives of the common heritage, since it was based on a series of compromises between the developed and developing countries. The Agreement, by reintroducing "free market principles," has undermined this compromise and has shifted the balance in favor of the developed countries'. Alfredo C. Robles Jr., 'The 1994 Agreement on Deep Seabed Mining: Universality vs. the Common Heritage of Humanity' (1996) 12(5-6) *World Bulletin: Bulletin of the International Studies of the Philippines* 20, 41; for a deeper analysis on the view of private investors see also Alberto Percoraro, 'UNCLOS and investor claims for deep seabed mining in the Area: an investment law of the sea?' (2020) *GCILS Working Paper Series No. 5*.

[110] 'UNCLOS III remains something of a milestone in international law-making for several reasons. Above all, it succeeded where its predecessors had failed. Whatever the position may have been when it was adopted, the 1982 Convention on the Law of the Sea has become accepted, in most respects, as a statement of contemporary international law on nearly all matters related to the oceans'. Alan Boyle and Christine Chinkin, 'UNCLOS III and The Process of International Law-Making' in Tafsir Malick Ndiaye, Rüdiger Wolfrum and Chie Kojima (eds.), *Law of The Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah* (Leiden: Martinus Nijhoff Publishers and VSP, 2007), 376.

[111] The four Geneva Conventions and protocol are: Territorial Sea and Contiguous Zone Convention (1958), High Seas Convention (1958), Fishing and Conservation of Living Resources of the High Seas Convention (1958), Continental Shelf Convention (1958) and Optional Signature Protocol on Compulsory Resolution of Disputes (1958). In addition, nine resolutions were adopted at UNCLOS I on: nuclear testing on the high seas, pollution on the high seas by radioactive materials, conservation of fish stocks, cooperation on conservation measures, human-caused killing of marine life, inshore fisheries, historic waters, call for the second united nations conference on the law of the sea and a Tribute to the International Law Commission. United Nations General Assembly, *United Nations Conference on the Law of the Sea Geneva*, *Resolutions adopted by the Conference* (27 April 1958), UN Doc. A/CONF.13/L.56, 143-145.

[112] United Nations General Assembly, *Second United Nations Conference on the Law of the Sea Geneva, Canada and United States of America: proposal* (26 April 1960), UN Doc. A/CONF.19/C.1/L.4, 169.

[113] The ambition of the 3rd Conference was such that it is demonstrated, for example, in its duration. If taking into account the preparatory work for the Committee on Seabeds (1967), it took 16 years for the work to be concluded on December 10, 1982, coming into force only on November 16, 1994, after compliance with the minimum sixty ratifications. Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 36; Bernard H. Oxman, *The Third United Nations Conference on the Law of the Sea: The Ninth Session (1980)* (Miami, United States: University of Miami School of Law. 1981), 234.

the possibility of any reservations.[114] The deep seabed mining regime was not discussed by UNCLOS I and II, meaning that during its negotiations freedom of the high seas was applied.

Three main committees were established during UNCLOS III. The one held between 1974 and 1982 focused on solving questions concerning the international regime for the seabed and the ocean floor beyond the limits of national jurisdiction.[115] The committee helped to develop what became Part XI of UNCLOS, which encapsulates articles 133 to 191, Annex III (Basic Conditions of Prospecting, Exploration and Exploitation), Annex IV (Statute of the Enterprise), and both resolutions I (*Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea*) and II (*Governing Preparatory Investment in Pioneer Activities relating to Polymetallic Nodules*) annexed to the Final Act of the Conference.[116]

The Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea was established by resolution I. Its main function was to prepare draft rules, regulations and procedures to enable the functioning of the International Seabed Authority and to make recommendations to the operation of the Enterprise,[117] while in resolution II the preparatory commission dealt with the interim regime for pioneer investors. Resolution I was divided into four Special Commissions. Special Commission 1 dealt with the potential impacts of seabed mining on land-based producers; Special Commission 2 acted to take the measures for the early entry of the Enterprise into operation and to evaluate the economic

[114] Hugo Caminos and Michael R. Molitor, 'Progressive Development of International Law and the Package Deal' (1985) 79(4) *The American Journal of International Law* 871, 878; Alan Boyle and Christine Chinkin, 'UNCLOS III and The Process of International Law-Making' in Tafsir Malick Ndiaye, Rüdiger Wolfrum and Chie Kojima (eds.), *Law of The Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah* (Leiden: Martinus Nijhoff Publishers and VSP, 2007), 376 and 380; Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 34-36; Natalie Klein, *Dispute Settlement in The UN Convention for The Law of The Sea* (Cambridge, United Kingdom: Cambridge University Press: 2004), 20.

[115] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 35.

[116] For a more detailed analysis of UNCLOS III and the work of the first committee see Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 33-54; United Nations General Assembly, *Report of the Preparatory Commission, under paragraph 11 of resolution 1 of the 3rd United Nations Conference on the Law of the Sea, on all matters within its mandate, except as provided in paragraph 10, for presentation to the Assembly of the International Seabed Authority at its 1st session : provisional final report to the Plenary and documents relevant to the implementation of resolution 2 (Plenary) : Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea* (30 June 1995), UN Doc. LOS/PCN/153(Vol.I); United Nations General Assembly, *Governing Preparatory Investment in Pioneer Activities Relating to Polymetallic Nodules, Final Act of the Third United Nations Conference on the Law of the Sea* (10 December 1982), UN Doc. A/CONF.62/L.94.

[117] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 54.

viability of seabed mining; Special Commission 3 was responsible for preparing the draft rules, regulations and procedures to enable the ISA to commence its functions, in other words, it was responsible for preparing the 'Mining Code'; and Special Commission 4 prepared the report with recommendations for submission to the meeting of States Parties and arrangements for the International Tribunal for the Law of the Sea.[118]

Finally, the Secretary-General Informal Consultations between 1990 and 1994 had the objective of identifying the controversial concerns that prevent the common acceptance of UNCLOS. The identified issues were: costs to States Parties, the Enterprise, decision-making, the Review Conference, transfer of technology, production limitation, compensation fund, and financial terms of contracts.[119] Finally, on 28 July 1994, the General Assembly during its forty-eighth session adopted resolution 48/263 that completed the negotiation process of the 1994 Implementation Agreement, entering into force on 28 July 1996 while UNCLOS entered into force on 16 November 1994, which consequently brought the ISA into existence.[120]

Despite the setbacks, UNCLOS III achieved its goal of creating a framework for the law of the sea and seabed mining beyond the regimes of national jurisdictions. Before the 1994 Implementation Agreement, there were two alternative regimes. One was the United Nations Regime, based on the principle of the common heritage of mankind as stated in UNCLOS, and the other was the Reciprocating States Regime, based on the freedom of the high seas and the national legislation of industrialised states.[121] The Reciprocating States Regime originated from the

[118] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 55-56.
[119] 'Environmental considerations were the ninth consider point, however, it was agreed between the parties to be removed due to its controversy'. Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 54.
[120] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 62-63; additionally, in the words of Micheal Wood: 'The Implementation Agreement aimed to eliminate the more unrealistic provisions that had been developed at UNCLOS III. The changes were radical: greatly reduced costs for States Parties; postponement of the establishment of the Enterprise, and enhanced provision for joint ventures with the Enterprise; new decision-making procedures to safeguard special interests; omitting the provision for a review conference; omitting provisions for mandatory transfer of technology; omitting production limitations, though this was balanced by clearer anti-subsidy provisions; dropping the compensation fund for land based producers; and adopting more realistic fees for miners, with financial terms of contracts to be settled in due course, based on comparable terms for land-based mining'. Michael Wood, 'The Evolution of the International Seabed Authority', in Alfonso Ascencio-Herrera and Myron Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 55.
[121] For a more detail analysis, see Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff,

dissatisfaction of industrialised States with UNCLOS III. In order to solve this problem, UNCLOS III managed to balance the will of the developed states to mine the seabed through its resolution II on *Governing Preparatory Investment in Pioneer Activities relating to Polymetallic Nodules* by giving the possibility for registered pioneer investors to carry out activities in the pioneer area with effect until UNCLOS entered into force and, at the same time, providing more equity to the future exploration of the Area and its resources as the common heritage of mankind. Nonetheless, it was only with the 1994 Implementation agreement that UNCLOS finally achieved universal participation by States.[122]

2.2 International legal framework of deep seabed mining

2.2.1 United Nations Convention of the Law of the Sea

In UNCLOS, the legal framework for deep Seabed Mining is contained in Part XI (Articles 133 to 191), Annex III, which introduces the 'Basic Conditions of Prospecting, Exploration and Exploitation', and Annex IV about 'the Enterprise', the operational arm of the ISA to carry out activities in the Area.[123] Related provisions can be found in Articles 1, 82(4), 84(2), 209, 256, 273, 274, 286(3), 287(2), 305, 308(3), (4), and (5), 311(6), 314, 316(5), and 319(2)(a), (2)(b), and (3).[124] In Annex VI, can be found relevant articles concerning the establishment and composition of the Seabed Disputes Chamber of the International Tribunal for the Law of Sea, such as Articles 14 and 35 to 40.[125] Additionally, relevant provisions can also be found in the already mentioned

2017), 82-84; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 29; see also Louis Sohn, John Noyes, Erik Franckx and Kristen Juras, C*ases and Materials on the Law of the Sea* (2 edn., Leiden, Netherlands: Brill, 2014), 560-613.

[122] *Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982* (1994 Implementation Agreement), adopted 28 July 1998, UN Doc. A/RES/48/263, Art. 2(1).

[123] *UNCLOS,* Part XI; *UNCLOS*, Annex III; *UNCLOS*, Annex IV; Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 226; Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 3.

[124] *UNCLOS*, Art. 1, 82(4), 84(2), 209, 256, 273, 274, 286(3), 287(2), 305, 308(3), (4), and (5), 311(6), 314, 316(5), and 319(2)(a), (2)(b), and (3); see also Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 3; Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), 1; para.1.

[125] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 3; Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), 1; para.1.

resolution I on the *Establishment of the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea* and resolution II on *Governing Preparatory Investment in Pioneer Activities relating to Polymetallic Nodules* prepared by the First Committee of UNCLOS III.[126]

While Section 1 (Articles 133 to 135) contains the general provisions related to the Area, it is worth noting that Section 2 (Articles 136 to 149) of Part XI of the Convention contains the 'Principles Governing the Area', which were based on the 1970 Declaration of Principles of UNGA.[127] With the principle of the common heritage of mankind as its leading principle, this section clarifies the nature, possible activities, rights and obligations concerning activities in the Area.[128] Its provisions are largely based on the Declaration of Principles, which describes what would be the nature of the regimes to regulate the Area.

Many Articles presented in this session were previously accepted during the negotiations at UNCLOS III, and several principles set out in Section 2 are presented in other provisions of the Convention.[129] For example, Article 136 provides the concept of the common heritage of mankind, with Articles 137, 140 and 141 elaborating upon it. Article 137(1) states that 'No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof'.[130] Article 137(2) provides that 'All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the

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[126] United Nations General Assembly, *Report of the Preparatory Commission, under paragraph 11 of resolution 1 of the 3rd United Nations Conference on the Law of the Sea, on all matters within its mandate, except as provided in paragraph 10, for presentation to the Assembly of the International Seabed Authority at its 1st session: provisional final report to the Plenary and documents relevant to the implementation of resolution 2 (Plenary): Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea* (30 June 1995), UN Doc. LOS/PCN/153(Vol.I); United Nations General Assembly, *Governing Preparatory Investment in Pioneer Activities Relating to Polymetallic Nodules, Final Act of the Third United Nations Conference on the Law of the Sea* (10 December 1982), UN Doc. A/CONF.62/L.94.

[127] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 66, para. 38.

[128] 'Many of the principles established in Sec. 2 deal with topics covered in more detail in other provisions of the LOSC, including those concerning responsibility to ensure compliance and liability for damage, the rights and interests of coastal States, the promotion of marine scientific research, the promotion and encouragement of the transfer of technology to developing countries, protection of the marine environment, protection of human life, accommodation of other activities besides seabed mining, the participation of developing States in activities in the Area, and archaeological and historical objects found the Area'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 35.

[129] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 66.

[130] *UNCLOS,* Art. 137(1).

Authority shall act' and prohibits the alienation of these minerals except when 'in accordance with this Part and the rules, regulations and procedures of the Authority'.[131] Article 137(3) states that 'No State or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals recovered from the Area except in accordance with this Part. Otherwise, no such claim, acquisition or exercise of such rights shall be recognized'.[132] Article 140 highlights that 'Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked' and that these activities must be carried out taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the UNGA resolution 1514(XV) and other relevant General Assembly resolutions.[133] The Authority 'shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis'. [134] Article 141 finally declares that the Area shall be exclusively utilised for peaceful purposes by all States, whether coastal or landlocked.[135]

Section 3 (Articles 150 to 155) focuses on the Development of Resources of the Area. These are the only articles that deal with the development of resources since this was a very controversial topic at UNCLOS III, as already stated above.[136] For instance, Article 150 reflects the divergence between developing and industrialised States when it states that the activities in the Area shall 'be carried out in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to promote international cooperation for the overall development of all countries, especially developing States'.[137] As will be detailed in the next

[131] *UNCLOS,* Art. 137(2).
[132] *UNCLOS,* Art. 137(3); it is worth mentioning that 'Clearly, Article 137 substantially qualifies the application of the common heritage principle set out in Article 136 by limiting its scope to the 'resources' of the Area. For the purposes of Part XI, 'resources' are defined as 'solid, liquid or gaseous mineral resources in situ in the Area at or beneath the seabed, including polymetallic nodules. This excludes living resources, including so-called marine genetic resources, from the scope of Article 137'. Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 230.
[133] *UNCLOS,* Art. 140.
[134] *UNCLOS,* Art. 140.
[135] *UNCLOS,* Art. 141.
[136] *UNCLOS,* Part XI, Sec. 3.
[137] *UNCLOS,* Art. 150; Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 66.

section, major changes were introduced by the 1994 Implementation Agreement, especially in Articles 151 and 155.

Section 4 (Articles 156 to 185) regulates the ISA by detailing its institutional elements. Subsection A (Articles 156 to 158) regulates the establishment, organs, nature and fundamental principles of the Authority. Subsection B (Articles 159 to 160) deals with the Assembly and its composition, procedure, voting, powers, and functions. Subsections C (Article 161 to 165) and D (Article 166 to 169), following the same structure as Subsection B, set out details concerning the Council and Secretariat, respectively.[138] Subsection E (Article 170) deals with the Article related to the Enterprise, the organ responsible for carrying out the activities directly in the Area, which is complemented by Annex IV, that presents the Statute of the Enterprise.[139] Subsection F (Articles 171 to 175) contains the financial arrangements of the Authority, with details of its funds, annual budget, expenses, borrowing of funds and annual audit. Subsection G (Articles 176 to 183)[140] specifies the legal status of the Authority and the privileges and immunities enjoyed by the Authority itself and persons connected to it. Finally, subsection H (Articles 184 and 185) deals with the suspension of the exercise of rights and privileges of members of the Authority.[141]

Section 5 (Articles 186 to 191) compiles Articles related to the settlement of disputes and the issue of advisory opinions regarding activities in the Area in association with the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, including all Part XI and Annexes III and IV.[142] Besides Part XI and Annexes III and IV, this Section also relates to the jurisdiction and functions of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, established under Article 287 read with Articles 14 and 35 to 40, Annex VI. Also,

[138] *UNCLOS,* Part XI, Sec. 4.
[139] *UNCLOS,* Art. 170(1).
[140] see *1994 Implementation Agreement*, Annex, Sec. 1(14); *1994 Implementation Agreement*, Annex, Sec. 8(2); *1994 Implementation Agreement*, Annex, Sec. 9.
[141] 'The provisions of Part XI, Sec. 5, were introduced to the First Committee through the Group of Legal Experts, although it was the Drafting Committee that was charged with producing a draft of Annex VI. The references to the Authority in Annex VI came from the Group of Legal Experts and from the First Committee directly. The evolution of the specific provisions of Part XI, Sec. 5, is addressed in the Commentaries on individual articles below.' Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 67-68.
[142] *UNCLOS,* Part XI, Sec. 6; see Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 68.

Section 5 regulates the jurisdiction of the Chamber together with Part XV and Annex VI of UNCLOS.

The regime of the Area is only applicable in areas beyond national jurisdiction.[143] In this regard, the real scope of the Area is not yet definitive since the coastal states have not finished fixing the outer limits of their continental shelf.[144] Despite such seemingly problematic scenario for the development of exploration, it has not caused any further problems in practice since polymetallic nodules, Polymetallic Sulphides and cobalt-rich crusts are found in majority in areas far from these limits.[145]

Despite its reasonable scope, the legal framework presented in the Convention is not sufficiently comprehensive to encompass all the necessary rules for seabed mining. Part XI was not intended to provide a legal code covering all possible aspects of the Seabed Area; rather, its regime was supposed to be further developed in parallel with knowledge of the deep seabed.[146] This power was given to the ISA to adopt the necessary rules and regulations to complement the Convention in order to fill UNCLOS legal framework.[147]

Both Annexes III and IV are, with the 1994 Implementation Agreement, an essential part of UNCLOS regime. Annex III brings the basic conditions of prospecting, exploration, and exploitation. The provisions presented in this section are part of the ISA competence to be further elaborated through rules, regulations, and procedures.[148] Lastly, as already stated, Annex IV

[143] *UNCLOS,* Art. 1(1)(1).
[144] 'Given the heavy workload (19) of the Commission for the Limits of the Continental Shelf, as well as the inability of that body to deal with submissions in relation to disputed areas of continental shelf, it appears that fixing the limits of the continental shelf will take some considerable time'. Michael Lodge, 'The International Seabed Authority and the Exploration and Exploitation of the Deep Seabed' (2014) 47(1) *Revue Belge de Droit International / Belgian Review of International Law* 129, 129-136, 136; Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 229.
[145] Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 229.
[146] James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 116.
[147] *UNCLOS,* Art. 157.
[148] 'Annex III sets out the Basic Conditions of Prospecting, Exploration and Exploitation. and, as such, forms the legal basis upon which activities in the Area may be undertaken. Again, the 1994 Agreement introduced important changes to the regime set out in Annex III'. Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 41.

contains the Statute of the Enterprise, with its purposes, relation with the Authority, and other administrative matters.[149]

2.2.2 1994 Implementation Agreement

The 1994 Implementing Agreement is composed of ten articles and one annex divided into nine sections. It modifies the original regime of Part XI of UNCLOS, giving both texts an unified interpretation.[150] Consequently, any State that ratifies UNCLOS agrees automatically to the 1994 Implementation Agreement and, when there is a conflict between the 1994 Agreement and UNCLOS, the Agreement shall prevail.[151] The agreement answers some of the most conflicting elements of Part XI of UNCLOS.[152] For instance, it establishes the requirements for the compulsory transfer of technology; it regulates the subsidisation of the activities of the Enterprise; it takes a functional and cost-effective approach towards the establishment of the institutions under Part XI; it provides for a stable environment for investors in deep seabed minerals under a market-oriented regime; it guarantees access to the resources of the seabed to all qualified investors; it provides for the establishment of a system of taxation that is fair to the seabed miner and from which the international community as a whole may benefit; it makes provision for assistance from the proceeds of mining to developing land-based producers of minerals whose economies may be affected as a consequence of deep seabed mining; it provides for a balance between the powers and functions of the Assembly and Council; and it establishes a mechanism for decision-making in the Council that enables all groups to protect their interests.[153] Additionally, in accordance with Article 2 of the 1994 Implementation Agreement, in any conflict between the 1994 Implementation Agreement and Part XI of UNCLOS, the provisions of the Agreement shall prevail.[154]

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[149] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 69.
[150] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 228; Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 69, para. 43.
[151] *1994 Implementation Agreement*, Art. 2(1).
[152] Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), 4; para. 3.
[153] Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), 4; para. 3.
[154] Satya N. Nandan, Michael Lodge and Shabtai Rosenne, *The Development of the Regime for Seabed Mining* (Hague, Netherlands: Kluwer International, 2002), 4; para. 3.

Nevertheless, some industrialised states were not content with the manner in which mining activities in the international seabed were regulated by UNCLOS. For the acceptance of the Convention, the 1994 Implementation Agreement aimed to mitigate the benefits given to developing States and protection of the common heritage of mankind by granting the agreement a more market-oriented approach. In that sense, some examples of this market-oriented approach can be highlighted. First, the production limitation policies to produce and export minerals was disapplied by Section 6(7) of the agreement with the support of the industrialised States.[155] Second, the previous mandatory transfer of technology present in Article 5 of Annex III of UNCLOS was disapplied by the Section 5(2) of the Implementation Agreement.[156]

Concerning the financial terms of contracts, from Article 13(3) to Article 13(10) of Annex III, the Convention required a US$500,000 administration fee to an application of a plan of work, an annual fixed fee of US$1 million imposed on a contractor, and detailed financial obligations from the date of entry into force of the contract.[157] However, industrialised countries disagreed with these terms, claiming that the Article was unduly onerous, and changed it in the Implementation Agreement. The agreement implemented a fee of US$250,000 for either the exploration or exploitation phase in accordance with Section 8(3), the detailed financial obligations of miners were presented by Section 8(2), and an annual fixed fee was established by Section 8(1)(d) to be paid from the date of commencement of commercial production, reducing the burden of the contractor.[158]

Another change affected the economic assistance provided for in Article 151(10), which requires the Assembly of the Authority to establish a system of compensation or take other measures of economic adjustment assistance for developing countries. In that sense, the 1994 Implementation Agreement in its Section 7(1) issued that the Authority 'shall establish an

[155] *1994 Implementation Agreement*, Annex, Sec. 6(7); *UNCLOS,* Art. 151(3).
[156] *1994 Implementation Agreement*, Annex, Sec. 5(2); *UNCLOS,* Art. 5, Annex III.
[157] *UNCLOS,* Art. 13(3) and (10), Annex III; Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 228; Alfredo C. Robles Jr., 'The 1994 Agreement on Deep Seabed Mining: Universality vs. the Common Heritage of Humanity' (1996) 12(5-6) *World Bulletin: Bulletin of the International Studies of the Philippines* 20, 55.
[158] *1994 Implementation Agreement*, Annex, Sec. 3(1); *1994 Implementation Agreement*, Annex, Sec. 4; Alfredo C. Robles Jr., 'The 1994 Agreement on Deep Seabed Mining: Universality vs. the Common Heritage of Humanity' (1996) 12(5-6) *World Bulletin: Bulletin of the International Studies of the Philippines* 20, 55-56.

economic assistance fund from a portion of the funds of the Authority which exceeds those necessary to cover the administrative expenses of the Authority'.[159]

In the same sense, as stated in Section 1(2), cost-effectiveness is a key element of the 1994 Implementation Agreement, which states that 'In order to minimise costs to States Parties, all organs and subsidiary bodies to be established under the Convention and this Agreement shall be cost-effective'.[160] Based on an 'evolutionary approach',[161] the ISA Secretariat shall perform the function of the Enterprise until it can operate independently.[162] Through its joint ventures, and upon the approval of a plan of work for exploitation for an entity other than the Enterprise, or upon receipt by the Council of an application for a joint-venture operation with the Enterprise, 'the Council shall take up the issue of the functioning of the Enterprise independently of the Secretariat of the Authority'.[163] Concerning its budget, 'until the end of the year following the year during which this Agreement enters into force, the administrative expenses of the Authority shall be met through the budget of the United Nations'.[164] Thereafter, the contributions shall be provided by its members until the Authority has sufficient funds.[165]

Another relevant change brought by the 1994 Implementation Agreement was the introduction of the consensus procedure on Section 3(2). Originally, 'Decisions on questions of procedure, including decisions to convene special sessions of the Assembly, shall be taken by a

[159] *1994 Implementation Agreement*, Annex, Sec. 7(1).
[160] *1994 Implementation Agreement*, Annex, Sec. 1(2).
[161] *1994 Implementation Agreement*, Annex, Sec. 1(3).
[162] *1994 Implementation Agreement*, Annex, Sec. 2(1).
[163] *1994 Implementation Agreement*, Annex, Sec. 2(2); in that sense, Tanaka states: 'The obligation of States Parties to fund one mine site of the Enterprise as provided for in Annex IV, Article 11(3) shall not apply in light of the delay in commercial production of mineral resources in the Area. Further to this, States Parties are not required to finance any of the operations in any mine site of the Enterprise or under its joint-venture arrangements by virtue of Sec. 2(3). The obligations applicable to contractors shall also apply to the Enterprise under Sec. 2(4). As a consequence, the Enterprise lost its original advantageous position'. Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 228 and 229; also, 'There is to be no control on the part of the Authority of the veracity of this certification; the provision displays a remarkable degree of confidence in the trustworthiness of states and companies. Contracts with states or companies which are not pioneer investors are to be entitled to arrangements "similar to and no less favorable than" those accorded to pioneer investors'. Alfredo C. Robles Jr., 'The 1994 Agreement on Deep Seabed Mining: Universality vs. the Common Heritage of Humanity' (1996) 12(5-6) *World Bulletin: Bulletin of the International Studies of the Philippines* 20, 56.
[164] *1994 Implementation Agreement*, Annex, Sec. 1(14).
[165] 'The Authority shall not exercise the power to borrow funds to finance its administrative budget provided in Article 174(1) of the LOSC. On the other hand, a Finance Committee, which is composed of fifteen members, was established in Sec. 9(1)'. Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 229; *1994 Implementation Agreement*, Annex, Sec. 1(14).

majority of the members present and voting',[166] and 'Decisions on questions of substance shall be taken by a two-thirds majority of the members present and voting'.[167] After the agreement, only if exhausted all the efforts to reach a consensus, decisions on the Assembly shall be decided by the majority of members present and voting on questions of procedure and by a two-thirds of members present and voting for decisions on questions of substance.[168] Additionally, Section 3(5) introduced a collective-veto system which states that 'decisions by voting in the Council on questions of procedure shall be taken by a majority of members present and voting, and decisions on questions of substance, except where the Convention provides for decisions by consensus in the Council, shall be taken by a two-thirds majority of members present and voting, provided that such decisions are not opposed by a majority in any one of the chambers referred to in paragraph 9'.[169] Therefore, three out of four members of each chamber can block substantive decisions that do not require consent from its members.[170]

Although the Implementation Agreement created and modified a new model for UNCLOS, it keeps the essential principles that govern the Area, namely the principles of the common heritage of mankind, the non-appropriation of the area and its natural resources, the exclusive use for peaceful purposes, and the benefit of mankind as a whole.[171] The 1994 Implementation Agreement

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[166] *UNCLOS,* Art. 159(7).

[167] *UNCLOS,* Art. 159(8); in that sense, decisions on the Counsel: '(b) Decisions on questions of substance arising under the following provisions shall be taken by a two-thirds majority of the members present and voting, provided that such majority includes a majority of the members of the Council: article 162, paragraph 2, subparagraphs (f); (g); (h); (i); (n); (p); (v); article 191' and '(c) Decisions on questions of substance arising under the following provisions shall be taken by a three-fourths majority of the members present and voting, provided that such majority includes a majority of the members of the Council: article 162, paragraph 1; article 162, paragraph 2, subparagraphs (a); (b); (c); (d); (e); (l); (q); (r); (s); (t); (u) in cases of non-compliance by a contractor or a sponsor; (w) provided that orders issued thereunder may be binding for not more than 30 days unless confirmed by a decision taken in accordance with subparagraph (d); article 162, paragraph 2, subparagraphs (x); (y); (z); article 163, paragraph 2; article 174, paragraph 3; Annex IV, article 11'. *UNCLOS,* Art. 161(8)(B) and 161(8)(c).

[168] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 230; *UNCLOS,* Art. 159(8); *1994 Implementation Agreement*, Annex, Sec. 3(3).

[169] *1994 Implementation Agreement*, Annex, Sec. 3(5).

[170] Additionally, Article 155 of UNCLOS provided procedures for the review of those provisions of Part XI and its relevant Annexes. In the consultations, however, several industrialised States cast doubt on the validity of this procedure. Therefore, Sec. 4 of the 1994 Implementation Agreement provides that Article 155(1), (3) and (4) of UNCLOS shall not apply. *1994 Implementation Agreement*, Annex, Sec. 3(9); Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 231; Aline Jaeckel, 'Current Legal Developments International Seabed Authority: Developments at the International Seabed Authority' (2016) 31(4) *The International Journal of Marine and Coastal Law* 706, 714.

[171] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 232; see L.D.M. Nelson, 'The New Deep Sea-Bed Mining Regime' (1995) 10(2) *The International Journal of Marine and Coastal Law* 189, 189-203.

gave the industrialised States a way to support UNCLOS seabed mining regime.[172] In regard to the balance between the protection of the common heritage of mankind and capital-market interests, as will be demonstrated in the subsequent chapter, the ISA plays a pivotal role in regulating and mediating both interests through the formulation of the so-called 'mining code' comprising environmental rules and regulations pertaining to seabed mining activities.[173] Nonetheless, the common heritage of mankind continues to be a cardinal principle to regulate these activities.[174]

2.2.3 The Mining Code

Pursuant to its own competence to regulate prospecting, exploration and exploitation of the marine minerals located in the international seabed area, the ISA has adopted a large set of rules, regulations, and procedures. Even within the legal framework established by UNCLOS and the 1994 Implementing Agreement, which may lead to the assumption that these ISA regulations are secondary, they are actually binding on all parties of the Convention.[175] The ISA has adopted, until this moment, three regulations on the exploration of the polymetallic nodules, polymetallic sulphides, and cobalt-rich crusts, namely the 'Exploration Regulations'.[176] These three regulations are: *Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area*, *Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area*, and *Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area*.[177]

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[172] Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 4; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 33.

[173] However, whether or not the Implementation Agreement succeeds in convincing developed States to adhere UNCLOS, the Agreement delayed an future realisation of the common heritage of mankind as originally proposed. In this same sense see Alfredo C. Robles Jr., 'The 1994 Agreement on Deep Seabed Mining: Universality vs. the Common Heritage of Humanity' (1996) 12(5-6) *World Bulletin: Bulletin of the International Studies of the Philippines* 20, 70; Catherine A. Blanchard, Ellycia Harrould-Kolieb, Emily Jones and Michelle L. Taylor, 'The Current Status of Deep-Sea Mining Governance at the International Seabed Authority' (2023) 147 *Marine Policy* 1.

[174] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2019), 234.

[175] Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 242.

[176] Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 242.

[177] Michael Lodge, 'The International Seabed Authority and the Exploration and Exploitation of the Deep Seabed' (2014) 47(1) *Revue Belge de Droit International / Belgian Review of International Law* 129, 131; see also *Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area* (Polymetallic Nodules Exploration Regulation),

The regulations are very similar and standardised, with differences mostly in spatiality and geographic attributes related to the individual characteristics of each mineral deposit.[178] Each regulation includes the necessary standards, contractual terms and forms to pursue exploration contracts and provides information on the procedure to apply for the designation of reserved areas and data and information that shall be submitted by the applicant for approval of the plan of work for exploration.[179]

The regulations are divided into ten parts: Part I clarifies the terms used in the regulations; Part II brings rules regarding the prospecting; Part III describes the application process for approval of plans of work for exploration contracts; Part IV deals with exploration contracts; Part V addresses the protection and preservation of the marine environment; Part VI forms the regulations on confidentiality issues; Part VII brings the general procedures of the regulations; Part IX deals with other resources than those that are the focus of the specific regulation; and Part X addresses the review options. Additionally, the 'contract for exploration' and the 'standard clauses for exploration contract' are annexed in each regulation.[180]

About the regulations, as stated in Article 165(2)(g) of UNCLOS, it is required that the Legal and Technical Commission (LTC) reviews and recommends amendments to the rules, regulations and procedures to be submitted to the Counsel.[181] These reviews must be made after every five years or at any time if they are not adequate.[182] In case of amendments to the Regulations, they must follow the same procedure for the adoption of new regulations. In that sense, the polymetallic nodules Exploration Regulations were amended in 2013, to update them to be more in line with the polymetallic sulphides and cobalt-crust Exploration Regulations. More amendments were made in 2014 to the anti-monopoly clause in the polymetallic nodules

25 July 2013, ISA Doc. ISBA/19/A/9; *Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area* (Polymetallic Sulphides Exploration Regulation), 15 November 2010, ISA Doc. ISBA/16/A/12 Rev. 1; *Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area* (Cobalt-rich Ferromanganese Crusts Exploration Regulation), 22 October 2012, ISA Doc. ISBA/18/A/11.

[178] Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 242.

[179] *Polymetallic Nodules Exploration Regulation,* Regs. 16 and 17.

[180] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 149.

[181] *UNCLOS,* Art. 165(2)(g).

[182] *Polymetallic Nodules Exploration Regulation,* Reg. 42*; Polymetallic Sulphides Exploration Regulation,* Reg. 44; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 44.

exploration regulation and to the provision on application fees in polymetallic sulphides exploration regulation.[183]

The LTC is mandated by the ISA Exploration Regulations to issue recommendations for guidance of the contractors on technical or administrative matters to implement the ISA Exploration Regulations.[184] These recommendations do not need to be approved by the Council. The recommendations shall only be reported and modified or withdrawn in case they are 'inconsistent with the purpose of these regulations.[185] Although these recommendations are non-binding, they are essential for guiding the contractors. In addition, it is relevant to take into account that the same body that issues these recommendations is responsible to decide about an application for a future mining contract.[186]

Until this moment, the LTC has issued *recommendations for the guidance of contractors on the relinquishment of areas under the exploration contracts for polymetallic sulphides or cobalt-rich ferromanganese crusts*;[187] *recommendations for the guidance of contractors for the reporting of actual and direct exploration expenditure*;[188] *recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area*;[189] *recommendations for the guidance of contractors and sponsoring*

[183] *Polymetallic Nodules Exploration Regulation,* Reg. 21; International Seabed Authority, *Proposed amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area* (9 April 2013), ISA Doc. ISBA/19/C/7; and see International Seabed Authority, *Decision of the Assembly of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area* (24 July 2014), ISA Doc. ISBA/20/A/10.
[184] *Polymetallic Nodules Exploration Regulation,* Regs. 32 and 39; *Polymetallic Sulphides Exploration Regulation,* Regs. 34 and 41; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 34 and 41.
[185] Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 242.
[186] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 151.
[187] International Seabed Authority, *Recommendations for the guidance of contractors on the relinquishment of areas under the exploration contracts for polymetallic sulphides or cobalt-rich ferromanganese crusts* (23 July 2019), ISA Doc. ISBA/25/LTC/8, <https://isa.org.jm/files/files/documents/isba_25_ltc_8-e.pdf> (accessed 15 December 2022).
[188] International Seabed Authority, *Recommendations for the guidance of contractors for the reporting of actual and direct exploration expenditure* (14 April 2015), ISA Doc. ISBA/21/LTC/11, <https://isa.org.jm/files/files/documents/isba-21ltc-11_1.pdf> (accessed 15 December 2022).
[189] International Seabed Authority, *Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area* (30 March 2020), ISA Doc. ISBA/25/LTC/6/Rev.1 - (Replaced by ISBA/25/6/Rev.2), <https://isa.org.jm/files/files/documents/26ltc-6-rev1-en_0.pdf> (accessed 15 December 2022).

States relating to training programmes under plans of work for exploration;[190] and *recommendations for the guidance of contractors on the content, format and structure of annual reports*.[191]

With regard to the Exploitation Regulations, the ISA is still engaged in the process of their development.[192] The preliminary work for the exploitation commenced in 2011 and,[193] through this initiative, ISA has issued a work plan for the formulation of the Exploitation Regulations and commissioned a technical scoping study to provide a comparative analysis of the core features of land-based mineral mining frameworks.[194] In 2014, the Authority produced a stakeholders engagement regarding the regulatory framework for mineral exploitation in the Area.[195] In parallel, the Council at its seventeenth session in 2011 requested the Secretariat to prepare a strategic work plan for the formulation of the regulations for mining the deep-sea minerals in the Area.[196] The LTC in 2013 began its consideration relating to proposed regulations for exploitation of polymetallic nodules in the Area.[197]

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[190] International Seabed Authority, *13-39287 (E) Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration* (12 July 2013), ISA Doc. ISBA/19/LTC/14, <https://isa.org.jm/files/files/documents/isba-19ltc-14_0.pdf> (accessed 15 December 2022).

[191] International Seabed Authority, *Recommendations for the guidance of contractors on the content, format and structure of annual reports* (4 August 2015), ISA Doc. ISBA/21/LTC/15, < https://isa.org.jm/files/files/documents/isba-21ltc-15_1.pdf> (accessed 15 December 2022).

[192] 'ISA began to develop regulations to govern the exploitation of mineral resources in the Area in 2014 with a series of scoping studies. The aim of the exploitation regulations is to balance economic needs with rigorous environmental protection. Once in place, the regulations will require any entity planning to undertake activities in the international seabed area to abide by stringent global environmental requirements. The regime to be established also requires a portion of the financial rewards and other economic benefits from mining to be paid to ISA to then be shared according to "equitable sharing criteria". Draft exploitation regulations have been prepared by the LTC following a transparent process and a series of broad public consultations. The draft regulations will need to be adopted by the Council before any contract for mineral exploitation can be issued'. International Seabed Authority, *The Mining Code* (2023), <https://isa.org.jm/mining-code> (accessed 17 July 2023).

[193] International Seabed Authority, *Statement of the President of the Council of the International Seabed Authority on the work of the Council during the seventeenth session* (21 July 2011), ISA Doc. ISBA/17/C/21*, para. 20.

[194] International Seabed Authority, *Workplan for the formulation of regulations for the exploitation of polymetallic nodules in the Area* (25 April 2012), ISA Doc. ISBA/18/C/4; in the same sense, see Allen Clark, Jennifer Cook Clark and Sam Pintz, *Towards the Development of a Regulatory Framework for Polymetallic Nodule Exploitation in the Area (Technical Study No. 11)* (Jamaica: ISA, 2013).

[195] International Seabed Authority, *Developing a Regulatory Framework for Mineral Exploitation in the Area: Stakeholder Engagement* (Kingston, Jamaica: *International Seabed Authority*. 2014), <https://oceanfdn.org/sites/default/files/Developing%20a%20Regulatory%20Framework%20for%20Mineral%20Exploitation%20in%20the%20Area.pdf> (accessed 17 December 2022).

[196] see International Seabed Authority, *Statement of the President of the Council of the International Seabed Authority on the work of the Council during the seventeenth session* (21 July 2011), ISA Doc. ISBA/17/C/21*.

[197] *Draft Regulations on Exploitation of Mineral Resources in the Area* .

In 2014, the ISA initiated the process of developing regulations for the exploitation of mineral resources in the Area.[198] In February of 2014, the ISA published a comparative study of mining industry fiscal regimes called *Developing Financial Terms for Deep Sea Mining Exploitation* and a *Stakeholder Survey* 'aimed at soliciting relevant information for the development of a regulatory framework for the exploitation of minerals in the Area from members of the Authority and current and future stakeholders'.[199] In 2015, were released the documents *Discussion Paper on the Development of Financial Terms for Exploitation in the Area*,[200] *Stakeholder submissions to the Discussion Paper,*[201] *Draft Framework for Deep Sea Mineral Exploitation in the Area*,[202] *Stakeholder submissions to the Draft Framework*, *Revised Draft Framework,*[203] and *High-Level Issues and Action Plan for Deep Sea Mineral Exploitation in the Area*.[204] In 2016, it was released the *Comments on the Working Draft*.[205] In 2017, it was released the *Discussion paper on the development and drafting of regulations on exploitation for mineral resources in the Area* (environmental matters) and *Stakeholder submissions to the Draft*

[198] 'In accordance with UNCLOS and the 1994 Agreement, since 2014, ISA has undertaken work to develop regulations for exploitation of mineral resources in the Area. The process, which started with preliminary work in the context of expert workshops and involved the preparation of a number of expert studies and discussion papers, culminated in the development of draft regulations considered by the Legal and Technical Commission and the Council. Open stakeholder consultations have been undertaken throughout the process'. International Seabed Authority, *The Mining Code* (2023), <https://isa.org.jm/mining-code> (accessed 17 July 2023).

[199] International Seabed Authority, *Making the Most of Deep Seabed Mineral Resources: Developing Financial Terms for Deep Sea Mining Exploitation. Financial committee*, <https://isa.org.jm/files/documents/EN/Regs/FinTerms2014.pdf> (accessed 17 December 2022).

[200] International Seabed Authority, *Developing a Regulatory Framework for Mineral Exploitation in the Area: Stakeholder Engagement* (Kingston, Jamaica: *International Seabed Authority*. 2014), <https://oceanfdn.org/sites/default/files/Developing%20a%20Regulatory%20Framework%20for%20Mineral%20Exploitation%20in%20the%20Area.pdf> (accessed 17 December 2022).

[201] International Seabed Authority, *2015 Payment Mechanism Survey. International Seabed Authority* (March 2015), International Seabed Authority, <https://www.isa.org.jm/survey/2015-payment-mechanism-survey> (accessed 17 Dec. 2022).

[202] International Seabed Authority, *Developing a Regulatory Framework for Exploitation in the Area: Report to Members of the Authority and All Stakeholders* (2015), International Seabed Authority, <https://www.isa.org.jm/files/documents/EN/Survey/Report-2015.pdf> (accessed 17 December 2022).

[203] International Seabed Authority, *The Mining Code* (2023), <https://isa.org.jm/mining-code> (accessed 17 July 2023).

[204] International Seabed Authority, *Developing a Regulatory Framework for Deep Sea Mineral Exploitation in the Area* (July 2015), International Seabed Authority, <https://www.isa.org.jm/files/documents/EN/OffDocs/Rev_RegFramework_ActionPlan_14072015.pdf > (accessed 15 December 2022).

[205] International Seabed Authority, *Contributions to the working draft exploitation regulations. International Seabed Authority* (28 July 2016 – 25 November 2016), International Seabed Authority, <https://isa.org.jm/files/files/documents/comments_listing.pdf> (accessed 17 December 2022).

Regulations on Exploitation for Mineral Resources in the Area.[206] In 2018, *Briefing notes on the submissions to the Draft Regulations on Exploitation of Mineral Resources in the Area* and *Stakeholder Submissions on the revised Draft Regulations on Exploitation* were released.[207] In 2019, a lot were concluded with the release of *Collation of specific drafting suggestions by members of the Council*,[208] *Comments on the Draft Regulations on the Exploitation of Mineral Resources in the Area*,[209] *Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25*/C/37,[210] *Compilation of the proposals and observations sent by other member States of ISA, observers and stakeholders on the Draft Regulations in response to Paragraphs 7 and 8 of ISBA/25/C/37*,[211] and *Comments on the Draft Regulations on Exploitation of Mineral Resources in the Area submitted by Germany*.[212] Since 2022, according to the working modalities set out in the decision of the Council during the twenty-

[206] International Seabed Authority, *Discussion Paper on Developing a Regulatory Framework for Mineral Exploitation in the Area: A Discussion Paper on the developing and drafting of regulations on exploitation for mineral resources in the area (environmental matters)* (January 2017). International Seabed Authority, <https://isa.org.jm/files/documents/EN/Regs/DraftExpl/DP-EnvRegsDraft25117.pdf> (accessed 17 December 2022); International Seabed Authority, *Submissions to International Seabed Authority's Draft Regulations On Exploitation Of Mineral Resources In The Area* (10 January 2018), ISA Doc. ISBA/23/C/12, ISA Doc. ISBA/23/LTC/CRP.3*, <https://isa.org.jm/files/files/documents/list-1.pdf> (accessed: 17 Dec. 2022).

[207] International Seabed Authority, *Comments on the draft regulations on the exploitation of mineral resources in the Area* (4 December 2018), ISA Doc. ISBA/25/C/2, <https://isa.org.jm/files/files/documents/25c_2_e_3.pdf> (accessed: 17 Dec. 2022); International Seabed Authority, *Briefing note on the submissions to the draft regulations on the exploitation of mineral resources in the Area* (26 November 2018), ISA Doc. ISBA/25/C/CRP.1, <https://isa.org.jm/files/documents/EN/25Sess/ISBA25C-CRP1.pdf> (accessed: 17 Dec. 2022); International Seabed Authority, *Submissions to International Seabed Authority's Request for Comments Draft Regulations on Exploitation of Mineral Resources In The Area* (19 November 2018), ISA Doc. ISBA/24/LTC/WP.1/REV.1, <https://isa.org.jm/files/files/documents/comments_0.pdf> (accessed 17 December 2022).

[208] International Seabed Authority, *Draft regulations on exploitation of mineral resources in the Area Collation of specific drafting suggestions by members of the Council* (17 December 2019), ISA Doc. ISBA/26/C/CRP.1, <https://isa.org.jm/files/files/documents/collation_of_specific_drafting_suggestions_for_posting_0.pdf> (accessed 17 December 2022).

[209] International Seabed Authority, *Comments on the draft regulations on the exploitation of mineral resources in the Area* (4 December 2019), ISA Doc. ISBA/26/C/2, < https://isa.org.jm/files/files/documents/26-c-2-en.pdf> (accessed: 17 December. 2022).

[210] International Seabed Authority, *Compilation of the proposals and observations sent by members of the Council in response to Paragraphs 7 and 8 of ISBA/25/C/37* (22 July 2019), International Seabed Authority, < https://isa.org.jm/files/files/documents/compile_council_2_final.pdf>. (accessed 17 December 2022).

[211] International Seabed Authority, *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*, <https://isa.org.jm/files/files/documents/comments-jan2020a_final.pdf> (accessed 17 December 2022).

[212] International Seabed Authority, *Comments on the draft regulations on exploitation of mineral resources in the Area* (27 June 2019), ISA Doc. ISBA/25/C/29, <https://isa.org.jm/files/files/documents/isba25_c29-e_0.pdf> (accessed 17 December 2022).

sixth session of the Authority,[213] three Informal Working Groups and the Open-Ended Working Group have been working on a revision of the draft regulations,[214] finally releasing their first drafts in the same year.[215] In that sense, due to its draft phase, the Exploitation Regulation may not take so long to be released.[216]

Based on the previous Exploration Regulations, the current Draft Exploitation Regulations gives a glimpse of the future final document.[217] As the Exploration Regulations, the Exploitation Regulations use the same requirements for the approval of applicants for sponsoring States,[218] with a slight difference in the initial period of the exploitation contract, that shall be 30 years.[219] Additionally, the payment of fees for the mined resources,[220] besides the application fee and annual premiums,[221] must be made.

The Draft Exploitation Regulations also give great importance to the environmental obligations of the ISA. The Draft prescribes the precautionary approach and the best environmental

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[213] International Seabed Authority, *Decision of the Council concerning working methods to advance discussions on the draft regulations for exploitation of mineral resources in the Area* (21 February 2020), ISA Doc. ISBA/26/C/11, <https://isa.org.jm/files/files/documents/isba_26_c_11-2002804e_0.pdf> (accessed: 17 December 2022).

[214] International Seabed Authority, *The Mining Code: Working Groups* (2022), < https://isa.org.jm/mining-code/working-groups> (accessed 17 July 2023).

[215] International Seabed Authority, *Fifth Meeting of the Open-ended Working Group of the Council on 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* (2022), International Seabed Authority, <https://isa.org.jm/files/files/documents/Briefing_Note_OEWG_13_June_2022.pdf> (accessed 17 July 2023); International Seabed Authority, *Draft regulations on exploitation of mineral resources in the Area Parts IV and VI and related Annexes* (8 February 2022), ISA Doc. ISBA/27/C/IWG/ENV/CRP.1, <https://isa.org.jm/files/files/documents/20220208-IWG-ENV-CRP1.pdf> (accessed 17 December 2022); International Seabed Authority, *Draft regulations on exploitation of mineral resources in the Area* (29 July 2022), ISA Doc. ISBA/27/C/IWG/ENV/CRP.1/Rev.1, <https://isa.org.jm/files/files/documents/Facilitators-Revised-Draft-Text.pdf> accessed 17 December 2022); International Seabed Authority, *Draft regulations on exploitation of mineral resources in the Area Part XI: Regulations 96 to 105* (8 July 2022), ISA Doc. ISBA/27/C/IWG/ICE/CRP.1, <https://isa.org.jm/files/files/documents/PartXI_ICE-Facilitators-text-8July_0.pdf> (accessed 17 December 2022); International Seabed Authority, Draft regulations on exploitation of mineral resources in the Area Part I and Part II (partial) Regulations 1-5 (5 July 2022), ISA Doc. ISBA/27/C/IWG/IM/CRP.1, <https://isa.org.jm/files/files/documents/Institutional_Matters_IWG_Facilitators_Draft_Regs_1-5.pdf> (accessed 17 December 2022).

[216] For a Deep analysis of the draft, see Kathy-Ann Brown, 'The Draft Regulations on Exploitation of Mineral Resources in the Area 'A Work in Progress'', in Alfonso Ascencio-Herrera and Myron H. Nordquist, (eds.) *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden: Brill Nijhoff, 2022), 303-352.

[217] Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 3.

[218] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 5 and 6.

[219] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 20.

[220] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 63-73.

[221] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 84-87.

practices an essential role in activities of exploitation.[222] The Draft Regulations orders that, before the beginning of production, the contractor shall deposit its Environmental Performance Guarantee to the ISA.[223] Furthermore, the ISA plans to create an Environmental Compensation Fund to cover the costs to conduct measures in cases of lack of liability of a contractor or sponsoring State.[224] Finally, it is worth mentioning that the approval of a plan of work for exploitation, among other documents, requires more extensive environmental documents, such as an Environmental Impact Statement, Environmental Management and Monitoring Plan, and a Closure Plan.[225]

This whole comprehensive set of rules, regulations and procedures issued by the ISA to regulate prospecting, exploration and exploitation of marine minerals in the international seabed Area is part of the so-called 'Mining Code'.[226]

2.2.4 Dispute settlement: Seabed Disputes Chamber

The Seabed Disputes Chamber is the compulsory dispute settlement mechanism competent to solve disputes regarding activities in the Area. Established under Part XI and Annex VI of UNCLOS,[227] the Chamber is an independent legal body within the International Tribunal for the

[222] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 44.
[223] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 26.
[224] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 54-56.
[225] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 7; 'As part of the comprehensive review of an application, the Legal and Technical Commission shall examine the application in light of the comments made by stakeholders and the responses from the applicant, and consider whether the plans provide for the effective protection of the marine environment in accordance with article 145 of the Law of the Sea Convention and the precautionary approach. The report of the Legal and Technical Commission, including any suggested modifications or amendments to the application, is also published on the ISA website and the entire file is transferred to the Council. If the Legal and Technical Commission is of the opinion that the application does not provide adequate protection for the marine environment, the applicant will be informed and is offered a chance to rectify this, followed by a new assessment by the Legal and Technical Commission. The final decision is taken by the Council on the basis of the same decision-making process that applies to exploration contracts: a positive recommendation from the Legal and Technical Commission can be overturned by a two-thirds majority and a negative advice does not necessarily preclude the approval of a plan of work by the Council'. Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 3; *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 11-16.
[226] International Seabed Authority, *The Mining Code* (2023), <https://isa.org.jm/mining-code> (accessed 17 July 2023); Beside these recommendations are not legally binding to the contractors, it should be implemented and comply since is the LTC that also approve the applications for exploration and exploitation and determine its possible extension. in this same sense, see Aline Jaeckel, 'Deep seabed mining and adaptive management: The procedural challenges for the International Seabed Authority' (2016) 70 *Marine Policy* 205, 205-211.
[227] *UNCLOS,* Art. 186-191; *UNCLOS,* Art. 35-40, Annex IV; see Tullio Treves, 'Judicial Action for the Common Heritage', in Holger Hestermeyer, Nele Matz-Lück, Anja Seibert-Fohr and Silja V. Neky, *Law of the Sea in Dialogue* (Berlin, Germany: Springer, 2010), 113–133; for a deeper analysis, see Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 350-379.

Law of the Sea with its own rules of procedure and jurisdictional provisions.[228] The Chamber is composed of eleven members elected from the Judges of the Tribunal, with recommendations of the ISA, and it should reflect the principal legal systems of the world.[229]

The Chamber has jurisdiction concerning disputes or advisory opinions related to activities in the Area. So far, the Chamber has issued only one Advisory Opinion on *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, in 2011.[230]

On May 2010, the Council of the ISA requested an Advisory Opinion to the Seabed Disputes Chamber related to the *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*.[231] In accordance with Article 191, 'The Seabed Disputes Chamber shall give advisory opinions at the request of the Assembly or the Council on legal questions arising within the scope of their activities. Such opinions shall be given as a matter of urgency'.[232]

This Advisory Opinion was requested by the Council based on the request of Nauru and Tonga, two developing States that were applying for exploration contracts of polymetallic nodules with the Authority as sponsors of two private companies, Nauru Ocean Resources Inc. and Tonga Offshore Mining Ltd., respectively, due to their absence of financial and technical capacity to conduct activities in the Area.[233] In May 2009, both requested a postponement of their

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[228] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 112; Helmut Tuerk, 'The Contribution of the International Tribunal for the Law of the Sea to International Law', in Alex. G. Oude Elferink and Erik. J. Molenaar (eds.), *The Legal Regime of Areas beyond National Jurisdiction: Current Principles and Frameworks and Future Directions* (Leiden, Netherlands: Martinus Nijhoff, 2010), 221; see also Mahdi El-Bagdadi, 'The Biding Nature of the Disputes Settlement Procedure in the Third U.N. Convention on the Law of the Sea: The International Seabed Authority' (1991) 6 *Journal of Mineral Law & Policy* 173, 180.

[229] *UNCLOS*, Art. 35(1) and Art. 35(2), Annex VI.

[230] see ITLOS. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), Advisory Opinion, 1 February 2011, ITLOS Reports 2011; *UNCLOS*, Art. 187; *UNCLOS*, Art. 191; *UNCLOS*, Art., 287(2).

[231] see International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6; ITLOS. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), Advisory Opinion, 1 February 2011, ITLOS Reports 2011.

[232] *UNCLOS*, Art. 191.

[233] see International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6.

applications.[234] Consequently, if developing States were responsible and liable for the actions of the sponsored entities, it would preclude them from taking part in mining activities in the international seabed, violating principles of Part XI of UNCLOS.[235]

On the Advisory Opinion, the Council requested the Seabed Disputes Chamber to answer the following questions: what are the legal responsibilities and obligations of States Parties to the Convention with respect to the sponsorship of activities in the Area in accordance with the Convention, in particular part XI, and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982? What is the extent of liability of a State Party for any failure to comply with the provisions of the Convention, in particular part XI, and the 1994 Agreement, by an entity whom it has sponsored under article 153, paragraph 2(b), of the Convention? And what are the necessary and appropriate measures that a sponsoring State must take in order to fulfil its responsibility under the Convention, in particular Article 139 and Annex III, and the 1994 Implementation Agreement?[236]

The Advisory Opinion received written statements from 12 States Parties to UNCLOS (Australia, Chile, China, Germany, the Republic of Korea, Mexico, Nauru, the Netherlands, the Philippines, Romania, the Russian Federation and the United Kingdom), the International Seabed Authority, the Interoceanmetal Joint Organization, the International Union for Conservation of Nature and Natural Resources, and the United Nations Environment Programme. Additionally, a joint statement by two international non-governmental organisations (the Stichting Greenpeace Council, Greenpeace International, and the Worldwide Fund for Nature) was submitted together

[234] International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6.

[235] Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 134; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 38; see International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6.

[236] International Tribunal for the Law of the Sea, *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber)*, List of Cases, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, <https://www.itlos.org/en/main/cases/list-of-cases/case-no-17/> (accessed 15 December 2022).

with a petition to intervene in the proceedings as *amicus curiae*.[237] Regarding these questions on the Advisory Opinion,[238] a deeper analysis will be made in the fourth and fifth chapters.

In its decisions, the Seabed Disputes Chamber is allowed to apply any UNCLOS rules, regulations and procedures adopted by the ISA, the mining contracts, and other international rules.[239] Still, the Chamber has no jurisdiction to review the discretionary powers of the ISA and 'shall not pronounce itself on the question of whether any rules, regulations and procedures of the Authority are in conformity with this Convention, nor declare invalid any such rules, regulations and procedures'.[240] Thus, the Chamber only has jurisdiction to decide individual cases.[241] However, the Chamber can make comments on the compatibility of ISA regulations with UNCLOS and 1994 Implementation Agreement in its advisory opinions, with a non-binding effect of creating amendments to the regulations.[242] Their advisory opinions may not be binding, but they still are important to clarify ambiguities in interpreting Part XI and Annexes of UNCLOS, the Mining Code or any treaties relevant to the activities in the Area.[243]

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[237] 'During the hearing held on 14, 15 and 16 September 2010, nine States Parties (Argentina, Chile, Fiji, Germany, Mexico, Nauru, the Netherlands, the Russian Federation and the United Kingdom), the International Seabed Authority, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Union for Conservation of Nature and Natural Resources presented oral statements to the Seabed Disputes Chamber'. ITLOS. *List of Cases*. *Responsibilities and obligations of States with respect to activities in the Area*. International Tribunal for the Law of the Sea, *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber)*, List of Cases, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, <https://www.itlos.org/en/main/cases/list-of-cases/case-no-17/> (accessed 15 December 2022); see Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213.

[238] ITLOS. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), Advisory Opinion, 1 February 2011, ITLOS Reports 2011.

[239] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 112; *UNCLOS*, Art. 293; *UNCLOS*, Art. 38, Annex VI.

[240] *UNCLOS*, Art. 189.

[241] 'Without prejudice to article 191, in exercising its jurisdiction pursuant to article 187, the Seabed Disputes Chamber shall not pronounce itself on the question of whether any rules, Regs. and procedures of the Authority are in conformity with this Convention, nor declare invalid any such rules, Regs. and procedures. Its jurisdiction in this regard shall be confined to deciding claims that the application of any rules, Regs. and procedures of the Authority in individual cases would be in conflict with the contractual obligations of the parties to the dispute or their obligations under this Convention, claims concerning excess of jurisdiction or misuse of power, and to claims for damages to be paid or other remedy to be given to the party concerned for the failure of the other party to comply with its contractual obligations or its obligations under this Convention'. *UNCLOS*, Art. 189.

[242] James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 151-153.

[243] International Seabed Authority, *Decision of the Council of the International Seabed Authority requesting an advisory opinion pursuant to Article 191 of the United Nations Convention on the Law of the Sea. International Seabed Authority* (6 May 2010), ISA Doc. ISBA/16/C/13; *Responsibilities and Obligations of States Sponsoring Persons and*

Additionally, the Seabed Disputes Chamber has no exclusivity on disputes related to activities in the Area, as UNCLOS allows disputes concerning the interpretation or application of the Convention, including Part XI and annexes, to be submitted to a special chamber of ITLOS or to an *ad hoc* chamber of the Seabed Disputes Chamber in disputes between two States Parties.[244] In this sense, in accordance with some commentators,[245] such provision was included purposely to protect the ISA and its organs from outside interference from the dispute settlement organs, since 'neither the Chamber nor any other judicial body is able to control the law-making activities of the Authority through judicial review'.[246] Similarly, commercial arbitration is allowed for disputes between the ISA and investors concerning the interpretation or application of their specific contract.[247] In that sense, the arbitration shall take place under UNCITRAL Arbitration rules unless the parties or the contract specify otherwise.[248]

It can be argued that international arbitration tribunals are more suitable forums for dealing with such cases than the Seabed Disputes Chamber, given their greater familiarity with similar cases.[249] According to Article 188(2) of UNCLOS, the specific international arbitral commercial tribunal would have mandatory jurisdiction if one of the parties requested.[250] Nevertheless, the aforementioned arbitrations may only be employed for the interpretation of the contract, the plan

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Entities with Respect to Activities in the Area (Advisory Opinion, 1 February 2011), para. 25; see Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 342.

[244] *UNCLOS*, Art. 188(1).

[245] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 634

[246] James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 150.

[247] James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 148.

[248] *UNCLOS*, Art. 188(2)(c); In that sense, Harrison: 'While this provision reflects the commercial nature of disputes between contractors and the Authority, it also means that the arbitrators selected to decide a dispute in these cases may not have any particular expertise in the law of the sea or indeed in international law at all. To take this into account, an arbitral tribunal constituted to hear such disputes is expressly excluded from interpreting any provisions of the Convention or its Annexes. Rather, such questions must be referred to the Seabed Disputes Chamber for resolution. Once an answer has been given by the Chamber, the arbitral tribunal is required to "render its award in conformity with the ruling of the [Chamber]." Given that the rules and regulations of the Authority are also the product of international negotiation, it is suggested that their interpretation should also be excluded from the jurisdiction of commercial arbitration and that any interpretative issue arising thereunder should also be referred to the Chamber'. James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 148-149.

[249] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 108.

[250] *UNCLOS*, Art. 188(2); Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 370.

of work, or other agreements between the parties; thus, the arbitration tribunals are not competent to interpret or apply UNCLOS.[251] In cases in which the interpretation of UNCLOS is substantial to the arbitration case, the question shall be submitted to the appreciation of the Seabed Disputes Chamber, and the arbitral tribunal shall follow what was determined by the Chamber.[252]

Article 190 of UNCLOS deals with the participation and appearance of sponsoring States Parties in proceedings by stating that 'If a natural or juridical person is a party to a dispute referred to in article 187, the sponsoring State shall be given notice thereof and shall have the right to participate in the proceedings by submitting written or oral statements'.[253] In other words, it gives the right to sponsoring States to intervene where a private contractor is a party to a dispute, even though it is not generally consistent with international proceedings on investment or commercial disputes.[254] Additionally, under paragraph 2 of the same article, if a claim is brought against a State by a sponsored contractor in a dispute based on Article 187(c), the State may request the sponsoring State to appear in the proceedings on behalf of its sponsored contractor.[255] If the sponsoring State does not appear, the respondent State can decide to be represented by a juridical person of its nationality.[256]

2.3 Activities in the area: prospecting, exploration, and exploitation

The regulation of mining in the international deep seabed is the main objective of all aforementioned legal frameworks within the ISA.[257] In order to achieve this main objective the Authority is supposed to follow three stages: prospecting, exploration and exploitation. UNCLOS allows these activities to be carried out by the Enterprise, States Parties, States enterprises, natural or juridical persons that possess the nationality of States Parties or have effective control by the

[251] *UNCLOS*, Art. 188(2)(a) and (b).
[252] *UNCLOS*, Art. 188(2)(a) and (b); James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 143.
[253] *UNCLOS*, Art. 190(1).
[254] Niels-J. Seeberg-Elverfeldt, *The Settlement of Disputes in Deep Seabed Mining* (Berlin, Germany: Nomos, 1998), 143.
[255] *UNCLOS*, Art. 190(2).
[256] *UNCLOS*, Art. 190(2).
[257] *UNCLOS,* Art. 1-3, Annex III.

States Parties or its nationals with sponsorship of their States, or any group of the foregoing.[258] If any of these entities fulfils the required procedures and qualifications present in Part XI and Annex III of UNCLOS, 1994 Implementation Agreement and the rules, regulations, and procedures of the ISA, they shall be allowed to conduct the respective activities in the Area, once these entities have the approval of their application of plans of work with the ISA.[259]

While prospecting is allowed to be conducted without exclusive rights by any States, since this phase only requires communication to the ISA,[260] the subsequent phases of exploration and exploitation are more complex. Prospecting can be defined as 'the search for deposits of polymetallic nodules in the Area, including estimation of the composition, sizes and distributions of deposits of polymetallic nodules and their economic values, without any exclusive rights'.[261] Article 2, Annex III, of UNCLOS states that the Authority shall encourage prospecting activities, conducted by one or more prospectors in a respective area designated by the Authority, 'after the Authority has received a satisfactory written undertaking that the proposed prospector will comply with this Convention and the relevant rules, regulations and procedures of the Authority concerning cooperation in the training programmes referred to in Articles 143 and 144 and the protection of the marine environment, and will accept verification by the Authority of compliance therewith'.[262]

Despite of it, UNCLOS gives no further details about prospecting; nonetheless, the Exploration Regulations set some parameters to accomplish this phase and settle other issues, such as: notification of the prospecting; the protection and preservation of the environment during prospecting; cooperation with the Authority in the establishment and implementation of monitoring programmes regarding the potential impact of exploration and exploitation activities; and provision annual report and confidentiality of data and information from prospecting contained

[258] Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 311.
[259] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 45; *UNCLOS,* Art. 153(3); *UNCLOS,* Art. 3(3)- 3(5), Annex III.
[260] *UNCLOS,* Art. 2, Annex III; *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(E); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(E); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(E).
[261] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(e); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(e); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(e).
[262] *UNCLOS,* Art. 2, Annex III.

in the report.[263] After the prospecting phase, the consecutive exploration and exploitation phases will not necessarily happen.[264]

Exploration requires more detailed analysis of mineral deposits and the previous application for a plan of work within the Authority.[265] With the approval of the respective plan of work, the contractor will have permission to conduct the exploration within an area approved by the ISA.[266] Exploitation is the phase in which the extraction of the minerals in the deep seabed with commercial purposes happens.[267]

The exploration contracts allow the aforementioned applicants by UNCLOS and Exploration Regulations to apply for the second phase of exploration.[268] Except the Enterprise and the States Parties, all other applicants need their State or the State by which they are effectively controlled to support their application with the ISA.[269] Additionally, the applicant must fulfil all the requirements issued in Article 4, Annex III, of UNCLOS.[270]

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[263] *Polymetallic Nodules Exploration Regulation,* Regs. 2-7; *Polymetallic Sulphides Exploration Regulation,* Regs. 2-7; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 2-7; also, 'The content of the annual report is considered confidential, but information relating to the protection and preservation of the marine environment constitutes an exception, as the prospector can only request that such data is not disclosed for a maximum of three years'. Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 2.

[264] Jason Nelson, 'The Contemporary Seabed Mining Regime: A critical Analysis of the Mining Regulations promulgated by the International Seabed Authority' (2005) *Colorado Journal of International Environmental Law and Policy* 27, 52-65; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 45; Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 2.

[265] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(c); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(e); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(e).

[266] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(c); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(c); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(c).

[267] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(b).

[268] Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 2; *UNCLOS,* Art. 153(2); *UNCLOS,* Art. 3 and 4, Annex III; *Polymetallic Nodules Exploration Regulation,* Reg. 9; *Polymetallic Sulphides Exploration Regulation,* Reg. 9; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 9.

[269] *UNCLOS,* Art. 4, Annex III; *Polymetallic Nodules Exploration Regulation,* Reg. 11; *Polymetallic Sulphides Exploration Regulation,* Reg. 11; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11,

[270] *UNCLOS,* Article 4, Annex III; *Polymetallic Nodules Exploration Regulation,* Reg. 12; *Polymetallic Sulphides Exploration Regulation,* Reg. 13; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 13.

The total area requested in the application for exploration of polymetallic nodules must be 'sufficiently large and of sufficient estimated commercial value to allow two mining operations'.[271] After that, the indicated area will be divided by the ISA into two minor areas.[272] Then, the ISA will grant one area to the contractor who entered the application, and the second area will be reserved to the ISA to conduct activities through the Enterprise or associated with developing States.[273]

Article 153(3) of UNCLOS states that 'activities in the Area shall be carried out in accordance with a formal written plan of work drawn up in accordance with Annex III and approved by the Council after review by the Legal and Technical Commission',[274] which must be presented in the form of a contract for the security of tenure and shall not be revised, suspended or terminated except in accordance with Articles 18 and 19 of Annex III.[275] Additionally, it is worth mentioning that the plans of work shall be analysed in order of application and must include the operational requirements, financial contributions, and the undertakings concerning the transfer of technology.[276] Concerning the process of obtaining an approval of a plan of work for deep seabed mining activities, this topic will be considered in a specific Section of the next chapter.

The exploitation phase is the phase where the extraction of the minerals in the deep seabed begins. Nevertheless, this phase has not yet begun since the Draft Exploitation Regulations is still under development. On the other hand, the exploitation in areas within the national jurisdiction of the States is already ongoing, which gives a glimpse of all processes and consequences that will happen once exploitation begins in the international seabed.

[271] *Polymetallic Nodules Exploration Regulation,* Reg. 15; *Polymetallic Sulphides Exploration Regulation,* Reg. 12; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 12.
[272] *Polymetallic Nodules Exploration Regulation,* Reg. 15; *Polymetallic Sulphides Exploration Regulation,* Reg. 12; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 12.
[273] *UNCLOS,* Art. 8, Annex III.
[274] *UNCLOS,* Art. 153(3).
[275] *UNCLOS,* Art. 153(6).
[276] *UNCLOS,* Art. 6, Annex III.

2.4 International Seabed Authority

2.4.1 Powers and functions

As previously stated, the ISA is an international organisation established within UNCLOS with the primary objective of organising, controlling, and implementing activities in the seabed area and its resources on behalf of mankind as a whole.[277] As above mentioned, in accordance with UNCLOS, these resources are 'all solid, liquid or gaseous mineral resources *in situ* in the Area at or beneath the seabed, including polymetallic nodules'.[278] As the centralised organ of the deep seabed mining regime,[279] the ISA can be considered as the international organisation to conduct a responsible, just, and equitable economic order in the international seabed area.[280]

The ISA as the main international organisation to focus on the seabed regime is responsible for administrating the mining operations carried out by States Parties, State enterprises, or natural or judicial persons with nationality of States Parties or that are effectively controlled by them or their nationals.[281] In other words, both public and private actors can participate in mining operations as long as they have a State as their sponsor and are under a contract issued by the ISA with exclusive temporally mining rights.[282]

The core functions of the Authority are defined and constrained by UNCLOS and the 1994 Implementation Agreement. In this regard, the core function can be divided in scopes: the spatial scope, the material scope and the personal scope.[283] First, the spatial scope can be limited to the international seabed in the areas beyond the national jurisdiction of the States, namely the Area,[284]

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[277] *UNCLOS,* Art. 153(1); *UNCLOS,* Art. 157(1); Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 5-6.
[278] *UNCLOS,* Art. 133.
[279] Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 207.
[280] Tullio Scovazzi, 'The Concept of Common Heritage of Mankind and the Genetic Resources of the Seabed beyond the Limits of National Jurisdiction' (2007) XIV(25) *Agenda Internacional*, 16; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 53.
[281] *UNCLOS,* Art. 153(2)(b).
[282] *UNCLOS,* Art. 153(2)(b); *UNCLOS,* Art. 4; Annex III; *UNCLOS,* Art. 153(2)(a); *UNCLOS,* Art. 3, Annex III; *UNCLOS,* Art. 16, Annex III; Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 89-90.
[283] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 53.
[284] *UNCLOS,* Art. 135.

not including the superjacent waters to the Area.[285] Second, the material scope regulates all activities within the Area concerning exploration and exploitation through its regulations and recommendations that compose the Mining Code;[286] thus, the ISA has no competence to deal with other uses of the Area, such as deep sea fishing,[287] laying of submarine cables and pipelines,[288] and marine scientific research unconnected with deep seabed mining.[289] Lastly, the personal scope is related to the responsibility of the Enterprise to carry out the activities in the Area in association with the ISA with States Parties, State enterprises, natural or juridical persons, or other groups that meet the requirements provided in Part XI and Annex III of UNCLOS.[290]

In order for the ISA to complete its functions, UNCLOS establishes two categories of mandates. The first mandate holds legislative power under Article 17(1) of Annex III, which states that the ISA shall adopt and uniformly apply its rules, regulations and procedures to exercise its functions in administrative procedures relating to prospecting, exploration, and exploitation operations, financial matters, and implementation of decisions.[291] The second mandate holds contract-related power to grant mining contracts, monitoring, and enforcing powers.[292]

2.4.2 Institutional organisation

When the International Seabed Authority was created, the market-oriented approach was also reflected in its structure.[293] In that sense, the ISA organs and subsidiary bodies were based on an evolutionary approach and shall increase its power with the gradual development of seabed

[285] *UNCLOS,* Art. 135.
[286] *UNCLOS,* Art. 1(1); Felipe Paolillo, Institutional Arrangements, in René-Jean Dupuy and Daniel Vignes, *A Handbook on the New Law of the Sea (vol. 1)* (Hague, Netherlands: Académie de droit international de La Haye, 1991), 718.
[287] *UNCLOS,* Art. 87(1); *UNCLOS,* Art. 116.
[288] *UNCLOS,* Art. 112.
[289] *UNCLOS,* Art. 143(2); *UNCLOS,* Art. 256.
[290] *UNCLOS,* Art. 153(2); 'The qualification standards shall require that every applicant, without exception, shall as part of his application undertake: (a) to accept as enforceable and comply with the applicable obligations created by the provisions of Part XI, the rules, Regs. and procedures of the Authority, the decisions of the organs of the Authority and terms of his contracts with the Authority; (b) to accept control by the Authority of activities in the Area, as authorized by this Convention; (c) to provide the Authority with a written assurance that his obligations under the contract will be fulfilled in good faith; (d) to comply with the provisions on the transfer of technology set forth in article 5 of this Annex'. *UNCLOS,* Art. 4(6), Annex III.
[291] Yoshifumi Tanaka, 'Protection of Community Interests in International Law: The Case of Law of the Sea', in Armin Von Bogdandy and Rüdiger Wolfrum (eds.), *Max Planck Yearbook of United Nations Law, Volume 15* (Leiden, Netherlands: Brill Nijhoff, 2011), 344; *UNCLOS,* Art. 17(1), Annex III.
[292] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 88-90.
[293] *1994 Implementation Agreement*, Annex, Sec. 1(2).

mining in the Area.[294] The three principal organs of the ISA are the Assembly, the Council and the Secretariat, while the subsidiary bodies are the Legal and Technical Commission, the Finance Committee, the Economic and Planning Commission and the Enterprise.[295]

2.4.2.1 The Assembly

The Assembly is the plenary body of the ISA. In this organ, each member State is represented and has the right to vote and the power to establish collaboration with the Council general policies on issues related to the competence of the Authority.[296]

The Assembly is empowered by the Council, which in turn exerts control over the Assembly by limiting its decision-making authority and imposing recommendations on each Assembly decision. Despite this, the Assembly is the organ responsible for formally adopting these decisions.[297] Decisions over which the Council has competence or some administrative, budgetary, or financial matters shall be based on the Council recommendations and must return to the Council in the case their recommendations are rejected by the Assembly to be reconsidered.[298] Additionally, decisions of both the Assembly and the Council with financial or budgetary implications must be based on the recommendations of the Financial Committee.[299] However,

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[294] *1994 Implementation Agreement*, Annex, Sec. 1(3); Rüdiger Wolfrum, 'Legitimacy of International Law and the Exercise of Administrative Functions: The Example of the International Seabed Authority, the International Maritime Organization (IMO) and International Fisheries Organizations' (2008) 9(11) *German Law Journal* 2039, 2046; Jason Nelson, 'The Contemporary Seabed Mining Regime: A critical Analysis of the Mining Regulations promulgated by the International Seabed Authority' (2005) *Colorado Journal of International Environmental Law and Policy* 27, 34-37

[295] *UNCLOS,* Art. 160(2)(d); *UNCLOS,* Art. 162(2)(d); *UNCLOS,* Art. 158(3); additionally, is worth mention that UNCLOS provides the establishment of the Economic and Planning Commission and the Enterprise; Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 4-5; David Hartley, 'Guarding the Final Frontier: The Future Regulations of the International Seabed Authority' (2012) 26 *Temple International & Comparative Law Journal* 335, 341-343; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 292-348.

[296] *UNCLOS,* Art. 159(6); *UNCLOS,* Art. 160; *1994 Implementation Agreement*, Annex, Sec. 3(1); Rule 60, Rules of Procedure of the Assembly of the International Seabed Authority; Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 6; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 293.

[297] *UNCLOS,* Art. 160.

[298] *1994 Implementation Agreement*, Annex, Sec. 3(4).

[299] *1994 Implementation Agreement*, Annex, Sec. 3(4); Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 57; Michael Wood, 'The International Seabed Authority: Fifth to Twelfth Sessions (1999-2006)' (January 2007), in Rüdiger Wolfrum, *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), 61; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 295.

despite its limitations, the Assembly can be considered a specially democratic organ if compared with analogous bodies in other international organisations.[300]

2.4.2.2 The Council

The Council is considered the central organ of the ISA. The Council is represented by 36 members elected by the Assembly, in a very similar system to other international organisations.[301]

In accordance with Section 3(15) of the 1994 Implementation Agreement,[302] the Council is composed of four members from and among those States Parties which during the last 5 years of available statistics 'have either consumed more than 2 per cent in value terms of total world consumption or have had net imports of more than 2 per cent in value terms of total world imports of the commodities produced from the categories of minerals to be derived from the Area', and 'provided that the four members shall include one State from the Eastern European region having the largest economy in that region in terms of gross domestic product and the State, on the date of entry into force of the Convention, having the largest economy in terms of gross domestic product'.[303] Also, four members must be selected from among the eight States parties with the largest investments in the preparation for and in the conduct of activities;[304] four members from among States which, based on the production in areas under their jurisdiction, are the major net exporters of the categories of minerals to be derived from the Area, with at least two developing States;[305] six members among developing States Parties, representing special interests;[306] and

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[300] Erik Franckx, 'The International Seabed Authority and the Common Heritage of Mankind: The Need for States to Establish the Outer Limits of their Continental Shelf' (2010) 25(4) *The International Journal of Marine and Coastal Law* 543, 550; Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 92; Jean-Pierre Levy, 'The International Sea-Bed Area', in René-Jean Dupuy and Daniel Vignes, *A Handbook on the New Law of the Sea (vol. 1)* (Hague, Netherlands: Académie de droit international de La Haye, 1991), 749-750; Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 6-7.

[301] Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 307; Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 92-93; *UNCLOS,* Art. 153(4); *UNCLOS,* Art. 162; *UNCLOS,* Art. 165(2)(K); *1994 Implementation Agreement*, Annex, Sec. 3(11); *1994 Implementation Agreement*, Annex, Sec. 1(15) and 1(16).

[302] *1994 Implementation Agreement*, Annex, Sec. 3(15).

[303] *1994 Implementation Agreement*, Annex, Sec. 3(15).

[304] *1994 Implementation Agreement*, Annex, Sec. 3(15).

[305] *1994 Implementation Agreement*, Annex, Sec. 3(15).

[306] 'The special interests to be represented shall include those of States with large populations, States which are land-locked or geographically disadvantaged, island States, States which are major importers of the categories of minerals

eighteen members elected according to the principle of ensuring an equitable geographical distribution of seats, with at least one member elected under Section 3(15).[307]

In that sense, the voting for the members of the Council shows the direct influence of the 1994 Implementation Agreement. Besides the eighteen Council seats given according to the equitable geographic distribution and the six Council chairs for the developing States, the majority of the chairs reflect market-oriented values.[308]

In comparison to the Assembly, the Council is endowed with a greater range of competencies. For instance, it can exercise law-making, policy-making and supervisory competencies on any matter within the competencies of the ISA; decide over the approval of plans of work; elaborate and adopt the Mining Code; exercise control over the activities in the Area, and ensure environmental protection based on recommendations from the Legal and Technical Commission.[309]

2.4.2.3 The Secretariat

The Secretariat, the third principal organ of the ISA, is responsible for the administration of the Authority.[310] The Secretariat is headed by the ISA Secretary-General and the chief administrative officer of the ISA and is composed of the necessary staff to attend the necessities of the Authority in legal, administrative and supporting matters.[311] The Secretariat is organised in

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to be derived from the Area, States which are potential producers for such minerals and least developed States'. *1994 Implementation Agreement*, Annex, Sec. 3(15).

[307] 'For this purpose, the geographical regions shall be Africa, Asia-Pacific, Eastern Europe, Latin America and the Caribbean and Western Europe and Others'. *1994 Implementation Agreement*, Annex, Sec. 3(15).

[308] *1994 Implementation Agreement*, Annex, Sec. 3(9).

[309] International Seabed Authority, *Consultations of the Secretary-General on outstanding issues relating to the deep seabed mining provisions of the United Nations Convention on the Law of the Sea: report of the Secretary-General*, (9 June 1994), ISA Doc. A/48/950, < https://digitallibrary.un.org/record/189853?ln=en > (accessed 25 July 2023), 35–46*;* International Seabed Authority, *Legal and Technical Commission* (2022), < https://www.isa.org.jm/authority/legal-and-technical-commission > (accessed 15 December 2022); Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 62; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 307.

[310] *UNCLOS,* Art. 166-169; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 317.

[311] 'He or she is elected for four years by the Assembly from among candidates proposed by the Council. Satya N. Nandan (Fiji) was elected the first Secretary-General in 1996. His successor, Nii Allotey Odunton (Ghana) took over on 1 January 2009 and served two Consecutive terms. Mr. Michael W. Lodge of the United Kingdom was elected as Secretary-General on 21 July 2016 at the Authority`s 22nd Session at its headquarters in Kingston for a 4-year term beginning as of 1 January 2017'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 62.

four offices, namely the Executive Office of the Secretary-General, the Office of Resources and Environmental Monitoring, the Office of Legal Affairs, and the Office of Administration and Management.[312]

The main functions of the Secretariat are: to provide support to the Secretary-General, to produce reports and other documents containing information, analyses, historical background, research findings, policy suggestions, etc., that facilitate the deliberations and decision-making by the other principal organs and their subsidiary bodies, to provide services to the other principal organs and their subsidiary bodies and providing meeting to the other principal organs, to produce publications, information bulletins and analytical studies and disseminating information on the activities and decisions of the ISA, to organise expert group meetings, seminars and workshops, implementing the work programmes and policies laid down by the other principal organs and their subsidiary bodies, to ensure compliance with plans of work for exploration and exploitation of approved contracts, and to perform the functions of the Enterprise as specified in Section 2 of the 1994 Agreement until the Enterprise begins to operate independently.[313]

Therefore, the work of the Secretariat is vital for the effectiveness of the Authority in dealing with the excessive workload.[314]

2.4.2.4 The Legal and Technical Commission

The Legal and Technical Commission is one of the technical organs subsidiaries to the Council established by Article 163 of UNCLOS.[315] The LTC is composed of 30 members elected by the Council with qualifications relevant to the exploration and exploitation, and processing of mineral resources, oceanology, protection of the marine environment, or economic or legal

[312] International Seabed Authority, *The Secretariat* (2022), <https://www.isa.org.jm/secretariat> (accessed 17 July 2023); Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 8.
[313] International Seabed Authority, *The Secretariat* (2022), <https://www.isa.org.jm/secretariat> (accessed 17 July 2023); Satya N. Nandan, 'Administering the Mineral Resources of the Deep Seabed', in David Freestone, Richard Barnes and David Ong, *The Law of the Sea: Progress and Prospects* (Oxford, United Kingdom: Oxford University Press, 2006), 81.
[314] International Seabed Authority, *The Secretariat* (2022), <https://www.isa.org.jm/secretariat> (accessed 17 July 2023).
[315] *UNCLOS,* Art. 163; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 312.

matters.[316] The LTC was initially composed of only 15 members, but, following what was established in Article 163(3) of UNCLOS, it gradually increased its size until reaching its current 30 members composition.[317]

The LTC conducts most of the technical work of the ISA. In its role as an advisory body to the Council, the LTC conducts meetings, preceding the annual sessions of the Council and Assembly, to prepare recommendations and decisions submitted for approval. Beyond its advisory functions, as mentioned above, the LTC is responsible for preparing the Mining Code and assessing new applications for exploration and exploitation contracts, preparing assessments of the environmental implications of seabed mining, and supervising the mining activities if the Council requires.[318] For example, the LTC is responsible for preparing the draft mining regulations and guidelines to be considered by the Assembly and the Council and for considering the draft plans of work.[319] Unfortunately, the LTC meeting is held in private without observers or member States, with open meetings only held occasionally.[320] In that sense, the LTC can provide the Council with its technical support to ensure that its decisions are based on expert advice.[321]

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[316] *UNCLOS,* Art. 163; *UNCLOS,* Art. 165; 'Additionally, related to the independence of the commission members: "The LOSC is neutral with respect to the question whether LTC members should be independent or represent their government. However, in practice the nationality of LTC members is not insignificant. Some of the LTC members are affiliated with a government institution or the entity that holds an exploration contract with the ISA. Although these may be highly regarded experts in the field, it could provide some member states with a privileged position to exert influence'. Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 97.

[317] *UNCLOS,* Art. 163(2); International Seabed Authority, *Decision of the Council of the International Seabed Authority relating to the election of members of the Legal and Technical Commission* (26 July 2016), ISA Doc. ISBA/22/C/29; International Seabed Authority, *The Legal and Technical Commission* (2022), < https://www.isa.org.jm/organs/the-legal-and-technical-commission/ > (accessed 21 July 2023); Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 7.

[318] *UNCLOS,* Art. 165(2); Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 96.

[319] *UNCLOS,* Art. 165.

[320] *Rules of Procedures of the Legal and Technical Commission* (Rules of Procedures of the Legal and Technical Commission), 28 July 1992, LOS/PCN/WP.3/Rev.3*,* Rule 6.

[321] James Harrison, *Making the Law of the Sea A Study in the Development of International Law* (Cambridge, United Kingdom: Cambridge University Press, 2011), 120.

2.4.2.5 The Economic Planning Commission

The Economic Planning Commission is, alongside the Legal and Technical Commission, one of the organs established by Article 163 of UNCLOS.[322] The commission has not yet commenced its activities. However, the 1994 Implementation Agreement assigns its functions to the Legal and Technical Commission until the Council decides about its operations or until the exploitation phase begins.[323] The Economic Planning Commission, once it begins its works, is supposed to have fifteen experts with qualifications 'relevant to mining, management of mineral resource activities, international trade or international economic',[324] elected for a five years mandate with possibility of renewal.[325]

Among its duties, the commission has to propose to the Council measures to implement decisions relating to activities in the Area, to review the trends and the factors affecting supply, demand and prices of minerals, to examine any situation likely to lead to the adverse effects referred to in article 150(h)[326] and to make appropriate recommendations to the Council, and to propose to the Council for submission to the Assembly a system of compensation or other measures of economic adjustment assistance for developing States which suffer adverse effects caused by activities in the Area. Additionally, the Commission shall make recommendations to the Council that are necessary for the application of the system or other measures adopted by the Assembly in specific cases.[327]

2.4.2.6 The Finance Committee

The Finance Committee was established by Section 9 of the 1994 Implementation Agreement and Article 162(2)(y) of UNCLOS, based on the cost-effective functioning of the ISA and to oversee the financing and financial management of the ISA.[328] The Committee consists of

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[322] *UNCLOS,* Art. 163; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 312.
[323] *1994 Implementation Agreement*, Annex, Sec. 1(4).
[324] *UNCLOS,* Art. 163(2); *UNCLOS,* Art. 164(1).
[325] *UNCLOS,* Art. 164(2)-(6).
[326] *UNCLOS,* Art. 150(h).
[327] *UNCLOS,* Art. 164(2); Myron H. Nordquist, Satya Nandan, Shabtai Rosenne and Michael Lodge, *United Nations Convention on the Law of the Sea 1982, Volume VI* (Virginia, United States: Brill Nijhoff, 2011), 468.
[328] *1994 Implementation Agreement*, Annex, Sec. 9; *UNCLOS,* Art. 162(2)(y); International Seabed Authority, *The Finance Committee*. International Seabed Authority (2023), <https://www.isa.org.jm/authority/finance-committee> (accessed 15 July 2023); Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 313.

fifteen members elected for a period of five years, with the possibility of renew, and with 'qualifications relevant to financial matters which are involved in making recommendations on financial rules, regulations and procedures of the organs of the ISA, its programme of work as well as the assessed contributions of its Member States'.[329]

The purpose of the Finance Committee is to provide financial management to the ISA and make financial recommendations to the Assembly and the Council.[330] These recommendations are pertinent to support the decisions of both the Assembly and the Council related to the draft: financial rules, regulations and procedures of the organs of the Authority and the financial management and internal financial administration of the Authority; assessment of contributions of members to the administrative budget of the Authority; all relevant financial matters, the administrative budget, financial obligations of States Parties arising from the implementation of this Agreement and Part XI as well as the administrative and budgetary implications of proposals and recommendations involving expenditure from the funds; and rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the decisions to be made thereon.[331] Furthermore, any financial or budgetary decisions made by the Assembly or the Council shall be based on the recommendations of the Committee.[332]

2.4.2.7 The Enterprise

The last subsidiary organ of the ISA to be analysed is the Enterprise. Considered the commercial arm of the Authority, the Enterprise aims to conduct the exploration and exploitation of the minerals and their transporting, processing, and marketing.[333] However, the Enterprise is not operating yet. In that sense, following the evolutionary approach,[334] an interim director-general has been appointed to support the Enterprise in its initial function as: monitoring and review of

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[329] International Seabed Authority, *The Finance Committee*. International Seabed Authority (2023), <https://www.isa.org.jm/authority/finance-committee> (accessed 15 July 2023); *1994 Implementation Agreement*, Annex, Sec. 9; Satya N. Nandan, 'Administering the Mineral Resources of The Deep Seabed' (23 March 2005) *The British Institute of International and Comparative Law Law of the Sea Symposium London*, 8.
[330] *1994 Implementation Agreement*, Annex, Sec. 9.
[331] *1994 Implementation Agreement*, Annex, Sec. 9(7).
[332] *1994 Implementation Agreement*, Annex, Sec. 3(7); Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 99.
[333] *UNCLOS,* Art. 170(1), Annex IV; *UNCLOS,* Art. 1, Annex. IV; Edward Duncan Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, *Vol. 2*, (Hague, Netherlands: Springer Netherlands, 2001), 317.
[334] *1994 Implementation Agreement*, Annex, Sec. 1(3).

trends and developments relating to deep seabed mining activities, assessment of the results of the conduct of marine scientific research, assessment of available data relating to prospecting and exploration, including the criteria for such activities, assessment of technological developments relevant to activities in the Area, evaluation of information and data relating to reserved areas for the Authority, assessment of approaches to joint-venture operations, collection of information on the availability of trained manpower, study of managerial policy options for the administration of the Enterprise at different stages of its operations.[335]

When fully operational, the Enterprise will be overseen by autonomous director-general appointed by the Assembly, in conjunction with other elected members, to be responsible for a Governing Board to conduct its operations with autonomy.[336] The full operation of the Enterprise as an independent organ must be confirmed by the Council approval once the first exploitation plan is approved by the Council or upon receipt of an application for a joint-venture operation in 'accord with sound commercial principles'.[337] However, the 1994 Implementation Agreement removed the obligation established in the Annex IV, Article 11(3), of UNCLOS to finance any operations or any mine site of the Enterprise or its joint ventures, making the viability of the Enterprise uncertain.[338]

2.4.3 Decision-making

The rules on decision-making as presented in Section 3 of the Annex of the 1994 Implementation Agreement and are related to the Assembly, Council and Secretariat and must be consensual.[339] However, consensus does not mean that all decisions come without objection. In this regard UNCLOS establishes some procedures to defer the vote to deal with divisive issues.[340] In instances where consensus cannot be reached, decisions pertaining to procedural matters shall be determined by a simple majority, while those pertaining to the substance of the matter shall be determined by a two-thirds majority, as these latter decisions are not opposed by the voting of one

[335] *1994 Implementation Agreement*, Annex, Sec. 2(1).
[336] *UNCLOS,* Art. 170(1); *UNCLOS,* Art. 2-7, Annex IV.
[337] *1994 Implementation Agreement*, Annex, Sec. 2(2) *(emphasis added).*
[338] *1994 Implementation Agreement*, Annex, Sec. 2(2)*;* Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 100.
[339] *1994 Implementation Agreement*, Annex, Sec. 3(2).
[340] *UNCLOS,* Art. 159(9) and (10).

of the four members of the Chambers in the Council.[341] In addition, the absence of quorum can be a problem to the decision-making by the Assembly and Council, and thus, this is a matter that might make the development of the ISA decisions unfeasible.

The Council and the Legal and Technical Commission have the most important roles in decision-making.[342] The 1994 Implementation Agreement, in its Section 3 of the Annex, addresses that the general policies of the ISA shall be established by the Assembly in collaboration with the Council.[343] In the same sense, Section 3(4), establishes that every recommendation made by the Council must always be reviewed by the Council itself. In other words, 'if the Assembly does not accept the recommendation of the Council on any matter, it shall return the matter to the Council for further consideration. The Council shall reconsider the matter in the light of the views expressed by the Assembly'.[344]

Despite the decision-making powers of the Council, the LTC does an essential work for the Council to exercise its powers. As previously stated, the Legal and Technical Commission is responsible for producing recommendations to the Council, which makes decisions based on those recommendations.

[341] *UNCLOS,* Art. 159(7); *1994 Implementation Agreement*, Annex, Sec. 3(3), 3(5) and 3(9).
[342] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 65.
[343] *1994 Implementation Agreement*, Annex, Sec. 3(1).
[344] *1994 Implementation Agreement*, Annex, Sec. 3(3); in that sense: '(o)(i) recommend to the Assembly rules, Regs. and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of the developing States and peoples who have not attained full independence or other self-governing status; (ii) adopt and apply provisionally, pending approval by the Assembly, the rules, Regs. and procedures of the Authority, and any amendments thereto, taking into account the recommendations of the Legal and Technical Commission or other subordinate organ concerned. These rules, Regs. and procedures shall relate to prospecting, exploration and exploitation in the Area and the financial management and internal administration of the Authority. Priority shall be given to the adoption of rules, Regs. and procedures for the exploration for and exploitation of polymetallic nodules. Rules, Regs. and procedures for the exploration for and exploitation of any resource other than polymetallic nodules shall be adopted within three years from the date of a request to the Authority by any of its members to adopt such rules, Regs. and procedures in respect of such resource. All rules, Regs. and procedures shall remain in effect on a provisional basis until approved by the Assembly or until amended by the Council in the light of any views expressed by the Assembly'. *UNCLOS,* Art. 162(2)(o).

2.4.4 Enforcement powers

The ISA rules, as in international law as a whole, can suffer from the lack of enforcement power. However, the Authority is well-equipped with powers to monitor compliance and to respond in case of non-compliance.

The supervision of compliance in the system of exploration and exploitation states is established by Article 153(3) of UNCLOS: 'Activities in the Area shall be carried out in accordance with a formal written plan of work drawn up in accordance with Annex III and approved by the Council after review by the Legal and Technical Commission'.[345] In the same sense, Article 153(4) states that the Authority 'shall exercise such control over activities in the Area as is necessary for the purpose of securing compliance with the relevant provisions of this Part and the Annexes'.[346] To exercise such control, the ISA 'shall have the right to take at any time any measures provided for under this Part to ensure compliance with its provisions and the exercise of the functions of control and regulation assigned to it thereunder or under any contract'.[347] In effect, UNCLOS, as a compliance mechanism, mandates the ISA to inspect all installations used in connection with activities in the Area.[348]

Moreover, the Council is responsible for exercising control over activities in the Area by establishing mechanisms for direction and supervision.[349] The LTC has the mandate to prepare recommendations to determine whether the provisions of Part XI are being complied to the Council and carry out inspections, upon the request of a State or other parts concerned.[350] Additionally, the method to monitor the compliance of the contractors is based on their annual reporting.[351] Thus, the LTC is responsible for reviewing these annual reports and informing the Assembly in case of non-compliance.[352] The LTC can be requested by the Council to conduct the supervision of

[345] *UNCLOS,* Art. 153(3).
[346] *UNCLOS,* Art. 153(4).
[347] *UNCLOS,* Art. 153(5).
[348] *UNCLOS,* Art. 153(5).
[349] *UNCLOS,* Art. 162(2)(l); *UNCLOS,* Art. 162(2)(Z).
[350] *UNCLOS,* Art. 162(2)(m); *UNCLOS,* Art. 165(3).
[351] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 10; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 10; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 10 *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 38.
[352] *UNCLOS,* Art. 162(2)(a).

activities in the Area, yet the convention did not describe how such supervision would take place.[353]

Under Article 18 of Annex III, UNCLOS includes the powers to the ISA of suspension or termination of the contract,[354] proportional monetary penalties, and warnings.[355] Nonetheless, only cases of non-compliance in which 'fundamental terms' were violated result in the suspension or termination of a contract, only imposed as a last resort in cases of grave and repeated violations committed by a contractor.[356] Nevertheless, exceptionally when the previous penalties are not possible, 'a reasonable opportunity to exhaust the judicial remedies available to him pursuant to Part XI, Section 5'.[357] In this phase, in cases of non-compliance, the work of the Seabed Disputes Chamber becomes relevant due to its role as the judicial entity to deal with disputes under the Authority as will be shown further in this chapter.

Moreover, the Exploration Regulations reaffirm the relevance and additionally require the contractors to submit a written acceptance of the control by ISA over the activities,[358] submit annual reports about their activities,[359] and give the ISA power to inspect vessels and installations of the contractor,[360] including 'its log, equipment, records, facilities, all other recorded data and any relevant documents which are necessary to monitor the Contractor's compliance'.[361]

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[353] *UNCLOS,* Art. 165(2)(c).
[354] 'A contractor's rights under the contract may be suspended or terminated only in the following cases: (a) if, in spite of warnings by the Authority, the contractor has conducted his activities in such a way as to result in serious, persistent and wilful violations of the fundamental terms of the contract, Part XI and the rules, Regs. and procedures of the Authority; or (b) if the contractor has failed to comply with a final binding decision of the dispute settlement body applicable to him'. *UNCLOS,* Art. 18(1), Annex III.
[355] *UNCLOS,* Art. 18, Annex III.
[356] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 69.
[357] *UNCLOS,* Art. 18(3), Annex III.
[358] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 13; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 13; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 13.
[359] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 10; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 10; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 10.
[360] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 14; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 14; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 14.
[361] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 14(3); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 14(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 14(3); Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 122.

In case the contractor does not comply with its obligations, UNCLOS and the Mining Code provide some enforcement mechanisms to be imposed:[362] written warnings,[363] compliance notices,[364] monetary penalties,[365] suspension or termination of the contract,[366] and the initiation of dispute settlement proceedings against the Contractor pursuant to UNCLOS, Part XI, Section 5.[367] With regard to the sponsoring States, the enforcement mechanisms for non-compliance from sponsored contractors are determined by their respective national legislation.

2.5 Conclusion

The regulation of the international seabed mining regime is a special opportunity for world nations to regulate an activity before it begins. However, as in every economic activity, it is not immune from different opinions on the conduct of activities in the area, with the technologically developed States on one side and the developing countries on the other, each trying to guarantee their share in the common heritage of mankind. Fortunately, UNCLOS established a premature intention of creating a system to regulate these activities in the area with the International Seabed Authority as its main organ. Nonetheless, despite UNCLOS guaranteeing the areas beyond national jurisdiction as the common heritage of mankind, the technologically developed states could not afford this definition without concessions. The 1994 Implementation Agreement was born with the purpose of modifying UNCLOS, by giving to the activities in the area an economic approach, which was reflected in the future endeavours of the ISA and its Mining Code.

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[362] International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 53.
[363] *UNCLOS*, Art. 18(1)(a), Annex III; *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 21(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 21(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 21(1).
[364] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 103(1)-(3).
[365] *UNCLOS*, Art. 18(2), Annex III; *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 21(6) and (7); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 21(6) and (7); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 21(6) and (7).
[366] *UNCLOS*, Art. 18(1), Annex III; *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 21; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 21; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 21; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 103(5) and Annex X, Sec. 12.
[367] *UNCLOS*, Art. 187(c)(i), 187(c)(ii), and 188(2).

In its three-phase system to conduct activities in the Area, the ISA aims to guarantee a due assessment to avoid environmental damage in deep seabed mining activities. The prospecting, exploration and exploitation currently show a promising system to allow this protection, though the ISA has not shown too much transparency in its organisational system. In exercising its three core competencies of developing legally binding regulations, issuing new exploration and exploitation contracts, and enforcing the laws and obligations, the Council has all the authority inside the organisation. Nevertheless, currently, these powers are still very theoretical since the exploitation phase has not yet started.

In that sense, another problem that can be observed related to the Authority is its lack of enforcement of penalties in cases of non-compliance with regulations. Despite its regulations and rules, ISA does not have the proper capacity to monitor the contractors in their activities in the Area. In trying to solve this problem, UNCLOS has established the sponsorship system. Through sponsorship contracts, the sponsoring State is responsible for assisting the ISA with the effective control, management, monitoring and enforcement of the contractors. However, when dealing with private contractors, this may give rise to certain difficulties, such as the potential for misinterpretation of the concept of effective control and the possibility of sponsorships of convenience. With this purpose, the role of private contractors under the deep seabed mining regime will be discussed in more detail in the next chapter.

Chapter 3: The role of private contractors in the deep seabed mining regime

Private corporations play an essential role in the deep seabed mining regime. In recent years, the number of exploration contracts in which they have been involved has been on the rise. Even though this movement can be understood as an increasing interest in the economic benefits of the deep seabed mining activities in the Area, it is evident that certain implications are being observed. One of the main issues regarding private corporations is the possibility of the phenomenon of sponsorships of convenience. In this connection, this chapter will investigate the participation of private corporations in the deep seabed mining activities and its relation to the sponsorships of convenience.

The Chapter will be divided into four main sections. First, the chapter will focus on private contractors in general by analysing their scope, international personality, and nationality according to international law. Second, the chapter will demonstrate the process of concession of the sponsorship. With this purpose this Section will be delving into the concept of sponsorship, its necessary requirements to be approved by the Authority, and the causes for its termination. Subsequently, this section will detail the difference of treatment between developed and developing States in the sponsorship regime and how it may affect the obligations imposed to these potential sponsoring States, which can reflect on their respective sponsored contractors. Third, the chapter will demonstrate what the current contracts with the ISA involving private corporations are and which corporations are currently conducting exploration activities in the Area. Fourth, the chapter will deal with the possibility of sponsorships of convenience at the international level.

This chapter will be essential to create the basis for further analyses of the sponsorships of convenience through the obligations and liability of the contractors in the international legal framework.

3.1 Private contractors

3.1.1 Scope of analysis of private contractors

Before a proper analysis of the national legislation dealing with the obligations and liability of the sponsored private contractors can take place, it is important to delimit their concept and

scope. Sponsored contractors could mean 'natural or juridical persons who possess the nationality of States Parties or are effectively controlled by them or their nationals, when sponsored by such States, or any group of the foregoing which meets the requirements provided in this Part and in Annex III'.[368] This scope created by UNCLOS can encapsulate both State and non-State actors. Among the State actors, the participants in deep seabed mining are States, inter-State consortiums formed by several States Parties to UNCLOS,[369] State enterprises, public institutions, and State-controlled corporations.[370] In addition, there are also cases of joint ventures or partnership arrangements between state and private contractors to conduct exploration contracts.[371]

The concept of 'non-State actor' itself is a rather vague term that encompasses various different entities,[372] including others different from private companies. Non-State actor can mean several different private entities, such as armed groups, corporations, civil society, individuals, intergovernmental organisations, non-governmental organisations, religious organisations, and terrorist groups.[373] Consequently, the extent of their international responsibilities and liability may vary depending on the circumstances.[374] Since this work will be dealing with parent private corporations shapeshifting their original form through the creation of subsidiary or other private entities to allow the benefit of the sponsorship from a State that allows more flexible rules permitting situations of sponsorships of convenience, the focus of this work will be non-state actors dealing with activities in the Area, namely private contractors.

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[368] *UNCLOS*, Art. 153(2)(b).

[369] For example, there is the Interoceanmetal Joint Organization sponsored by Bulgaria, Cuba, Czech Republic, Poland, Russian Federation and Slovakia, that conducted exploration contracts. International Seabed Authority, *Interoceanmetal Joint Organization. International Seabed Authority*, <https://www.isa.org.jm/exploration-contracts/interoceanmetal-joint-organization> (accessed 17 December 2022).

[370] For example: Russia's Yuzhmorgeologiya, the China Ocean Mineral Resources Research and Development Association, the French Research Institute for Exploitation of the Sea, Germany's Federal Institute for Geosciences and Natural Resources, and Japan's Deep Ocean Resources Development Company (DORD). International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[371] In this sense see Marawa Research and Exploration Ltd. (Marawa) and Cook Islands Investment Corporation (CIIC) exploration contracts for exploration. International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[372] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 21.

[373] James Crawford, *Brownlie's Principles of Public International Law* (6th edn., Oxford, United Kingdom: Oxford University Press, 2019), 106-111; see also Andrew Clapham, *Human Rights Obligations of Non-state Actors* (Oxford, United Kingdom: Oxford University Press, 2006), 2.

[374] Kate Parlett, *The Individual in the International Legal System* (Cambridge, United States: Cambridge University Press, 2011), 5.

In light of the growing interest in categorising private entities as international judicial persons,[375] legal commentators have been trying to determine different terms for corporations in order to circumvent terminological indeterminacy through the use of terms such as multinational corporations, transnational corporations, corporations, or entities.[376] In this sense, according to the United Nations in its *Report of the Group of Eminent Persons to Study the Impact of Multinational Corporations on Development and on International Relations*, 'Multinational corporations are enterprises which own or control production or service facilities outside the country in which they are based. Such enterprises are not always incorporated or private; they can also be co-operatives or state-owned entities'.[377] The *Norms on the Responsibility of the Transnational Corporations and Other Business Enterprises with Regard to Human Rights* establish the definition of 'Transnational Corporations' as an 'economic entity operating in more than one country or a cluster of economic entities operating in two or more countries – whatever their legal form, whether in their home country or country of activity, and whether taken individually or collectively'.[378]

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[375] Jonathan Charney, 'Transnational Corporation and Developing Public International Law' (1983) 32 *Duke Law Journal* 748, 748; see Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013); see also Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 226-227; Jay Butler, 'The Corporate Keepers of International Law' (2020) *114 American Journal of International Law* 189, 8-9; Doreen Lustig, *Veiled Power: International Law and the Private Corporation* (Oxford, United Kingdom: Oxford University Press, 2020), 1886-1981.

[376] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 22; Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 3; Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 226-228.

[377] United Nations General Assembly, *Report of the Secretary-General -- Report of the Group of Eminent Persons to Study the Impact of Multinational Corporations on Development and on International Relations* (1974), UN Doc. E/5500/Rev.1,ST/ESA/6, 25

[378] *Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with regard to Human Rights*, adopted 26 August 2003, E/CN.4/Sub.2/2003/12/Rev.2, para. 20; One final worth mentioning example is the definition of 'Multinational Corporations' provided by the OECD *Guidelines for Multinational Enterprises* which provides that: 'These enterprises operate in all sectors of the economy. They usually comprise companies or other entities established in more than one country and so linked that they may coordinate their operations in various ways. While one or more of these entities may be able to exercise a significant influence over the activities of others, their degree of autonomy within the enterprise may vary widely from one multinational enterprise to another. Ownership may be private, State or mixed'. In other words, the OECD admits the difficulty of an precise definition and give up on that since it is not the main focus of their guidelines. Organisation for Economic Co-operation and Development, *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct* (Paris, France: OECD Publishing, 2023), para. 4; see also Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 227.

However, as some authors agree,[379] this approach may be limited due to the compartmentalization of different concepts, which, in essence, can be contextualised as one form of entity, namely corporations. Therefore, this work will use the term 'corporation' as 'an organisation of persons and material resources, with a distinct legal personality, of limited liability and licensed by the state for the purpose of conducting profit-seeking business activity'.[380] Also, the corporation must be a non-State actor, and a corporation that is 'wholly owned or majority-controlled by a State' will be considered a public company, namely a State actor.[381] Thus, the analysis of this chapter will focus on the private corporations conducting mining activities in deep seabed that can be considered private contractors.[382]

3.1.2 International personality of private contractors

Before analysing more carefully one of the main purposes of this chapter regarding private contractors, it is essential to ascertain the extent of their international personality within the international legal system.[383]

According to the ICJ an international person is a subject of international law, capable of possessing international rights and duties, and participating in international claims to preserve its rights.[384] Despite providing a broader delimitation of what is subject with international legal

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[379] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 22; Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 3; Detlev F. Vagts, 'The Multinational Enterprise: A New Challenge for Transnational Law' (1970) 83(4) *Harvard Law Review* 739, 740; Raymond Vernon, 'Economic Sovereignty at Bay' (1968) 47(1) *Foreign Affairs*, <https://www.foreignaffairs.com/articles/1968-10-01/economic-sovereignty-bay>, (accessed 18 July 2023); Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 227.

[380] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 4; Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 22; Peter T. Muchlinski, 'Corporations in International Law' (July 2014), in Rüdiger Wolfrum, *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 1-2.

[381] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 23; Vázquez defines private corporations as 'those that are not owned or operated by governments', but includes publicly traded corporations. Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 116.

[382] 'Additionally, this approach was selected due to the possible consequences when determining the responsibilities and liability of the control of a corporation by a State'. Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 23.

[383] Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 8.

[384] *Reparation for Injuries Suffered in the Service of the United Nations,* para. 179; Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 1-8; Joanna

personality in its Advisory Opinion in *Reparation for Injuries Suffered in the Service of the United Nations*, the ICJ did not openly included private corporations at the time, adopting a traditional approach underlining the international legal personality.[385]

However, despite the prevalence of a more traditional view, non-state actors exert a significant influence on international law and affairs.[386] In this respect, according to Lauterpacht: 'a consensus of opinion is evolving to the effect that although it is States which are the normal subjects of international law, there is nothing in international law which is fundamentally opposed to individuals and other legal persons becoming subjects of international rights and duties.'[387] In

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Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 32; for a historical analysis, see Elisabeth Nijman, *The Concept of International Legal Personality an Inquiry into the History and Theory of International Law* (Netherlands: TMC Asser Press, 2004).

[385] According with Portmann, there are five different approaches to the international legal personality: '(1) States-only: The first position reserves international personality exclusively to states. There are no conditions for international personality other than having acquired statehood. The corollaries of personality are synonymous with those of being a state. This position is today very rarely, if at all, explicitly advocated. But it is important in historical context and is at times still relevant for legal issues today. (2) Recognition: The second position conceives of states as the original or primary persons of international law. However, other entities can also acquire international personality, often called derivative or secondary international persons. The mechanism through which this is possible is explicit or implicit recognition by states. Being an international person in principle entails certain fundamental international rights, duties and capacities analogous to those of states. (3) Individualistic: The third position states a presumption for the individual as an international person in the field of so-called fundamental norms of international law. In addition, states and various other entities can be international persons if there are international norms addressing them. The consequence of personality is international responsibility. Individuals become internationally responsible for violations of fundamental international norms irrespective of whether they act in a public or private function. (4) Formal: The fourth position declares international law an open system. There is no presumption as to whom is a legal person. International personality becomes an a posteriori concept: every entity is an international person that according to general principles of interpretation is the addressee of the norms of international law. Basically, there are no consequences attached to being an international person. (5) Actor: The fifth position, rejecting the concept of international personality as traditionally understood, stipulates a presumption that all effective actors of international relations are relevant for the international legal system. The specific rights and duties held by particular actors are determined in an international decisionmaking process in which the actors themselves participate depending on their effective power'. Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 13 and 14; James Crawford, *Brownlie's Principles of Public International Law* (6th edn., Oxford, United Kingdom: Oxford University Press, 2019), 106; Peter T. Muchlinski, 'Corporations in International Law' (July 2014), in Rüdiger Wolfrum, *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 6; *SS Lotus Case*, para. 18; see also Jonathan Charney, 'Transnational Corporation and Developing Public International Law' (1983) 32 *Duke Law Journal* 748, 758-759; James Crawford, *Brownlie's Principles of Public International Law* (6th edn., Oxford, United Kingdom: Oxford University Press, 2019), 122; Karsten Nowrot, 'Reconceptualising International Legal Personality of Influential Non-State Actors: Towards a Rebuttable Presumption of Normative Responsibilities', in Fleur Johns, *International Legal Personality* (Milton Park, United Kingdom: Routledge Publishers, 2010).

[386] Koen Stapelbroek, 'Trade, Chartered Companies, and Mercantile Associations', in Bardo Fassbender and Anne Peters (eds), *The Oxford Handbook of the History of International Law* (Oxford, United Kingdom: Oxford University Press, 2015), 346-351.

[387] Hersch Lauterpacht, *Private Law Sources and Analogies of International Law: With Special Reference to International Arbitration* (New Jersey, United States, The Lawbook Exchange, Ltd., 2002), in Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 34; Jonathan Charney, 'Transnational Corporation and Developing Public International Law' (1983) 32 *Duke*

the same sense, this led commentators to depart from the traditional State-oriented approach by giving more focus on the capacity of participation of other actors.[388] By distancing from a more traditional approach, corporations and other new international actors, such as international organisations, NGOs, and individuals, have been accepted as legal personalities.[389] In this context, it can be observed that corporations have been gradually consolidating their powers within the international system since the early stages of their internationalisation. This phenomenon is not exclusive to the mining industry.[390] Some multinational mining companies are among the global top 100 capitalization multinational corporations.[391]

Corporations are not liable under international law, but they can be subjected to fulfil certain rights and obligations,[392] not only in their home States but also at the international level.[393]

Law Journal 748, 762; Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 9 and 10.

[388] Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 229; Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 34; Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 209; Jose E. Alvarez, 'Are Corporations "Subjects" of International Law?' (2008) 9 *Santa Clara Journal of International Law* 1; Malcolm Shaw, *International Law* (Cambridge, United Kingdom: Cambridge University Press, 2021), 179-241; Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 229; see Pierre-Marie Dupuy. *L'Unité de l'Ordre Juridique International* (Leiden, Netherlands: Martinus Nijhoff Publishers, 2003).

[389] Jonathan Charney, 'Transnational Corporation and Developing Public International Law' (1983) 32 *Duke Law Journal* 748, 760.; Jan Klabbers, *An Introduction to International Institutional Law* (2 edn., Cambridge, United Kingdom: Cambridge University Press, 2009), 46-52; Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 22.

[390] Pablo Ferrara, 'Multinational corporations and international environmental liability: international subjectivity and universal jurisdiction', in Markus Kotzur, Nele Matz-Lück, Alexander Proelss, Roda Verheyen and Joachim Sanden, *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Boston, United States: Brill Nijhoff, 2018), 204; Elisabeth Nijman, *The Concept of International Legal Personality an Inquiry into the History and Theory of International Law* (Netherlands: TMC Asser Press, 2004), 354.

[391] 'The situation has not changed too much – except for the appearance of telecommunication and computer companies – and according to Price Waterhouse Coopers in 2013 there were six mining companies among the global top 100 capitalization multinational corporations. Now, if these companies' capitalization values were compared worldwide with the States' national GDP, they would fit between the 62nd and 51st strongest world economies. This provides an image of the potential power and interests at stake regarding mining corporations, their activities, associated States, and finally, relevant norms'. Pablo Ferrara, 'Multinational corporations and international environmental liability: international subjectivity and universal jurisdiction', in Markus Kotzur, Nele Matz-Lück, Alexander Proelss, Roda Verheyen and Joachim Sanden, *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Boston, United States: Brill Nijhoff, 2018), 208.

[392] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 6 and 7; Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 957.

[393] 'This has been most evident in fields such as international human rights law, international humanitarian law and international investment law'. Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 36; example of case in that sense is: International Court

Although most of the obligations in international law are obligations of the State and international judicial persons,[394] some obligations may be imposed directly on the corporations without a State as a middle person.[395] Despite it being less common, there is no conceptual obstacle to the imposition of direct obligations to private entities.[396]

In this sense, there are two kinds of obligations that juridical persons must comply with in international law, indirect and direct obligations.[397] First, indirect obligations are obligations normally addressed to non-State actors through their State of origin, which must take the necessary measures to implement and enforce the obligation at the domestic level.[398] Most of the obligations of corporations are indirect. Nevertheless, the existence of direct obligations is not prevented by this fact. Most direct obligations impose the duty that these private entities must comply with at the international level in order to conduct deep seabed mining activities.[399] In this regard, this work will further analyse these obligations that must be applied by the sponsoring States to the contractors.

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of Justice, *LaGrand (Germany v. United States of America)*, Judgement of 27 June 2001, ICJ Reports 2002, para. 77; Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 923; Jose E. Alvarez, 'Are Corporations "Subjects" of International Law?' (2008) 9 *Santa Clara Journal of International Law* 1, 31; Merja Pentikäinen, 'Changing International "Subjectivity" and Rights and Obligations under International Law – Status of Corporations' (2012) 8 *Utrecht Law Review* 145, 148; Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 230; Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 204.

[394] Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 932.

[395] Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 930 and 932; Anne Peters, *Beyond Human Rights – The Legal Status of the Individual in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2016), 51-54 and 72-74; Andrew Clapham, *Human Rights Obligations of Non-state Actors* (Oxford, United Kingdom: Oxford University Press, 2006), 28; Kate Parlett, *The Individual in the International Legal System* (Cambridge, United States: Cambridge University Press, 2011), 371.

[396] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 36.

[397] see Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927.

[398] Steven R. Ratner, 'Corporations and Human Rights: A Theory of Legal Responsibility' (2001) 111 *Yale Law Journal* 443, 488.

[399] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 6; Steven R. Ratner, 'Corporations and Human Rights: A Theory of Legal Responsibility' (2001) 111 *Yale Law Journal* 443, 488; Harold Hongju Koh, 'Separating Myth from Reality About Corporate Responsibility Litigation' (2004) 7(2) *Journal of International Economic Law* 263, 265.

Second, direct obligations are those imposed directly on the international sphere.[400] According to Karavias, three elements must be fulfilled for an obligation to be direct.[401] First, the obligation is directly linked to the actor, without any State as an intermediary.[402] For example, the form taken by the obligation may be through sources of international law, such as treaties or customary law.[403] Second, the international responsibility cannot be divorced from the concomitant obligation; thus, in case a corporation commits a wrongful act or an omission to an obligation, its responsibility must be triggered at the international level.[404] Third, the enforcement of the responsibility of the corporation must be implemented at the international level.[405] To fulfil this element,[406] Karavias proposes several elements to be considered – such as whether the law is applicable at the international level, or whether the corporate actors can access the dispute settlement fora.[407]

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[400] Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 940.

[401] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 11-15; Anne Peters, *Beyond Human Rights – The Legal Status of the Individual in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2016), 113.

[402] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 11-13; Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 940.

[403] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 116-162.

[404] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 143 and 144; Jose E. Alvarez, 'Are Corporations "Subjects" of International Law?' (2008) 9 *Santa Clara Journal of International Law* 1, 24-26; see also, Chapter 5 of Peters on international responsibility of the individual. Anne Peters, *Beyond Human Rights – The Legal Status of the Individual in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2016).

[405] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 15 and 156; Carlos Manuel Vázquez, 'Direct vs Indirect Obligations of Corporations under International Law' (2005) 43 *Colum J Transnat'l L* 927, 940.

[406] Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 16.

[407] About the Karavias' position, Dingwall expresses that: 'the present author submits that the ability to use international law to enforce corporate responsibility constitutes overwhelming proof of the international nature of the underlying corporate obligation. However, one must be careful not to assume that the converse is automatically true. To do so, and to assume that lack of ability to enforce corporate responsibility at international law negates the existence of a corporate obligation under international law, would be to give credence to "the realist charge that international law is not really law, because it cannot be enforced". If the existence of international obligation is rendered contingent on the existence of international mechanisms for enforcement, the international legal system, as we know it, would collapse. Therefore, while Karavias's final element – enforcement of corporate responsibility via international law – is good evidence of the international character of the underlying corporate obligation, the lack of enforcement mechanisms is not determinative'. Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 40; Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 156; see also Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora,*

Regarding this debate, the Advisory Opinion *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area* of the Seabed Disputes Chamber reiterated the traditional approach of the legal personality of the entities conducting activities in the Area, namely sponsored contractors.[408] The deep seabed mining international legal framework has not been conceived to be directly applied, but through the national legislation of the sponsoring States, with exception of some specific obligations as will be demonstrated in the next chapters.

In addition to the role of corporations in shaping the future of legal affairs, it remains a significant challenge to determine the regulation of their activities and potential liability, particularly when dealing with private contractors engaged in deep-sea mining. Furthermore, in order to be liable within a national jurisdiction a corporation must be within the jurisdiction of its 'flag State'. With this in mind, the next section will analyse how a corporate entity acquires its nationality from a specific State.

3.1.3 Nationality and effective control

An essential element to consider is how corporations acquire their nationality within a determinate State. Nationality, in this context, can be described as the legal bond between a corporation and a State, which is determined by the national rules of the respective State.[409] However, the national rules must be consistent with international law in order to create effect at the international level.[410]

CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5 (Kingston, Jamaica: International Seabed Authority, 2019).

[408] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 227; Roland Portmann, *Legal Personality in International Law* (Cambridge, United Kingdom: Cambridge University Press, 2010), 282 and 283; in the same sense, see Pablo Ferrara, 'Multinational corporations and international environmental liability: international subjectivity and universal jurisdiction', in Markus Kotzur, Nele Matz-Lück, Alexander Proelss, Roda Verheyen and Joachim Sanden, *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Boston, United States: Brill Nijhoff, 2018), 206.

[409] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 24; see Robert Jennings and Arthur Watts. *Oppenheim's International Law: Vol 1, Peace* (9th edn., Oxford, United Kingdom: Longman, 1996), 852.

[410] Robert Jennings and Arthur Watts. *Oppenheim's International Law: Vol 1, Peace* (9th edn., Oxford, United Kingdom: Longman, 1996), 853; Oliver Dörr, 'Nationality' (August 2019), in Rüdiger Wolfrum. *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 43-49; Bernard H. Oxman, 'Jurisdiction of States' (November), in Rüdiger Wolfrum. *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 11-20.

The determination of the nationality of corporations is not as straightforward as that of individuals in the context of international law.[411] Different variables can be considered, such as: the location of incorporation, the nationality of the controlling shareholders, the seat of the registered office, and the connection between a corporation and the specific State.[412] Depending on the variables found, the nationality of the corporation to conduct activities in the Area as a sponsored contractor will be determined in the deep seabed mining regime.

In this regard, the new application of the case *Barcelona Traction, Light and Power Company, Limited* decided by the ICJ expressed that judicial persons are created in accordance with what the respective national legislation of the States provides:

> International law has had to recognize the corporate entity as an institution created by States in a domain essentially within their domestic jurisdiction. This, in turn, requires that whenever legal issues arise concerning the rights of States with regard to the treatment of companies and shareholders, as to which rights international law has not established its own rules, it has to refer to the relevant rules of municipal law.[413]

Thus, to be considered eligible to conduct activities in the Area a corporation must acquire a sponsorship with its national State and be under its effective control. Such requirement allows the possibility to the sponsoring State to compel the sponsored contractor to comply with regulations and enforce liability in case of damages.

UNCLOS, Article 153(2)(b), followed by Article 4(3), and Article 9(4), Annex III, of UNCLOS, besides setting out the conditions for the conduction of activities in the Area, supports effective control as a regulatory control.[414] In addition to that, Article 139(1) replicates Article 153(2)(b) and prescribes the responsibility of the States to ensure compliance of the contractors,[415]

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[411] Peter T. Muchlinski, 'Corporations in International Law' (July 2014), in Rüdiger Wolfrum, *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 18; Vaughan Lowe, 'Corporations as International Actors and International Law Makers' (2004) 23 *XIV Italian Yearbook of International Law* 23, 34; Phoebe Okawa, 'Issues of Admissibility and the Law on International Responsibility', in Malcolm D. Evans (eds.), *International Law* (5th edn., Oxford, United Kingdom: Oxford University Press, 2018), 462.

[412] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 24; International Court of Justice, *Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain),* Judgement of 24 July 1964, ICJ Reports 1965, para. 70.

[413] International Court of Justice, *Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain) (New application: 1962),* Judgement of 5 February 1970, ICJ Reports 1970, para. 38.

[414] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 138; *UNCLOS*, Art. 153(2)(b); *UNCLOS*, Art. 4(3), Annex III; *UNCLOS*, Art. 9(4), Annex III.

[415] *UNCLOS*, Art. 139(1).

while Article 139(2) requires that sponsored contractors take 'all necessary and appropriate measures' within their national legal systems.[416] Since it is a matter of discretion of the sponsoring State, according to the ISA, the burden to ensure effective control is already satisfied before the decision to sponsor one of the possible entities.[417] Only the State itself can determine its own parameters to decide whether or not a private entity is one of its nationals and be potentially effectively controlled by it.[418]

Article 4(3), Annex III, provides the potential existence of multiple jurisdictions.[419] The Article states that, in case of more than one nationality, all States parties in the contract must sponsor the application, except when the contractor is effectively controlled by another State Party or its nationals, in which case both shall provide sponsorship.[420] An important consideration that can be extracted from this article is that nationality and effective control are two different concepts, requiring two distinct sponsorships when they are not provided by the same actor.[421] Alternatively, Article 9(4), Annex III, provides a distinct requirement for effective control when the application for a plan of work is submitted for reserved areas.[422] In these cases, the applicant must be both domiciled and effectively controlled by sponsoring States.[423]

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[416] *UNCLOS*, Art. 139(2); in this same sense, Article 94(1) provides that 'Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag'. *UNCLOS*, Art. 94(1); for more discussions regarding Article 94(1), see case *M/V Virginia G*. International Tribunal for the Law of the Sea, *M/V "Virginia G" (Panama/Guinea-Bissau),* Order of 24 April 2013, ITLOS Reports 2013, para. 103-107; International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 3 and 4.

[417] International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 7 and 12; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 78; International Seabed Authority, *Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority* (16 July 2014), ISA Doc. ISBA/20/C/20, para. 27-28; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 234; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 1-3.

[418] International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 11.

[419] *UNCLOS*, Art. 4(3), Annex III.

[420] *UNCLOS*, Art. 4(3), Annex III.

[421] Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 4.

[422] *UNCLOS*, Art. 9(4), Annex III.

[423] Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 4.

As previously demonstrated, the Mining Code stipulates that the sponsored entity is only required to present a formal confirmation of its relationship with the sponsoring State.[424] For example, both the Exploration Regulations and Draft Exploitation Regulation state that each application of an enterprise or entity shall 'be accompanied by a certificate of sponsorship issued by the State of which it is a national or by which or by whose nationals it is effectively controlled'.[425] Moreover, 'Where the applicant has the nationality of one State but is effectively controlled by another State or its nationals, each State involved shall issue a certificate of sponsorship'.[426] The ISA acts in good faith when accepting the certificate of sponsorship submitted by the sponsored entity without conducting a more detailed examination with the intention of determining the effective control of the private corporation.[427] In practice, the ISA has considered that the requirement of effective control is fulfilled only by the exhibition of the certification of sponsorship by the sponsored contractor.[428] This happens even in questionable cases in which a specific private contractor is a subsidiary owned by a corporation under the effective control of a different State, as will be further demonstrated.[429]

With regard to the effective control exercised by the sponsoring States or their nationals over the sponsored entity, neither UNCLOS nor the Mining Code provides any guidance as to

[424] International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 11 and 21; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6; *Polymetallic Nodules Exploration Regulation,* Regs. 10(3)(b) and 11(1)-11(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 11; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11; International Seabed Authority, *Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority* (16 July 2014), ISA Doc. ISBA/20/C/20, para. 28.

[425] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(1); *Polymetallic Nodules Exploration Regulation,* Reg. 11(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(1).

[426] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(3); *Polymetallic Nodules Exploration Regulation,* Reg. 11(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(3).

[427] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(c)(ii), Annex I; *Polymetallic Nodules Exploration Regulation,* Reg. 12(7); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(4)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 13(6); International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 21.

[428] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 30.

[429] International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 22.

what is meant by this expression.[430] This expression was only first clarified at the Seventeenth Session of the ISA,[431] when the Authority dealt with a multinational corporation and with a subsidiary company registered in a developing State, which sponsored the subsidiary company in its application for approval of a plan of work for exploration of polymetallic nodules in a reserved area.[432]

Due to the lack of consensus between the States,[433] the Legal and Technical Commission decided that the definition would be addressed individually by the States in their respective national legislation.[434] However, the possibility of raising concerns to the Council, about the application for a plan of work, is open for any member.[435] If a dispute arises over a disapproval of a plan of work, the dispute settlement procedures set in UNCLOS must be considered.[436] It would be the responsibility of the sponsoring State or the denied contractor to initiate proceedings before the Seabed Disputes Chamber.[437] Therefore, despite ISA duty to ensure and monitor compliance with the international legal framework in the application for plans of work, disputes surrounding these denied contracts may be submitted to the Seabed Disputes Chamber if any concerns are raised by the State Parties.[438]

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[430] Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 3-5; International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 3.

[431] International Seabed Authority, *Decision of the Council of the International Seabed Authority. International Seabed Authority* (21 July 2011), ISA Doc. ISBA/17/C/20, para. 4.

[432] Gwenaëlle Le Gurun, 'Annex III Article 4', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2139.

[433] For some States, effective control referred to economic and regulatory control whereas for other States effective control amounted to regulatory control and the latter were satisfied that the issuance of a certificate of sponsorship would suffice to evidence such a regulatory control. Gwenaëlle Le Gurun, 'Annex III Article 4', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2139.

[434] see International Seabed Authority, *Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority* (16 July 2014), ISA Doc. ISBA/20/C/20; International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10.

[435] *1994 Implementation Agreement*, Annex, Sec. 12.

[436] *1994 Implementation Agreement*, Annex, Sec. 12.

[437] *UNCLOS*, Art. 162(2)(u) and 187.

[438] International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 10.

Moreover, although nationality and effective control are two distinct concepts, the ISA 'has been content to discern both elements from the same evidence'.[439] Despite the concept of effective control being an important key to understanding the link between the sponsored entity and the State, its interpretation is not precise.[440] This link can mean different things since the registration of a company is governed by specific national legislation and assumes different characteristics, such as: domicile of a parent company, regulatory control, or economic control.

Economic control means that the effective control belongs to the State where the economic controller of the sponsored entity is based; regulatory control as effective control only considers where the entity is formally based.[441] Through regulatory control States exercise regulatory jurisdiction over the contractor.[442] This can create a problem in the assessment of cases of environmental damage, since the ISA only requires sponsorship certificates from States which exercise effective control.

On the other hand, economic control only allows States to exercise economic and management control in the parent corporation and their subsidiary.[443] The implementation of an economic approach would necessitate the involvement of both the States where parent corporations and their subsidiaries are located, as well as the provision of a sponsorship certificate by these States to ISA.

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[439] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 140; International Seabed Authority, *Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority* (16 July 2014), ISA Doc. ISBA/20/C/20, para. 28; James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*, 23; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 7.

[440] see Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 661-680.

[441] International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 3.

[442] Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 2.

[443] Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 2.

The ISA left to the States parties to decide what would be the best criteria to fulfil the requirement of effective control to be clarified within their national laws.[444] Consequently, the current practice of the ISA to analyse applications for contracts follows the regulatory control criterion, which interprets effective control as the simple incorporation or conferring of nationality.[445] To date, no contract has presented a sponsorship certificate from the nationality of the parent corporation.[446] The Authority reviews the requirement of effective control by only checking the proof of registration in the sponsoring State and the presence of the sponsorship certificate.[447] The ISA option for effective control as regulatory control was logical to allow sponsoring State to have *de jure* powers over effectively controlled corporations.[448] In turn, this

[444] International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 22; on the other hand, Rojas and Phillips criticised this option: 'Effective control is, in many respects, an international standard, as it is established in international rules. There may be a risk of incoherence and gaps in the international system if states took inconsistent approaches to effective control. An internationally negotiated solution under the ISA would be preferred and could confer the legal certainty required by the Secretariat, the states parties and stakeholders'. Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 9.

[445] 'Under the regulatory control approach, effective control is determined by "the act of incorporation, or the conferring of nationality," which, as has been suggested by the ISA Secretariat, "combined with the undertakings given as a sponsoring state seem to be sufficient to establish 'effective control' for the purposes of meeting the sponsorship requirements"'. Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 9; Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 670; see International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 20-22; International Seabed Authority, *Issues related to the sponsorship of contracts for exploration in the Area, monopolization, effective control and related matters* (21 June 2016), ISA Doc. ISBA/22/LTC/13, para. 5–7, and 11.

[446] In this regards, Rojas and Phillips states that: 'It could be argued that these practices have been at least passively consented to by the member states of the ISA in that no objection nor, for that matter, endorsement has been expressed by member states. Weighed against such a conclusion, however, and even though the standing practice has not been subject to objection, is the fact that the representative organs of the ISA have explicitly noted that the matter is far from settled'. Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 6.

[447] Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 671; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10; see International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 12–21.

[448] Additionally, according to Dingwall, the adoption of a regulatory approach is consistent with the rules of treaty interpretation since: 'Articles 31 to 33 of the VCLT contain these default rules. Pursuant to the general rule of interpretation, the Convention's eligibility tests of nationality or effective control must be 'interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object

system may allow the establishment of subsidiaries, possibly favouring sponsorships of convenience. As long as the minimum level of stringency of UNCLOS is preserved, Article 21(3), Annex III, supports that sponsoring States can lawfully apply their own criteria to fulfil the requirement of effective control.[449]

A significant debate in this context concerns the issue of the registry of nationality of ships. Article 91(1) states that 'Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must be a genuine link between the State and the ship'.[450] Article 94(1) states that the nationality of the ship allows its flag State to 'effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag'.[451] In order to allow registration, UNCLOS states the necessity of the existence of a 'genuine link' between the ship and the State. However, in practice, States have ignored such requirement by allowing 'flags of convenience' through a system of open registry of ships in which the link between the State and the ship is weak, or non-existent.[452] The 'flags of convenience

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and purpose'. Context takes account of the text of the Convention, including its preamble and annexes. Other factors that can be considered, together with context, are the Mining Code and subsequent state practice with regard to the practical application of the Convention's sponsorship regime. As a supplementary means of interpretation, the Convention's travaux préparatoires are also relevant'. Joanna Dingwall, International Law and Corporate Actors in Deep Seabed Mining (Oxford, United Kingdom: Oxford University Press, 2021), 138-139; in the same sense, the Seabed Disputes Chamber states: 'The fact that these instruments are binding texts negotiated by States and adopted through a procedure similar to that used in multilateral conferences permits the Chamber to consider that the interpretation rules set out in the Vienna Convention may, by analogy, provide guidance as to their interpretation. In the specific case before the Chamber, the analogy is strengthened because of the close connection between these texts and the Convention. The ICJ seems to have adopted a similar approach when it states in its advisory opinion on Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, that the rules on interpretation of the Vienna Convention "may provide guidance" as regards the interpretation of resolutions of the united Nations Security Council'. Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Advisory Opinion, 1 February 2011), para. 60; VCLT, Art. 31 and 32; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7, 5.

[449] 'The application by a State Party to contractors sponsored by it, or to ships flying its flag, of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted pursuant to article 17, paragraph 2(f), of this Annex shall not be deemed inconsistent with Part XI', *UNCLOS*, Art. 21(3), Annex III.

[450] *UNCLOS*, Art. 91(1).

[451] *UNCLOS*, Art. 94(1).

[452] Robin R. Churchill and Vaughan Lowe, *The Law of the Sea* (3rd edn. Manchester, United Kingdom: Manchester University Press, 1999), 258 and 259; Doris König, Tim René Salomon, 'Flags of Convenience' (February 2022), in Rüdiger Wolfrum. *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 18; Douglas Guilfoyle, 'Article 91', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 694; see Erik Jaap Molenaar, 'Port State Jurisdiction: Toward Comprehensive, Mandatory and Global Coverage' (2007) 38(1,2) *Ocean Development & International Law* 225; Tamo Zwinge, 'Duties of Flag States to Implement and Enforce

registries', which are the States that concede a registration of a flag of convenience,[453] allow ship owners to do the registration of a ship with low standards.[454] These low standards are usually followed by a tenuous and unsubstantial genuine link, which offers minimal official protection from the registry State.[455] Moreover, in this system a ship owner can easily change the registration of their ships for a less stringent one through what is called 're-flagging',[456] which would also have an effect on the flag State jurisdiction.[457]

In this sense, ITLOS clarified that the only requirement for a genuine link is official documentation stating that such a link exists, irrespective of the origin of the ownership of the vessel, in order to ensure regulatory control by the flag State.[458] In the *M/V Saiga* (No. 2) case,

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International Standards and Regulations - And Measures to Counter Their Failure to Do So' (2011) 10(2) *Journal of International Business and Law* 297, 299; Boleslaw Adam Boczek, *Flags of Convenience: An International Legal Study* (Cambridge: Harvard University Press, 1962); Bakar Hamad Hamad, 'Flag of Convenience Practice: A Threat to Maritime Safety and Security' (2016) 8 *IJRDO-Journal of Social Science and Humanities Research* 208; Simon W. Tache, 'The nationality of ships: the definitional controversy and enforcement of genuine link' (1982) *The International Lawyer* 301; Tullio Treves, 'Flags of Convenience before the Law of the Sea Tribunal' (2004) 6 *San Diego Int'l L.J* 179; for a deeper analysis on disputes settlement involving vessels see; Yoshifumi Tanaka, 'Protection of Community Interests in International Law: The Case of Law of the Sea', in Armin Von Bogdandy and Rüdiger Wolfrum (eds.), *Max Planck Yearbook of United Nations Law, Volume 15* (Leiden, Netherlands: Brill Nijhoff, 2011), 350-364.

[453] Tamo Zwinge, 'Duties of Flag States to Implement and Enforce International Standards and Regulations - And Measures to Counter Their Failure to Do So' (2011) 10(2) *Journal of International Business and Law* 297, 299.

[454] According to the International Transporter Workers' Federation, a flag of convenience ship can have several effects including: 'For workers onboard, this can mean: very low wages, poor on-board conditions, inadequate food and clean drinking water, long periods of work without proper rest, leading to stress and fatigue. By 'flagging out', ship owners can take advantage of: minimal regulation, cheap registration fees, low or no taxes, freedom to employ cheap labour from the global labour market'. International Transporter Workers' Federation, *Flags of Convenience* (2023), < https://www.itfglobal.org/en/sector/seafarers/flags-of-convenience > (accessed 17 July 2023).

[455] In this sense, Cot complements by stating that: 'The 'on behalf' clause was drafted to overcome this difficulty and to give shipowners a fast-track procedure, cutting through red tape and gaining a form of direct access to the Tribunal while preserving the intergovernmental nature of the dispute and the litigation'. Jean-Pierre Cot, 'Appearing "for" or "on behalf of" a State: The Role of Private Counsel before International Tribunals', in Nisuke Ando, Edward Mcwhinney and Rüdiger Wolfrum and Betsy Baker Röben, *Liber Amicorum Judge Shigeru Oda* (Alphen aan den Rijn, Netherlands: Kluwer Law International, 2002), 843.

[456] Tamo Zwinge, 'Duties of Flag States to Implement and Enforce International Standards and Regulations - And Measures to Counter Their Failure to Do So' (2011) 10(2) *Journal of International Business and Law* 297, 299.

[457] For a deeper analysis see Camille Goodman, 'Flag State Responsibility in International Fisheries Law - effective fact, creative Effective Fact, Creative Fiction, or further work required?' (2009) *23 Ausu. & N.Z. MAR. L. J.* 157; moreover, 'It should also be noted that the United Nations Conference on Trade and Development elaborated a Convention on Conditions for Registration of Ships, which sought to define the conditions under which a genuine link will exist between a flag State and a vessel. However, some 37 years later, the Convention on Conditions for Registration of Ships has not entered into force. It now seems unlikely that it will, as there are only 15 States Parties, well short of the requirements for entry into force, and the last ratification was over ten years ago. Therefore, it does not seem to be of assistance here'. International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 4.

[458] International Tribunal for the Law of the Sea, *M/V "SAIGA" (No. 2) (Saint Vincent and the Grenadines v. Guinea),* Judgement, ITLOS Reports 1999, para. 83; *M/V Virginia G* (Order of 24 April 2013)*,* para. 112-113; Douglas

ITLOS stated that the purpose of the provisions of UNCLOS in its need for establishing a genuine link between the ship and its flag state 'is to secure more effective implementation of the duties of the flag State, and not to establish criteria by reference to which the validity of the registration of ships in a flag State may be challenged by other States'.[459] ITLOS directly reaffirmed the same Statement in the *M/V Virginia G*[460] and complemented that, once a ship is registered by a State, 'the flag State is required, under article 94 of the Convention, to exercise effective jurisdiction and control over that ship in order to ensure that it operates in accordance with generally accepted international regulations, procedures and practices. This is the meaning of "genuine link"'.[461]

Therefore, the approach of the ISA, for the purposes of the sponsored contractors to conduct activities in the Area, is consistent with the position established by ITLOS that the effective control is satisfied by the regulatory control.[462] In practice, UNCLOS system requires a more formalist approach to acknowledge the effective control of the corporations by accepting

Guilfoyle, 'Article 91', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 692-699; for a deeper analysis on the cases before ITLOS, see Tullio Treves, 'Flags of Convenience before the Law of the Sea Tribunal' (2004) 6 *San Diego Int'l L.J* 179; International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 4.

[459] *M/V Saiga* (Judgement), para. 83.

[460] *M/V Virginia G* (Order of 24 April 2013), para. 112-113.

[461] *M/V Virginia G* (Order of 24 April 2013), para. 113.

[462] 'The expressions "effective control" and "effectively controlled" are also found in the context of nationality of ships flying the flag of the State whose nationality it has. Article 91 of the Convention requires that there exist a "genuine link" between a State and a vessel flying its flag. In terms of establishing a genuine link between a vessel and its flag State, it is the act of registration that conveys nationality to a ship and provides the basis for jurisdiction over the vessel, irrespective of ownership or financial interest in the vessel or its operations.13 It is left to States to set in their domestic legal systems the conditions for the grant of its nationality to ships, for the registration of ships in its territory and for the right to fly its flag'. ISA International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 14.

only the regulatory approach as sufficient.[463] Naturally, this same interpretation can also be extended to the application of Articles 139 and 153(2).[464]

The interpretation that effective control as a regulatory control complies with UNCLOS was also corroborated by the Seabed Disputes Chamber in the Advisory Opinion of 2011:[465]

> Equality of treatment between developing and developed sponsoring States is consistent with the need to prevent commercial enterprises based in developed States from setting up companies in developing States, acquiring their nationality and obtaining their sponsorship in the hope of being subjected to less burdensome regulations and controls. The spread of sponsoring States "of convenience" would jeopardize uniform application of the highest standards of protection of the marine environment, the safe development of activities in the Area and protection of the common heritage of mankind.[466]

According to some authors, the Seabed Disputes Chamber has tacitly reiterated the problem that private corporations conduct activities in the Area by using subsidiary corporations based in developing States to guarantee the sponsorship of such States, giving these developing States the necessary regulatory control to trigger the possibility of sponsorship.[467]

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[463] Additionally, Dingwall states that 'In particular, the Secretariat has considered the rules concerning nationality of flag state vessels and matters of civil aviation, finding that the adoption of a regulatory approach to issues such as nationality and control was a common factor across these contexts. The Secretariat also distinguished the approach to corporate nationality in diplomatic protection, which may require some 'close and permanent connection' between the state exercising diplomatic protection and the corporation, on the basis that applying this approach in the deep seabed mining context would not necessarily ensure that the sponsoring state exercises regulatory control over the sponsored corporation'. Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 140-141; International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 14-21, especially para. 17; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 8; International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 10.

[464] International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 10.

[465] John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193; James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*, 23; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, Paper No. 7, 10.

[466] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159.

[467] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 137; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 195. Additionally, see Klaas Willaert, 'Forum Shopping

Additionally, the ISA has adopted a methodology for effective control analogous to that employed in international investment law to protect investors, whereby they are safeguarded by the mere certification of the link between the sponsored corporation and the sponsor, instead of a more substantial link.[468] Similarly, some investment treaties are satisfied by use of the effective control as a regulatory control,[469] regardless whether a parent corporation exercises direct or indirect control over its subsidiary.[470]

If States wanted to create a more restricted definition of effective control, they could have inserted the requirement of economic control in UNCLOS or the Mining Code as a form of requirement to decide whether a sponsoring State actually exercises or not effective control over a private contractor.[471] According to Dingwall, the lack of a similar substantive test to trigger effective control can be understood as 'a deliberate omission on the part of the drafters',[472] since 'the wording of certain other provisions of the regime that are predicated on the substantive

Within the Context of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116.

[468] For a deeper analysis in this matter see Maria Madalena das Neves, 'Law of the Sea and International Investment Law', in Nele Matz-Lück, Oystein Jensen and Elise Johansen, *The Law of the Sea: Normative Context and Interactions with other Legal Regimes* (London, United Kingdom: Routledge, 2022), 260-275, especially 271.

[469] see also Zachary Douglas, *The International Law of Investment Claims* (Cambridge, United Kingdom: Cambridge University Press, 2009), 302.

[470] For example, in *Aguas del Tunari SA v Republic of Bolivia* the arbitral tribunal found that: 'The Tribunal, by majority, concludes that the phrase ―controlled directly or indirectly‖ means that one entity may be said to control another entity (either directly, that is without an intermediary entity, or indirectly) if that entity possesses the legal capacity to control the other entity. Subject to evidence of particular restrictions on the exercise of voting rights, such legal capacity is to be ascertained with reference to the percentage of shares held. In the case of a minority shareholder, the legal capacity to control an entity may exist by reason of the percentage of shares held, legal rights conveyed in instruments or agreements such as the articles of incorporation or shareholders' agreements, or a combination of these. In the Tribunal's view, the BIT does not require actual day-to-day or ultimate control as part of the "controlled directly or indirectly" requirement contained in Article 1(b)(iii). The Tribunal observes that it is not charged with determining all forms which control might take. It is the Tribunal's conclusion, by majority, that, in the circumstances of this case, where an entity has both majority shareholdings and ownership of a majority of the voting rights, control as embodied in the operative phrase "controlled directly or indirectly" exists'. United Nations Conference on Trade and Development, *Aguas del Tunari v. Republic of Bolivia* (Bolivia v. Netherlands), Judgement of 21 October 2005, 2005, para. 264.

[471] *Aguas del Tunari SA v Republic of Bolivia* (Judgement of 21 October 2005), para. 264; *Draft regulations on exploitation of mineral resources in the Area*, Annex, Reg. 21(1); *Polymetallic Nodules Exploration Regulation,* Reg. 12(7); *Polymetallic Sulphides Exploration Regulation,* Reg. 13(4)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 13(6); Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 5; for more details, see David Gaukrodger, 'Investment Treaties and Shareholder Claims: Analysis of Treaty Practice', *OECD Working Papers on International Investment, 2014/03*.

[472] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 141.

relationship between a prospective contractor and its parent corporation'.[473] There are several factors that may vary to determine what effective control means – not only in the national legislation of each State but also in the practice that may not reflect what was established.[474]

3.2 Process for concession of sponsorship

3.2.1 Application for concession of sponsorship

Under UNCLOS and the 1994 Implementation Agreement, with the exception of a few sections of the Convention[475] and the Agreement,[476] there are no pre-contractual provisions relating to the approval of the plan of work, the award of the contract, or the granting of the authorisation.[477] However, some analysis can be provided from the provisions within the deep seabed Mining legal framework. The international legal framework for the deep seabed mining regime establishes the Area as a Common Heritage of Mankind.[478] Contractors are the first to carry out activities in the Area and therefore have a responsibility to the marine environment and responsibility in conducting exploration and exploitation of the mineral resources of the Area.

Although the ISA has the mandate to manage activities in the Area, sponsored private entities are not subject to International Law, thus are not bound by UNCLOS.[479] Only States and international organisations are bound by UNCLOS and 1994 Implementation Agreement. This was confirmed by the Seabed Disputes Chamber in the Advisory Opinion *Responsibilities and*

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[473] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 141.
[474] International Seabed Authority, *Discussion Paper Effective Control* (23 June 2023), Discussion Paper No. 01/2023, < https://www.isa.org.jm/publications/effective-control-1-2023/> (accessed 25 June 2023), 8.
[475] Article 4(6), Annex III, of UNCLOS states that the contractor must comply with Part XI and Annex III of UNCLOS and the Mining Code, terms of the contract, and control of the ISA over such activities. *UNCLOS,* Art. 4(6), Annex III.
[476] Some Secs. of the Agreement barely tough the topic, such as Sec. 1(6)(a), Annex (application proceed after the authorization by the LTC); Sec. 1(7) (prior environmental impact assessment, description of the programme for oceanographic and environmental baselines studies); Sec. 3(11), Annex (procedure for application and distribution of the competences of the ISA). *1994 Implementation Agreement,* Annex, Secs. 1(6)(a), 1(7), and 3(11).
[477] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 101; Francisco Orrego Vicuña, 'The Regimes for the Exploration and Exploitation of Sea-Bed Mineral Resources', in Rene-Jean Dupuy and Daniel Vignes, *A Handbook on the New Law of the Sea* (Leiden, Netherlands: Martinus Nijhoff, 1991), 657.
[478] *UNCLOS,* Art. 136.
[479] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 75.

Obligations of States and Entities with Respect to Activities in the Area in its justification for the existing purpose of the sponsorship regime and its requirements for contracts for exploration and exploitation of the resources in the Area, when it stated that: 'is to achieve the result that the obligations set out in the Convention, a treaty under international law which binds only States Parties thereto, are complied with by entities that are subjects of domestic legal systems'.[480]

'Sponsorship' means that 'natural or judicial persons intending to carry out mining activities in the Area must be either nationals of a State Party or effectively controlled by it or its nationals and in the meanwhile sponsored by such States'.[481] The sponsorship system intends to ensure compliance by the sponsored contractors with the legal framework of the deep seabed mining regime. As previously stated in the preceding chapter, the Authority, as an international organisation, is constrained in its ability to impose sanctions or penalties upon contractors who fail to fulfil their obligations. Conversely, the sponsoring State has the responsibility as a regulator to ensure that its sponsored contractor complies with UNCLOS, the 1994 Implementation Agreement and the Mining Code by adopting legislation, rules, regulations, and administrative measures within its domestic competence.[482] Nonetheless, the problem of the sponsorship regime lies not in its legal framework but is rather a consequence of the lack of willingness on the part of the States to implement and enforce it. When the Sponsorship regime is observed superficially, it seems that this system was created with all the necessary mechanisms to allow its enforcement. As will be shown in the next sections, the legislation of the sponsoring States is essential for the implementation of the international legal framework. But, in reality, the sponsoring States might use this system conveniently to adopt specific national legislation and regulations with the purpose

[480] The Advisory Opinion continuing its reasoning states: 'This result is obtained through the provisions of the Authority's Regulations that apply to such entities and through the implementation by the sponsoring States of their obligations under the Convention and related instruments'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 75; additionally, its worth mentioning that: "Beyond the legal regime, there is a political dimension. This is shown by the trend that even when an applicant is not required to provide a certificate of sponsorship because it is a State, the practice shows that such a certificate is still submitted with the application. This has also been evidenced during the adoption of the procedures and criteria for extensions of contracts for exploration. Some States were not favourable to the need for a sponsorship State to confirm its sponsorship which remains valid until it is terminated by an explicit act emanating from that sponsoring State'. Gwenaëlle Le Gurun, 'Annex III Article 4', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2198.

[481] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Schedule, Use of terms and scope.

[482] Xiangxin Xu and Guifang (Julia) Xue, 'Potential Contribution of Sponsoring State and Its National Legislation to the Deep Seabed Mining Regime' (2021) 13 *Sustainability*, 1; *UNCLOS,* Art. 139(1); *UNCLOS,* Art. 153(4); *UNCLOS,* Art. 153(2); *UNCLOS*, Annex III.

of obtaining economic benefits and favouring possible sponsored contractors in prejudice of the system.[483]

In certain instances, an applicant may possess more than one nationality, thereby necessitating the involvement of multiple sponsors.[484] In these cases, all the States that have effective control shall participate as sponsors, and together all the possible sponsors shall carry out activities in the Area 'in conformity with the terms of its contract and its obligations under this Convention'.[485] However, a sponsoring State shall not 'be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are, within the framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction'.[486] The standard qualifications required for the evaluation of States Parties applying for exploration and exploitation, in addition to their character as States, are:[487] that they accept as enforceable and comply with the applicable obligations created by the terms and conditions of their contracts with the Authority, that they accept control by the Authority of activities in the Area, that they provide a written assurance that the obligations under the contract will be performed in good faith, and that they comply with the provisions on transfer of technology.[488]

For applications for approval of plans of work for activities in the Area in the form of contracts, any natural or legal person who is a national of, or effectively controlled by, a State

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[483] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 234.

[484] 'Each applicant shall be sponsored by the State Party of which it is a national unless the applicant has more than one nationality, as in the case of a partnership or consortium of entities from several States, in which event all States Parties involved shall sponsor the application, or unless the applicant is effectively controlled by another State Party or its nationals, in which event both States Parties shall sponsor the application'. *UNCLOS*. Art. 4(3), Annex III.; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 190.

[485] *UNCLOS*. Art. 4(3)-(4), Annex III.

[486] *UNCLOS*. Art. 4(4), Annex III; in this same sense: "Accordingly, the Chamber takes the position that, in the event of multiple sponsorship, liability is joint and several unless otherwise provided in the Regulations issued by the Authority." *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 192. (emphasis added)

[487] *UNCLOS*. Art. 4(5), Annex III.

[488] *UNCLOS*. Art. 4(5), Annex III (emphasis added); is worth mentioning that: 'Pursuant to Art. 139 of the Convention, the responsibility of a sponsoring State(s) is to ensure that the contractor performs its activities in compliance with the terms of the contract and its obligations under the Convention. This question was addressed in the advisory opinion rendered by the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS) in 2011.2 Art. 4(5) refers to specific procedures for assessing applications by Member States and Art. 4(6) relates to undertakings which are required in all applications'. Gwenaëlle Le Gurun, 'Annex III Article 4', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2137.

Party or its nationals, if sponsored by such States, may apply to carry out activities in the Area.[489] Each application shall be submitted 'In the case of any other qualified applicant, by a designated representative, or by the authority designated for that purpose by the sponsoring State or States'.[490] Each of these applications must contain a certificate of sponsorship from the respective sponsoring State duly signed.[491] This contract shall also contain: '(a) The name of the applicant; (b) The name of the sponsoring State; (c) A statement that the applicant is; (i) A national of the sponsoring State; or (ii) Subject to the effective control of the sponsoring State or its nationals; (d) A statement by the sponsoring State that it sponsors the applicant; (e) The date of deposit by the sponsoring State of its instrument of ratification of, or accession or succession to, the Convention and the date on which it consented to be bound by the Agreement; and (f) A declaration that the sponsoring State assumes responsibility in accordance with articles 139 and 153(4) of the Convention and article 4(4) of annex III to the Convention'.[492] In its application, each applicant agrees to comply with the national laws, regulations and administrative measures of the sponsoring State,[493] and it is necessary that 'the sponsoring State assumes responsibility in accordance with articles 139 and

[489] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 5(1)(b); *Polymetallic Nodules Exploration Regulation,* Reg. 9(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 9(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 9(b).

[490] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 5(2)(c); *Polymetallic Nodules Exploration Regulation,* Reg. 10(2)(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 10(2)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 10(2)(b).

[491] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(1); *Polymetallic Nodules Exploration Regulation,* Reg. 1(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(1); *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(3); *Polymetallic Nodules Exploration Regulation,* Reg. 11(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(3).

[492] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(3); *Polymetallic Nodules Exploration Regulation,* Reg. 11(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(3); additionally, it worth mention that 'Where an applicant has the nationality of one State but is effectively controlled by another State or its nationals, each State shall issue a certificate of sponsorship'. This dispositive, despite its innocence, can open breach to allow the sponsorship of convenience, as will be discussed later in this chapter. *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(2); *Polymetallic Nodules Exploration Regulation,* Reg. 11(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(2); Additionally, in its application for approval for a plan of work to obtain an exploration or exploitation contract, must be informed: '14. Identify the sponsoring State or States. 15. In respect of each sponsoring State, provide the date of deposit of its instrument of ratification of, or accession or succession to, the United Nations Convention on the Law of the Sea of 10 December 1982 and the date of its consent to be bound by the Agreement relating to the Implementation of Part XI of the Convention. 16. Attach a certificate of sponsorship issued by the sponsoring State'. *Draft regulations on exploitation of mineral resources in the Area*, Sec. 1, Annex I; *Polymetallic Nodules Exploration Regulation,* Sec. 1, Annex II; *Polymetallic Sulphides Exploration Regulation,* Sec. 1, Annex II; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Sec. 1, Annex II.

[493] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 7(2)(d).

153(4) of the Convention and article 4(4) of annex III to the Convention'.[494] As mentioned in Article 4(3) of Annex III of UNCLOS, the decision to sponsor a contractor under its effective control is a prerogative of the State Party of the ISA, even if an entity meets all the requirements to qualify as a possible sponsored entity.[495] This decision of sponsorship by a State Party materialises in the certification of sponsorship.[496] Additionally, the ISA does not negotiate individual terms with the applications of plans of work for future contracts. Thus, the standard terms guarantee uniform conditions for all applicants.[497]

It is imperative that the activities conducted by the contractor must be carried out in accordance with the proposed plan of work for the contract,[498] which will assume the 'solemn legal expression of the rights and obligations of the parties'.[499] The plan of work can be valid for 15 years for exploration contracts,[500] or 30 years for exploitation contracts,[501] with the possibility of

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[494] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 6(3)(f); *Polymetallic Nodules Exploration Regulation,* Reg. 11(3)(f); *Polymetallic Sulphides Exploration Regulation,* Reg. 11(3)(f); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11(3)(f); In the exploration phase, it is necessary that 'An application for approval of a plan of work for exploration by a State or a State enterprise shall include a statement by the State or the sponsoring State certifying that the applicant has the necessary financial resources to meet the estimated costs of the proposed plan of work for exploration'. *Polymetallic Nodules Exploration Regulation,* Reg. 12(4)*; Polymetallic Sulphides Exploration Regulation,* Reg. 13(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 13(3); however, in the Polymetallic Nodules exploration it is additionally necessary that 'shall be considered to have met the financial and technical qualifications necessary for approval of a plan of work for exploration if the sponsoring State or States certify that the applicant has expended an amount equivalent to at least 30 million United States dollars in research and exploration activities and has expended no less than 10 per cent of that amount in the location, survey and evaluation of the area referred to in the plan of work for exploration'. *Polymetallic Nodules Exploration Regulation,* Reg. 12(2).

[495] *Polymetallic Nodules Exploration Regulation,* Reg. 11; *Polymetallic Sulphides Exploration Regulation,* Reg. 11; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 11.

[496] 'Equality of treatment between developing and developed sponsoring States is consistent with the need to prevent commercial enterprises based in developed States from setting up companies in developing States, acquiring their nationality and obtaining their sponsorship in the hope of being subjected to less burdensome regulations and controls. The spread of sponsoring States "of convenience" would jeopardize uniform application of the highest standards of protection of the marine environment, the safe development of activities in the Area and the protection of the common heritage of mankind'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159.

[497] *UNCLOS*, Art. 21, Annex III; *Polymetallic Nodules Exploration Regulation,* Annex IV; *Polymetallic Sulphides Exploration Regulation,* Annex IV; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV.

[498] *UNCLOS*, Art. 153(3); *UNCLOS*, Art. 3(5), Annex III; *1994 Implementation Agreement*, Annex, Sec. 2(4).

[499] Francisco Orrego Vicuña, 'The Regimes for the Exploration and Exploitation of Sea-Bed Mineral Resources', in Rene-Jean Dupuy and Daniel Vignes, *A Handbook on the New Law of the Sea* (Leiden, Netherlands: Martinus Nijhoff, 1991), 683; Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 105.

[500] *1994 Implementation Agreement,* Annex, Sec. 1(9); *Polymetallic Nodules Exploration Regulation,* Reg. 26(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 28(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 28(1).

[501] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 20(1).

extension.[502] The contractors shall have exclusive rights over the areas established under the contract for the fixed period,[503] except in case of suspension, revision or termination of the contract in accordance with Articles 18 and 19, Annex III, of UNCLOS or any other term established under the contract.[504]

Moreover, the contract can be reviewed by common agreement between the parties, or if new circumstances that would make the contract inequitable, impracticable or impossible to complete, arise.[505] Also, the contract shall only be reviewed by the contractors accordingly 'when circumstances have arisen or are likely to arise which, in the opinion of either party, would render the contract inequitable or make it impractical or impossible to achieve the objectives'.[506]

Once the contract has been concluded, the ISA shall issue an authorisation for the commencement of mining activities. However, this authorisation is not a necessary element of the contract and can also be included in the plan of work.[507] In case the authorisation was not previously included, the ISA may issue it to enable the beginning of the activity.[508] For the exploitation activities, the ISA must prescribe in the authorisation the annually expected production and limit of the exploitation.[509] This right exclusively to explore or to exploit a determined area and its resources for the time expressed under the contract is an important incentive for the contractors.[510] Therefore, 'although the contract has an *inter partes* binding force,

[502] *1994 Implementation Agreement,* Annex, Sec. 1(9); *Polymetallic Nodules Exploration Regulation,* Reg. 26(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 28(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 28(2).
[503] *UNCLOS*, Art. 153(6); *UNCLOS*, Art. 16, Annex III; *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 18(4).
[504] *UNCLOS*, Art. 153(6).
[505] *UNCLOS*, Art. 19, Annex III.
[506] *UNCLOS,* Art. 19, Annex III.
[507] *UNCLOS*, Art. 151(2)(e);
[508] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 105.
[509] *1994 Implementation Agreement,* Annex, Sec. 6(1)(e); *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex II (f); *Polymetallic Nodules Exploration Regulation,* Reg. 18; *Polymetallic Sulphides Exploration Regulation,* Reg. 20; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 20.
[510] *UNCLOS,* Art. 16, Annex III; *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 18(1)-(3); *Polymetallic Nodules Exploration Regulation,* Reg. 24(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 26(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 26(1).

the authorisation issued by the Authority can be invoked against the world (*erga omnes* binding force) and confers a property right to the contractor.'[511]

Article 6(3), Annex III, of UNCLOS regulates the anti-monopoly policy by commissioning the ISA to approve plans of work only if the plan does not monopolise the conduction of activities in the Area or precludes other states from conducting activities in the Area.[512] According to this Article, the ISA must periodically examine the proposals from the applicants and verify whether all requirements are present and whether the plan of work will be duly approved, the contract awarded and the authorisation issued.

The LTC shall not recommend and approve plans of work only in non-reserved areas that 'together with either part of the area covered by the application, exceed in size 30 per cent of a circular area of 400,000 square kilometres surrounding the centre of either part of the area covered by the proposed plan of work'; or 'plans of work for exploration and exploitation only in non-reserved areas which, taken together, constitute 2 per cent of that part of the Area which is not reserved or disapproved for exploitation pursuant to article 162(2)(x) of the Convention'. [513]

The ISA only approves a plan of work for a contract if these requirements are met by the public or private entities pursuing to conduct activities in the Area. However, in practice the Council can approve plans of work despite negative advice from the LTC.[514] The Council will only follow the recommendation of the LTC provided that a two-third majority of the present votes decides not to approve the proposed plan of work.[515] This procedure does not offer opportunity to third-party stakeholders to contest and challenge the approval or any established contract.

Additionally, the contract can be suspended or terminated in two circumstances: 'if, in spite of warnings by the Authority, the contractor has conducted his activities in such a way as to result in serious, persistent and wilful violations of the fundamental terms of the contract, Part XI and the rules, regulations and procedures of the Authority'; or 'if the contractor has failed to comply

[511] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 106.
[512] *UNCLOS*, Art. 4(3), Annex III.
[513] *UNCLOS*, Art. 4(3), Annex III.; *Polymetallic Nodules Exploration Regulation,* Reg. 21(6)(d).
[514] Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 2 and 3.
[515] Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198, 2 and 3.

with a final binding decision of the dispute settlement body applicable to him'.[516] Nonetheless, these circumstances are not easy to recognise.[517]

In cases of applications for approval of plans of work in reserved areas for exploration activities, any State which is a developing State or any natural or juridical person sponsored by one, has to notify to the ISA its willingness to submit a plan of work for exploration.[518] Additionally, this application may be submitted at any time after such an area becomes available following a decision by the Enterprise that it does not intend to carry out activities in the requested area or if the Enterprise does not take a decision within six months of the notification by the Secretary-General.[519] However, the right to the approval of the plan of work does not mean the right to be awarded the contract or the authorisation.[520] According to Article 7(2), Annex III,[521] the ISA must adopt 'an objective and non-discriminatory procedure prior to the award of a contract and the issuing of an authorisation.'[522] Besides cases where a selection among applicants is not required by the Authority,[523] based on Article 7(3), Annex III,[524] applicants that have submitted assurances of performance, have assessed early prospective financial benefits, have invested the

[516] *UNCLOS,* Art. 18, Annex III.
[517] Gwenaëlle Le Gurun, 'Annex III Article 6', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2160; see Francisco Orrego Vicuña, 'The Regimes for the Exploration and Exploitation of Sea-Bed Mineral Resources', in Rene-Jean Dupuy and Daniel Vignes, *A Handbook on the New Law of the Sea* (Leiden, Netherlands: Martinus Nijhoff, 1991), 665 and 666.
[518] After that: 'The Secretary-General shall forward such notification to the Enterprise, which shall inform the Secretary-General in writing within six months whether or not it intends to carry out activities in that area. If the Enterprise intends to carry out activities in that area, it shall, pursuant to paragraph 4, also inform in writing the contractor whose application for approval of a plan of work for exploration originally included that area'. *Polymetallic Nodules Exploration Regulation,* Reg. 17(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 18(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 18(1).
[519] *Polymetallic Nodules Exploration Regulation,* Reg. 17(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 18(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 18(2).
[520] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 102.
[521] 'When a selection must be made among applicants for production authorizations because of the production limitation set forth in article 151, paragraphs 2 to 7, or because of the obligations of the Authority under a commodity agreement or arrangement to which it has become a party, as provided for in article 151, paragraph 1, the Authority shall make the selection on the basis of objective and non-discriminatory standards set forth in its rules, Regs. and procedures.' *UNCLOS*, Art. 7(2), Annex III.
[522] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 102.
[523] 'Six months after the entry into force of this Convention, and thereafter each fourth month, the Authority shall take up for consideration applications for production authorizations submitted during the immediately preceding period. The Authority shall issue the authorizations applied for if all such applications can be approved without exceeding the production limitation or contravening the obligations of the Authority under a commodity agreement or arrangement to which it has become a party, as provided in article 151.' *UNCLOS*, Art. 7(1), Annex III.
[524] *UNCLOS*, Art. 7(3), Annex III.

majority of resources and effort in the prospecting or exploration, and have not previously started a procedure or awarded a contract for exploration have priority.[525] Additionally, Article 9(4), Annex III, recognizes the exclusive right of any natural or juridical person sponsored by a developing State and effectively controlled by it, or by other developing State which is a qualified applicant to notify the ISA that it wishes to submit a plan of work with respect to a reserved area.[526] This plan of work shall only be considered if the Enterprise decides that it does not intend to carry out activities in that reserved area.[527] This provision was first applied in 2008 in the applications for a plan of work in reserved areas by the private contractors Nauru Ocean Resources Inc. and Tonga Offshore Mining Limited, sponsored by Nauru and Tonga, respectively.[528] After that, Ocean Mineral Singapore Pte Ltd. and Blue Minerals Jamaica, both private contractors, applied

[525] *UNCLOS*, Art. 7(3) and 7(4), Annex III.
[526] *UNCLOS*, Art. 9(4), Annex III.; *UNCLOS*, Art.6, Annex III.
[527] *UNCLOS*, Art. 9(4), Annex III; Gwenaëlle Le Gurun, 'Annex III Article 9', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2183-2184.
[528] 'During the Fourteenth Session in 2008, the Legal and Technical Commission had not reached a consensus to make recommendations to the Council in relation to each application the consideration of which was therefore placed on the agenda of the Commission for the Fifteenth Session. In interventions before the Council, the delegations of Nauru and Tonga emphasized the significance of the applications for their respective countries. By a letter dated 5 May 2009, NORI and TOML had requested that consideration of their application before the Legal and Technical Commission be postponed due to global economic circumstances and other concerns. During the Fifteenth Session, the Commission took note of the request and deferred consideration until further notice. Given that there was no recommendation by the Commission to consider, the Council took no action. During the Sixteenth Session, the delegation of Nauru requested that an advisory opinion be rendered concerning responsibilities and obligations of sponsoring States. Prior to the decision to request the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS) for an advisory opinion, there was intense debate on the content of questions together with agreeing on which authority should provide the legal analysis on responsibilities and obligations in the Part XI regime. The Council decided by consensus to request an advisory opinion about three concise legal questions expressed in general terms and not in relation to a single State or category of States. Following the issuance of the advisory opinion on responsibilities and obligations of sponsoring States in 2011, the Council, acting on recommendations by the Legal and Technical Commission approved the applications submitted by NORI and TOML'. Gwenaëlle Le Gurun, 'Annex III Article 9', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2183-2184; see also International Seabed Authority, *Summary Report of the Chairman of the Legal and Technical Commission on the Work of the Commission During the Fourteenth Session. International Seabed Authority* (28 May 2008), ISA Doc. ISBA/14/C/8, para. 10; International Seabed Authority, *Statement of the President of the Council of the International Seabed Authority on the Work of the Council During the Fourteenth Session* (5 June 2005), ISA Doc. ISBA/14/C/11, para. 6–8; International Seabed Authority, *Summary Report of the Chairman of the Legal and Technical Commission on the Work of the Commission During the Fifteenth Session* (27 May 2009), ISA Doc. ISBA/15/C/5, para. 6; International Seabed Authority, *Statement of the President of the Council of the International Seabed Authority on the Work of the Council During the Fifteenth Session* (2009), ISA Doc. ISBA/15/C/8, para. 7; see also International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 29-30.

for plans of work for contracts in reserved areas;[529] while Marawa Research and Exploration Ltd. and Cook Islands Investment Corporation have an indirect participation of private contractors.[530] However, according to some commentators,[531] what is at stake in this allowance of submissions of plans of work by sponsoring developed States is the acquisition of scientific and technological knowledge and the full involvement in the renewal of the issue of access to the seabed.[532]

This sponsorship has to go throughout the timeframe of all the contracts.[533] If a State wants to terminate its sponsorship it has to notify the Secretary-General of the ISA of its termination and provide the justification for such termination.[534] In cases of termination of an exploration sponsorship, it shall start to produce effects six months after the notification or a later specified

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[529] International Seabed Authority, *Decision of the Council Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules Submitted by Ocean Mineral Singapore Pte Ltd. International Seabed Authority* (21 July 2014), ISA Doc. ISBA/20/C/27; International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Ocean Mineral Singapore Pte Ltd*. (25 February 2014), ISA Doc. ISBA/20/C/7; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.* (6 August 2020), ISA Doc. ISBA/26/C/22; International Seabed Authority, *Blue Minerals Jamaica Ltd. Applies for Exploration Contract with ISA for Polymetallic nodules in the Pacific Ocean* (9 June 2020), International Seabed Authority.

[530] International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Marawa Research and Exploration Ltd. International Seabed Authority* (26 July 2012), ISA Doc. ISBA/18/C/25; International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Marawa Research and Exploration Ltd.* (18 July 2012), ISA Doc. ISBA/18/C/18, <https://digitallibrary.un.org/record/732869?ln=en> (accessed 15 December 2022); International Seabed Authority, *Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation. International Seabed Authority* (21 July 2014), ISA Doc. ISBA/20/C/29; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022).

[531] Gwenaëlle Le Gurun, 'Annex III Article 9', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2185; Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 237-239.

[532] Gwenaëlle Le Gurun, 'Annex III Article 9', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2185.

[533] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(1); *Polymetallic Nodules Exploration Regulation,* Reg. 29(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(1).

[534] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(2); *Polymetallic Nodules Exploration Regulation,* Reg. 29(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(2); additionally, 'The Secretary-General shall notify the members of the Authority of the termination or change of sponsorship'. *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(5); *Polymetallic Nodules Exploration Regulation,* Reg. 29(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(5).

date;[535] however, in respect of exploitation, termination shall take effect after twelve months, except for six months in the case of non-compliance by the sponsored contractor, in which case the sponsored contractor may suspend its mining operations until a new sponsorship certificate is submitted.[536] In instances where a new sponsor is procured by the contractor, the termination can be revoked.[537] Furthermore, this termination does not discharge any obligations or legal rights undertaken by the sponsoring State during the sponsorship.[538] After the termination, the sponsoring States must inform the Secretary-General of the ISA about the termination of the sponsorship and the reasons that led to it.[539] Moreover, the contractor will have six months to find a new sponsorship for exploration activities[540] and twelve months for exploitation activities.[541] If the contractor does not take any sponsorship in the established deadline or opt to not do it, the contract will be terminated and the Secretary-General will be under the obligation to inform ISA members about the termination.[542]

Unfortunately, the ISA does not have the full capacity to enforce sanctions against the sponsored contractors. As previously mentioned, the Authority only has limited means, such as

[535] *Polymetallic Nodules Exploration Regulation,* Reg. 29(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(2).
[536] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(2) and (6).
[537] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(3); *Polymetallic Nodules Exploration Regulation,* Reg. 29(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(3).
[538] 'Beyond legal consequences attached to the certificate of sponsorship, the decision to 16 sponsor expresses the political commitment of the sponsoring State. For this reason, and while legally a certificate of sponsorship is not required unless a termination of sponsorship has occurred, the Legal and Technical Commission has included the confirmation of the decision to sponsor the Contractor for the requested extension period in the list of documents to provide in an application for extension of a contract for exploration'. Gwenaëlle Le Gurun, 'Annex III Article 4', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 2141; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(4); *Polymetallic Nodules Exploration Regulation,* Reg. 29(4); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(4); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(4); *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(4).
[539] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(2); *Polymetallic Nodules Exploration Regulation,* Reg. 29(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(2).
[540] *Polymetallic Nodules Exploration Regulation,* Reg. 29(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(3).
[541] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(3).
[542] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 21(5) and (6); *Polymetallic Nodules Exploration Regulation,* Reg. 29(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 31(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 31(5).

written warnings, monetary penalties, suspension, or termination of contracts, to face breaches of obligations by the sponsored contractors.

3.2.2 Difference of treatment between developed and developing states

Under the Deep Seabed Mining regime, the difference between developed and developing States matters. The classification of a State sets up different rights to conduct activities in the Area.[543] However, there is no universally accepted categorisation in international law that indicates whether a state can be classified as developed or developing.[544] The classification of this phenomenon may be approached in different ways, depending on the treaty or international

[543] see Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 147-181; Philippe Cullet, 'Differential Treatment in Environmental Law: Addressing Critiques and Conceptualizing the Next Steps' (2016) 5(2) *Transnational Environmental Law* 305; Isabel Feichtner, 'Sharing of the Riches of the Sea: The Redistributive and Fiscal Dimension of Deep Seabed Exploitation' (2019) 30(2) *European Journal of International Law* 601; Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525; Surabhi Ranganathan, 'The Law of the Sea and Natural Resources', in Eyal Benvenist and Georg Noite, *Community Interests Across International Law* (Oxford, United Kingdom: Oxford University Press, 2018), 121-135; Rüdiger Wolfrum, 'The Principle of the Common Heritage of Mankind' (1983) 43 *Zeitschrift fur auslandisches offentliches Recht under Volkerrecht* 312, 322 and 323; Aline Jaeckel, Jeff K. Ardon and Kristina, Gjerde, 'Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?' (2016) 70 *Marine Policy* 198; Aline Jaeckel, 'Benefitting from the Common Heritage of Humankind: From Expectation to Reality' (2020) 35 *International Journal of Marine and Coastal Law* 660; Stephen Minas, 'Marine Technology Transfer Under A BBNJ: A Case for Transnational Network Cooperation' (2018) 112 *American Journal of International Law Unbound* 144,; Edwin Egede, *Africa and the Deep Seabed Regime: Politics and International Law of the Common Heritage of Mankind* (Berlin, Germany: Springer, 2011).

[544] Moshe Hirsh, 'Developing Countries' (July 2017), in Rüdiger Wolfrum, *Max Planck Encyclopedia of International Law Online* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 3.

organisation in which it is found.[545] Consequently, this has led to relative fragmentation, allowing each regime to adopt its own criteria to classify a State as developing as not.[546]

Also UNCLOS does not provide any definition of what would constitute a developed or developing State, even though references to both terms are widespread in the Convention.[547] In this sense, the ISA has opted for two different approaches to classify a State as developing or developed.[548] In the first approach, the ISA relied upon previous classifications of United Nations Bodies and prepared a list of States that, according to the reasoning of the Authority, could be classified as developed.[549] The first classification of developing States adopted by the ISA includes: 'states with large populations, states that are landlocked or geographically disadvantaged

[545] 'Different international treaties and international organizations use different indicators to determine whether a state belongs to the category of developing states or developed states, frequently referring to classifications developed by UN Bodies such as the World Bank, the Department of Economic and Social Affairs of the UN Secretariat (UN DESA); or the UN Office of the High Representative for Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN OHRLLS). Other international treaty regimes allow states to select their developmental status, or specify when a state qualifies as a developing state or expressly categorizes states into developing or developed. Whether a particular indicator is used would seem to be based on the subject-matter, mandate and/or objectives of the particular international organization or treaty regime, and is influenced by the specific interests of the participating states'. Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 159; Moshe Hirsh, 'Developing Countries' (July 2017), in Rüdiger Wolfrum, *Max Planck Encyclopedia of International Law Online* (Oxford, United Kingdom: Oxford University Press, 2004-2020), para. 3-7; see also Helen Ba Thanh Nguyen, *Minerals for Climate Action - The Mineral Intensity of the Clean Energy Transition* (Washington D.C, United States: World Bank, 2020).

[546] 'On the whole, several factors bear out the need for change in the way in which beneficiaries of differentiation are identified. Change is first needed to ensure that the lack of distinction within the broad North-South categories does not become a wedge to abolish differentiation altogether. It is also needed to bring differentiation in IEL closer to its subject matter. The categorization along economic development lines was a useful proxy and a politically convenient tool to advance the development of differential treatment measures. A few decades later, it is time to move towards using environmental and social indicators that mirror the substance of the treaties negotiated in the broader context of sustainable development which informs IEL today'. Philippe Cullet, 'Differential Treatment in Environmental Law: Addressing Critiques and Conceptualizing the Next Steps' (2016) 5(2) *Transnational Environmental Law* 305, 319.

[547] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 160; Philippe Cullet, 'Differential Treatment in Environmental Law: Addressing Critiques and Conceptualizing the Next Steps' (2016) 5(2) *Transnational Environmental Law* 305, 317; Silva Vöneky Felix Beck, 'Article 148', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 1049.

[548] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 160.

[549] see International Seabed Authority, *Indicative List of States Members which would Fulfil the Criteria for Membership in the Various Groups of States in the Council in Accordance with Paragraph 15 of Section 3 of the Annex to the Agreement for the Implementation of Part XI of the UN Convention on the Law of the Sea of 10 December 1982. International Seabed Authority* (2020), ISA Doc. ISBA/26/A/CRP.2.

island states, states that are major importers of the categories of minerals to be derived from the Area, states that are potential producers of such minerals and least developed states'.[550]

The second approach identified by the ISA is the one adopted by the Seabed Disputes Chamber in its Advisory Opinion.[551] The Disputes Chamber stated that 'the reference to "capabilities" is only a broad and imprecise reference to the differences in developed and developing States' and 'What counts in a specific situation is the level of scientific knowledge and technical capability available to a given State in the relevant scientific and technical fields'.[552] However, according to some authors, it is not certain whether the Seabed Disputes Chamber created this classification with the intention to apply the desired advantages of developing States or confined only to the obligations of developing States.[553] The extent to which both options are used will be analysed below in this section.

Despite the lack of precision in the differentiation between developed and developing States, UNCLOS supports the participation of developing States in activities in the Area.[554] This position is well expressed by Article 148 of UNCLOS concerning the participation of developing States in activities in the Area:

> The effective participation of developing States in activities in the Area shall be promoted as specifically provided for in this Part, having due regard to their special interests and needs, and in particular to the special need of the land-locked and geographically disadvantaged among them to overcome obstacles arising from their disadvantaged location, including remoteness from the Area and difficulty of access to and from it.[555]

Following this reasoning, Article 150(c) and (h) states:

> Activities in the Area shall, as specifically provided for in this Part, be carried out in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to promote international

[550] *1994 Implementation Agreement,* Annex, Sec. 3(15)(d).
[551] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 162
[552] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 162
[553] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 160; Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 558.
[554] see also Rüdiger Wolfrum, 'The Principle of the Common Heritage of Mankind' (1983) 43 *Zeitschrift fur auslandisches offentliches Recht under Volkerrecht* 312, 322 and 323.
[555] *UNCLOS*, Art. 148.

cooperation for the overall development of all countries, especially developing States, and with a view to ensuring: ... (c) the expansion of opportunities for participation in such activities consistent in particular with articles 144 and 148; ... (h) the protection of developing countries from adverse effects on their economies or on their export earnings resulting from a reduction in the price of an affected mineral, or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area, as provided in article 151.[556]

Both articles are complemented by Article 152 regarding the exercise of powers and functions by the ISA, that provides that 'the Authority shall avoid discrimination in the exercise of its powers and functions, including the granting of opportunities for activities in the Area'; but a 'special consideration for developing States, including particular consideration for the land-locked and geographically disadvantaged among them, specifically provided for in this Part shall be permitted'.[557]

Hence, it is clear that UNCLOS allows the participation of developing States in activities in the Area as more than 'passive recipients of aid' of developed States.[558] Further, this section will analyse the forms by which developing States may benefit in their pursuit of conducting activities in the Area: reserved areas; technical capacity; financial and economic capacity; and lastly, the interest and need of the developing States as provided by the Advisory Opinion of the Seabed Disputes Chamber.

3.2.2.1 Reserved areas

Reserved areas are specific zones reserved only to activities in the Area conducted by the Enterprise, developing States or non-State entities effectively controlled and sponsored by developing States.[559] According to Article 8, Annex III, of UNCLOS:

Each application, other than those submitted by the Enterprise or by any other entities for reserved areas, shall cover a total area, which need not be a single continuous area, sufficiently large and of sufficient estimated commercial value to allow two mining operations. The applicant shall indicate the coordinates dividing the area into two parts of equal estimated commercial value and submit all the data obtained by him with respect to both parts. Without prejudice

[556] *UNCLOS*, Art. 150(c) and (h). (emphasis added)
[557] *UNCLOS*, Art. 152. (emphasis added)
[558] Surabhi Ranganathan, 'The Law of the Sea and Natural Resources', in Eyal Benvenist and Georg Noite, *Community Interests Across International Law* (Oxford, United Kingdom: Oxford University Press, 2018), 135; Rüdiger Wolfrum, 'The Principle of the Common Heritage of Mankind' (1983) 43 *Zeitschrift fur auslandisches offentliches Recht under Volkerrecht* 312, 323.
[559] *UNCLOS*, Art. 9, Annex III; International Seabed Authority, *Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority* (16 July 2014), ISA Doc. ISBA/20/C/20, para. 29; Joanna Dingwall, 'Commercial Mining Activities in the Deep Seabed beyond National Jurisdiction: the International Legal Framework', in Catherine Banet, *The Law of the Seabed: Access, Uses, and Protection of Seabed Resources* (Leiden, Netherlands: Brill Nijhoff, 2020), 150-151.

to the powers of the Authority pursuant to article 17 of this Annex, the data to be submitted concerning polymetallic nodules shall relate to mapping, sampling, the abundance of nodules, and their metal content. Within 45 days of receiving such data, the Authority shall designate which part is to be reserved solely for the conduct of activities by the Authority through the Enterprise or in association with developing States. This designation may be deferred for a further period of 45 days if the Authority requests an independent expert to assess whether all data required by this article has been submitted. The area designated shall become a reserved area as soon as the plan of work for the non-reserved area is approved and the contract is signed.[560]

In this sense, only if the Enterprise actively chooses not to develop any activities in these reserved areas, developing States or any natural or juridical person sponsored by them and effectively controlled by them or by any other developing State will be able to submit an application for a plan of work to conduct activities in these reserved areas.[561] Moreover, to submit their applications, the potential candidates must present certain qualification standards related to financial and technical capabilities and performance set forth in the Mining Code.[562] Currently, a number of developing States such as Nauru, Tonga, Kiribati, Singapore, Cook Islands, China and Jamaica have obtained exploration contracts for polymetallic nodules in reserved areas.[563]

However, the right of developing States to access reserved areas has resulted in a number of unforeseen circumstances. For example, the majority of developing States conduct activities in these reserved areas through parent corporations from developed States with subsidiary corporations based in the sponsoring developing States or through joint partnerships with entities from developed States.[564] Despite the fact that these types of arrangements were not envisioned by the ISA, they are increasing in practice.[565] This could potentially lead to a scenario in which the sponsorship regime is jeopardised, and the possibility arises of sponsorships of convenience being permitted, whereby private corporations from developed countries are able to access activities in

[560] *UNCLOS*, Art. 8, Annex III.
[561] *UNCLOS,* Annex III, Article 9(4); *Polymetallic Nodules Exploration Regulation,* Reg. 17.
[562] *UNCLOS,* Annex III, Article 9(4); *Polymetallic Nodules Exploration Regulation,* Reg. 17; *UNCLOS*, Articles 4(1) and (2), Annex III.
[563] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 162.
[564] Michael Lodge, 'The Deep Seabed Mining', in Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 245; International Seabed Authority, *Report of the Chair of the Legal and Technical Commission on the work of the Commission at its session in 2016* (13 July 2016), ISA Doc. ISBA/22/C/17, para. 55.
[565] International Seabed Authority, *Issues related to the sponsorship of contracts for exploration in the Area, monopolization, effective control and related matters* (21 June 2016), ISA Doc. ISBA/22/LTC/13, para. 5.

these reserved areas: 'Given these obstacles and the small number of private contractors – which decreases the scope for diversification and spreading of risks – may result in either the unavailability of private insurance or provision of private insurance at prohibitively high premiums'.[566] Additionally, partnerships with developing States may allow these corporations to conduct activities in these reserved areas. In this sense, one of the main advantages for corporations from developed States is the fact that these areas have been preliminarily explored, allowing the avoidance of the prospecting phase, and the necessity of data and coordinates regarding the division of the proposed area in two parts.[567]

Two additional factors may also serve to diminish the prospects of developing States for engaging in activities within the reserved areas.[568] The first factor found in the Polymetallic Nodules Exploration Regulations requires the applicant of the plan of work to submit two sites for mining operations with equal estimated commercial value.[569] In contrast, the Polymetallic Sulphides and Cobalt Rich Ferromanganese Crusts Exploration Regulations allow the applicant to choose to contribute with a reserved area, or offer an equity interest in a joint venture agreement, with regard to which the Enterprise shall receive between 20–50% of profits from the activities of exploitation in these areas.[570] Such regime has been established due to the fact that, for sulphides and cobalt-rich crusts, 'it is not possible to determine two sites of equal estimated commercial value without substantial' and 'costly exploration work and these resources were available in areas

[566] Isabel Feichtner, 'Sharing of the Riches of the Sea: The Redistributive and Fiscal Dimension of Deep Seabed Exploitation' (2019) 30(2) *European Journal of International Law* 601, 631; also 'However, the contractual arrangements between the developing states (and entities incorporated therein) and the entities from developed states are confidential and the extent of knowledge exchange that is taking place, and the financial benefits that developing sponsoring states are receiving is unclear'. Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 164; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159; see also International Seabed Authority, *Issues related to the sponsorship of contracts for exploration in the Area, monopolization, effective control and related matters* (21 June 2016), ISA Doc. ISBA/22/LTC/13, para. 5.

[567] Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 213-214.

[568] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 164 and 165.

[569] *UNCLOS,* Art. 8, Annex; *Polymetallic Nodules Exploration Regulation,* Regs. 15.

[570] *Polymetallic Sulphides Exploration Regulation,* Regs. 16-19; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 16-19.

under national jurisdiction and provided competition for the development of such resources in the Area'.[571] The implementation of those options makes the future participation of developing States uncertain. According to Jaeckel, it would be more certain that the States technically and financially capable to conduct these activities would opt for joint agreements to avoid sharing their technology,[572] consequently decreasing the number of reserved areas.[573]

The second factor that may reduce the opportunities for developing States to conduct activities in the Area is the delay in the operation of the Enterprise.[574] If the Enterprise, a developing State or private entity sponsored by a developing State does not submit an application for a plan of work in a reserved area within 15 years of the beginning of the Enterprise or of the date that the specific reserved area was entitle for the ISA, the proponent of the specific reserved area is entitled to apply for exploration in that area.[575] Consequently, the non-operation of the Enterprise allows that a reserved area is in fact reserved for the benefit of those private corporations and States entities with technological and economic capabilities that originally proposed these specific areas.[576]

3.2.2.2 Technical capacity and capacity-building benefit

Transfer of technology and capacity building are granted by provisions in UNCLOS.[577] However, the transfer of technology and capacity building have always been problematic since the

[571] International Seabed Authority, *Considerations relating to the regulations for prospecting and exploration for hydrothermal polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area. International Seabed Authority* (26 September 2001), ISA Doc. ISBA/7/C/2, para 12.
[572] Aline Jaeckel, Jeff K. Ardon and Kristina, Gjerde, 'Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?' (2016) 70 *Marine Policy* 198, 201.
[573] Continue this reasoning, Jaeckel states: 'At the same time, the equity interest option offers a potential funding source for the Enterprise. Yet with few reserved areas, and the mineral and environmental data associated with such areas, it becomes less likely that the Enterprise will assume an active role in mining. Indeed it is unclear what role the Enterprise could assume beyond financial redistribution or reinvestment'. Aline Jaeckel, 'Benefitting from the Common Heritage of Humankind: From Expectation to Reality' (2020) 35 *International Journal of Marine and Coastal Law* 660, 673; see also Isabel Feichtner, 'Sharing of the Riches of the Sea: The Redistributive and Fiscal Dimension of Deep Seabed Exploitation' (2019) 30(2) *European Journal of International Law* 601 .
[574] *UNCLOS*, Art. 170(1); Aline Jaeckel, Jeff K. Ardon and Kristina, Gjerde, 'Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?' (2016) 70 *Marine Policy* 198, 201.
[575] *1994 Implementation Agreement*, Annex, Sec. 2(5); *Polymetallic Nodules Exploration Regulation,* Regs. 17(3).
[576] Aline Jaeckel, Jeff K. Ardon and Kristina, Gjerde, 'Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?' (2016) 70 *Marine Policy* 198, 203.
[577] Aline Jaeckel, 'Benefitting from the Common Heritage of Humankind: From Expectation to Reality' (2020) 35 *International Journal of Marine and Coastal Law* 660, 673.

owners of such know-how may be reluctant to freely transfer them to any other entities.[578] Consequently, the debate whether the Enterprise and developing States would have access to the available marine technology for activities in the Area was present during the negotiations of UNCLOS.[579] In this sense, Article 144 of UNCLOS states:

> 1. The Authority shall take measures in accordance with this Convention: (a) to acquire technology and scientific knowledge relating to activities in the Area; and (b) to promote and encourage the transfer to developing States of such technology and scientific knowledge so that all States Parties benefit therefrom. 2. To this end the Authority and States Parties shall cooperate in promoting the transfer of technology and scientific knowledge relating to activities in the Area so that the Enterprise and all States Parties may benefit therefrom. In particular they shall initiate and promote: (a) programmes for the transfer of technology to the Enterprise and to developing States with regard to activities in the Area, including, inter alia, facilitating the access of the Enterprise and of developing States to the relevant technology, under fair and reasonable terms and conditions; (b) measures directed towards the advancement of the technology of the Enterprise and the domestic technology of developing States, particularly by providing opportunities to personnel from the Enterprise and from developing States for training in marine science and technology and for their full participation in activities in the Area.[580]

Article 144 provides the transfer of technology but confines it to the ISA and the States Parties. Complementing this article, Article 5, Annex III, refers to mandatory transfers of technology from contractors for deep seabed mining to ISA and developing States.[581]

Due to its 'burdensome, prejudicial to intellectual property rights and objectionable as a matter of principle and precedent' characteristics,[582] both effects of these articles were decreased in the 1994 Implementation Agreement. In this sense, its Section 5, Annex, refers:

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[578] Edwin Egede, *Africa and the Deep Seabed Regime: Politics and International Law of the Common Heritage of Mankind* (Berlin, Germany: Springer, 2011), 89; to see the same phenomenon in other regimes see Stephen Minas, 'Marine Technology Transfer Under A BBNJ: A Case for Transnational Network Cooperation' (2018) 112 *American Journal of International Law Unbound* 144.

[579] Edwin Egede, *Africa and the Deep Seabed Regime: Politics and International Law of the Common Heritage of Mankind* (Berlin, Germany: Springer, 2011), 89; see Boleslaw Adam Boczek, *The transfer of marine technology to developing nations in international law. Law of the Sea Institute* (Honolulu, United States: University of Hawaii, 1982); Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 166.

[580] *UNCLOS*, Art. 144.

[581] *UNCLOS*, Art. 5, Annex III.

[582] In Response to this issue, Oxman expressed that: 'The new Agreement declares that the provisions on mandatory transfer of technology "shall not apply." It substitutes a general duty of cooperation by sponsoring states to facilitate the acquisition of deep seabed mining technology, "consistent with the effective protection of intellectual property rights," if the Enterprise (the operating arm of the Sea-Bed Authority) or developing countries are unable to obtain such technology on the open market or through joint-venture arrangements'. Bernard H. Oxman, 'The 1994 Agreement and the Convention' (1994) 88(4) *American Journal of International Law* 687, 691.

1. In addition to the provisions of article 144 of the Convention, transfer of technology for the purposes of Part XI shall be governed by the following principles: (a) The Enterprise, and developing States wishing to obtain deep seabed mining technology, shall seek to obtain such technology on fair and reasonable commercial terms and conditions on the open market, or through joint-venture arrangements; (b) If the Enterprise or developing States are unable to obtain deep seabed mining technology, the Authority may request all or any of the contractors and their respective sponsoring State or States to cooperate with it in facilitating the acquisition of deep seabed mining technology by the Enterprise or its joint venture, or by a developing State or States seeking to acquire such technology on fair and reasonable commercial terms and conditions, consistent with the effective protection of intellectual property rights. States Parties undertake to cooperate fully and effectively with the Authority for this purpose and to ensure that contractors sponsored by them also cooperate fully with the Authority; (c) As a general rule, States Parties shall promote international technical and scientific cooperation with regard to activities in the Area either between the parties concerned or by developing training, technical assistance and scientific cooperation programmes in marine science and technology and the protection and preservation of the marine environment. 2. The provisions of Annex III, article 5, of the Convention shall not apply.[583]

Based on that, due to its high sensitivity, the ISA has focused on capacity-building that developed States can offer to personnel from developing States rather than the transfer of technology itself.[584] In this regard, developments about technology transfer can be found in the BBNJ Agreement.[585]

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[583] *1994 Implementation Agreement*, Annex, Sec. 5.

[584] *UNCLOS,* Art. 15, Annex; *Polymetallic Nodules Exploration Regulation,* Reg. 27; *Polymetallic Sulphides Exploration Regulation,* Reg. 29; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 29; International Seabed Authority, *Resolution establishing an endowment fund for marine scientific research in the Area* (16 August 2006), ISA Doc. ISBA/12/A/11; see also Aline Jaeckel, 'Benefitting from the Common Heritage of Humankind: From Expectation to Reality' (2020) 35 *International Journal of Marine and Coastal Law* 660, 660-681; International Seabed Authority, *Decision of the Assembly of the International Seabed Authority relating to the strategic plan of the Authority for the period 2019−2023. International Seabed Authority* (27 July 2018), ISA Doc. ISBA/24/A/10, para. 18-19; see also Aline Jaeckel, 'New Technology, Equity and Law of the Sea' (2021) *ILA Reporter*, <https://ilareporter.org.au/2021/09/new-technology-equity-and-the-law-of-thesea-aline-jaeckel-and-harriet-harden-davies/> (accessed 7 July 2023).

[585] For example, the BBNJ agreement brings provisions referring to transfer of marine technology and capacity-building. For example, Robb, Jaeckel and Blanchard express that: 'Marine genetic resources (MGRs) occur on sites earmarked for seabed mining. If MGRs and digital sequence information are collected by mining companies, e.g. as part of environmental baseline studies, such activity should be subject to the BBNJ Agreement. This implies that contractors would need to offer capacity building opportunities for scientists from developing States (Art. 10(2)(g)), though it remains unclear whether these would be in addition to the capacity building obligations under the ISA framework. Additionally, the notification rules of the clearing-house mechanism would apply to seabed mining voyages that collect MGR samples, requiring a notification to the BBNJ clearing-house mechanism 6 months in advance (Art. 10)'. Samantha Robb, Aline Jaeckel and Catherine Blanchard, 'How could the BBNJ Agreement affect the International Seabed Authority's Mining Code?' (2023) *EJIL: Talk!*, <https://www.ejiltalk.org/how-could-the-bbnj-agreement-affect-the-international-seabed-authoritys-mining-code/#:~:text=The%20BBNJ%20Agreement%20sets%20a,23(4)). > (accessed 18 July 2023); *see also* Stephen Minas, 'Marine Technology Transfer Under A BBNJ: A Case for Transnational Network Cooperation' (2018) 112 *American Journal of International Law Unbound* 144; see also Philippe Cullet, 'Differential Treatment in Environmental Law: Addressing Critiques and Conceptualizing the Next Steps' (2016) 5(2) *Transnational Environmental Law* 305, 317.

3.2.2.3 Financial and economic benefit

In accordance with Article 140(2) of UNCLOS, 'The Authority shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis, in accordance with article 160, paragraph 2(f)(i)'.[586] In addition, UNCLOS provides for the participation of developing States in the revenues generated by and for the ISA from commercial production.[587] The first element of equitable sharing is a payment mechanism that grants the revenues of exploitation activities between the contractors and the ISA. [588] The second element is a mechanism for distributing revenue collected by the ISA.[589]

However, the economic potential of deep seabed mining activities is still unknown, as several factors need to be taken into account. As well listed by Davenport, those include challenges in ensuring that post-tax profits are lucrative to contractors to attract and sustain investment but sufficient enough to distribute to 'humankind'; the need to provide economic assistance to land-based producers in the event of disruptions to supply; complexities in ensuring the equitable distribution of benefits and that developing states in particular are taken into account; and whether distribution should be in the form of direct payments to States or funded projects.[590]

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[586] *UNCLOS*, Article 140(2); following this reasoning Article 162(2)(f)(i) reads 'to consider and approve, upon the recommendation of the Council, the rules, Regs. and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of developing States and peoples who have not attained full independence or other self-governing status. If the Assembly does not approve the recommendations of the Council, the Assembly shall return them to the Council for reconsideration in the light of the views expressed by the Assembly'. *UNCLOS*, Article 162(2)(f)(i).

[587] *UNCLOS,* Art. 150(d); *UNCLOS,* Art. 13(1)(a); *1994 Implementation Agreement*, Annex, Sec. 8.

[588] Michael Lodge, Kathleen Segerson and Dale Squires, 'Sharing and Preserving the Resources in the Deep Sea: Challenges for the International Seabed Authority' (2017) 32(3) *International Journal of Marine and Coastal Law* 427, 428.

[589] Michael Lodge, Kathleen Segerson and Dale Squires, 'Sharing and Preserving the Resources in the Deep Sea: Challenges for the International Seabed Authority' (2017) 32(3) *International Journal of Marine and Coastal Law* 427, 428.

[590] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 169; see also Michael Lodge, Kathleen Segerson and Dale Squires, 'Sharing and Preserving the Resources in the Deep Sea: Challenges for the International Seabed Authority' (2017) 32(3) *International Journal of Marine and Coastal Law* 427; Aline Jaeckel, Jeff K. Ardon and Kristina, Gjerde, 'Sharing benefits of the common heritage of mankind – Is the deep seabed mining regime ready?' (2016) 70 *Marine Policy* 198, 198-206; Isabel Feichtner, 'Sharing of the Riches of the Sea: The Redistributive and Fiscal Dimension of Deep Seabed Exploitation' (2019) 30(2) *European Journal of International Law* 601; Aline Jaeckel, 'Benefitting from the Common Heritage of Humankind: From Expectation to Reality' (2020) 35 *International Journal of Marine and Coastal Law* 660, 660-681.

UNCLOS does not go into sufficient detail on how these provisions are to be implemented. While Article 140 states that activities in the Area must benefit mankind as a whole,[591] Article 162(o)(i) refers to the need of considering the interest and needs of developing States and peoples who have not attained full independence or other self-governing status, but does not refer to landlocked States.[592] However, UNCLOS neither gives any practical mechanism for redistribution nor specifies how to determine those interests and needs.[593]

3.2.3 Interests and needs of developing States in accordance to the Seabed Disputes Chamber

One of the main points of the Advisory Opinion, which sought to answer the question of the legal responsibilities and obligations of the sponsoring States in activities in the Area, was the issue of the interests and needs of developing States.[594] UNCLOS expressed concern about the developing States by 'taking into particular consideration the interests and needs of developing States'[595] and the promotion of their participation, namely a common but differentiated treatment.[596] A common but differentiated treatment would mean different responsibilities and liability based on the conditions of the State, a 'two-tiered model'.[597] However, according to the

[591] *UNCLOS*, Article 140; Michael Lodge, Kathleen Segerson and Dale Squires, 'Sharing and Preserving the Resources in the Deep Sea: Challenges for the International Seabed Authority' (2017) 32(3) *International Journal of Marine and Coastal Law* 427, 432-433.
[592] *UNCLOS*, Article 162(o)(i); Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 169.
[593] Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 169.
[594] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 151-163.
[595] *UNCLOS*, Art. 140(1).
[596] *UNCLOS*, Art. 148.
[597] for a deeper analysis between about the possible different rights and responsibilities of developing and developed States see Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 174-181; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 217-219; Yoshiro Matsui, 'Some Aspects of the Principle of "Common but Differentiated Responsibilities' (2002) 2 *International Environmental Agreements* 151; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 8 and 9.

Seabed Disputes Chamber these considerations should not be used to favour developing States in terms of obligations and liability, since 'none of the general provisions of the Convention relating to the responsibilities (or the liability) of the sponsoring State "specifically provides" for according to preferential treatment to sponsoring States that are developing States'.[598] According to Rayfuse, the Seabed Disputes Chamber 'reject the idea of a two-tiered model of responsibility and liability based solely on the economic development status of States'.[599]

As above mentioned, all Sponsoring States, developed or developing, must fulfil the same obligations, in order to avoid the creation of a regime of sponsorships of convenience.[600] Nevertheless, Principle 15 of the Rio Declaration provides that the precautionary approach shall be applied 'according to the capabilities' of each State, including in activities in the Area.[601] Accordingly, the application of the precautionary approach may be stricter for developed States than for developing States when they act as a sponsor for a contractor to conduct activities in the Area,[602] but this flexibility does not exclude the obligation to use 'best environmental practices' established by regulation 33(2) of the exploration regulation.[603] Additionally, the disparity of capabilities between developed and developing States must be measured based on 'the level of

[598] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 158.
[599] While a number of provisions of UNCLOS were designed to ensure the participation of developing States in activities in the Area and to take into particular consideration their interests and needs, 'there was no "general clause for the consideration of such interests and needs beyond what is provided for in" those specific provisions, none of which indicated the existence of any preferential status for sponsoring States that are developing States.' Thus, "the general provisions concerning the responsibilities and liability of the sponsoring State apply equally to all sponsoring States, whether developing or developed"'. Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 474; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 158, Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 8 and 9.
[600] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159.
[601] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 161; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 218.
[602] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 161.
[603] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).

scientific knowledge and technical capability available to a given State in the relevant scientific and technical fields' as well mentioned in the first chapter.[604]

The deep seabed mining regime indeed gives preferential treatment to developing States in several fields.[605] For example Articles 8 and 9, Annex III, of UNCLOS (reserved areas);[606] Article 143(3) of UNCLOS (cooperation in marine scientific research);[607] Article 144(1) of UNCLOS and Section 5, Annex, of the 1994 Implementation Agreement (transfer of technology);[608] Article 144(2) of UNCLOS (training opportunities);[609] Article 152 of UNCLOS (powers and functions);[610] and Articles 160(2)(f)(i) and 162(2)(o)(i) of UNCLOS (interests and needs of developing States).[611] However, none of those provisions expressly grants favourable treatment regarding the obligations or liability of developing States.[612]

In its duties to comply with their legal responsibilities and obligations, sponsoring States must apply a standard of due diligence. The possibility of circumvention of strict obligations and liability by developing States would change the nature of the duty of due diligence. However, as will be analysed with more detail in the subsequent sections, even if considered the Advisory Opinion of the Seabed Disputes Chamber position reaffirming the equality of legal responsibilities and obligations, some nebulous regulations presented by the ISA regarding topics such as reserved areas may inadvertently allow attempts to create sponsorships of convenience.[613]

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[604] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 162.
[605] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 90 and 91.
[606] *UNCLOS*, Articles 8 and 9, Annex III.
[607] *UNCLOS*, Article 143(3).
[608] *UNCLOS*, Article 144(1); *1994 Implementation Agreement*, Annex, Sec. 5.
[609] *UNCLOS*, Article 144(2).
[610] *UNCLOS*, Article 152.
[611] *UNCLOS,* Articles 160(2)(f)(i) and 162(2)(o)(i).
[612] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 163.
[613] Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 475; see also Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 559-582; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213; see also Rosemary Rayfuse, 'The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link: Addressing Enforcement Gaps in the Legal Regime for Areas Beyond National Jurisdiction', in Alex. G. Oude Elferink and Erik. J. Molenaar (eds.), *The Legal Regime of Areas beyond National Jurisdiction: Current Principles and Frameworks and Future Directions* (Leiden,

3.3 Contracts for activities in the Area

3.3.1 Exploration contracts

Until this moment the International Seabed Authority has approved 31 contracts for the exploration of Polymetallic nodules (19), polymetallic sulphides (7) and cobalt-rich ferromanganese crusts (5).[614] Among these contracts, nineteen concern to exploration of polymetallic nodules in the Clarion-Clipperton Fracture Zone (16), Central Indian Ocean Basin (2), and Western Pacific Ocean (1); seven concern to exploration of polymetallic sulphides in the South West Indian Ridge (1), Central Indian Ridge (3), and the Mid-Atlantic Ridge (3); and the final five concern to exploration of cobalt-rich crusts in the Western Pacific Ocean (4) and South Atlantic Ocean (1).[615] Until now, 22 contractors have exploration contracts for activities in the Area.[616] Also, other actors under these contracts include both public and private actors.

Table 1 lists the current sponsoring States with their respective sponsored contractors.

Table 1: ISA Sponsoring States

State	Contractor	Location	Resources	Start Date	Sponsorship Law Enacted?
Poland	IOM Government	CCZ Mid-Atlantic	Nodules Sulphides	2001 2018	No
Russia	IOM	CCZ	Nodules	2001	No

Netherlands: Martinus Nijhoff, 2010),165-190; Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 176-181; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 254; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 9.

[614] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[615] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[616] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

	JSCY Government Government	CCZ Mid-Atlantic NW Pacific	Nodules Sulphides Crusts	2001 2012 2015	
Bulgaria	IOM	CCZ	Nodules	2001	No
Cuba	IOM	CCZ	Nodules	2001	No
Czech Republic	IOM	CCZ	Nodules	2001	Yes
Slovakia	IOM	CCZ	Nodules	2001	No
Korea	Government Government Government	CCZ Central Indian NW Pacific	Nodules Sulphides Crusts	2001 2004 2018	No
China	COMRA COMRA COMRA Minmetals Pioneer	CCZ SW Indian NW Pacific CCZ WE Pacific	Nodules Sulphides Crusts Nodules Nodules	2001 2011 2014 2017 2019	Yes
Japan	DORD JOGMEC	CCZ NW Pacific	Nodules Crusts	2001 2014	Yes
France	Ifremer Ifremer	CCZ Mid-Atlantic	Nodules Sulphides	2001 2014	Yes
India	Government Government	Central Indian Central Indian	Nodules Sulphides	2002 2016	No
Germany	BGR BGR	CCZ Indian	Nodules Sulphides	2006 2015	Yes
Nauru	NORI	CCZ	Nodules	2011	Yes
Tonga	TOML	CCZ	Nodules	2012	Yes

Belgium	GRS	CCZ	Nodules	2013	Yes
United Kingdom	UKSRL UKSRL	CCZ CCZ	Nodules Nodules	2013 2016	Yes
Kiribati	Marawa	CCZ	Nodules	2015	Yes
Singapore	OMS	CCZ	Nodules	2015	Yes
Brazil	CPRM	S Atlantic	Crusts	2015	No
Cook Islands	CIIC	CCZ	Nodules	2016	Yes
Jamaica	BMJ	CCZ	Nodules	2021	No

Source: Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 4. Additionally, the information present information was updated based on the current status of the exploration contracts.[617]

It is evident that the majority of the contracts are conducted by States and their enterprises, institutions, or State-controlled corporations. Nonetheless, an increasing number of contracts have been conducted with private contractors, with seven out of the current thirty-one contracts being conducted in this manner. These private corporations have increasingly had contracts approved by the ISA. This would not be problematic in itself if observed in a superficial manner. However, along with that, some corporations have been using the system to create a possible situation of sponsorships of convenience, as will be discussed in greater detail in the following section.

3.3.2 Private contractors conducting activities in the Area

At the present time, seven exploration contracts are held by private contractors. All these contracts refer to areas in the Clarion-Clipperton Fracture Zone with the purpose of exploring

[617] 'Acronyms and Abbreviations: BGR — Bundesanstalt für Geowissenschaften und Rohstoff; BMJ — Blue Minerals Jamaica Ltd.; CCZ — Clarion-Clipperton Zone; CIIC — Cook Islands Investment Corporation; COMRA — China Ocean Mineral Resources Research and Development Association; CPRM — Companhia De Pesquisa de Recursos Minerais; DORD — Deep Ocean Resources Development Company Ltd.; GSR — Global Sea Mineral Resources NV; Ifremer — Institut Français de Recherche pour l'Exploitation de la Mer; JOGMEC — Japan Oil, Gas and Metals National Corporation; JSCY — JSC Yuzhmorgeologiya; Marawa — Marawa Research and Exploration Ltd.; NORI — Nauru Ocean Resources Inc.; OMS — Ocean Mineral Singapore Pte. Ltd.; Pioneer — Beijing Pioneer Hi-Tech Development Corporation; SMS — Seafloor Massive Sulphides; TOML — Tonga Offshore Mining Ltd.; UKSRL — United Kingdom Seabed Resources Ltd'. Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 4.

Polymetallic Nodules.[618] These corporations are, according to the chronological order of their contracts, Nauru Ocean Resources Inc (NORI), Tonga Offshore Mining Ltd (TOML), Global Sea Mineral Resources NV (GSR), United Kingdom Seabed Resources Ltd (UKSRL), Ocean Mineral Singapore Pte. Ltd (OMS), and Blue Minerals Jamaica Ltd. (BMJ). Additionally, Cook Islands Investment Corporation (CIIC) and Marawa Research and Exploration Ltd. (Marawa), both State enterprises, concluded exploration contracts being executed in partnership with GSR and DeepGreen, respectively.[619] This section will simply describe the private contractors. Their relations and connections with States and the ISA will be dealt with in the later section about sponsorships of convenience.

The first private contractor was Nauru Ocean Resources Inc.[620] Firstly, NORI was a Nauruan subsidiary company owned by the Canadian company Nautilus.[621] In 2011, NORI was owned by two State-controlled foundations, Nauru Education and Training Foundation and Nauru Health and Environment Foundation.[622] Currently, NORI is a subsidiary private corporation owned

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[618] International Seabed Authority, *Exploration Contracts*. International Seabed Authority, <https://www.isa.org.jm/exploration-contracts> (accessed 15 July 2023).

[619] Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 671-673; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022), para. 19; The Metals Company, *Sponsoring States* (2023), <https://metals.co/sponsoring-states/> (accessed 17 July 2023).

[620] see International Seabed Authority, *Decision of the Council Relating to a Request for Approval of a Plan of Work for Exploration for Polymetallic Nodules submitted by Nauru Ocean Resources Inc.* (22 July 2011), ISA Doc. ISBA/17/C/14; see also International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022).

[621] International Seabed Authority, Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc. / submitted by the Legal and Technical Commission (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en> (accessed 25 July 2023), para. 2 and 10; International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 17.

[622] International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules in the Area by Nauru Ocean Resources Incorporated. Executive Summary* (21 June 2011), ISA Doc. ISBA/17/LTC/L.4, para. 3-5; International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 15-17.

by Metals Company, formerly called DeepGreen,[623] it was renamed when it went public on the NASDAQ Stock Exchange.[624] The second contractor, Tonga Offshore Mining Limited, is also one of the subsidiary companies owned by Metals Company. As NORI, TOML was owned by Nautilus, but it was later acquired by DeepGreen after Nautilus went bankrupt.[625] TOML started its exploration contract with ISA in 2012.[626]

The third private contractor was Global Sea Mineral Resources NV, which is a division of the Belgian corporate group Dredging, Environment and Marine Engineering NV (DEME).[627] GSR started its contract in 2013. Prior to this, the corporation was known as G-TEC Sea Mineral Resources NV and owned by a Belgian corporation called G-TEC, but it was subsequently acquired by DEME and renamed in 2014.[628]

The fourth private contractor which was also United Kingdom Seabed Resources Ltd, a British subsidiary corporation owned by the Lockheed Martin Corporation, a United States

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[623] 'DeepGreen has agreements in place to support its deep seabed mining activities with British commodity trading and mining giant Glencore, Danish offshore marine services company Maersk Supply Service A/ S and Swiss offshore engineering company Allseas Group SA'. Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 279; additionally, see Maersk Supply Service, *Deep Sea Mineral Exploration*. *Maersk Supply Service & DeepGreen deliverables* (2020), < https://www.maersksupplyservice.com/wp-content/uploads/2019/08/DeepGreen-Fact-Sheet_140818.pdf > (accessed 17 July 2023).

[624] NASDAQ, *TMC Institutional Holdings* (2023), < https://www.nasdaq.com/market-activity/stocks/tmc/institutional-holdings> (accessed 17 July 2023).

[625] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022), para. 15; The Metals Company, *The Metals Company acquires third seabed contract area to explore for polymetallic nodules* (2020), < https://metals.co/deepgreen-acquires-third-seabed-contract-area-to-explore-for-polymetallic-nodules/> (accessed 17 July 2023).

[626] *see* International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022); see also International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited. International Seabed Authority* (19 July 2011), ISA Doc. ISBA/17/C/15.

[627] see International Seabed Authority, *Decision of the Council of the International Seabed Authority relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by G-TEC Sea Mineral Resources NV.* (26 July 2012), ISA Doc. ISBA/18/C/28; see also International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by G-TEC Sea Mineral Resources NV* (20 July 2020), ISA Doc. ISBA/18/C/19.

[628] see Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020).

national corporation focused on defence and military technology.[629] In March 2023, the Norwegian company Loke Marine Minerals bought the UKSRL.[630] Also, UKSRL had a second exploration contract approved with the ISA.[631]

The fifth exploration contract with a private contractor was concluded in 2015 with Ocean Mineral Singapore Pte Ltd. OMS is a company owned by the Singaporean group Keppel Corporation and by the minority shareholders UKSRL and Lion City Capital Partners Pte Ltd.[632]

Finally, Blue Minerals Jamaica Ltd. is a Jamaican national corporation, which had a contract approved by the ISA in 2021.[633] The BMJ is a multinational enterprise that has been engaged in marine projects in the offshore oil and gas industry. It has recently expanded into in the mining sector.[634] However, the identity and nationality of its shareholder and operational

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[629] see International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by UK Seabed Resources Ltd.* (18 July 2012), ISA Doc. ISBA/18/C/17; and see also International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by UK Seabed Resources Ltd. International Seabed Authority* (26 July 2012) ISA Doc. ISBA/18/C/27.

[630] Reuters, *Lockheed Martin sells deep-sea mining firm to Norway's Loke* (2023), <https://www.reuters.com/markets/deals/norways-loke-buys-uk-deep-sea-mining-firm-lockheed-2023-03-16/#:~:text=OSLO%2C%20March%2016%20(Reuters),seabed%20mining%20are%20hammered%20out.> (accessed 21 July 2023).

[631] International Seabed Authority, *Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by UK Seabed Resources Ltd.* (21 July 2014), ISA Doc. ISBA/20/C/25; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by UK Seabed Resources Ltd.* (26 February 2014), ISA Doc. ISBA/20/C/5.

[632] International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Ocean Mineral Singapore Pte Ltd*. (25 February 2014), ISA Doc. ISBA/20/C/7, para. 10; see Keppel Corporation, *Joint Venture Agreement with Uk Seabed Resources Ltd. And Lion City Capital Partners Pte. Ltd.* (2013), <https://www.kepcorp.com/en/download.ashx?id=4877> (accessed 17 July 2023); see also International Seabed Authority, *Decision of the Council Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules Submitted by Ocean Mineral Singapore Pte Ltd. International Seabed Authority* (21 July 2014), ISA Doc. ISBA/20/C/27.

[633] see International Seabed Authority, *Decision of the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules submitted by Blue Minerals Jamaica Ltd.* (10 December. 2021), ISA Doc. ISBA/26/C/27/Rev.1; see also International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.* (6 August 2020), ISA Doc. ISBA/26/C/22.

[634] International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.* (6 August 2020), ISA Doc. ISBA/26/C/22, para. 25.

partner remain undisclosed.[635] Little is known about this corporation since it has not made its exploration contract accessible to the public until this moment.[636] According to the Environmental Justice Foundation,[637] the BMJ is a subsidiary of the parent corporation Blue Minerals Switzerland SA, part of the Allseas Group with bases in Switzerland.[638]

The partnerships of Marawa and CIIC with DeepGreen and GRS, respectively,[639] were concluded in a contract with DeepGreen and Kiribati. This contract permitted the purchase of exploration rights granted by exploration contract of Marawa with the ISA. Additionally, it granted DeepGreen exclusive rights to recover polymetallic nodules, subject to the payment of fees and royalties to the ISA.[640] Besides, CIIC partnership was designed to leverage the technical resources and capabilities of GSR in order to minimise mobilisation costs and achieve superior outcomes.[641] Additionally, both Marawa and CIIC contracts refer to reserved areas. It is, however, not unexpected that the majority of deep seabed mining activities in these areas are conducted by private corporations, the majority of which are owned by developed countries. Furthermore, almost half of the contracts conducted in reserved areas are performed by subsidiaries of the Metals

[635] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 278.
[636] About the Importance of the public participation, see Klaas Willaert, 'Public participation in the context of deep sea mining: Luxury or legal obligation?' (2020) 198 *Ocean and Coastal Management* 198.
[637] Blues Minerals Jamaica Ltd., *Annual Return for Companies with Shares for the period ending 12 December 2020, obtained by EJF from the Companies Office of Jamaica*, Blue Minerals Switzerland SA (2022), <https://www.zefix.ch/en/search/entity/ list/firm/1438678> (accessed 31 July 2023).
[638] Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023), 33.
[639] International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022)., para. 19; see DSM Campaign, *Deep Green's Corporate Relations*, Deep Seabed Mining Campaign, 2020.
[640] In this regard, 'In 2013, the Company through its subsidiary DeepGreen Engineering Pte. Ltd. ("DGE") entered into an option agreement (the "Marawa Option Agreement") with Marawa which granted DGE exclusive rights to manage and carry out all exploration and exploitation in the Marawa Area in return for a royalty payable to Marawa'. The Metals Company, *TMC THE METALS COMPANY INC. FORM 10-Q For the quarterly period ended September 30, 2022* (30 December 2022), FORM 10-Q, <https://investors.metals.co/static-files/54cdfe49-e6ac-4032-9c12-a93dae468421> (accessed 27 July 2023), 10; see also DSM Campaign, *Deep Green's Corporate Relations*, Deep Seabed Mining Campaign, 2020.
[641] International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022), para. 19.

Company.[642] In addition to that, a model of collaboration can be observed that allows the execution of the plan of work by the contractor that owns the rights concerning a determined reserved area, and the contractor that has the technological and financial capabilities.[643] For example, the contract can be conducted through joint venture agreements as happened between CIIC and GSR, allowing GSR to access the reserved area,[644] or, as in the case of the collaboration between OMS and UKSRL, in the exploration of the reserved areas.[645]

Table 2: Private contractors

Sponsored Contractor	Sponsoring State	Legislation (Sponsoring State)	Subsidiary Corporation	Parent Corporation	Legislation (State of Corporation of Origin)	Start and End Date	Observation

[642] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 1 and 15; International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Ocean Mineral Singapore Pte Ltd*. (25 February 2014), ISA Doc. ISBA/20/C/72014, para. 1 and 15; International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022), para. 20; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.* (6 August 2020), ISA Doc. ISBA/26/C/22, para. 1 and 15; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.* (6 August 2020), ISA Doc. ISBA/26/C/22, appendix 2.

[643] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 135; International Seabed Authority, *Report of the Chair of the Legal and Technical Commission on the work of the Commission at its session in 2016* (13 July 2016), ISA Doc. ISBA/22/C/17, para. 55.

[644] International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022), para 19.

[645] International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022), para. 13 and 19; International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Ocean Mineral Singapore Pte Ltd*. (25 February 2014), ISA Doc. ISBA/20/C/7, para. 15; International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules by Ocean Mineral Singapore Pte. Ltd.* (25 May 2013), ISA Doc. ISBA/19/LTC/11, para. 8.

NORI	Nauru	Yes	Yes	Metals Company (Canada)	No	22 July 2011 - 21 July 2026	
TOML	Tonga	Yes	Yes	Metals Company (Canada)	No	11 January 2012 - 10 January 2027	
GRS	Belgium	Yes	Yes	Dredging, Environment and Marine Engineering NV (DEME) (Belgium)	Yes	14 January 2013 - 13 January 2028	
UKSRL	United Kingdom	Yes	Yes	Loke Marine Minerals (Norway)	No	08 February 2013 - 07 February 2028; and 29 March 2016 - 28 March 2031	Until March 2023, UKSRL was owned by Lockheed Martin Corporation (United States)
Marawa*	Kiribati	Yes	No			9 January 2015 - 18 January 2030	Contract being conducted through partnership arrangements with Metals Company
OMS	Singapore	Yes	Yes	Keppel Corporation (Singapore)	Yes	22 January 2015 - 21 January 2030	UKSRL holding a minority shareholding in OMS
CIIC*	Cook Islands	Yes	No			15 July 2016 - 14 July 2031	Contract being conducted through partnership arrangements with GRS
BMJ	Jamaica	Yes	Yes	Allseas Group (Switzerland)	No	04 April 2021 - 03 April 2036	

3.4 Sponsorship of convenience at the international level

In accordance with to Articles 153(2)(b) and Article 4(3), Annex III, of UNCLOS, a private corporate actor is eligible to conduct activities in the Area as long as it is sponsored by one or more

States which exercise effective control over such corporation.[646] In addition, Article 9(4), Annex III, states that 'any natural or juridical person sponsored by it and effectively controlled by it or by another developing State which is a qualified applicant' is allowed to conduct activities in these reserved areas.[647]

The application of this regulatory approach is practised by private corporations.[648] As presented in Table 2, the Metals Company (Canada) and Lockheed Martin (United States) are conducting the totality of their contracts through the subsidiaries NORI (Nauru), TOML (Tonga), and UKSRL (United Kingdom). The Metals Company is currently using its subsidiaries NORI and TOML to implement exploration contracts within reserved areas that are exclusive to developing States. Lockheed Martin, at the time it submitted the contract for approval, used its subsidiary UKSRL to allow its participation in activities in the Area, since the United States was not a State-party to UNCLOS and, thus, could not be a sponsoring State.[649] The TOML case highlighted the debate about effective control by Nautilus to the LTC.[650] At the time of its application, Nautilus owned 100 per cent of the shares of TOML;[651] nonetheless, the LTC accepted its application and

[646] *UNCLOS*, Art. 153(2)(b); *UNCLOS*, Art. 4(3), Annex III.
[647] *UNCLOS*, Art. 9(4), Annex III.
[648] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 137.
[649] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 136; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 15.
[650] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022), para. 19 and 32; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by UK Seabed Resources Ltd.* (18 July 2012), ISA Doc. ISBA/18/C/17, para. 30; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by UK Seabed Resources Ltd.* (26 February 2014), ISA Doc. ISBA/20/C/5, para. 30; International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 15-17.
[651] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022), para. 15.

considered that effective control was exercised by Tonga since the sponsorship certificate was 'in due and proper form'.[652]

At the point of its first application for a contract with the ISA, NORI asserted that it was 'no longer affiliated with Nautilus or any other entity or person outside of Nauru'[653] and no longer affiliated with any 'entity or person outside the jurisdiction of the sponsoring State'.[654] However, the former CEO of Nautilus and founder of DeepGreen was a member of the Board of Directors of NORI responsible to sign the ISA contract on behalf of NORI.[655] Later, in 2011, at a Deep Sea Minerals Stakeholder workshop in Nauru held by the Secretariat of the Pacific Community, concerns and requests for clarification were raised by the Stakeholders over the ownership of NORI.[656] Additionally, according to Greenpeace International, the notes of the same workshop indicate that the Nauruan government was only present as a witness 'with the ISA contract, with none of the government officials present at the stakeholder meeting'[657] in the ceremony between NORI and ISA to sign the contract.[658] In the case of TOML, DeepGreen acquired TOML and continued its contract with the ISA in 2020 after the bankruptcy of Nautilus.[659]

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[652] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by Tonga Offshore Mining Limited. Submitted by the Legal and Technical Commission* (8 July 2011), ISA Doc. ISBA/17/C/10*, <https://digitallibrary.un.org/record/733128?ln=en> (accessed 15 December 2022), para. 15, 19 and 32; International Seabed Authority, *Seabed Council Approves Four Applications for Exploratory Contracts with Authority in Deep Seabed Area* (2011), ISA Doc. SB/17/11, 3; International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited. International Seabed Authority* (19 July 2011), ISA Doc. ISBA/17/C/15, para. 2.

[653] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 17.

[654] International Seabed Authority, *Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Nauru Ocean Resources Inc.* (11 July 2011), ISA Doc. ISBA/17/C/9, <https://digitallibrary.un.org/record/733109?ln=en > (accessed 15 December 2022), para. 17.

[655] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 11; see International Seabed Authority, *Seabed Authority and Nauru Ocean Resources Inc Sign Contract for Exploration* (2023), International Seabed Authority.

[656] Secretariat of the Pacific Community, 'Proceedings of the Nauru National Stakeholder Consultation on Deep Sea Minerals Workshop' (2011) *DPC-EU EDF-10 Deep Sea Minerals Project*.

[657] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 11.

[658] see Secretariat of the Pacific Community, 'Proceedings of the Nauru National Stakeholder Consultation on Deep Sea Minerals Workshop' (2011) *DPC-EU EDF-10 Deep Sea Minerals Project*.

[659] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 12; The Metals Company, *Response to Greenpeace report* (2020), <

As previously stated in the section on effective control, the interpretation that regulatory control was sufficient for exercise a contract under UNCLOS was also confirmed by the Seabed Disputes Chamber.[660] By following the interpretation of effective control as regulatory control, the ISA does not require a certificate of sponsorship by the State where the parent corporation of the subsidiary corporation is based 'as long as formal separation between the two entities is maintained'.[661]

In contrast to this practice, some authors challenge the rationale behind the criticism, arguing that such approach may endanger the common heritage of mankind system for the Area as established by UNCLOS.[662] By taking this approach, the ISA may allow private corporations to take control of the deep seabed mining sector by using their parent corporations under the sponsorship of the original States, and by establishing subsidiary corporations in developing States to gain access to reserved areas, thus creating a monopoly or oligopoly of the deep seabed mining sector.[663]

However, this form of effective control may economically benefit developing States, since the majority of them lack the economic or technological capability to properly conduct activities in the Area.[664] For example, States such as Nauru, Tonga, Kiribati, Singapore, Cook Islands, or

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https://metals.co/response-to-greenpeace-report/> (accessed 17 July 2023); Business Registries Office of The Kingdom of Tonga, *Register Search - Tonga Offshore Mining Limited*, The Kingdom of Tonga, 2021.

[660] John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193**;** James Harrison, 'The Sustainable Development of Mineral Resources in the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection' (2014) *University of Edinburgh School of Law Working Paper No 2014/50*, 23; Andrés Sebastián Rojas and Freedom-Kai Phillips, 'Effective Control and Deep Seabed Mining: Toward a Definition' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 7*, 10.

[661] International Seabed Authority, *Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area* (5 June 2014), ISA Doc. ISBA/20/LTC/10, para. 22.

[662] John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193; Klaas Willaert, 'Forum Shopping Within the Context of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116, 137.

[663] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 9; John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 197; International Seabed Authority, *Issues related to the sponsorship of contracts for exploration in the Area, monopolization, effective control and related matters* (21 June 2016), ISA Doc. ISBA/22/LTC/13, para. 8.

[664] John Gibson, 'Deep Seabed Mining and Marine Environmental Protection: Advisory Opinion of the International Tribunal for the Law of the Sea on the Responsibilities and Obligations of States Sponsoring Activities in the Area' (2011) 21 *Water Law* 189, 193.

Jamaica would not be able to conduct activities in the Area in their own capacities.[665] This type of partnership between States and private corporations may be more readily accepted depending on the success of these collaborations.[666] In the words of Secretary-General Michael Lodge, 'the best conclusion may be that it is too early to say whether this type of arrangement provides a viable precedent for the future participation of developing countries in deep seabed mining'.[667] However, such arrangements may compromise the equitable distribution of the Area as a common heritage of humankind and facilitate the practice of forum shopping on a large scale within the context of deep seabed mining,[668] 'although this might be considered a commercial agreement between business partners that should not be reviewed or interfered with by the ISA or other stakeholders'.[669]

Moreover, the possibility of a private corporation from a developed State establishing a subsidiary corporation in a developing State and conducting activities in reserved Areas is problematic.[670] Consequently, the practice of private corporations from developed States acting as sponsored contractors of developing States should be subjected to closer scrutiny and avoided.[671]

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[665] International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules by Ocean Mineral Singapore Pte. Ltd.* (25 May 2013), ISA Doc. ISBA/19/LTC/11, para. 8; International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6, para. 1; International Seabed Authority, *Seabed Council Approves Four Applications for Exploratory Contracts with Authority in Deep Seabed Area* (2011), ISA Doc. SB/17/11, 4; International Seabed Authority, *Application for Approval of a Plan of Work for Exploration for Polymetallic Nodules by the Cook Islands Investment Corporation* (8 November 2013), ISA Doc. ISBA/20/LTC/3, para. 13.

[666] Joanna Dingwall, *International Law and Corporate Actors in Deep Seabed Mining* (Oxford, United Kingdom: Oxford University Press, 2021), 143; International Seabed Authority, *Recommendations on legal liability Submitted by the African Group* (2019), ISA Doc. ISBA/25/C/25, < https://isa.org.jm/files/files/documents/26-c-2-en.pdf> (accessed 17 December 2022), para. 5(c); International Seabed Authority, *Comments on the draft regulations on the exploitation of mineral resources in the Area* (4 December 2019), ISA Doc. ISBA/26/C/2, < https://isa.org.jm/files/files/documents/26-c-2-en.pdf> (accessed: 17 December. 2022), para. 5; see also International Seabed Authority, *Revised agenda of the Legal and Technical Commission* (22 March 2021), ISA Doc. ISBA/26/LTC/1/Rev.1, para. 14.

[667] Michael Lodge, 'Satya Nandan's Legacy for the Common Heritage of Mankind', in Michael Lodge and Myron Nordquist (eds.), *Peaceful Order in the World's Oceans – Essays in honour of Satya N. Nandan* (London, United Kingdom: Brill Nijhoff, 2014), 293-294;

[668] Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 669-671.

[669] Klaas Willaert, 'Safeguarding the Interests of Developing States Within the Context of Deep-Sea Mining in the Area', in Rahul Sharma, *Perspectives on Deep-Sea Mining Sustainability, Technology, Environmental Policy and Management* (Berlin, Germany: Springer, 2022), 671.

[670] Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021), 35.

[671] Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021), 35; see Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States:

However, since most developing States lack the financial and technical capacity to conduct deep seabed mining activities, this kind of partnership could be understood as the model of cooperation intended by UNCLOS and the 1994 Implementation Agreement.[672]

Even if the ISA pursued breaking this circle, this would not stop this tendency due to the adopted approach to the definition of effective control. Only if somehow this tendency would be stopped through an application of effective control as economic control, the sponsorship from developing States to subsidiary corporations such as NORI and TOML would also need sponsorships from developed States such as Canada where the Metals Company is officially originated.[673] In addition, some joint venture partnerships between private corporations from developed States and those from the sponsoring developing States, such as CIIC and Marawa, will prevail.[674] However, in these two last cases, a second sponsorship would be required depending on the dependency of the sponsored contractor from the developing State on the financial and technical capacity brought by the partner or its parent corporation. Hence, this type of arrangement

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Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 214; International Seabed Authority, *Issues related to the sponsorship of contracts for exploration in the Area, monopolization, effective control and related matters* (21 June 2016), ISA Doc. ISBA/22/LTC/13, para. 5–8 and 11.

[672] *UNCLOS,* Art. 144; *1994 Implementation Agreement,* Annex, *Sec.* 5; also, 'Nevertheless, given the vulnerable position of developing states, which usually need to rely on external expertise, technology and financial means, it is a delicate issue that the ISA and its member states should keep an eye on'. Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021), 36.

[673] see International Seabed Authority, *Decision of the Council Relating to a Request for Approval of a Plan of Work for Exploration for Polymetallic Nodules submitted by Nauru Ocean Resources Inc.* (22 July 2011), ISA Doc. ISBA/17/C/14*;* see also International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Marawa Research and Exploration Ltd. International Seabed Authority* (26 July 2012), ISA Doc. ISBA/18/C/25.

[674] International Seabed Authority, *Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Marawa Research and Exploration Ltd. International Seabed Authority* (26 July 2012), ISA Doc. ISBA/18/C/25; International Seabed Authority, *Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation. International Seabed Authority* (21 July 2014), ISA Doc. ISBA/20/C/29; Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199; International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation* (9 July 2014), ISA Doc. ISBA/20/C/18, <https://www.isa.org.jm/news/cook-islands-applies-approval-plan-work-exploration-polymetallic-nodules> (accessed 15 December 2022), 3-5.

would need a subjective assessment of the extension of such dependency on the financial and technical capacity.[675]

The joint agreement between CIIC and GSR was regarded by the LTC as an exemple of genuine cooperation between a developing State and a private corporation originating from a developed State.[676] Despite it, GSR entered into a joint venture arrangement with CIIC, a Cook Islands Stated-owned enterprise, for the exploration of polymetallic nodules. GSR, through this agreement, is able to provide the necessary technical and financial expertise to CIIC.[677] Nonetheless, the Cook Islands are to bear responsibility for the performance of the contract and for consequential liability for any damage originating from the activities conducted by GSR, given that CIIC holds the exploration contract and subcontracts through a joint venture agreement with GSR.[678]

Nevertheless, the same cannot be said regarding the agreement between Marawa and the Metals Company, in which the LTC expressed doubts about whether the effective control criterion was satisfied.[679] In this regard, according to Greenpeace International, Marawa, a State-owned enterprise in Kiribati, does not have an independent office or budget, and its webpage expired in 2019.[680] The information in the ISA application forms for the exploration contract given by Marawa contained the address of the Office of the Ministry of Fisheries and Marine Resources, and the contact addresses indicated were all from the government and nationals from Kiribati,

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[675] Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 214.

[676] Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 214; see International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Ocean Mineral Singapore Pte Ltd*. (25 February 2014), ISA Doc. ISBA/20/C/7.

[677] In that sense, see International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules. International Seabed Authority* (6 June 2012), ISA Doc. ISBA/18/LTC/L.5.

[678] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 17.

[679] Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 214.

[680] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 13; International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules. International Seabed Authority* (6 June 2012), ISA Doc. ISBA/18/LTC/L.5.

without any mention of DeepGreen or the Metals Company.[681] Additionally, no information was provided regarding the financial capabilities of Marawa to fulfil its exploration contract, despite Kiribati being classified as a 'Least Developed Countries'.[682] This is a standard practice employed by the Metals Company in all its applications for plans of work, where the three exploration contracts of the Canadian company are all conducted in reserved areas, under the sponsorship of three different developing States, without reference to the parent corporation but only to its subsidiaries and partner.[683]

The Contract of Ocean Mineral Singapore Pte Ltd also entails some discussion regarding the system of reserved areas exclusive to developing States. OMS holds an exploration contract despite its sponsoring State, Singapore, which does not fit this classification properly. In this regard, when Singapore received its exploration contract in 2015, it was, *per capita*, the third richest country in the world at the time by making 308 billion dollars of gross domestic product.[684] However, this issue may persist due to the fact that the ISA does not define which States can be classified as developing States.

As previously mentioned, OMS is a subsidiary of the Keppel Corporation, which has been listed in the Singapore Exchange since 1980 with 23 billion dollars in assets at the time of its application to the ISA.[685] It is therefore understandable that the partnership between OMS and UKSRL gave rise to concerns, particularly in relation to the exploration activities in a reserved area.[686] Another significant aspect of this partnership is that Lockheed Martin, the owner of the

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[681] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 13; see International Seabed Authority, *Report and Recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Marawa Research and Exploration Ltd.* (18 July 2012), ISA Doc. ISBA/18/C/18, <https://digitallibrary.un.org/record/732869?ln=en> (accessed 15 December 2022).

[682] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 13.

[683] Klaas Willaert and Pradeep A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?' (2021) 36 *The International Journal of Marine and Coastal Law* 199, 214.

[684] see World Bank, *GDP (current US$) – Singapore. The World Bank Data* (2023), < https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=SG > (accessed 20 July 2023); see also International Monetary Fund, *World Economic Outlook Database, International Monetary Fund* (2016).

[685] see International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules by Ocean Mineral Singapore Pte. Ltd.: executive summary* (25 May 2013), ISA Doc. ISBA/19/LTC/11, <https://digitallibrary.un.org/record/765817?ln=en> (accessed 25 June 2023).

[686] see United Kingdom Seabed Resources Ltd, *UK Seabed Resources Submission in Response to the International Seabed Authority's Report on Developing a Regulatory Framework for Mineral Exploitation in the Area, Working*

UKSRL at the time that the contract was approved, was engaged in negotiations for a partnership with Fiji to apply for an exploration contract at the same site.[687] Subsequently, when OMS applied for the same site, UKSRL purchased a 19.9% holding of the OMS and agreed to uptake over a million additional ordinary shares in 2019.[688]

Another contract that has been the subject of controversy is the contract with Blue Minerals Jamaica Ltd., which is currently the last private contractor sponsored by a State.[689] BMJ has Jamaica as its sponsoring State, in addition to which the company does not demonstrate publicity in its activities.[690] BMJ describes itself as a multinational enterprise with more than 35 years of conducting projects in the offshore oil and gas industry and newly shareholder and operational partner in the deep seabed mining sector.[691] Despite the Jamaican government describing BMJ as a Jamaican-registered company,[692] BMJ has also been registered in the United Kingdom since 24 September 2015.[693] These arrangements by BMJ raised concerns from several groups, such as Greenpeace International and Jamaica Environmental Trust.[694]

In this context, the Environmental Justice Foundation, as previously stated, indicates that Blue Minerals Jamaica is a subsidiary of the Swiss-based Allseas Group, a company specialising

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Draft – Exploitation Regulations (ISBA/Cons/2016/1) (2020), < https://www.lockheedmartin.com/content/dam/lockheed-martin/uk/documents/products/UKSR_Response_to_First_Working_Draft_Regulations_2November2016%20.pdf > (accessed 17 July 2023).

[687] See. Secretariat of the Pacific Community, 'Briefing Note for Meetings between the SPC-EU Deep Sea Minerals Project and Fiji Government' (2013) *SPC-EU EDF10 Deep Sea Minerals (DSM) Project*.

[688] see United Kingdom Seabed Resources Ltd., *Full Accounts Made Up To 31 December 2018* (2019), < https://find-and-update.company-information.service.gov.uk/company/08058443/filing-history> (accessed 21 July 2023); see also International Seabed Authority, *Application for approval of a plan of work for exploration for polymetallic nodules by Ocean Mineral Singapore Pte. Ltd.* (25 May 2013), ISA Doc. ISBA/19/LTC/11.

[689] International Seabed Authority, *Blue Minerals Jamaica Ltd. Applies for Exploration Contract with ISA for Polymetallic nodules in the Pacific Ocean* (9 June 2020), International Seabed Authority.

[690] International Seabed Authority, *Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.* (6 August 2020), ISA Doc. ISBA/26/C/22.

[691] Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 17.

[692] Government of Jamaica, *Blue Minerals Lts to Lead Jamaica's Pursuits in Deep Seabed Mining* (5 March 2019), Ministry of Foreign Affairs and Foreign Trade, Press Release.

[693] Government of Jamaica, *Blue Mineral Limited (Company Number 0979272)*, Companies House, 2016.

[694] Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023), 33; Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 17.

in offshore pipelay and subsea construction.[695] This information may prompt questions regarding the use of Jamaica as sponsorship of convenience and the utilisation of developing States by parent corporations based on developed States. Additionally, the Allseas Group is a shareholder and operational partner of the Metals Company.[696]

In December 2020, three people were appointed as board directors to BMJ.[697] At the same time these three directors were also directors in Blue Minerals Switzerland, which is also owned by the Allseas Group as a holding company acting in the field of deep seabed mining and offshore activities, on behalf of the Allseas Group.[698] Despite this fact, the ISA did not question whether the BMJ was effectively controlled by Jamaica and did not request any additional certificate of sponsorship from Switzerland.

Therefore, if the LTC had been able to conduct a comprehensive assessment of those partnerships, it is probable that a sponsorship from the State in which the parent corporation is originated would have been necessary. Consequently, access to reserved areas would have been denied in the event that the parent corporation was based in a developed State, given that reserved areas are exclusive for developing States.[699] In this sense, Willaert reiterates the imperative to introduce 'more transparency in the arrangements between private foreign enterprises and developing states by imposing clear rules concerning the disclosure of information with regard to

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[695] Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023), 33; Greenpeace International, *Deep Trouble: The Murky World of the Deep Sea Mining Industry* (Amsterdam, Netherlands: Greenpeace International, 2020), 17.

[696] Both Allseas Group and the Metals Company in 29 March 2019 develop a system to collect, lift and transport nodules from the seafloor to shore and agreed to enter into a nodule collection and shipping agreement and on 16 March 2022 entered into a non-binding term sheet for the development and operation of a commercial nodule collection system. The Metals Company, *TMC THE METALS COMPANY INC. FORM 10-Q For the quarterly period ended September 30, 2022* (30 December 2022), FORM 10-Q, <https://investors.metals.co/static-files/54cdfe49-e6ac-4032-9c12-a93dae468421> (accessed 27 July 2023), 33; for further details regarding the relation between Allseas and the Metals Company, see U.S. Securities and Exchange Commission, *Strategic Alliance Agreement, Dated as Of March 29, 2019, by and Between DeepGreen Metals Inc. And Allseas Group S.A* (29 March 2019), <https://www.sec.gov/Archives/edgar/data/1798562/000121390021020731/fs42021ex10-7_sustainable.htm> (accessed 27 July 2023).

[697] Blues Minerals Jamaica Ltd., *Annual Return for Companies with Shares for the period ending 12 December 2020, obtained by EJF from the Companies Office of Jamaica*, Blue Minerals Switzerland SA (2022), <https://www.zefix.ch/en/search/entity/ list/firm/1438678> (accessed 31 July 2023); Environmental Justice Foundation, *Read Now Towards the Abyss: How the Rush to Deep-Sea Mining Threatens People and Our Planet, A report by the Environmental Justice Foundation* (London, United Kingdom: Environmental Justice Foundation, 2023), 33.

[698] Federal Commercial Registry Office, *Blue Minerals Switzerland SA.*, ZEFIX, 2021.

[699] *UNCLOS,* Art. 9(4), Annex III.

partnerships involving the applicant or contractor' and adds that 'the application of certain standards in terms of distribution of financial proceeds might even be considered'.[700] While this collaboration may appear economically and technologically beneficial for developing States, it is essential to exercise caution with regard to reserved areas by parent corporations from developed States.[701]

The subsequent chapters of this work will address the assessment of international environmental obligations and the liability of private contractors, with a particular focus on the flexibility of such obligations to allow sponsorships of convenience. In light of the obligation of sponsoring States to apply the deep seabed regime to the sponsored contractors through national legislation, it is to be expected that the assessment of compliance by the sponsored contractors must be available at the national level.

3.5 Conclusion

Private corporations play a pivotal role in the realm of international law. Despite the resistance surrounding the acceptance of private corporations as subjects with international legal personality, the influence that these actors exert in the international context is irrefutable. Even in the context of deep seabed mining activities in the Area this same influence can be easily and increasingly discerned.

Nonetheless, the increasing participation of private corporations as sponsored contractors has already shown some inconsistencies. As stated above, the ISA has established a comprehensive process of concession of sponsorship for the entities willing to conduct activities in the Area. However, its process of concession is still imperfect. The ISA, through its interpretation of the requirement of effective control as a regulatory control, verifies the incorporation or conferring of nationality by only checking the proof of registration in the sponsoring State or the presence of the sponsorship certificate. This may allow the practice of forum shopping, arguably favouring sponsorships of convenience.

[700] Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021), 35.
[701] Klaas Willaert, *Regulating Deep Sea Mining A Myriad of Legal Frameworks* (Berlin, Germany: Springer Briefs in Law, 2021), 36.

The adoption by the ISA of the concept of effective control as a regulatory control over the contractors by the sponsoring States has permitted parent corporations to establish subsidiary corporations in other States in order to comply with the requirement of effective control and receive their sponsorship. Additionally, the use of subsidiary corporations by parent corporations based in developed States has allowed, directly and indirectly, the exploration of reserved areas of exclusive use of the Enterprise and developing States by these corporations from developed States. This could be easily solved by an understanding of effective control as economic control, or at least lead to the necessity of a second sponsorship by the States where the parent corporations are based. Therefore, in the current state of the deep seabed mining regime at the international level, there is a tendency towards the creation of a sponsorship of convenience system.

PART III: INTERNATIONAL ENVIRONMENTAL OBLIGATIONS AND LIABILITY OF PRIVATE CONTRACTORS

Chapter 4: International environmental obligations of private contractors

The international legal framework created for deep seabed mining was not originally conceived to be applied directly to the sponsored contractors conducting activities in the Area. At the time that it was created, the prevailing theory according to which only States and international organisations are subjects of international law was almost universally accepted. Sponsored contractors were not held directly liable for any potential damage that may result from their activities of prospecting, exploration or exploitation in the seabed Area, even though contractors are required to comply with environmental obligations in their activities in the Area. In this context, the sponsorship regime was created. Under UNCLOS, the provisions for the protection and preservation of the marine environment are codified in Part XII.[702] However, despite encompassing a broad scope, Part XII only comprises general environmental protection principles and a broad legal framework that all parties involved in deep seabed mining activities must comply with.[703]

The environmental obligations of sponsoring States and sponsored entities were never properly regulated until the ISA began to consider the Mining Code. Neither UNCLOS regime, with its 1994 Implementation Agreement, nor the Mining Code clarified what they would be.[704]

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[702] For a more multidisciplinary analyses of the environmental issues see Stefan Brägera, Gabriela Q. Romero Rodriguez and Sandor Mulsowa, 'The current status of environmental requirements for deep seabed mining issued by the International Seabed Authority' (2020) 114 *Marine Policy* 1, 1-8.

[703] David Ong, 'The 1982 UN Convention on the Law of the Sea and Marine Environmental Protection', in Malgosia Fitzmaurice, David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 568-569; Moira L. McConnell and Edgar Gold, 'Modern Law of the Sea: Framework for the Protection and Preservation of the Marine Environment?' (1991) *23 Case Western Reserve Journal of International Law* 83, 86; Myron H. Nordquist, *United Nations Convention on the Law of the Sea, 1982: A Commentary, Volume IV* (Leiden, Netherlands: Martinus Nijhoff Publishers, 1991), 21; Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 122.

[704] David Freestone, 'Responsibilities and Obligations of States and Entities with Respect to Activities in the Area' (2011) 105(4) *The American Journal of International Law* 755, 755-761; Cymie Payne, 'State Responsibility for Deep Seabed Mining Obligations', in Virginie Tassin Campanella, *Seabed Mining and the Law of the Sea*. (Oxford, United Kingdom: Routledge (forthcoming), 2023), 5-6; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 247; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 2.

Prior to this, the Advisory Opinion *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area* established a benchmark for the proper determination and measurement of these responsibilities.

Neither UNCLOS nor the 1994 Implementation Agreement determine a precise definition for the terms obligation, responsibility, and liability.[705] Article 139(1) and (2); Article 235(1); and, Article 4(4), Annex III, of UNCLOS use the term 'responsibility' while Article 304 and Annex III, Article 22 of UNCLOS use both terms 'responsibility' and 'liability'.[706] In this same sense, Article 139, Article 235(1) and Article 4(4), Annex III, of the Convention use the 'Responsibilities' as 'obligations'.[707] In the view of the Seabed Disputes Chamber, these provisions refer to 'Responsibility', as the primary obligation and 'liability' as the secondary obligation.[708] In Article 235(3) and Annex III, Article 22, of the Convention, which use the terms 'responsibility and liability', the term 'responsibility' has the same meaning as in the International Law Commission (ILC) *Draft Articles on Responsibility of States for Internationally Wrongful Acts* (ARSIWA).[709] In the ARSIWA, 'responsibility' and 'liability' have the same meaning.

Thus, following what was previously established by the Advisory Opinion, the logical approach to deal with these terms is to comply with what was proposed by the Seabed Disputes Chamber.[710] The expression 'legal responsibilities and obligations' refers to the primary obligations, responsibility to ensure or the obligations as referred in question 1 submitted to the Chamber.[711] Similarly to the primary obligations imposed in question 1, the term 'responsibility'

[705] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 64-71.
[706] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 64.
[707] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 65.
[708] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 66.
[709] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 67; *Responsibility of States for Internationally Wrongful Acts* (ARSIWA), Adopted 23 April–1 June and 2 July–10 August 2001), A/56/49(Vol. I)/Corr.4.
[710] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 68; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213, 222.
[711] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 69.

in question 3 means 'obligation'.[712] The term 'liability' will be used to refer to the extension of liability as a consequence of a breach of obligations as presented in question 2.[713]

Having established this framework, the following chapter will analyse the international environmental obligations of both State and non-State actors in the context of deep seabed mining. Firstly the chapter will highlight the responsibility of the sponsoring States to ensure and the necessary and appropriate measures to fulfil their obligations *vis-à-vis* private contractors. Secondly, this chapter will emphasise specific obligations of private contractors. Thirdly, the chapter will delve into the direct obligations which the ISA, sponsoring States and contractors must comply with. Lastly, this chapter will verify the possible relation between sponsorships of convenience and the applicable international environmental obligations.

4.1 Environmental obligation concerning private contractors

4.1.1 Responsibility to ensure of sponsoring States

The responsibility to ensure, or obligation to ensure, of sponsoring States implies that any sponsor shall guarantee that the conduct of sponsored contractors complies with the obligations present in the international legal framework for deep seabed mining.[714] In this context, the concept of responsibility to ensure encompasses three important elements, namely the meaning of the responsibility to ensure, the scope of activities in the Area, and the rules that the sponsored contractor shall comply with.[715]

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[712] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 71.
[713] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 70.
[714] *UNCLOS*, Art. 139.
[715] Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 136; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 83; see also Cymie Payne, 'State Responsibility for Deep Seabed Mining Obligations', in Virginie Tassin Campanella, *Seabed Mining and the Law of the Sea*. (Oxford, United Kingdom: Routledge (forthcoming), 2023); Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 2; International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 26.

The first element can be seen as the connection between the execution of the contracts and the implementation of the appropriate legal framework.[716] In other words, legal responsibility and obligations aims to establish a mechanism to ensure that the rules concerning activities in the Area become effective for the sponsored contractors through the national legislation of the sponsoring State.[717] It neither means that the sponsoring State has to examine each act of the sponsored contractor, nor that the sponsor is liable for each conduct of the contractor.[718] Rather, it requires the sponsor to exercise 'regulatory diligence' as it is called by French.[719]

The second element indicates the scope of the activities in the Area through regulation of the national legislation of the sponsoring State. According to Article 1(1)(3) of UNCLOS, 'activities in the Area' encompass all activities of exploration for, and exploitation of, the resources of the Area. Despite the inconsistencies introduced by the Exploration Regulations by conferring the concept of activities in the Area a broader meaning by including the processing and transportation into this concept,[720] the Seabed Disputes Chamber consolidated the concept of 'activities in the Area' as prevalent due to the subordination of the Regulations to the Convention.[721] Furthermore, the Seabed Disputes Chamber described the difference between those processes that take place both on land and on the high seas from those in the deep seabed to determine what constitutes activities in the Area. According to the Advisory Opinion, 'the expression "activities in the Area", in the context of both exploration and exploitation, includes,

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[716] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 83 and 84.
[717] Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 209.
[718] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 84.
[719] According to French: 'The idea that States are required to exercise regulatory diligence to ensure private actors meet a certain level of behaviour is neither new nor certainly not unique to this area of the law. It is an idea that has a long history in international law, most famously expressed by ICJ in the Corfu Channel case. It is significant that it has become accepted as the normative standard on States for compliance with Principle 21 of the Stockholm Declaration, accepted as customary law, which imposes upon them "the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction"'. Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 539; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 3.
[720] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3).
[721] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 93.

first of all, the recovery of minerals from the seabed and their lifting to the water surface'.[722] In this sense, activities related to the processing of raw minerals extracted on land,[723] and the transportation of these minerals from high seas to land, are both excluded.[724]

Finally, the third element is the legal framework that the sponsoring State can use to formulate its national legislation and thus must be incorporated into its conception.[725] It includes UNCLOS, with its 1994 Implementation Agreement, and the Mining Code, already mentioned in the first chapter.[726] The key provisions concerning the obligation of 'responsibility to ensure' are Article 139(1),[727] and Article 4(4), Annex III, of UNCLOS.[728]

Article 139(1) of UNCLOS establishes that:

> States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part. The same responsibility applies to international organizations for activities in the Area carried out by such organizations.[729]

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[722] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 94.
[723] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 95.
[724] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 96; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 480; in this sense, Xu includes in the list of activities that which constitute activities in the area: 'drilling, dredging, coring and excavation; disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents; construction and operation or maintenance of installations, pipelines and other devices related to such activities; water evacuation and disposal of the material of "Processing"; and transportation within that part of the high seas, directly connected to extraction and lifting." Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 85; in this same sense, Freestone: "the significance of this esoteric distinction should not be underestimated for it does limit the applicability of the ruling'. David Freestone, 'Advisory Opinion of the Seabed Disputes Chamber of International Tribunal for the Law of the Sea on "Responsibilities and Obligations of States and Entities with Respect to Activities in the Area', (2011) 15(7) *ASIL Insights*, <http://www.asil.org/ insights 1 10309.cfm> (accessed 11 January 2023).
[725] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 85.
[726] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 104. *UNCLOS,* Art. 139 and 153(4); *UNCLOS*, 4(4), Annex III.
[727] *UNCLOS,* Art. 139(1); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 100.
[728] *UNCLOS*, Art. 4(4), Annex III; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 99-100.
[729] *UNCLOS*, Art. 139(1); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 166.

Complementing that provision, Article 4(4), Annex III, adds that:

> The sponsoring State or States shall, pursuant to article 139, have the responsibility to ensure, within their legal systems, that a contractor so sponsored shall carry out activities in the Area in conformity with the terms of its contract and its obligations under this Convention. A sponsoring State shall not, however, be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are, within the framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction.[730]

The aforementioned obligations can be classified as obligations of conduct and obligations of result.[731] According to the Seabed Disputes Chamber, the responsibility to ensure the sponsoring States is an obligation of conduct.[732] According to the Chamber, this obligation of the sponsoring State to ensure 'is not an obligation to achieve, in each and every case, the result that the sponsored contractor complies with the aforementioned obligations', but rather 'it is an obligation to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result'.[733]

The Seabed Disputes Chamber listed possible 'measures necessary to ensure' in order to substantiate the obligation of conduct.[734] Article 139(1), Article 153(4) and Annex III, Article 4(4) of the Convention can be used as examples.[735] The list of measures designed to ensure compliance with the obligation of conduct encompasses a range of actions, from those that are essential and appropriate for achieving compliance to more specific measures that States are required to take,

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[730] *UNCLOS*, Art. 4(4), Annex III; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 167.

[731] Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 136; Rüdiger Wolfrum, 'Obligation of Result Versus Obligation of Conduct: Some Thoughts About the Implementation of International Obligations', in Mahnoush H. Arsanjani, Jacob Cogan, Robert Sloane and Siegdried Wiessner, *Looking to the Future* (Leiden, Netherlands: Brill, 2010), 369; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 250.

[732] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 110.

[733] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 110; see Irini Papanicolopulu, 'Due Diligence in the Law of the Sea', in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds.), *Due Diligence in the International Legal Order* (Oxford, United States: Oxford University Press, 2020), 150.

[734] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 119.

[735] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 119.

such as adopting laws and regulations and implementing administrative action.[736] These 'measures necessary to ensure' can be interpreted as part of the obligations of the 'due diligence' obligation to ensure.[737]

Furthermore, an obligation of conduct also encompasses a standard of care to be applied, namely due diligence.[738] Due diligence in the deep seabed mining regime, according to the Advisory Opinion, corresponds to the duty of sponsoring States to exclusively control sponsored contractors in case of a breach of international law by them.[739] As part of the obligation of conduct, this does not make the sponsor responsible for making the contractor achieve its results, but creates the necessary diligent steps to allow that end by ensuring the compliance. In other words, it is part of the obligation of conduct and not result.[740]

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[736] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 119.

[737] Donald K. Anton, Robert A. Makgill and Cymie R. Payne, 'Seabed Mining – Advisory Opinion on Responsibility and Liability' (2011) 41(2) *Environmental Policy and Law* 60, 63.

[738] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 110; see Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169.

[739] 'Due diligence is an obligation of conduct on the part of a subject of law. Normally, the criterion applied in assessing whether a subject has met that obligation is that of the responsible citizen or responsible government. Failure on a subject's part to comply with the standard—often termed negligence— describes the blameworthiness of the subject as one element of ascribing legal responsibility to it'. Timo Koivurova, 'Due Diligence' (2013), in Rüdiger Wolfrum. *The Max Planck Encyclopedia of Public International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020), 1; para. 1; in the same sense, see also Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169, 180; see also Julian Aguon and Julie Hunter, 'Second Wave Due Diligence: The Case for Incorporating Free, Prior, and Informed Consent into the Deep Sea Mining Regulatory Regime' (2008) 38 *Stan. Envtl. L.J.* 3; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 248-253; Donald K. Anton, Robert A. Makgill and Cymie R. Payne, 'Seabed Mining – Advisory Opinion on Responsibility and Liability' (2011) 41(2) *Environmental Policy and Law* 60; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 209; Irini Papanicolopulu, 'Due Diligence in the Law of the Sea', in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds.), *Due Diligence in the International Legal Order* (Oxford, United States: Oxford University Press, 2020), 147-162; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 3 and 4; Doris König, 'The Elaboration of Due Diligence Obligations as a Mechanism to Ensure Compliance with International Legal Obligations by Private Actors', in ITLOS, *The Contribution of the International Tribunal for the Law of the Sea to the Rule of Law: 1996-2016 / La contribution du Tribunal international du droit de la mer à l'état de droit: 1996-2016* (Leiden, Netherlands: Brill, 2017), 83-95.

[740] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 110; Donald K. Anton, Robert A. Makgill and Cymie R. Payne, 'Seabed Mining – Advisory Opinion on Responsibility and Liability' (2011) 41(2) *Environmental Policy and Law* 60, 63.

The concept of due diligence is not easily defined due to its variability.[741] In effect, it is a variable concept due to its adaptability through time since the level of diligence can be low in the present and high in the future due to new scientific or technological advances.[742] In the same sense, the concept can be modified in relation to the risk involved in the particular activity in the Area since it is logical that activities of prospecting are less risky than exploration activities, which entail less risk than exploitation.[743] Also, different kinds of minerals can lead to a higher due diligence standard depending on the risk of the activities. Thus, polymetallic nodules, polymetallic sulphides or cobalt rich ferromanganese crusts may require different standards of diligence.[744]

Regarding the standard of due diligence, in the decision of ICJ in the *Pulp Mills on the River Uruguay*,[745] the court stated:

> The Court considers that the obligation laid down in Article 36 is addressed to both Parties and prescribes the specific conduct of coordinating the necessary measures through the Commission to avoid changes to the ecological balance. An obligation to adopt regulatory or administrative measures either individually or jointly and to enforce them is an obligation of conduct. Both Parties are therefore called upon, under Article 36[of the Statute of the River Uruguay], to exercise due diligence in acting through the Commission for the necessary measures to preserve the ecological balance of the river.[746]

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[741] 'The question of standards, i.e. of content of due diligence, is the heart of due diligence and, consequently, the most complex to address. There is no general answer as to the precise standard of what regulation and control is owed in a particular case. The key to due diligence that makes it progressive and, at the same time, difficult to handle is its flexibility. Standards will not remain the same over time and they may change for different groups of States'. Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169, 180; in the same regard, see also Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 136; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 209; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (3 edn., Cambridge, United Kingdom: Cambridge University Press, 2012), 748; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 4.

[742] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117.

[743] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117.

[744] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117; see S. Petersen, A. Krätschell, N. Augustin, J. Jamieson, J.R. Hein and M.D. Hannington, 'News from the seabed – Geological characteristics and resource potential of deep-sea mineral resources' (2016) 70 *Marine Policy* 175.

[745] Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 539.

[746] International Court of Justice, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgement of 20 April 2010, ICJ Reports 2011, para. 187.

In the same sense,[747] the Advisory Opinion of 2011 quoted the ICJ decision to illustrate and to support its conclusions: 'It is an obligation which entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators, such as the monitoring of activities'.[748]

The standard of due diligence was further detailed in the *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)* submitted to ITLOS. As in the case of the Advisory Opinion *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area*, this Advisory Opinion reiterated some points about the due diligence of the sponsoring State to ensure the compliance of its sponsored private entities. These included: the use of all necessary measures and a high degree of effort to ensure compliance;[749] such effort by the sponsoring State must be exercised with 'a certain level of vigilance' towards the activities of the contractor;[750] and also the flexibility of due diligence depending on the circumstances and over time.[751]

Therefore, the required standard of the due diligence is proportional to the level of threat to the marine environment that pose activities in the Area. The responsibility to apply the standard of due diligence belongs to the sponsoring State since the potential damage would affect the common heritage of mankind as whole.[752] Nonetheless, further obligations must be met by the

[747] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 115.
[748] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 115 (emphasis added); *Pulp Mills on the River Uruguay* (Judgement of 20 April 2010), para. 197. (emphasis added)
[749] International Tribunal for the Law of the Sea, *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission,* Advisory Opinion, 2 April 2015, ITLOS Reports 2015, para. 110.
[750] *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)* (Advisory Opinion, 2 April 2015), para. 131; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 111.
[751] *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)* (Advisory Opinion, 2 April 2015), para. 132; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 251.
[752] Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 252.

sponsoring States to properly observe their responsibility to ensure, which are the direct obligations.[753]

The direct obligations are those that sponsoring States must comply with independently of their obligations to ensure a certain behaviour of the contractor, beyond the due diligence.[754] However, although these direct obligations are separated from the due diligence ones, their purposes are intertwined.[755] According to the Advisory Opinion *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area*, [756] these obligations include: the obligation to assist the Authority in the exercise of control over activities in the Area;[757] the

[753] International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 26.

[754] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 121; Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169, 183; Yoshifumi Tanaka, 'Principles of International Marine Environmental Law', in Rosemary Rayfuse, *Research Handbook on International Marine Environmental Law* (Cheltenham, United Kingdom: Edward Elgar Publishing, 2015), 31-56; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 138-140; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 473-480; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213, 218-221; Donald K. Anton, Robert A. Makgill and Cymie R. Payne, 'Seabed Mining – Advisory Opinion on Responsibility and Liability' (2011) 41(2) *Environmental Policy and Law* 60; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 253; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 5 and 6.

[755] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 121; additionally, in this regard, Papanicolopulu precisely states that: 'One could imagine that, in their "purest" form, due diligence obligations are broad and open-ended, leaving the choice of means to states as to how to try and reach their purpose. However, intense normative activity during the last decades has significantly reduced, if not eliminated the number of generic, stand-alone, due diligence obligations. In the law of the sea, we often find provisions that guide states in their exercise of due diligence, by identifying concrete measures that states may or must use (so-called proceduralisation). These rules can be included in the same legal instrument or in a different instrument. For example, while Article 139(1) of UNCLOS contains broad due diligence obligation that woul seem to admit of any means for its fulfilment, Article 4(4) Annex III of UNCLOS expressly obliges a state to adopt "laws and regulations" and to take "administrative measures" within its "legal system"' Irini Papanicolopulu, 'Due Diligence in the Law of the Sea', in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds.), *Due Diligence in the International Legal Order* (Oxford, United States: Oxford University Press, 2020), 158.

[756] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 122; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 212.

[757] *UNCLOS*, Art. 153(4).

obligation to apply a precautionary approach;[758] the obligation to apply best environmental practices;[759] the obligation to take measures to ensure the provision of guarantees in the event of an emergency order of the Authority for protection of the marine environment;[760] the obligation to ensure the availability of recourse for compensation in respect of damage caused by pollution;[761] and the obligation to conduct environmental impact assessments.[762]

Compliance with these direct obligations can be considered as a relevant factor in the application of the standard of due diligence and the fulfilment of the responsibility to ensure by the sponsoring States.[763] In other words, in order to observe the standard of due diligence, these obligations must be complied with. According to French,[764] the direct obligations are an integral part of the obligation of due diligence[765] and can be seen as a non-exhaustive basic requirement

[758] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).
[759] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 5(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 5(1).
[760] *Polymetallic Nodules Exploration Regulation,* Reg. 32(7); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(8); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(8).
[761] *UNCLOS*, Art. 235(2).
[762] *UNCLOS*, Art. 206; *1994 Implementation Agreement*, Sec. 1(7); *Polymetallic Nodules Exploration Regulation,* Reg. 31(6); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(6).
[763] 'the said obligations are in most cases couched as obligations to ensure compliance with a specific rule'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 122; Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169, 183; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 253.
[764] Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 547; Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169, 183; see also Jianjun Gao, 'The Responsibilities and Obligations of the Sponsoring States Advisory Opinion' (2013) 12(4) Chinese *Journal of International Law* 771.
[765] 'By incorporating many of these direct obligations into the due diligence obligation, the Chamber was thus able not only to concurrently strengthen both the due diligence and the direct obligations but also simultaneously broaden their remit'. Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 547; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 253.

list to be fulfilled as elements of due diligence by the sponsoring State as a starting point to achieve the due diligence.[766]

Nonetheless, despite them being mainly directed to sponsoring States, the sponsored contractors are not excluded from complying with some of these direct obligations. As it is well prescribed by the Mining Code, some of these direct obligations must be complied by the sponsored contractors at the international level.[767] Therefore, as this chapter is primarily concerned with analysing the obligations of private contractors, this chapter further focuses on the main direct obligations that must be considered not only by the sponsoring States and sponsored entities as a whole but also by private contractors when fulfilling their international obligations.

4.1.2 Necessary and appropriate measures to fulfil the environmental obligations

In addition to the legal responsibility and obligations and the potential liability that arise from non-compliance by the sponsoring States, both States and Contractors must implement the necessary and appropriate measures to fulfil their responsibilities under UNCLOS, particularly in accordance with Article 139 and Annex III, and the 1994 Implementation Agreement.[768] According to the Seabed Disputes Chamber '"the "due diligence" obligation "to ensure" requires the sponsoring State to take measures within its legal system and the measures to be "reasonably appropriate"'.[769] To substantiate this further, the Seabed Disputes Chamber described some specific examples of these reasonably appropriate measures: financial viability and technical capacity of sponsored contractors, conditions for issuing a certificate of sponsorship, penalties for non-compliance by sponsored contractors, enforcement mechanisms for active supervision of activities of the sponsored contractor and for coordination between the activities of the sponsoring State and ISA.[770]

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[766] Additionally, according to the Seabed Disputes Chamber 'It is important to stress that these obligations are mentioned only as examples'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 236.

[767] Michael Lodge, 'Protecting the Marine Environment of the Deep Seabed', in Rosemary Rayfuse, *Research Handbook on International Marine Environmental Law* (Oxford, United Kingdom: Routledge Publishers, 2015), 166.

[768] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 212; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213, 222 and 223.

[769] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 120.

[770] Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 485-487; Tim Poisel,

Article 153 of UNCLOS introduces for the first time the concept of the sponsoring State and the measures that it must take. Even though it does not specify the precise measures to be taken by the sponsoring State, 'it makes a cross-reference to article 139 of the Convention for guidance in the matter'.[771] Article 139(2) of UNCLOS provides that sponsoring States shall not be liable for damages caused by failures to comply with Part XI of a sponsored contractor, in accordance with article 153(2)(b), 'if the State Party has taken all necessary and appropriate measures to secure effective compliance under article 153, paragraph 4, and Annex III, article 4, paragraph 4'.[772] Unfortunately, Article 139(2) does not specify the measures that are 'necessary and appropriate'.[773]

With regard to the qualification of the applicants for prospecting, exploration and exploitation, Article 4(4), Annex III, of UNCLOS,[774] explains the terms 'necessary and appropriate measures' introduced by Article 139(2).[775] In the system of obligations and liability of sponsoring States, the 'necessary and appropriate measures' element has two distinct functions.[776] First, these measures have the function of ensuring compliance by the sponsored contractor with its obligations under UNCLOS, related instruments, and relevant contracts.[777] The second function is to exempt

'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213, 222 and 223; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 100 and 101; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 212-241.

[771] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 213; *UNCLOS*, Art. 139; *UNCLOS*, Art. 153; see also Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 11.

[772] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 214; *UNCLOS*, Art. 139(2); *UNCLOS*, Art. 153(2)(b); *UNCLOS,* Art. 153(4); *UNCLOS*, Art. 4(4), Annex III.

[773] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 215.

[774] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 215.

[775] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 216.

[776] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 217.

[777] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 217.

the sponsoring States from liability for damage caused by the sponsored contractor according to Article 139(2) and Article 4(4) Annex III.[778]

The scope and extent of the laws and regulations and administrative measures required by Article 4(4), Annex, of UNCLOS depend upon the legal system of the sponsoring State.[779] Sponsoring States must enact adequate legislation that ensures necessary and appropriate measures; otherwise, they will be required to enact new legislation to allow such measures.[780] Enforcement of the obligations of a sponsored contractor under the national law of the sponsoring State is essential, although not enough. [781] Additionally, it is incumbent upon sponsoring States to ensure the implementation of administrative measures designed to ensure compliance.[782] However, the existence of national laws, regulations and administrative measures is not a condition for the conclusion of a contract with the ISA but only 'a necessary requirement for compliance with the obligation of due diligence of the sponsoring State and for its exemption from liability'.[783]

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[778] 'The first of these functions has been illustrated in the reply to Question 1, in connection with the due diligence obligation of the sponsoring State to ensure compliance by the sponsored contractor, while the second has been partially addressed in the reply to Question 2 and will be further addressed in the following paragraphs'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 217; *UNCLOS*, Art. 139(2); *UNCLOS*, Art. 4(4), Annex III.

[779] 'The adoption of laws and regulations is prescribed because not all the obligations of a contractor may be enforced through administrative measures or contractual arrangements alone, as specified in paragraphs 223 to 226'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218. (emphasis added)

[780] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 486.

[781] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 486.

[782] 'Laws, Regs. and administrative measures may include the establishment of enforcement mechanisms for active supervision of the activities of the sponsored contractor. They may also provide for the coordination between the various activities of the sponsoring State and those of the Authority with a view to eliminating avoidable duplication of work'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218. (emphasis added)

[783] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 219; additionally, it is worth mention that 'It may be observed in this regard that the Nodules Regulations were approved after the pioneer investors had been registered. In view of this, certifying States are required, if necessary, to bring their laws, Regs. and administrative measures in keeping with the provisions of the Regulations" and "The national measures to be taken by the sponsoring State should also cover the obligations of the contractor even after the completion of the exploration phase, as provided for in regulation 30 of the Nodules Regulations and regulation 32 of the Sulphides Regulations'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 220-221.

In the same sense, Article 4(4), Annex III, of UNCLOS indicates that the measures taken by the sponsoring States are not identical with the obligations of contractual arrangements with a sponsored contractor.[784] This would be considered incompatible with the UNCLOS provision beforementioned, since 'the measures to be taken by the sponsoring State should be in the form of laws and regulations and administrative measures',[785] contractual obligations between the sponsoring States and the sponsored contractors are insufficient as a substitute:[786]

> The "contractual" approach would, moreover, lack transparency. It will be difficult to verify, through publicly available measures, that the sponsoring State had met its obligations. A sponsorship agreement may not be publicly available and, in fact, may not be required at all. Annex III of the Convention, and the Nodules Regulations and the Sulphides Regulations contain no requirement that a sponsorship agreement, if any, between the sponsoring States and the contractor should be submitted to the Authority or made publicly available. The only requirement is the submission of a certificate of sponsorship issued by the sponsoring State (regulation 11, paragraph 3(f), of the Nodules Regulations and of the Sulphides Regulations), in which the sponsoring State declares that it "assumes responsibility in accordance with article 139, article 153, paragraph 4, and Annex III, article 4, paragraph 4, of the Convention".[787]

Therefore, contractual arrangements alone cannot fulfil the obligations of sponsoring States with the ISA.[788]

With regard to the measures that will enable the triggering of responsibility, UNCLOS leaves it to the sponsoring State to determine,[789] since policy choices are matters of the sponsoring State.[790] The Seabed Disputes Chamber emphasised that judicial bodies must not perform functions with judicial character beyond their competence,[791] but considered appropriate to indicate general useful considerations for the sponsoring States in their measures in accordance

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[784] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 223.
[785] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 223.
[786] 'Nor would they establish legal obligations that could be invoked against the sponsoring State by entities other than the sponsored contractor'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 224. (emphasis added); Rosemary Rayfuse, 'Differentiating the Common Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 486.
[787] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 225.
[788] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 226.
[789] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 227.
[790] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 227.
[791] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 227.

with Article 139(2), Article 153(4), and Article 4(4), Annex III, of UNCLOS.[792] These measures must be determined by the sponsoring State within its national legal system through law, regulations and administrative measures.[793] If the aforementioned measures are deemed to be reasonably appropriate, the sponsoring State is not supposed to be liable for damages resulting from the sponsored contractor in its non-compliance with its obligations.[794]

However, sponsoring States do not have absolute discretion with respect to the measures they must take.[795] In this sense, 'In the sphere of the obligation to assist the Authority acting on behalf of mankind as a whole, while deciding what measures are reasonably appropriate, the sponsoring State must take into account, objectively, the relevant options in a manner that is reasonable, relevant and conducive to the benefit of mankind as a whole'.[796] Sponsoring States must thus act in good faith in accordance with Articles 154(4) and 300 of UNCLOS.[797] By being granted exclusive rights for exploration or exploitation of a particular resource in an area, the sponsoring States must exercise their rights only in the respective areas and conduct activities in the restricted area and under the authority of the ISA to take into account the common heritage of mankind and good faith.[798]

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[792] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 227.
[793] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 229.
[794] 'The obligation is to act within its own legal system, taking into account, among other things, the particular characteristics of that system'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 229.
[795] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 230.
[796] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 230.
[797] 'The need to act in good faith is also underlined in articles 157, paragraph 4, and 300 of the Convention'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 230.
[798] Robert Kolb, *Good Faith in International Law* (London, United Kingdom: Hart Publishing, 2017), 15-28; in the same sense, see Jorum Baumgartner, 'Good Faith as a General Principle of (International) Law', in Andrew Mitchell, M. Sornarajah and Tania Voon, *Good Faith and International Economic Law* (Oxford, United Kingdom: Oxford University Press, 2015), 15-28; In this sense, according with Xu, in order to express of good faith the following points should be considered in the legislation of the sponsoring States to fulfil its obligations of due diligence: '1) strict requirements of access to a license for exploration and exploitation activities in the Area; 2) clear provisions regarding environmental obligations of a contractor as well as monitoring its compliance together with enforceable measures to obey those obligations; 3) a contractor's rights and the guarantee of those rights; 4) due consideration to social-cultural impacts in the mining area; and 5) due regard to other sea users and cumulative impacts. The inability of State to demonstrate those requirements would be seen as an act of bad faith or a failure of due diligence'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 102.

Another point that must be considered is that reasonableness and non-arbitrariness are considered by sponsoring States.[799] The sponsoring States must provide a regulation that follows a certain minimum standard of stringency.[800] Article 21(3), Annex III, of UNCLOS provides that:

> No State Party may impose conditions on a contractor that are inconsistent with Part XI. However, the application by a State Party to contractors sponsored by it, or to ships flying its flag, of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted pursuant to article 17, paragraph 2(f), of this Annex shall not be deemed inconsistent with Part XI.[801]

This provision precludes sponsoring States from imposing conditions that are incompatible with UNCLOS, particularly Part XI, to sponsored contractors.[802] However, the Convention itself establishes an exception for sponsoring States to apply to sponsored contractors environmental or other laws and regulation more stringent than the rules, regulations and procedures of the ISA,[803] provided that they are adopted pursuant Article 17(2)(f), Annex III, of UNCLOS, that deals with the protection of the environment.[804] However, in its obligation to ensure that the sponsored contractor complies with its contract, it is inherent in the due diligence obligation of the sponsoring State that it must adopt laws and regulations and take administrative measures 'which do not hinder the contractor in the effective fulfilment of its contractual obligations'.[805]

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[799] 'Any failure on the part of the sponsoring State to act reasonably may be challenged before this Chamber under article 187(b) (i) of the Convention.' *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 230.

[800] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 231.

[801] *UNCLOS*, Art. 21(3), Annex III; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 231.

[802] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 232.

[803] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 232

[804] 'Protection of the marine environment: Rules, Regs. and procedures shall be drawn up in order to secure effective protection of the marine environment from harmful effects directly resulting from activities in the Area or from shipboard processing immediately above a mine site of minerals derived from that mine site, taking into account the extent to which such harmful effects may directly result from drilling, dredging, coring and excavation and from disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents'. *UNCLOS*, Art. 17(2)(f), Annex III.

[805] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 238-239; in the same sense 'Article 209, paragraph 2, of the Convention is based on the same approach. According to this provision, the requirements contained in the laws and regulations that States adopt concerning pollution of the marine environment from activities in the Area "undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority . . . shall be no less effective than the international rules, regulations, and procedures" established under Part XI, which consist primarily of the international rules, Regs. and procedures adopted by the Authority'. *Responsibilities and*

Moreover, the sponsoring State is obliged to ensure that the contractor complies with the accountability requirements under the deep seabed mining regime and obligations.[806] In this regard, the sponsored contractor 'shall carry out its activities in the Area "in conformity with" the terms of its contract with the Authority and its obligations under the Convention'.[807] Also, it is the responsibility of the sponsoring State 'to ensure that the contractor carries out this obligation'.[808] It will be left to the discretion of each sponsoring State to include in its national law provisions for the implementation of its obligations under UNCLOS. [809]

Many UNCLOS provisions specify issues that must be covered by the national legislation of the sponsoring States. [810] One example is the provision concerning the application of decisions of the Chamber of the ISA under Article 39 of the Statute of ITLOS, which states: 'The decisions of the Chamber shall be enforceable in the territories of the States Parties in the same manner as judgements or orders of the highest court of the State Party in whose territory the enforcement is sought'.[811] Depending on the legislation of the sponsoring State, the enforcement of the decision of the Chamber may require a specific legislation for implementation.[812] In the same sense, another

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Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion, 1 February 2011), para. 241.

[806] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 233.

[807] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 233.

[808] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 233.

[809] 'These provisions may concern, inter alia, financial viability and technical capacity of sponsored contractors, conditions for issuing a certificate of sponsorship and penalties for non-compliance by such contractors'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 234; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 487.

[810] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 235.

[811] Statute of ITLOS, Art. 39; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 235.

[812] Regarding the applicable law, Article 21, Annex III, of UNCLOS provides: '1. The contract shall be governed by the terms of the contract, the rules, regulations and procedures of the Authority, Part XI and other rules of international law not incompatible with this Convention. 2. Any final decision rendered by a court or tribunal having jurisdiction under this Convention relating to the rights and obligations of the Authority and of the contractor shall be enforceable in the territory of each State Party. 3. No State Party may impose conditions on a contractor that are inconsistent with Part XI. However, the application by a State Party to contractors sponsored by it, or to ships flying its flag, of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted pursuant to article 17, paragraph 2(f), of this Annex shall not be deemed inconsistent with Part XI.' *UNCLOS*, Art. 21, Annex III; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 235.

example can be found in the already mentioned direct obligations that were specified by the Seabed Disputes Chamber and quoted previously.[813] The subject of national legislation will be analysed in more detail in the chapter 6.

4.2 Specific international environmental obligations of contractors

Private contractors are not subject to international law in the same way as their sponsoring States or some public contractors. However, some international environmental obligations can be imposed on private entities conducting deep seabed mining activities.[814] The source of these international obligations of the contractors is presented not only in the international legal framework for the deep seabed mining regime itself but also the signed contract with the ISA as well.

A working group of the ISA has identified a series of environmental obligations that should be incorporated in any legal framework for deep seabed mining activities and imposed to

[813] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 120; additionally, the sponsoring States must keep their national legislation under review following the new developments of the international law. Peter H. Henley, 'Minerals and Mechanisms: The Legal Significance of the Notion of the Common Heritage of Mankind in the Advisory Opinion of the Seabed Disputes Chamber' (2011) 12(2) *Melbourne Journal of International Law* 373, 379; In this same sense: 'The principle of "kept under review" should be understood from two perspectives. On the one hand, sponsoring States must keep pace with the development of the ISA regulations. When the ISA adopts new regulations or amends existing regulations, the sponsoring State shall react accordingly, by at least meeting the minimum standard of the ISA regulations. on the other hand, even if there is no update of ISA regulations, the sponsoring States shall proactively and regularly (for example, every five years) review their legislation. The power to review national legislation should be given to the legislative agency of the sponsoring States. The sponsoring States should also have to amend their legislation as new information becomes available or good industry practices and best environmental practices are updated, which is also a requirement of the "due diligence" obligation'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 105 (emphasis added); Ian Browlie, *Principles of Public International Law* (7th edn., Oxford, United Kingdom: Oxford University Press, 2008), 635-636.

[814] 'A State that chooses to sponsor a private entity to carry out mineral activities in the Area incurs significant legal responsibilities. The sponsoring State's primary obligation is to ensure compliance by its sponsored contractor with the terms of its contract with the Authority, the obligations of the Convention, and the provisions of any regulations adopted by the Authority. That imposes a "due diligence" obligation on the sponsoring State, requiring it to exercise effective legal and administrative control over its sponsored contractor. The effective implementation of the sponsoring State's due diligence obligation requires a range of measures: regulatory, administrative, institutional and financial'. Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 246; International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 25.

contractors:[815] duty to protect and preserve marine environment;[816] precautionary approach;[817] duty to prevent, reduce and control pollution from seabed activities;[818] best environmental practice;[819] duty to prevent transboundary harm;[820] duty to conserve biodiversity;[821] prior environmental impact assessment of activities likely to cause significant harm;[822] ongoing monitoring of environmental impacts;[823] and sustainable development and integrated management.[824] These obligations express that national legislation must be consistent with UNCLOS.[825] Despite being autonomous and individualised, as demonstrated further, some of these obligations are intertwined with other obligations.

In accordance with the Mining Code, the ISA also has provided several duties and obligations that must be incorporated by the States in their legislation. Under the Exploration Regulations, these include: inclusion of environmental information with the application;[826] attainment of the necessary measures to prevent, reduce, and control environmental hazards by applying a precautionary approach and best environmental practices;[827] implementation of

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[815] International Seabed Authority, *Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals: Report of a workshop held by The International Seabed Authority in collaboration with the Government of Fiji and the SOPAC Division of the Secretariat of the Pacific Community (SPC) in Nadi, Fiji, from 29 November to 2 December 2011* (29 November 2011-2 December 2011), ISA Technical Study: No. 10/2011, < https://nicholasinstitute.duke.edu/ocean/publications/management/environmental-management-needs-for-exploration-and-exploitation-of-deep-sea-minerals> (accessed 25 June 2023), para. 29-30.
[816] *UNCLOS*, Art. 192.
[817] *Rio Declaration,* Principle 15; see Antonio Augusto Cançado Trindade, 'Principle 15', in Jorge Viñuales, *The Rio Declaration on Environment and Development: A Commentary* (Oxford, United Kingdom: Oxford University Press, 2015), 412.
[818] *UNCLOS,* Art. 208.
[819] *UNCLOS,* Art. 194.
[820] *UNCLOS,* Art. 194.
[821] *Convention on Biological Diversity* (1992 Convention on Biological Diversity), Adopted 5 June 1992, entered into force 4 June 1993, United Nations, Art. 3.
[822] *UNCLOS*, Art. 206.
[823] *UNCLOS,* Art. 204.
[824] *UNCLOS,* Art. 119.
[825] Additionally, the working group express the necessity of inclusion of the following principles: '"Polluter pays" principle (Rio Declaration); Regional cooperation/integration in monitoring, processing and capacity-building (Articles 276- 277, UNCLOS); Identifying mechanisms of capacity building (Part XI, UNCLOS); Accountability and transparency (Aarhus Convention)'. International Seabed Authority, *Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals: Report of a workshop held by The International Seabed Authority in collaboration with the Government of Fiji and the SOPAC Division of the Secretariat of the Pacific Community (SPC) in Nadi, Fiji, from 29 November to 2 December 2011* (29 November 2011-2 December 2011), ISA Technical Study: No. 10/2011, < https://nicholasinstitute.duke.edu/ocean/publications/management/environmental-management-needs-for-exploration-and-exploitation-of-deep-sea-minerals> (accessed 25 June 2023), para. 30.
[826] *Polymetallic Nodules Exploration Regulation,* Reg. 18(1)(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 20(1)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 20(1)(b).
[827] *Polymetallic Nodules Exploration Regulation,* Reg. 31(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5).

monitoring and evaluation programs in cooperation with the ISA;[828] gathering of environmental baseline data and establishing baselines, taking into account recommendations of the LTC;[829] and delivery of annual reports to the ISA.[830] The internalisation of these obligations will be better investigated in chapter 6.

The Draft Exploitation Regulations contains the same and other environmental duties and obligations. The distinct obligations in comparison to the Exploration Regulations are: reasonable regard for other activities in the marine environment;[831] incident prevention and response;[832] and notification of incidents.[833] Hence, by successfully following the aforementioned duties and obligations, the sponsoring State and sponsored contractors will be on the correct path to act with due diligence in their pursuit of conducting deep seabed mining activities and complying with their international legal responsibilities and obligations.

At the international level, the obligations presented must be implemented by both the ISA and sponsoring States. However, like the sponsoring States and the ISA, sponsored contractors must comply with some environmental obligations, such as the precautionary approach and best environmental practices,[834] the environmental impact assessment, and cooperation to establish, implement and report through a monitoring programme.[835]

For instance, the application of a plan of work shall 'be accompanied by an assessment of the potential environmental impacts of the proposed activities and by a description of a programme for oceanographic and baseline environmental studies in accordance with the rules, regulations and procedures adopted by the Authority'.[836] Also, to conduct an environmental impact

[828] *Polymetallic Nodules Exploration Regulation,* Reg. 31(6); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(6).
[829] *Polymetallic Nodules Exploration Regulation,* Reg. 32(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 34(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 34(1).
[830] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 10; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 10; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 10.
[831] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 31.
[832] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 33.
[833] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 34.
[834] *Polymetallic Nodules Exploration Regulation,* Reg. 31(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5); see also Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 138-142.
[835] *Polymetallic Nodules Exploration Regulation,* Reg. 32(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 34(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 34(2).
[836] 1994 Implementation Agreement, Annex, Sec. 1(7); additionally, see the Mining Code. *Polymetallic Nodules Exploration Regulation,* Reg. 18; *Polymetallic Sulphides Exploration Regulation,* Reg. 20; *Cobalt-rich*

assessment, 'each contract shall require the contractor to gather environmental baseline data and to establish environmental baselines'.[837] After that, the contractor is responsible for monitoring the environment during and after the execution of the contract. At the same time, the Legal and Technical Commission shall provide recommendation guidance to the contractors concerning the way they conduct the EIA.[838]

Moreover, the contractor is obliged to fulfil certain obligations in the event of an environmental emergency. In this regard, contractors must provide that they have the financial and technical capability to give a due response prior to their activities to possible environmental emergencies,[839] including a contingency plan.[840] In the event of incidents or threats, the contractor has to promptly report to the ISA so the Council and the Secretary-General can issue emergency orders.[841] In case of non-compliance with these emergency measures, the Council will take reasonable measures,[842] which will lead to the reimbursement to the ISA and possible monetary penalties imposed on the responsible contractor.[843]

Ferromanganese Crusts Exploration Regulations, Reg. 20; see also the Standard Clauses. *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 4; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 4; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 4.

[837] *Polymetallic Nodules Exploration Regulation,* Reg. 32(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 34(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 34(1).

[838] International Seabed Authority, Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area (2 November 2010), ISA Doc. ISBA/16/LTC/7, < https://digitallibrary.un.org/record/733388?ln=en> (accessed 25 June 2023), para. 6; see International Seabed Authority, *Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area. International Seabed Authority* (1 March 2013), ISA Doc. ISBA/19/LTC/8, para. 15-26; International Seabed Authority, *Developing a Regulatory Framework for Mineral Exploitation in the Area: Stakeholder Engagement* (Kingston, Jamaica: *International Seabed Authority*. 2014), <https://oceanfdn.org/sites/default/files/Developing%20a%20Regulatory%20Framework%20for%20Mineral%20Exploitation%20in%20the%20Area.pdf> (accessed 17 December 2022), para 18.

[839] *Polymetallic Nodules Exploration Regulation,* Regs. 21(3)(c) and 33(8); *Polymetallic Sulphides Exploration Regulation,* Regs. 23(3)(c) and 35(7); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 23(3)(1) and 33(7).

[840] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 6(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 6(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 6(1).

[841] *Polymetallic Nodules Exploration Regulation,* Reg. 33(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(1); see also *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 6(2); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 6(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 6(2).

[842] *Polymetallic Nodules Exploration Regulation,* Reg. 33(7); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(7); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(7).

[843] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 6(4); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 6(4); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 6(4); International Seabed Authority, *Developing a Regulatory Framework for Mineral Exploitation in the Area: Stakeholder Engagement* (Kingston, Jamaica: *International Seabed Authority*. 2014),

These are some of the international environmental obligations that may be imputed to the private contractors engaged in activities in the Area. However, these obligations are not exhaustive. The drafting of the Exploitation Regulations opens the possibility to new obligations in order to properly adequate the deep seabed mining activities conducted by the sponsored contractors.[844] Thus, in order to cover the main environmental obligations that sponsored contractors must comply with, the next section of this chapter will focus on the analysis of the already established direct obligations expressed by the Seabed Disputes Chamber that both sponsoring States and sponsored contractors must comply with.[845]

4.3 Direct obligations

4.3.1 Obligation to assist the Authority

The first direct obligation is the obligation to assist the Authority in the exercise of control over activities in the Area.[846] Article 153(4) of UNCLOS highlights that the sponsoring States have the obligation to assist the Authority in its purpose of ensuring compliance with the relevant legal framework for the deep seabed mining regime 'by taking all measures necessary to ensure such compliance in accordance with article 139'.[847] Despite being a direct obligation, it must be met through compliance with the due diligence obligation in accordance with Article 139 of UNCLOS.[848]

<https://oceanfdn.org/sites/default/files/Developing%20a%20Regulatory%20Framework%20for%20Mineral%20Exploitation%20in%20the%20Area.pdf> (accessed 17 December 2022), para. 17.

[844] In this regard, according to some authors, in the development of the Mining Code, the ISA established the following principles regarding the protection of the environment in deep seabed mining activities: the common heritage of mankind, the precautionary approach, prior environmental impact assessment, conservation and sustainable use of biodiversity and transparency. see Michael Lodge, 'Protecting the Marine Environment of the Deep Seabed', in Rosemary Rayfuse, *Research Handbook on International Marine Environmental Law* (Oxford, United Kingdom: Routledge Publishers, 2015), 166; Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 2.

[845] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 122.

[846] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 124; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 477.

[847] *UNCLOS*, Art. 153(4).

[848] *UNCLOS*, Art. 139.

Regarding the contractor, the Exploration Regulations provide that they shall permit the ISA to send inspectors to '(a) Monitor the Contractor's compliance with the terms and conditions of the contract and the Regulations; and (b) Monitor the effects of such activities on the marine environment'.[849] To facilitate the work of the Authority, the contractors shall: accept and facilitate prompt and safe boarding of vessels and installations by inspectors; cooperate with and assist in the inspection of any vessel or installation conducted pursuant to these procedures; provide access to all relevant equipment, facilities and personnel on vessels and installations at all reasonable times; do not obstruct, intimidate or interfere with inspectors in the performance of their duties; provide reasonable facilities, including, where appropriate, food and accommodation, to inspectors; and facilitate safe disembarkation by inspectors.[850]

The Draft Exploitation Regulations refers to the need of the contractor to 'permit the Authority to send its Inspectors, who may be accompanied by a representative of its State or other party concerned, in accordance with Article 165(3) of the Convention, aboard vessels and Installations, whether offshore or onshore' in those installations used by the contractors.[851] To that end, 'members of the Authority, in particular the sponsoring State or States, shall assist the Council, the Secretary-General and Inspectors in discharging their functions under the Rules of the Authority'.[852]

4.3.2 Precautionary approach

The precautionary approach is a well-known concept within the international dispute settlement system. Despite its first appearances being found in early cases at ICJ,[853] it was only in the case *Pulp Mills on the River Uruguay* that the approach was substantiated by further

[849] *Polymetallic Nodules Exploration Regulation,* Annex IV, Secs. 14(1) and (4); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Secs. 14(1) and (4); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Secs. 14(1) and (4);
[850] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 14(4); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 14(4); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 14(4).
[851] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex IV, Regs. 96(2) and (5).
[852] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex IV, Regs. 96(2) and (5).
[853] The first appearance of the precautionary approach can be found at the case *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgement of 20 December 1974 in the Nuclear Tests (New Zealand v. France)*, Order of 22 September 1995. see International Court of Justice, *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgement of 20 December 1974 in the Nuclear Tests (New Zealand v. France)*, Order of 22 September 1995, ICJ Reports 1996, 288.

evidence.[854] ITLOS, in the *Southern Bluefin Tuna*, reflected that there is an implicit link between due diligence and the precautionary approach.[855] Such position was reaffirmed albeit supported by less evidence in decisions that followed. In cases such as *MOX Plant*,[856] *Land Reclamation,*[857] and others,[858] the Tribunal limited itself to highlight precaution implicitly by only making reference to the necessity of 'prudence and caution' in its prescription of provisional measures.[859] Following that, the Seabed Disputes Chamber was inclined to consider the precautionary approach as customary international law following the trend initiated by Principle 15 of the Rio Declaration.[860] This trend has resulted in the incorporation of the approach into the standard clause of the

[854] In this sense, the Disputes Chamber States that: 'So does the following statement in paragraph 164 of ICJ Judgement in Pulp Mills on the River Uruguay that "a precautionary approach may be relevant in the interpretation and application of the provisions of the Statute" (i.e., the environmental bilateral treaty whose interpretation was the main bone of contention between the parties). This statement may be read in light of article 31, paragraph 3(c), of the Vienna Convention, according to which the interpretation of a treaty should take into account not only the context but "any relevant rules of international law applicable in the relations between the parties"'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 135.

[855] *Southern Bluefin Tuna*, paras. 77-80; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 215-216.

[856] International Tribunal for the Law of the Sea, *MOX Plant (Ireland v. United Kingdom),* Order of 3 December 2001, ITLOS Reports 2001, para. 89(1)(a).

[857] International Tribunal for the Law of the Sea, *Land Reclamation in and around the Straits of Johor (Malaysia v. Singapore)*, Provisional Measures, Order of 8 October 2003, ITLOS Reports 2003, para. 106(1)(b).

[858] In addition to these cases, the *M/V Louisa* and the *Dispute Concerning the Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean* presented application of the principle. However, the first only reiterated what was argued in previous cases, while the second, even though the Tribunal did not make explicit citations at first, prescribed measures with the aim of remedying perforations in the face of the scientific uncertainty of an environmental impact. International Tribunal for the Law of the Sea, *M/V Louisa Case (Saint Vincent Grenadines v. Spain)*, *provisional measures*, Order of 23 December 2010, ITLOS Reports 2010, para. 77; International Tribunal for the Law of the Sea, *Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana v; Côte d'Ivoire),* Provisional Measures, Order 25 April 2015, ITLOS Reports 2015, para. 108.

[859] *MOX Plant* (Order of 3 December 2001), 2001, para. 89(1)(a); International Tribunal for the Law of the Sea, *MOX Plant (Ireland v. United Kingdom)*, Separate Opinion of Judge *ad hoc* Székeley, 3 December 2001, ITLOS Reports 2001, para. 22-24; para. 22-24; *Land Reclamation in and around the Straits of Johor* (Order of 8 October 2003), para. 99; Jacqueline Peel, 'Precaution: A Matter of Principle, Approach or Process?' (2004) 5 *Melbourne Journal of International Law* 1, 5; nesse mesmo sentido Cf. Nicolas de Sadeleer, 'The principles of prevention and precaution in international law: two heads of the same coin?', in Malgosia Fitzmaurice, David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 205; Yoshifumi Tanaka, 'Principles of International Marine Environmental Law', in Rosemary Rayfuse, *Research Handbook on International Marine Environmental Law* (Cheltenham, United Kingdom: Edward Elgar Publishing, 2015), 42 and 43; Rüdiger Wolfrum, 'Precautionary Principle', in Jean-Pierre Beurier, Alexander Kiss and Said Mahmoudi (eds). *New Technologies and Law of the Marine Environment* (Hague, Netherlands: Kluwer Law International, 2000), 211.

[860] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 135.

regulations of the ISA.[861] In other words, the obligation to apply the precautionary approach is present by both the Mining Code and the Advisory Opinion *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area*.[862]

The Mining Code has brought the necessity to apply the precautionary approach among its provisions. In this regard, the Exploration Regulations express that:

> In order to ensure effective protection for the marine environment from harmful effects which may arise from activities in the Area, the Authority and sponsoring States shall apply a precautionary approach, as reflected in principle 15 of the Rio Declaration, and best environmental practices.[863]

In the ISA, the LTC is responsible for conveying the recommendations to the Council in order to implement the obligation.[864] Despite the provision in the Exploration Regulations, precaution must also be applied during the prospecting phase of the activities.[865] Also, this

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[861] *Polymetallic Nodules Exploration Regulation,* Annex 4, Sec. 5(1); *Polymetallic Sulphides Exploration Regulation,* Annex 4, Sec. 5(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex 4, Sec. 5(1).

[862] Elsa Kelly, 'The Precautionary Approach in the Advisory Opinion Concerning the Responsibilities and Obligations of States and Entities with Respect to Activities in the Area', in ITLOS, *The Contribution of the International Tribunal for the Law of the Sea to the Rule of Law: 1996–2016* (Leiden, Netherlands: Brill Nijhoff, 2017), 45-57; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 138; Tullio Treves, 'Environmental Impact Assessment and the Precautionary Approach: Why Are International Courts and Tribunals Reluctant to Consider Them as General Principles of Law?', in Mads Andenas, Malgosia Fitzmaurice, Attila Tanzi and Jan Wouters, *General Principles and the Coherence of International Law* (2019) 37 Queen Mary Studies in International Law 379, 379-388; Laurence Boisson de Chazournes, 'Precaution in International Law: Reflection on its Composite Nature', in Tafsir Malick Ndiaye, Rüdiger Wolfrum and Chie Kojima (eds.), *Law of The Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah* (Leiden, Netherlands: Martinus Nijhoff Publishers and VSP, 2007), 23; Katie Steele, 'The Precautionary Principle: a new approach to public decision-making?' (2006) 5 *Law, Probability and Risk* 19, 19; Amael Notini Moreira Bahia and Lucas Carlos Lima, 'A obrigação do estudo de impacto ambiental no Direito Internacional', in Cristiane Derani Aline Beltrame de Moura and Patrícia Grazziotin Noschang (eds,), *A Regulação Europeia sobre a Água, Energia e Alimento para a Sustentabilidade Ambiental* (1st edn., Florianópolis, Brazil: Emais Editora, 2021), 105-116; Nilüfer Oral, 'The International Law Commission and the Progressive Development and Codification of Principles of International Environmental Law' (2019) 13(6) *FIU Law Review* 1, 1080; Alan Boyle, 'The Environmental Jurisprudence of the International Tribunal for the Law of the Sea' (2007) 22(3) *The International Journal of Marine and Coastal Law* 369; International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 27.

[863] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).

[864] *Polymetallic Nodules Exploration Regulation,* Reg. 31(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(3); Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 177.

[865] *Polymetallic Nodules Exploration Regulation,* Regs. 2(2) and 5(1); *Polymetallic Sulphides Exploration Regulation,* Regs. 2(2) and 5(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 2(2) and 5(1).

obligation is extended to the sponsoring States or sponsored contractors as an obligation to 'take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the Area as far as reasonably possible applying a precautionary approach and best environmental practices'.[866] In turn, UNCLOS has not expressly presented the approach in part XI.

The original 2000 Polymetallic Nodules Exploration Regulations only required the ISA and sponsoring States to apply the precautionary approach.[867] This was changed only in the revision in 2013 and the Polymetallic Sulphides Exploration Regulations and Cobalt Rich Ferromanganese Crusts Exploration Regulations.[868] At first glance, the first 13 exploration contracts concluded under the 2000 Polymetallic Nodules Exploration Regulations do not, at least expressly, include the obligation of the contractor to apply the precautionary approach. However, as will be demonstrated with more detail in the next chapter, the Seabed Disputes Chamber in its Advisory Opinion stated that sponsoring States have the obligation to take measures within their national legislation to ensure the application of the precautionary approach by the sponsored contractors.[869]

However, the Exploration Regulations impose direct obligations for the sponsoring States.[870] These regulations state that: 'In order to ensure effective protection for the marine environment from harmful effects' the ISA and sponsoring States 'shall apply a precautionary approach, as reflected in principle 15 of the Rio Declaration, and best environmental practices'.[871] Principle 15 of the Rio Declaration reads:

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[866] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 5(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 5(1).
[867] International Seabed Authority, Regulation 31(2). Decision of the Assembly relating to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (4 October 2000), ISA Doc. ISBA/6/A/18, 19; Aline Jaeckel, The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 178.
[868] Polymetallic Nodules Exploration Regulation, Reg. 31(2); Polymetallic Sulphides Exploration Regulation, Reg. 33(2); Cobalt-rich Ferromanganese Crusts Exploration Regulations, Reg. 33(2).
[869] Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Advisory Opinion, 1 February 2011), para. 134.
[870] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 125; Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 568.
[871] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.[872]

Therefore, the Exploration Regulations transformed the precautionary approach, as stated in Principle 15, into a binding obligation to sponsoring States to conduct activities in the Area.[873] Nonetheless, currently this reference to the precautionary approach is made only in the Exploration Regulations that involve activities of prospecting and exploration of the Area.[874] The Draft Exploitation Regulations followed the same path by establishing the precautionary approach both as a fundamental policy and principle and as a general obligation concerning the protection of the marine environment.[875]

The Draft Exploitation Regulations also state the requirement for the ISA to:

(e) Provide, pursuant to article 145 of the Convention, for the effective protection of the Marine Environment from the harmful effects which may arise from Exploitation, in accordance with the Authority's environmental policy, including regional environmental management plans, based on the following principles: … (ii) The application of the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and Development.[876]

Furthermore, Regulation 44(a) highlights that:

The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring effective protection for the Marine Environment from harmful effects in accordance with the rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall: (a) Apply the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and

[872] *Rio Declaration,* Principle 15.
[873] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 127.
[874] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2); In the same sense: '133. It should be further noted that the Sulphides Regulations, Annex 4, Sec. 5.1, in setting out a "standard clause" for exploration contracts, provides that: 'The Contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the Area as far as reasonably possible applying a precautionary approach and best environmental practices.' Thus, the precautionary approach (called "principle" in the French text of the standard clause just mentioned) is a contractual obligation of the sponsored contractors whose compliance the sponsoring State has the responsibility to ensure. 134. In the parallel provision of the corresponding standard clauses for exploration contracts in the Nodules Regulations, Annex 4, Sec. 5.1, no reference is made to the precautionary approach. However, under the general obligation illustrated in paragraph 131, the sponsoring State has to take measures within the framework of its own legal system in order to oblige sponsored entities to adopt such an approach'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 133 and 134.
[875] *Draft regulations on exploitation of mineral resources in the Area*, Regs. 2, 44(a) and (b).
[876] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 2(e)(ii).

Development, to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area.[877]

Concerning the application of the precautionary approach, it is pertinent to consider the thresholds of the precautionary approach in the context of the environmental obligations of the ISA. In this regard, Jaeckel give some considerations about the precautionary approach and the ISA.[878] In her own words, 'In order to trigger the obligation to take remedial action, however, a certain threshold of risk, that is gravity times probability of harm, must be reached'.[879] This may prevent precaution from being invoked in any unnecessary minor case of a threat.[880] In the Mining Code, the Exploration Regulations establish a general threshold for precaution by citing that the application of the approach must be in order 'to ensure effective protection for the marine environment from harmful effects'.[881] However, while the Exploration Regulation established one threshold, the Seabed Disputes Chamber determined a lower threshold to the precautionary approach as an element of due diligence by referring to the following situation: 'where there are plausible indications of potential risks'.[882] The assessment of the threshold of environmental harm is contingent upon the obligation of environmental impact assessment.[883]

[877] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 44(a)
[878] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 179-186; see Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 5 and 6; International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 28.
[879] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 179.
[880] Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 6; *UNCLOS*, Art. 162(2)(w) and (x); *UNCLOS*, Art. 290(1).
[881] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2); *UNCLOS*, Art. 145.
[882] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 131; in this sense, Warner states that: 'The LOSC and Exploration Regulations set a higher threshold, that of serious harm, for particularly far-reaching measures, such as emergency orders to suspend or adjust operations to prevent serious harm to the marine environment from activities in the Area, disapproval of areas for exploitation by contractors in cases where substantial evidence indicates the risk of serious harm and in relation to the prescription of provisional measures in a dispute to prevent serious harm to the marine environment'. Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 6.
[883] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 47(3)(d)

Regarding the connection between due diligence and the precautionary approach, the Seabed Disputes Chamber stated:

> Having established that under the Nodules Regulations and the Sulphides Regulations, both sponsoring States and the Authority are under an obligation to apply the precautionary approach in respect of activities in the Area, it is appropriate to point out that the precautionary approach is also an integral part of the general obligation of due diligence of sponsoring States, which is applicable even outside the scope of the Regulations. The due diligence obligation of the sponsoring States requires them to take all appropriate measures to prevent damage that might result from the activities of contractors that they sponsor. This obligation applies in situations where scientific evidence concerning the scope and potential negative impact of the activity in question is insufficient but where there are plausible indications of potential risks. A sponsoring State would not meet its obligation of due diligence if it disregarded those risks. Such disregard would amount to a failure to comply with the precautionary approach.[884]

In other words, the Seabed Disputes Chamber highlights the connection between due diligence and the precautionary approach as developed by the *Southern Bluefin Tuna* and Principle 15 of the Rio Declaration.[885] Both the ISA and sponsoring States are thus under the obligation to apply the precautionary approach due to its relevance as an integral part of the general obligation of due diligence, even outside of the scope of the regulations.[886] As part of the due diligence, sponsoring States must apply this approach in occasions that may result in damage caused by activities conducted by sponsored contractors and 'where scientific evidence concerning the scope and potential negative impact of the activity in question is insufficient but where there are plausible

[884] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 131.
[885] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 132; *Southern Bluefin Tuna*, para. 77-80*; see* Antonio Augusto Cançado Trindade, 'Principle 15', in Jorge Viñuales, *The Rio Declaration on Environment and Development: A Commentary* (Oxford, United Kingdom: Oxford University Press, 2015); Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 214.
[886] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 131; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 214; Irini Papanicolopulu, 'Due Diligence in the Law of the Sea', in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds.), *Due Diligence in the International Legal Order* (Oxford, United States: Oxford University Press, 2020), 153; see also Jorge E. Viñuales, 'Due Diligence in International Environmental Law: A Fine-grained Cartography', in Heike Krieger, Anne Peters and Leonhard Kreuzer, *Due Diligence in the International Legal Order* (Oxford, United Kingdom: Oxford University Press, 2020), 111-128.

indications of potential risks'.[887] Thus, it is appropriate to incorporate the precautionary approach into the duty of due diligence of the sponsoring States.[888]

Due to the uncertainty that surrounds mining activities in the Area, the precautionary approach must be followed to allow these activities, according to Principle 15 of the Rio Declaration.[889] The precautionary approach requires the implementation of an environmental impact assessment of the risk of harm that is certain to occur and the subsequent implementation of proportional action to protect the environment against such harm.[890] The allegation of scientific uncertainty cannot be used as an excuse to avoid the prevention of uncertain environmental damages, especially when dealing with seabed mining; thus, the level of risk of damage that is acceptable must be established accordingly.[891]

As acknowledged by the Seabed Disputes Chamber in the Advisory Opinion *Responsibilities and Obligations of States and Entities with Respect to Activities in the Area*[892] and the Exploration Regulations,[893] besides the sponsoring States and the ISA,[894] the contractor is required to apply the precautionary approach as reflected in Principle 15 of the Rio Declaration.[895]

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[887] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 131.
[888] Duncan French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) 26(4) *The International Journal of Marine and Coastal Law* 525, 548.
[889] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 94.
[890] C. Smith, L. Levin, A. Koslow, P. Tyler and A. Glover. 'The near future of the deep-sea floor ecosystems', in N. Polunin (Eds.), *Aquatic Ecosystems: Trends and Global Prospects* (Cambridge, United Kingdom: Cambridge University Press, 2008), 349.
[891] C. Smith, L. Levin, A. Koslow, P. Tyler and A. Glover. 'The near future of the deep-sea floor ecosystems', in N. Polunin (Eds.), *Aquatic Ecosystems: Trends and Global Prospects* (Cambridge, United Kingdom: Cambridge University Press, 2008), 349.
[892] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 125.
[893] *Polymetallic Nodules Exploration Regulation,* Reg. 33(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).
[894] *Polymetallic Nodules Exploration Regulation,* Reg. 33(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5).
[895] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 27-72; Aline Jaeckel, *The Implementation of the Precautionary Approach by the International Seabed Authority*. *International Seabed Authority Discussion Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2017), 4; Ellen Hey, 'The Precautionary Concept in Environmental Policy and Law: Institutionalizing Caution' (1991) *Georgetown International Environmental Law Review* 303, 311; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 164, International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State*

Similarly to the Exploration Regulations, Article 145 of UNCLOS provides that 'each contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the Area as far as reasonably possible, applying a precautionary approach and best environmental practices'.[896] In order to fulfil this obligation, the contractor is required to submit a preliminary assessment of the potential impact of the activities in the Area to the marine environment prior to the commencement of the activities.[897] As previously stated, despite the lack of detail regarding the EIA in the exploration phase,[898] the ISA has issued recommendations for the guidance of the contractors.[899]

Moreover, the Draft Exploitation Regulations provides that:

> The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring effective protection for the Marine Environment from harmful effects in accordance with the rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall: (a) Apply the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and Development, to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area.[900]

In light of the aforementioned, it is evident that the exploitation phase needs a more comprehensive and rigorous approach to the assessment of the risks to the marine environment, given the higher risks associated with this phase.[901]

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with respect to activities in the Area 02/2023 (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 27.

[896] *Polymetallic Nodules Exploration Regulation,* Reg. 31(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5).

[897] *Polymetallic Nodules Exploration Regulation,* Regs. 18(b) and (c); *Polymetallic Sulphides Exploration Regulation,* Regs. 20(b) and (c); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 20(b) and (c).

[898] *Polymetallic Nodules Exploration Regulation,* Reg. 18(1)(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 20(1)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 20(1)(b); and also *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 5(4) and 5(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5(4) and 5(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 5(4) and 5(5).

[899] International Seabed Authority, *Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area* (13 February 2002), ISA Doc. ISBA/7/LTC/1/Rev.1**; see Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 3.

[900] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex IV, Reg. 46(a).

[901] Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 5

4.3.3 Best environmental practices

The Mining Code expresses the obligation of the ISA, sponsoring States and contractors, to apply the best environmental practices.[902] In accordance with the Exploration Regulations, the Authority is obliged to implement the best environmental practices in order to safeguard the marine environment from any potential harmful effects.[903]

These best environmental practices of the Authority can be applied by the adoption of a series of control strategies to protect the marine environment.[904] Furthermore, regional projects, such as the one managed by the Secretariat of the Pacific Community, can be employed to achieve a consistent approach in decision-making processes, by identifying existing and proposing new guidelines to a consistent approach to decision-making, such as: Guidelines in the Area from LTC, Codes of Conduct issued by the International Marine Minerals Society and InterRidge, and Madang Guidelines.[905] The Draft Exploitation Regulations on several occasions reiterate the necessity of the best environmental practices, but does not input further obligations to the Authority.[906]

The direct obligation to follow the best environmental practices, as supplementary to the obligation to apply the precautionary approach, is one obligation that must be fulfilled by both sponsoring States and sponsored entities.[907] Both the Exploration and the Exploitation Regulations

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[902] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2); *Polymetallic Nodules Exploration Regulation,* Regs. 5(1), 31(5), and Annex IV, Sec. 5(1); *Polymetallic Sulphides Exploration Regulation,* Regs. 5(1), 33(5) and Annex IV, Sec. 5(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 5(1), 33(5) and Annex IV, Sec. 5(1).

[903] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).

[904] International Seabed Authority, *Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals: Report of a workshop held by The International Seabed Authority in collaboration with the Government of Fiji and the SOPAC Division of the Secretariat of the Pacific Community (SPC) in Nadi, Fiji, from 29 November to 2 December 2011* (29 November 2011-2 December 2011), ISA Technical Study: No. 10/2011, < https://nicholasinstitute.duke.edu/ocean/publications/management/environmental-management-needs-for-exploration-and-exploitation-of-deep-sea-minerals> (accessed 25 June 2023), 33.

[905] International Seabed Authority, *Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals: Report of a workshop held by The International Seabed Authority in collaboration with the Government of Fiji and the SOPAC Division of the Secretariat of the Pacific Community (SPC) in Nadi, Fiji, from 29 November to 2 December 2011* (29 November 2011-2 December 2011), ISA Technical Study: No. 10/2011, < https://nicholasinstitute.duke.edu/ocean/publications/management/environmental-management-needs-for-exploration-and-exploitation-of-deep-sea-minerals> (accessed 25 June 2023), 33.

[906] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 44(b).

[907] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 136; Rosemary Rayfuse, 'Differentiating the Common the

of the ISA and the standard clauses for exploration contracts state the necessity of accomplishing this direct obligation.[908] According to the Seabed Disputes Chamber, the sponsoring States must apply, 'in light of the advancement in scientific knowledge',[909] the best environmental practices, which can be seen as proof of application of the due diligence by the sponsoring State.[910]

The Seabed Disputes Chamber has not provided any precise definition of the obligation of best environmental practices. Nonetheless, the Draft Exploitation Regulations provide a definition which states that best environmental practices means 'the application of the most appropriate combination of environmental control measures and strategies, that will change with time in the light of improved knowledge, understanding or technology, taking into account the guidance set out in the applicable Guidelines'.[911] Thus, it is incumbent upon each sponsoring State to oversee the activities of the sponsored contractor in order to ensure the best environmental practice. Acting with this purpose, the State will comply with its due diligence and, consequently, satisfy its legal responsibilities and obligations. According to Tanaka, this definition is equally applied to sponsoring States and contractors conducting activities in the Area in accordance with the most developed practices to fulfil their obligation of due diligence, since 'arguably the obligation to apply best environmental practices allows for the evolving standard of due diligence to change as technology develops with time'.[912]

Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 478 and 479; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 210.

[908] *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5.1.

[909] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 122 and 136.

[910] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 136.

[911] *Draft regulations on exploitation of mineral resources in the Area*, 114; in this sense, according to Xu, the term best environmental practices incorporates the term best available techniques and must be read together, which states: '"Best Available Techniques" means the latest stage of development, and state-of- the-art processes, of facilities or of methods of operation that indicate the practical suitability of a particular measure for the prevention, reduction and control of pollution and the protection of the Marine Environment from the harmful effects of Exploitation activities, taking into account the guidance set out in the applicable Guidelines'. see Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 96; Additionally, 'In the absence of a specific reason to the contrary, it may be held that the Nodules Regulations should be interpreted in light of the development of the law, as evidenced by the subsequent adoption of the Sulphides Regulations'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 137.

[912] Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 211;

This definition originated from the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention).[913] In this sense, the OSPAR Convention might give some glimpse into the meaning of the best environmental practices: the provision of information and education to the public and to users about the environmental consequences of choice of particular activities and choice of products, their use and ultimate disposal; the development and application of codes of good environmental practice which cover all aspect of the activity in the life of the product; the mandatory application of labels informing users of environmental risks related to a product, its use and ultimate disposal; saving resources, including energy; making collection and disposal systems available to the public; avoiding the use of hazardous substances or products and the generation of hazardous waste; recycling, recovering and re-using; the application of economic instruments to activities, products or groups of products; establishing a system of licensing, involving a range of restrictions or a ban.[914]

Despite ISA borrowing the convention definition, besides its guidelines, it has not provided any practices in the Exploration Regulation for the contractors to adopt or implement.[915] Therefore, this can result in a subjective parameter for the States to implement, that might provide flexibility to verify compliance with this primary obligation since what one State considers to be the optimal environmental practice may not correspond to the position of other States. Moreover, it may discourage developing States to conduct deep seabed mining. As already stated, the different financial and technological capabilities of developing States may interfere with their future activities in the Area, thus not allowing them to conduct their activities in line with the best environmental practices. Therefore, this may provide more opportunities to contractors based in developed States to create subsidiaries in those countries so they can offer those capabilities, allowing developing States to properly conduct their activities in the Area.[916]

Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 148.

[913] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 165 and 166.

[914] *Convention for The Protection Of The Marine Environment Of The North-East Atlantic* (OSPAR Convention), adopted 22 September 1992, entered into force 25 March 1998, 1992 OSPAR Convention, Appendix 1, para. 6.

[915] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 165.

[916] Andre Nolkaemper, 'Balancing the Protection of Marine Ecosystems with Economic Benefits from Land-Based Activities: the Quest for International Legal Barriers' (1996) 27 *Ocean Development and International Law* 153, 159.

Other references to best environmental practices can be found in the Draft Exploitation Regulations, as one of the obligations of the contractors relating to the marine environment.[917] Also, the Contractor must 'Maintain the currency and adequacy of the Environmental Management and Monitoring Plan during the term of its exploitation contract in accordance with Best Available Techniques and Best Environmental Practices and taking account of the relevant Guidelines'.[918] In its emergency response and contingency plan, the Contractor shall maintain the best environmental practices.[919] The contractor shall also 'maintain the currency and adequacy of its Closure Plan in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques and the relevant Guidelines'.[920]

4.3.4 Guarantees in an emergency order

According to the Draft Exploitation Regulations, the term 'Incidents' means:

> (a) A marine Incident or a marine casualty as defined in the Code of International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident (Casualty Investigation Code, effective 1 January 2010); (b) Serious Harm to the Marine Environment or to other existing legitimate sea uses, whether accidental or not, or a situation in which such Serious Harm to the Marine Environment is a reasonably foreseeable consequence of the situation; and/or (c) Damage to a submarine cable or pipeline, or any Installation.[921]

In the event of any incidents arising from deep seabed mining activities that 'are causing or pose a threat of serious harm to the marine environment',[922] the Council, following a recommendation from the LTC, has to release emergency orders that may suspend or adjust the operations.[923] Pending action by the Council, the Secretary-General shall take immediate temporary practical measures to prevent, contain and minimise serious harm or the threat of serious harm to the marine environment for no longer than 90 days or until the Council reaches a decision at its next regular session or a special session.[924] If the contractor does not comply with the

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[917] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 44(b).
[918] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 51(c).
[919] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 53(1)(a).
[920] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 59(4).
[921] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Schedule, Use of terms and scope.
[922] *Polymetallic Nodules Exploration Regulation,* Reg. 33(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(1).
[923] *UNCLOS*, Art. 162(2)(w) and 165(2)(k); *Polymetallic Nodules Exploration Regulation,* Regs. 33(4)-(6); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(4)-(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(4)-(6).
[924] *Polymetallic Nodules Exploration Regulation,* Reg. 33(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(3).

emergency orders, the Council 'shall take by itself or through arrangements with others on its behalf, such practical measures as are necessary to prevent, contain and minimise any such serious harm or threat of serious harm to the marine environment',[925] and the contractor will be required to reimburse the expenses.[926]

The obligation to implement measures to guarantee the provision of emergency assistance in the event of an emergency order issued by the Authority for the protection of the marine Environment can be perceived as a security obligation.[927] This procedure is set out in the Exploration Regulations and arises when the contractor fails to provide the Council 'with a guarantee of its financial and technical capability to comply promptly with emergency orders or to assure that the Council can take such emergency measures'.[928] The Exploration Regulations state that the States shall 'take necessary measures to ensure that the contractor provides such a guarantee or shall take measures to ensure that assistance is provided to the Authority in the discharge of its responsibilities'.[929]

This direct obligation falls on the responsibility of the sponsoring State by certifying the necessary arrangements to support the possibility of the sponsored contractor submitting its guarantee within its domestic legislation. Thus, by doing this, the sponsoring State will be carrying out its due diligence obligation.

The Draft Exploration Regulations expresses that the contractor shall maintain: 'the currency and adequacy of its Emergency Response and Contingency Plans. This shall be based on the identification of potential incidents and in accordance with Good Industry Practice, Best Available Techniques, Best Environmental Practices and the applicable standards and Guidelines';[930] and 'Such resources and procedures as are necessary for the prompt execution and

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[925] *Polymetallic Nodules Exploration Regulation,* Reg. 33(7); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(7); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(7).
[926] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 6(6); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 6(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 6(4).
[927] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 138.
[928] *Polymetallic Nodules Exploration Regulation,* Reg. 33(8); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(8); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(8).
[929] *Polymetallic Nodules Exploration Regulation,* Reg. 33(8) (emphasis added); *Polymetallic Sulphides Exploration Regulation,* Reg. 35(8) (emphasis added); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 35(8) (emphasis added); see also *UNCLOS,* Art. 139 and 235.
[930] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 53(1)(a).

implementation of the Emergency Response and Contingency Plans and any Emergency Orders issued by the Authority'.[931] Moreover, contractors, the Authority and sponsoring States shall be consulted together, and with other States and organisations interested in the exchange of knowledge, to learn from previous incidents to prepare and revise the standards and guidelines.[932]

4.3.5 Availability of recourse for compensation

The Seabed Disputes Chamber indicated the existence of another direct obligation of sponsoring States, namely the adoption of rules and regulations in their legal framework with the purpose of ensuring resources for compensation and other possible relief in the event of any breach of their legal responsibility and obligations.[933] In accordance with Article 235(2) of UNCLOS 'States shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction'.[934] Logically, this responsibility is attributed to the sponsoring State with jurisdiction over the sponsored contractor that is alleged to have caused the damage.[935] In other words, this provision aims to ensure that sponsored contractors meet the obligations of Annex III, Article 22,[936] of UNCLOS against wrongful acts committed in the context of activities in the Area.[937] This topic of compensation will be discussed in detail in the further sections regarding possible ways of reparation for liability.

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[931] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 53(1)(b).
[932] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 53(2).
[933] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 139.
[934] *UNCLOS*, Art. 235(2).
[935] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 140.
[936] 'The contractor shall have responsibility or liability for any damage arising out of wrongful acts in the conduct of its operations, account being taken of contributory acts or omissions by the Authority'. *UNCLOS*, Art. 22, Annex III.
[937] Similarly, Principle 13 of the Rio Declaration states that: 'States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.'. *Rio Declaration,* Principle 13; for a deeper analysis see Malgosia Fitzmaurice, 'Principle 13', in Jorge Viñuales, *The Rio Declaration on Environment and Development: A Commentary* (Oxford, United Kingdom: Oxford University Press, 2015), 351-380.

4.3.6 Environmental Impact Assessment and Monitoring obligations

4.3.6.1 Environmental Impact Assessment

Regarding the obligation to conduct an Environmental Impact Assessment and its incorporation to the Mining Code, the following observations can be made. The environmental impact assessment is an essential mechanism for the sponsoring State to act with due diligence and can be considered as a 'direct obligation under the Convention and a general obligation under customary international law'.[938] The EIA can be defined as 'the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made'.[939] It is required from the sponsoring State under its duty of due diligence to inform possible environmental consequences of potential harmful activities to the parties potentially affected.[940]

The ISA is under an obligation to prevent, reduce and control any damage to the marine environment resulting from deep seabed mining activities.[941] In order to fulfil this obligation, the ISA requires contractors to establish environmental baselines and environmental impact assessments and to monitor the activities on the marine environment.[942]

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[938] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 145; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 479; see also Leah M. Robertson, 'Mining the Deep: Can the Law "Get It Right" with Balancing the Environment and Resource Extraction through Environmental Impact Assessments?' (2022) 36 *Ocean Yearbook* 161.

[939] IAIA. Principles of Environmental Impact Assessment Best Practice. *Institute Of Environmental Assessment*, 1999; according with Craik, in the broader sense EIA can be understood as: 'the broader process of environmental impact assessment, including specified ways of determining the applicability of the process, the assessment itself, its dissemination, the participatory processes that occur through the process and any post-project monitoring process directly related to the EIA process'. Neil Craik, The *International Law of the Environmental Impact Assessment: Process, Substance and Integration* (Cambridge, United Kingdom: Cambridge University Express, 2008), 3. (emphasis added); Pierre Senécal, Bernice Goldsmith and Shirley Conover, *Principle of Environmental Impact Assessment Best Practice* (London, United Kingdom: International Association for Impact Assessment in Cooperation With Institute Of Environmental Assessment, 1999), 4.

[940] Neil Craik, The *International Law of the Environmental Impact Assessment: Process, Substance and Integration* (Cambridge, United Kingdom: Cambridge University Express, 2008), 3.

[941] *UNCLOS*, Art 208 and 209; *Polymetallic Nodules Exploration Regulation,* Reg. 31(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5); see also International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 28.

[942] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 157.

According to Section 1(7), Annex, of the 1994 Implementation Agreement, contractors must provide an assessment of the potential environmental impacts of the proposed activities and 'a description of a programme for oceanographic and baseline environmental studies in accordance with the rules, regulations and procedures adopted by the Authority' in their application for a plan of work.[943]

It is worth mentioning that the 1994 Implementation Agreement provides that it is the obligation of the sponsored contractor to conduct an environmental impact assessment by stating that 'an application for approval of a plan of work shall be accompanied by an assessment of the potential environmental impacts of the proposed activities'.[944] In effect, the ISA has established the necessity of a previous EIA to the contractors to measure the potential effects of its activities.[945] Despite Article 165(2)(d) of UNCLOS requiring the LTC to 'prepare assessments of the environmental implications of activities in the Area',[946] the Mining Code does not provide details about the implementation of this obligation.

Furthermore, the Environmental Impact Assessment Recommendations of the LTC delineate the procedures to be followed in the acquisition of baseline data and the data to be collected.[947] The Recommendations require that the contractors adhere to best available technology and methodology[948] and best practices in the collection of the data for the EIA.[949] The gathered environmental baseline data will be used in the environmental impact assessment prior to the commencement of the exploration activities.[950]

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[943] *1994 Implementation Agreement*, Sec. 1(7), Annex. (emphasis added)
[944] *1994 Implementation Agreement,* Annex, *Sec.* 1(7) (emphasis added).
[945] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 5.2(a).
[946] *UNCLOS,* para. 165(2)(d).
[947] International Seabed Authority, Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area. International Seabed Authority (1 March 2013), ISA Doc. ISBA/19/LTC/8, para. 9.
[948] International Seabed Authority, Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area. International Seabed Authority (1 March 2013), ISA Doc. ISBA/19/LTC/8, para. 14-15.
[949] International Seabed Authority, Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area. International Seabed Authority (1 March 2013), ISA Doc. ISBA/19/LTC/8, para. 55.
[950] International Seabed Authority, Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area. International Seabed Authority (1 March 2013), ISA Doc. ISBA/19/LTC/8, Annex IV, Sec. 5(2).

The Exploration Regulations contain the same obligation to contractors of incorporate the baseline data to allow the environmental impact assessment:

A description of the programme for oceanographic and environmental baseline studies in accordance with these Regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact, including, but not restricted to, the impact on biodiversity, of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission.[951]

Furthermore, the Exploration Regulations oblige the contractors to gather environmental baseline data and establish the environmental baselines:

1. Each contract shall require the contractor to gather environmental baseline data and to establish environmental baselines, taking into account any recommendations issued by the Legal and Technical Commission pursuant to regulation 39, against which to assess the likely effects of its programme of activities under the plan of work for exploration on the marine environment and a programme to monitor and report on such effects. The recommendations issued by the Commission may, inter alia, list those exploration activities which may be considered to have no potential for causing harmful effects on the marine environment. The contractor shall cooperate with the Authority and the sponsoring State or States in the establishment and implementation of such monitoring programme. 2. The contractor shall report annually in writing to the Secretary-General on the implementation and results of the monitoring programme referred to in paragraph 1 and shall submit data and information, taking into account any recommendations issued by the Commission pursuant to regulation 39. The Secretary-General shall transmit such reports to the Commission for its consideration pursuant to article 165 of the Convention.[952]

The Mining Code requires the obligation of the contractors to conduct an EIA on two occasions.[953] First, the Mining Code, for the approval of the plan of work by the ISA requires a preliminary EIA,[954] but does not specify the requirements for this preliminary assessment.[955] The Environmental Impact Assessment Recommendations also do not give a clear elucidation on this issue, by excluding the need of EIA from early-stage exploration activities, and only requiring the previously mentioned environmental baseline data.[956] Second, the ISA requires contractors to

[951] *Polymetallic Nodules Exploration Regulation,* Reg. 18(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 24(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 24(b).
[952] *Polymetallic Nodules Exploration Regulation,* Reg. 32; *Polymetallic Sulphides Exploration Regulation,* Reg. 34; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 34.
[953] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 161.
[954] *Polymetallic Nodules Exploration Regulation,* Reg. 18(c); *Polymetallic Sulphides Exploration Regulation,* Reg. 20(1)(c); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 20(1)(c).
[955] *Polymetallic Nodules Exploration Regulation,* Reg. 21(4)(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 23(4)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 23(4)(b).
[956] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 161; International Seabed Authority, *Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area. International Seabed Authority* (1 March 2013), ISA Doc. ISBA/19/LTC/8, para. 18.

conduct a complete EIA prior to the exploration activity, that includes: an impact assessment of the potential effects on the marine environment; a proposal for a monitoring programme to determine the potential effects on the marine environment; and data that could be used to establish an environmental baseline against which the ISA could assess the effect of the proposed activities.[957] The ISA requires a full EIA from the contractor one year before the commencement of any activity.[958]

4.3.6.2 Monitoring Obligations

In addition to the requirement of the EIA, the ISA is responsible for monitoring the effects of the activities of the contractors on the environment of the Area.[959] According to Article 165(2)(h) of UNCLOS, the LTC must make recommendations to the Council regarding the establishment of 'a monitoring programme to observe, measure, evaluate and analyse, by recognized scientific methods and on a regular basis, the risks or effects of pollution of the marine environment resulting from activities in the Area',[960] and, consequently, ensuring that 'existing regulations are adequate and are complied with and coordinate the implementation of the monitoring programme approved by the Council'.[961] The monitoring obligations of the ISA are similar to the obligations of the sponsoring States presented in Article 204 of UNCLOS.[962] Moreover, the Draft Exploitation Regulations, besides including the necessity to conduct an environmental impact assessment,[963] also indicate the necessity of the environmental management and monitoring plan[964] as well as a closure of environmental plans.[965] In this regard, 'The LTC is

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[957] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 5(2); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 5(2).
[958] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3); *Environmental Impact Assessment Recommendations*, para. 19 and 29-30.
[959] Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental* Protection (Leiden, Netherlands: Brill Nijhoff, 2017), 164; *UNCLOS*, Art. 165(d) and (f); *Draft regulations on exploitation of mineral resources in the Area*, Regs. 45(b) and 94.
[960] *UNCLOS*, Art. 165(2)(h).
[961] *UNCLOS*, Art. 165(2)(h); *Draft regulations on exploitation of mineral resources in the Area*, Regs. 13(4)(e) and 48.
[962] *UNCLOS*, Art. 204.
[963] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 47.
[964] *Draft regulations on exploitation of mineral resources in the Area*, Regs. 7(h) and 48.
[965] *Draft regulations on exploitation of mineral resources in the Area*, Schedule 1; Also, 'the LTC shall examine the Environmental Plans, or revised plans, together with any responses by the applicant and any additional information provided by the Secretary-General and shall provide a report on the Environmental Plans which shall also be published on the ISA's website and shall be included as part of the reports and recommendations to the Council'. International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to*

required to assess the Environmental Plans to ensure that the prospective Contractor provides for the effective protection of the marine environment in accordance with the rules, regulations and procedures of ISA'.[966]

The Mining Code further developed this obligation of monitoring by stating that contractors and sponsoring States or any other interested entities must cooperate with the ISA to establish and implement monitoring and evaluating programmes on the marine environment.[967] In order to do so, the plan of work must consider three phases: environmental baseline studies; monitoring to ensure that no serious harm is caused to the marine environment from activities during prospecting and exploration; and monitoring during and after testing of collecting systems and equipment.[968] It is the responsibility of the contractors to present the results of the monitoring programme to the ISA on an annual basis.[969]

The Seabed Disputes Chamber stated that ensuring a previous EIA in the application of a plan of work by the sponsored contractor is relevant to verify whether the standard of due diligence of the sponsoring State.[970] The Exploration Regulations stress the necessity of direct obligations

activities in the Area 02/2023 (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 28; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 11(5).

[966] International Seabed Authority, *Discussion Paper on the rights and obligations of ISA and the Sponsoring State with respect to activities in the Area 02/2023* (2023), < https://www.isa.org.jm/publications/rights_and_obligations/> (accessed 17 July 2023), 29; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 13(4)(e).

[967] *Polymetallic Nodules Exploration Regulation,* Regs. 31(6) and 32(1); *Polymetallic Sulphides Exploration Regulation,* Regs. 33(6) and 34(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 33(6) and 34(1); *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 3(3).

[968] *Environmental Impact Assessment Recommendations*, para. 11.

[969] In this same regard: 'With regard to activities that do require environmental impact assessment, a monitoring programme is needed before, during and after a specific activity to determine the effects of the activity on the biological activities, including the recolonization of the disturbed areas'. *Environmental Impact Assessment Recommendations*, Annex I, para. 50; *Polymetallic Nodules Exploration Regulation,* Reg. 32(2) and Annex IV, Sec. 5(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 34(2) and Annex IV, Sec. 5(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 34(2) and Annex IV, Sec. 5(5).

[970] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 141; in this sense 'As clarified in paragraph 10 of the Recommendations for the Guidance of the Contractors for the Assessment of the Possible environmental Impacts Arising from exploration for Polymetallic Nodules in the Area, issued by the Authority's Legal and Technical Commission in 2002 pursuant to regulation 38 of the Nodules Regulations (ISBA/7/LTC/1/Rev.1 of 13 February 2002), certain activities require "prior environmental impact assessment, as well as an environmental monitoring programme". These activities are listed in paragraph 10(a) to (c) of the Recommendations'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 144.

to conduct an EIA,[971] which can be understood as an obligation of due diligence.[972] According to the provision, 'Contractors, sponsoring States and other interested States or entities shall cooperate with the Authority in the establishment and implementation of programmes for monitoring and evaluating the impacts of deep seabed mining on the marine environment'.[973] Thus, beyond its cooperation to establish and implement the environmental impact assessment with the ISA, the sponsoring State must use all available means to ensure the compliance of the contractor with the direct obligation of EIA.[974]

However, the Disputes Chamber has not provided minimum standards to be followed by the Sponsoring States,[975] although it has recognized the requirement to conduct an EIA as being valid under customary international law by following the decision by the ICJ in *Pulp Mills on the River Uruguay*:

> a practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works.[976]

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[971] *Polymetallic Nodules Exploration Regulation,* Reg. 31(6); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(6).

[972] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 142.

[973] *Polymetallic Nodules Exploration Regulation,* Regs. 31(6) and 32(1); *Polymetallic Sulphides Exploration Regulation,* Regs. 33(6) and 34(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Regs. 33(6) and 34(1); *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 3(3).

[974] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 142; *UNCLOS*, Art. 154(4); *UNCLOS*, Art. 139**;** additionally, 'Contractors and sponsoring States must cooperate with the Authority in the establishment of monitoring programmes to evaluate the impact of deep seabed mining on the marine environment, particularly through the creation of "impact reference zones" and "preservation reference zones" (regulation 31, paragraphs 6 and 7, of the Nodules Regulations and regulation 33, paragraph 6, of the Sulphides Regulations). A comparison between environmental conditions in the "impact reference zone" and in the "preservation reference zone" makes it possible to assess the impact of activities in the Area'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 143.

[975] '… article 206 of the Convention gives only few indi- cations of this scope and content, the indications in the Regulations, and especially in the Recommendations referred to in paragraph 144, add preci- sion and specificity to the obligation as it applies in the context of activities in the Area'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 149. (emphasis added)

[976] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 147-148; International Court of Justice, *Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, Judgement of 25 September 1997, ICJ Reports 1998, para. 140; *Pulp Mills on the River Uruguay* (Judgement of 20 April 2010), para. 204-205.

Accordingly, the Seabed Disputes Chamber has determined that, in accordance with the view expressed by the ICJ, the environmental impact assessment should be included in the system of consultations and prior notifications set out in Article 142 of UNCLOS with respect to 'resource deposits in the Area which lie across limits of national jurisdiction'.[977] However, ICJ has not yet established a precise scope and content of the EIA.[978] According to Treves,[979] the cases submitted to both ICJ and ITLOS highlight the explicit understanding that the duty to conduct an EIA has been consolidated as a rule of general international law.[980]

Every contractor carrying out activities in the Areas must conduct an environmental impact assessment based on the obligation of due diligence of the sponsoring State.[981] Not only must the EIA be implemented prior to the initiation of the contract but also an environmental monitoring program has to be applied during and after the activities.[982] Through its obligation of conducting

[977] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 148; additionally, 'this approach possibly leads the way to a wider understanding of the content of the EIA; an understanding that looks towards international bodies for the definition of the content of the EIA, thus working towards a global and not a narrow localised approach'. Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 140.

[978] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 149;
'It seems difficult to detect potential risks that may trigger the application of the precautionary principle, unless an effective EIA is carried out before a proposed project has begun'. Yoshifumi Tanaka, 'Principles of International Marine Environmental Law', in Rosemary Rayfuse, *Research Handbook on International Marine Environmental Law* (Cheltenham, United Kingdom: Edward Elgar Publishing, 2015), 45.

[979] Tullio Treves, 'Environmental Impact Assessment and the Precautionary Approach: Why Are International Courts and Tribunals Reluctant to Consider Them as General Principles of Law?', in Mads Andenas, Malgosia Fitzmaurice, Attila Tanzi and Jan Wouters, *General Principles and the Coherence of International Law* (2019) 37 Queen Mary Studies in International Law 379, 379-388.

[980] About the cases presented at ITLOS, Boyle states: 'What we can observe from Southern Bluefin Tuna and Land Reclamation is that provisional measures applications may afford a useful method for tackling failure to do an EIA (…). In Pulp Mills and MOX Plant, however, no such orders were made; not only did the respondents' EIAs show that there was no risk of significant or imminent harm to the environment, but this was evidence which, crucially, the applicants respectively failed to rebut or which they accepted in the oral hearings. The contrasting outcomes in these four cases suggest that if an EIA has not been undertaken and there is some evidence of a risk of serious harm to the marine environment—even if the risk is uncertain and the potential harm not necessarily irreparable—an order requiring the parties to co-operate in prior assessment is likely to result even at the provisional measures stage'. Alan Boyle, 'The Environmental Jurisprudence of the International Tribunal for the Law of the Sea' (2007) 22(3) *The International Journal of Marine and Coastal Law* 369. 369-381.

[981] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 142.

[982] *Polymetallic Nodules Exploration Regulation,* Reg. 18(1)(b); *Polymetallic Sulphides Exploration Regulation,* Reg. 20(1)(b); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 20(1)(b); and also *Polymetallic Nodules*

an EIA, the sponsored contractor can adopt a precautionary approach.[983] According to the ISA, an EIA is part of a wider process with several general activities that include: screening to determine if an EIA is required; scoping to identify the issues and impacts; impact analysis to identify and predict effects of the proposal; mitigation and impact management to establish measures to manage impacts; preparation of the report to document all the issues and measures; review process; and decision-making to approve, reject or modify the proposal.[984]

Furthermore, the LTC, in its recommendation for the guidance of contractors regarding the assessment of potential environmental impacts resulting from polymetallic nodule exploration in the Area, specifies the information that must be provided by contractors during and after activities.[985] The contractor must provide, while performing its activities: width, length and pattern of the collector tracks on the seafloor; depth of penetration in the sediment and lateral disturbance caused by the collector; volume of sediment and nodules taken by the collector; ratio of sediment separated from the nodule on the collector and volume of sediment rejected by the collector, size and geometry of the discharged plume and behaviour of the plume behind the collector; area and thickness of re-sedimentation by the side of the collector tracks to the distance where re-sedimentation is negligible; volume of overflow discharge from the surface vessel, concentration of particles in the discharged water, chemical and physical characteristics of the discharge, and behaviour of the discharged plume at surface or in mid-water.[986] After the conclusion of its activities, the contractor must provide the following observations and measures: thickness of re-

Exploration Regulation, Annex IV, Sec. 5(4) and 5(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5(4) and 5(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 5(4) and 5(5).

[983] see Jenifer Durden, Laura Lallier, Kevin Murphy, Aline Jaeckel, Kristine Gjerde and Daniel O.B. Jones, 'Environmental Impact Assessment Process for Deep-Sea Mining in the "The Area"' (2018) 87 *Marine Policy* 1, 194; see also Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2.

[984] International Seabed Authority, *Towards an ISA Environmental Management Strategy for the Area: Report of an International Workshop convened by the German Environment Agency (UBA), the German Federal Institute for Geosciences and Natural Resources (BGR) and the Secretariat of the ISA in Berlin, Germany, 20-24 March 2017* (21 July 2017), ISA Technical Study: No. 17/2017, < https://maritime-spatial-planning.ec.europa.eu/events/workshop-isa-environmental-management-strategy-area> (accessed 25 June 2023), 54; see also Aline Jaeckel, 'An Environmental Management Strategy for the International Seabed Authority? The Legal Basis' (2015) 30(1) *The International Journal of Marine and Coastal Law* 93.

[985] see International Seabed Authority, *Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area* (13 February 2002), ISA Doc. ISBA/7/LTC/1/Rev.1**.

[986] International Seabed Authority, *Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area* (13 February 2002), ISA Doc. ISBA/7/LTC/1/Rev.1**, para. 4.

deposited sediment on the side of the collector tracks; behaviour of the different types of benthic fauna subjected to re-sedimentation; changes of the benthic fauna in the collector tracks, including possible recolonization; possible changes in the benthic fauna in adjacent areas apparently not perturbed by the activity; changes in the characteristics of the water at the level of the discharge from the surface vessel during the mining test, and possible changes on the behaviour of the corresponding fauna.[987] The sponsoring States can choose to incorporate similar regulations in their national legislation and, in doing so, avoid inconsistencies between different national legislation regarding the EIA and the monitoring plan.

The Draft Exploitation Regulations put in detail the preparation of the environmental impact statement and the environmental management and monitoring plan.[988] In a contract for exploitation activities in the Area, any sponsored entity shall 'prepare an Environmental Impact Statement in accordance with this regulation' and 'prepare an Environmental Management and Monitoring Plan in accordance with this regulation'.[989]

Ideally, the EIA should be continuously applied before, during, and after the activity.[990] This could be achieved if the States opted to apply stricter rules in their national legislation than those proposed by the international legal framework for deep seabed mining. In doing so, the duty of due diligence imposed on the actors involved in deep seabed mining activities would be more promptly and easily complied with. However, it is within the discretion of each State the decision on whether to apply or not more compelling laws to attract sponsoring States.

One final issue worth mentioning is the baseline data collection. Environmental baseline is one of the prerequisites for evaluating and predicting the effects of deep seabed mining activities.[991] The ISA requires the contractors to establish geological and environmental baselines

[987] International Seabed Authority, *Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area* (13 February 2002), ISA Doc. ISBA/7/LTC/1/Rev.1**, para. 4.
[988] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 47 and 48.
[989] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 47(2) and 48(2).
[990] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 162; Jenifer Durden, Laura Lallier, Kevin Murphy, Aline Jaeckel, Kristine Gjerde and Daniel O.B. Jones, 'Environmental Impact Assessment Process for Deep-Sea Mining in the "The Area"' (2018) 87 *Marine Policy* 1, 195.
[991] Sabine Christiansen, Stefan Bräger Aline Jaeckel, 'Evaluating the Quality of Environmental Baselines for Deep Seabed Mining' (2022) 9 *Marine Affairs and Policy* 1, 1.

for their contracts for exploration activities in the Area;[992] however, it does not establish any criteria of what could constitute an ideal environmental baseline.[993] In this sense, a precise environmental baseline can hardly be achieved since some degree of uncertainty is inherent to those forms of activities.

It is recommended that the sponsoring States incorporate standards of data collection and determine the appropriate liability in the event of non-compliance.[994] One of the possible standards for incorporation may be the standards from Pew Charitable Trust.[995]

4.4 Sponsorship of convenience and international environmental obligations

In imposing environmental obligations, the legal framework creates a wide system that requires the sponsoring States and contractors to properly conduct their duty of due diligence for activities in the Area. As previously noted, sponsoring States have the 'responsibility to ensure', as part of their duty of due diligence, compliance of contractors with their obligations with the possibility of being liable for any possible violation that occurs of their duty of due diligence.[996] It is an obligation of conduct not an obligation of result, since 'It is the conduct of the State of origin

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[992] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 32(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 34(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 34(1).

[993] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex IV, Reg. 4.

[994] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 161.

[995] The Pew Charitable Trust has expressed what would be the requirements of a good environmental baseline: identify the existence and location of internationally and regionally recognized marine protected areas, other areas of special interest, other contractor licence areas, and, where appropriate, Vulnerable Marine Ecosystems; resolve seasonal variation, inter-annual variation, and other relevant, potentially episodic and extreme, events; assess potential ore and sediment toxicity; determine existing levels of nutrient loading and pollution at sites; determine the nature, magnitude, and extent of existing impacts / modifications to the area (e.g., from fishing, climatic change); allow the locations, size, number and spacing of impact reference areas and preservation reference areas to be determined including buffer zones; establish the broad geomorphology of the contractor licence area; establish characteristics of the benthic and pelagic species in the area which may be affected [species present / biodiversity, population sizes and biomass of species, distribution of species and populations in space and time, ecosystem functioning, ecosystem services], including data on connectivity and affected ecosystems; Determine alien/invasive species present in the area; establish marine mammal and fish populations which may be affected; establish currents, tides, eddies, and other oceanographic data sufficient to assess potential effects; establish the physical and chemical composition of the sediment which may be affected; and establish societal values placed on the area and its resources. Pew Charitable Trust, *First Report of the CODE PROJECT: Developing ISA Environmental Regulations* (London, United Kingdom: Pew Charitable Trust. 2017), 46.

[996] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 107-116.

that will determine whether the State has complied with its obligation under the present articles'.[997] Therefore, it will be part of the duty of due diligence of the sponsoring State to incorporate these obligations, both at the international and the national level.[998]

Concurrently, contractors are subject to certain direct obligations imposed upon them by the international legal framework. A problem may appear when the non-compliance is verified since there is no existent mechanism of enforcement of the liability when dealing with the private contractors. This enforcement shall be based on the national legislation of the respective sponsoring State, which can lead to the creation of a system that may allow sponsorships of convenience, as will be further investigated in the next chapter.

In this same reasoning, the obligation of sponsoring States and contractors to exercise due diligence is satisfied through the direct fulfilment of their obligations to assist the Authority, to conduct an environmental impact assessment, to adopt a precautionary approach, to implement best environmental practice, to provide guarantees in an emergency order and to provide means for compensation.[999] Both States and contractors must comply with these rules. Nonetheless, it will rest on the sponsoring State the duty to regulate the monitoring of the compliance of its contractors and regulate these obligations in accordance with the international standards established by the international legal framework.

Regarding developing States,[1000] despite rejecting a separate model of obligations and liability for developed and developing States,[1001] UNCLOS took into consideration their interests and needs.[1002] As previously stated, the objective of this legislation was to prevent the emergence of a system of sponsorships of convenience similar to the flags of convenience, since 'the general provisions concerning the responsibilities and liability of the sponsoring State apply equally to all

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[997] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 116.
[998] In this regard, see Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring State's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1; see also Xiangxin Xu and Guifang (Julia) Xue, 'Potential Contribution of Sponsoring State and Its National Legislation to the Deep Seabed Mining Regime' (2021) 13 *Sustainability* 1.
[999] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 121-150.
[1000] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 151-163.
[1001] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 158.
[1002] *UNCLOS*, Art. 140(1) and 148.

sponsoring States, whether developing or developed.'[1003] Nevertheless, according to what was presented in the Rio Declaration,[1004] the application of the precautionary approach may be stricter for developed States than for developing States when they act as a sponsor for a contractor to conduct activities in the Area. Though, this flexibility does not exclude other environmental obligations since sponsoring States must comply with the duty of due diligence.[1005] Unfortunately, the system of flags of convenience registries has given a good prediction of what path this could turn by the acceptance of effective control as a synonym for regulatory control.[1006]

However, since the sponsoring States are under an obligation to apply only the minimum standards of stringency of the environmental obligations presented by the deep seabed mining international legal framework, such legislation will not incur in any openness that could lead to them being accused of supporting the promotion of sponsoring States of convenience.[1007] Regardless of how these sponsoring States choose to internalise these environmental obligations, the sponsored contractors must also observe how they are supposed to be applied at the international level. At most, if the principles are taken into account - especially the precautionary

[1003] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 159 and 160.
[1004] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 161.
[1005] *Polymetallic Nodules Exploration Regulation,* Reg. 31(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(2).
[1006] 'The propensity of private entities to engage in this type of avoidance behaviour has been well documented in the context of shipping and high seas fisheries where the existence of 'flags of convenience' or 'flags of non-compliance' has contributed to the intractable problems of substandard shipping and illegal, unreported and unregulated fishing. The emergence of flags of convenience and flags of non-compliance has been made possible by the lack of universal articulation and acceptance of the precise content of flag State responsibilities binding globally on all States'. Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 475; see also Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 559-582; Tim Poisel, 'Deep seabed mining: Implications of Seabed Disputes Chamber's Advisory Opinion' (2012) 19 *Australian International Law Journal* 213; see also Rosemary Rayfuse, 'The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link: Addressing Enforcement Gaps in the Legal Regime for Areas Beyond National Jurisdiction', in Alex. G. Oude Elferink and Erik. J. Molenaar (eds.), *The Legal Regime of Areas beyond National Jurisdiction: Current Principles and Frameworks and Future Directions* (Leiden, Netherlands: Martinus Nijhoff, 2010),165-190; Tara Davenport, 'Differentiated Rights and Responsibilities in Activities in the Area – From Wealth Redistribution to Marine Environmental Protection', in Maarten Der Heijer and Harmen Van Der Wilt, *Netherlands Yearbook of International Law: Global Solidarity and Common but Differentiated Responsibilities* (Berlin, Germany: Springer, 2020), 176-181.
[1007] *UNCLOS*, Art. 21(3), Annex III.

approach, best environmental practices and EIA - it may require higher standards to be applied to those principles depending on the level of technical capacity enjoyed by the sponsoring States.

4.5 Conclusion

This chapter elucidates the international environmental obligations of the sponsored contractors. In order to fulfil these obligations, they must act with due diligence, including the application of the direct obligations, which will be differentiated depending on the actor to whom they are imposed. The sponsored contractors, as any other actor, must comply with the obligations with due diligence and some of the direct obligations. These obligations not only have to be observed at the international level but also by the respective national legislation of their sponsoring States.

Nonetheless, at the international level, non-compliance with these obligations can create a problem. In case the sponsoring State fails to carry out its primary obligations, and there is a genuine link between this act of omission and the damage caused, the State will be liable, and a form of reparation must be pursued. If a contractor, in particular a private one, fails to comply with its environmental obligations, major problems, such as the mensuration of damage, standard of liability, form of reparation, or the difficulty of enforcement, can make the due reparation of the damage to the marine environment more difficult. Thus, the purpose of the next chapter will be investigating the international environmental liability of the contractors, emphasising the liability of the private corporations.

Chapter 5: International environmental liability of private contractors

As previously outlined, the sponsoring State has to ensure compliance by their respective sponsored contractors. When these responsibilities and obligations are not complied with, the States and contractors can be input from possible liability established by the deep seabed mining international legal framework.

This section will discuss the extension of liability under the sponsorship regime for any failure to comply with the environmental obligations presented in the third chapter.[1008] Regarding that, this chapter will first detail the liability of private contractors by analysing the liability in general, which includes sections regarding conditions for liability, polluter pays principle and standard of liability. The second section deals with attribution and implementation. Third, the chapter details the forms of reparation for damages from activities in the Area. Lastly, the chapter focuses on the relation between the international environmental liability and the sponsorships of convenience. Thus, in examining the liability issues, despite employing considerations on the sponsoring States and other contractors, the main focus of this work falls on private contractors.

5.1 Liability in general

With regard to liability under the deep seabed mining regime for activities in the Area, there are three main actors involved, namely, the ISA, sponsored contractors, and the sponsoring States themselves. Liability will be triggered depending on the behaviour of the actors.[1009]

[1008] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 164-211; for an overview of liability related to an occurrence of an environmental harm, see Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*; see also Pablo Ferrara, 'Multinational corporations and international environmental liability: international subjectivity and universal jurisdiction', in Markus Kotzur, Nele Matz-Lück, Alexander Proelss, Roda Verheyen and Joachim Sanden, *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Boston, United States: Brill Nijhoff, 2018), 204–233; Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 69-89; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 343.

[1009] For a general analysis regarding the liability. see Constantine Antonopoulos, 'State Responsibility for Acts of Non-State Actors' in Photini Pazartzis and Panos Merkouris (eds.), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 11-29.

In case of a breach of the legal obligations and responsibilities by the sponsoring States,[1010] liability will arise 'only from its failure to meet its obligation of due diligence'.[1011] However, it does not prevent the sponsoring States from being liable due to reasons outside the deep seabed mining regime – as under customary international law.[1012] This opens the possibility to the sponsoring State not being liable under the deep seabed mining regime but at the same time for a breach of a customary international obligation to arise.[1013] Also, in case of several States being sponsors, 'liability is joint and several unless otherwise provided in the Regulations issued by the Authority'.[1014]

Despite the existence of an international legal framework, there is not so much focus on the liability regime for activities in the Area under UNCLOS. In UNCLOS, there are three articles that mainly address the liability regime: Article 139 and Articles 4 and 22, Annex III, while Articles 235 and 304 make minor references.[1015]

[1010] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 189.

[1011] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 184 and 189

[1012] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 178; also, 'Several of these articles are considered to reflect customary international law. Some of them, even in earlier versions, have been invoked as such by the Tribunal (*The M/V "SAIGA" (No. 2) Case (Saint Vincent and the Grenadines v. Guinea), Judgement, ITLOS Reports 1999*, 10, at paragraph 171) as well as by ICJ (for example, *Armed Activities on the Territory of the Congo (Democratic Republic of Congo v. Uganda), Judgement, I.C.J. Reports 2005*, p. 168, at paragraph 160)'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 169.

[1013] Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 220; Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 565.

[1014] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 192; 'In this context, the question of whether the contractor and the sponsoring State bear joint and several liability was raised in the proceedings. Nothing in the Convention and related instruments indicates that this is the case. Joint and several liability arises where different entities have contributed to the same damage so that full reparation can be claimed from all or any of them. This is not the case under the liability regime established in article 139, paragraph 2, of the Convention. As noted above, the liability of the sponsoring State arises from its own failure to carry out its responsibilities, whereas the contractor's liability arises from its own non-compliance. Both forms of liability exist in parallel. There is only one point of connection, namely, that the liability of the sponsoring State depends upon the damage resulting from activities or omissions of the sponsored contractor. But, in the view of the Chamber, this is merely a trigger mechanism. Such damage is not, however, automatically attributable to the sponsoring State'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 201.

[1015] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 165; Rosemary Rayfuse, 'Differentiating the Common the

As aforementioned, Article 139 is a key instrument on the responsibility to ensure compliance and liability for damage. Its paragraph 1 imputed that the States shall have responsibility to ensure activities in the Area 'whether carried out by States Parties, or State enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals'.[1016] However, it does not mean that liability resulting from a breach of an obligation will lie solely on the sponsoring States.[1017] In this respect, Article 22, Annex III, provides about the liability of sponsored contractors and the ISA that:

> The contractor shall have responsibility or liability for any damage arising out of wrongful acts in the conduct of its operations, account being taken of contributory acts or omissions by the Authority. Similarly, the Authority shall have responsibility or liability for any damage arising out of wrongful acts in the exercise of its powers and functions, including violations under article 168, paragraph 2, account being taken of contributory acts or omissions by the contractor. Liability in every case shall be for the actual amount of damage.[1018]

According to the Seabed Disputes Chamber, these provisions reflect that 'the main liability for a wrongful act committed in the conduct of the contractor's operations or in the exercise of the Authority's powers and functions rests with the contractor and the Authority, respectively, rather than with the sponsoring State'.[1019] In this sense, it is first evaluated the liability of the sponsored contractor and the Authority rather than the sponsoring States in conducting activities in the Area.

Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 481; Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 562; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 140; *UNCLOS*, Art. 139; *UNCLOS*, Art. 235; *UNCLOS*, Art. 304; *UNCLOS*, Art. 4, Annex III; *UNCLOS*, Art. 22, Annex III; James Rudall, *Compensation for Environmental Damage Under International Law* (London: Routledge, 2020), 60.

[1016] *UNCLOS*, Art. 139(1); also, the article complements that 'The same responsibility applies to international organizations for activities in the Area carried out by such organizations'. *UNCLOS*, Art. 139(1).

[1017] see Ilias Plakokefalos, 'Environmental protection of the deep seabed', in Andre Nollkaemper and Ilias Plakokefalos, *The practice of shared responsibility in international law* (Cambridge, United Kingdom: Cambridge University Press, 2017), 391.

[1018] *UNCLOS*, Art. 22, Annex III.

[1019] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 200; for a deeper analysis. Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 219-233; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 14.

Nonetheless, a violation of a primary obligation by a sponsored contractor will not automatically result in liability at the international level vis-à-vis any of the actors involved.[1020] As already expressed, at the international level, the sponsoring State and the sponsored contractor are only liable in cases in which they fail to comply with their primary obligations and their duty of due diligence, even though the situation may be different at the national level.[1021]

Furthermore, in addition to the main articles quoted above, Article 235 provides general remarks on the responsibility and liability in case of failure to protect the environment, such as the duty of sponsoring States to fulfil their obligations, ensure prompt and adequate compensation, or other relief in case of environmental damage, and cooperate in the implementation of international law related to responsibility and liability.[1022] Article 304 states that: 'The provisions of this Convention regarding responsibility and liability for damage are without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under international law'.[1023] Article 304 refers not only to existing international law rules, such as the ARSIWA,[1024] but also to the development of further rules, since 'the regime of international law on responsibility and liability is not considered to be static'.[1025]

Regarding the Mining Code, there are only a few contributions concerning the liability regime. For example, the Exploration Regulation states:

[1020] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 109; For a deeper study related to the liability for transnational environmental damage, see Gunther Doeker and Thomas Ghering, 'Private or International liability for transnational environmental damage - the precent of conventional liability regimes' (1990) 2(1) *Journal of Environmental Law* 1.
[1021] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 201.
[1022] *UNCLOS*, Art. 235; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 168; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 3.
[1023] *UNCLOS*, Art. 304; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para.168.
[1024] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 169; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 109; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 211.
[1025] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 211.

Responsibility and liability of the contractor and of the Authority shall be in accordance with the Convention. The contractor shall continue to have responsibility for any damage arising out of wrongful acts in the conduct of its operations, in particular damage to the marine environment, after the completion of the exploration phase.[1026]

Moreover, Regulation 16, Annex IV, provides:

The Contractor shall be liable for the actual amount of any damage, including damage to the marine environment, arising out of its wrongful acts or omissions, and those of its employees, subcontractors, agents and all persons engaged in working or acting for them in the conduct of its operations under this contract, including the costs of reasonable measures to prevent or limit damage to the marine environment, account being taken of any contributory acts or omissions by the Authority.[1027]

Nonetheless, the Draft Exploitation Regulations reinforce in more detail developments around this matter in the context of the exploitation activity.[1028] In addition to reiterating some points expressed in the Exploration Regulations,[1029] the Draft Exploitation Regulations create a methodology for the calculation of a royalty payable under Regulation 64 in respect of the categories of resources to allow a detailed calculation of the reparation for possible liability.[1030]

For such liability to be possible, three conditions must be verified:[1031] 1. failure by the sponsoring States to carry out their obligation to ensure; 2. environmental damage occurs in the context of the contract; and 3. causal link between failure and damage is recognized.[1032]

5.1.1 Conditions for liability

5.1.1.1 Failure to carry out responsibilities

The first condition for liability is presented in Article 139(2), which states that the 'damage caused by the failure of a State Party or international organisation to carry out its responsibilities

[1026] *Polymetallic Nodules Exploration Regulation,* Reg. 30; *Polymetallic Sulphides Exploration Regulation,* Reg. 32; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 32.
[1027] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16.
[1028] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex X, Sec. 7.
[1029] For example, Sec. 5, Annex 10, of the Draft reinterred what was issued in Sec. 16, Annex IV, of the Exploration Regulations. *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex 10, Sec. 5
[1030] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Appendix IV, Determination of a royalty liability.
[1031] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 176.
[1032] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 175-184.

under this Part shall entail liability'.[1033] These responsibilities are the legal responsibilities and obligations, including both due diligence and direct obligations, detailed previously in this chapter. The failure of a sponsoring State to carry out its obligations consists in an act or omission contrary to the responsibilities under the deep seabed mining regime perpetuated by the State.[1034] According to the Chamber, 'Whether a sponsoring State has carried out its responsibilities depends primarily on the requirements of the obligation which the sponsoring State is said to have breached'.[1035] The sponsoring States have to comply with the direct obligations since the 'nature of these obligations also determines the scope of liability',[1036] with respect to the activities conducted by both them and the contractors alike.[1037]

5.1.1.2 Occurrence of damage

The second condition for liability of the sponsoring State is the occurrence of damage.[1038] According to Mackenzie,[1039] the Seabed Disputes Chamber has split the 'damage to the Area and its resources' and the 'damage to the environment' into two independent categories, since the Area and its resources constitute part of the marine environment of the seabed Area.[1040] Mining activities

[1033] *UNCLOS*, Art. 139(2); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 175-177.
[1034] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 177.
[1035] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 177.
[1036] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 177.
[1037] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 121; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 177.
[1038] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 178-184; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 481; Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 570; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 140.
[1039] Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 570; see Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 2-11.
[1040] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 179; Ruth Mackenzie, 'Liability for Environmental Harm from Deep

in the Area not only impact the Area itself but also might impact areas and elements under its jurisdiction, such as the seabed, the resources, the ecosystem and the water column.[1041] In effect, considering 'the various components and the complexity of the marine ecosystem, that complexity seems likely to present significant challenges in terms of the assessment and possible restoration or reinstatement of components of the environment'.[1042]

In this sense, the author lists types of damages that may occur in activities as a result of the Area: 1) damage to persons and property occurring as a result of seabed mining activities in the Area, including loss arising as a result of environmental damage caused by seabed mining activities; 2) damage to the marine environment of the Area, including damage to living resources of the Area; 3) damage to the Area and its resources constituting the common heritage of mankind; 4) damage to living resources in the water column above the Area (i.e., in the high seas); and 5) damage to the marine environment and natural resources outside the Area (i.e., in areas under national jurisdiction).[1043]

UNCLOS does not define the concept of damage, with the main provisions addressing the liability making references only to 'damages'.[1044] The ISA determined this concept, but the Exploration Regulations do not specify what could constitute a compensable damage or which subjects are entitled to claim compensation.[1045] Both the Exploration Regulations and the Draft Exploitation Regulations only state that this damage needs to be a damage to the marine

Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 15.

[1041] Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 13

[1042] Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 14

[1043] Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 13 and 14.

[1044] *UNCLOS*, Art. 137; *UNCLOS*, Art. 22, Annex III; Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 287; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 18.

[1045] *Polymetallic Nodules Exploration Regulation,* Reg. 30(2); *Polymetallic Sulphides Exploration Regulation,* Reg. 32; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 32; International Seabed Authority, *The Environmental Compensation Fund* (2022), Policy Brief No. 2/2022, para. 14; see also International Seabed Authority, *Study on an Environmental Compensation Fund for Activities in the Area* (2021), ISA Technical Study No. 27, 35-36.

environment and its resources.[1046] The Exploration Regulations and the Draft Exploitation Regulations provide the following definition of the term marine environment:

> The physical, chemical, geological and biological components, conditions and factors which interact and determine the productivity, state, condition and quality and connectivity of the marine ecosystem(s), the waters of the seas and oceans and the airspace above those waters, as well as the seabed and ocean floor and subsoil thereof.[1047]

Sun identifies three characteristics that can be derived from this definition.[1048] Firstly, it is a definition based on scientific evidence since it requires the input of scientific expertise;[1049] secondly, this definition follows a 'ecosystem approach', due to its concern with the environment as an integral part of the marine ecosystem, which may lead to consequences in the assessment of the environmental damages and its reparation;[1050] and thirdly, due to its ecosystem approach, it

[1046] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(c); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(c); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(c); *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex 10, Sec. 5; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (3 edn., Cambridge, United Kingdom: Cambridge University Press, 2012), 715; James Rudall, *Compensation for Environmental Damage Under International Law* (London: Routledge, 2020), 61; 'No provision of the Convention can be read as explicitly entitling the Authority to make such a claim. It may, however, be argued that such entitlement is implicit in article 137, paragraph 2, of the Convention, which states that the Authority shall act "on behalf" of mankind. Each State Party may also be entitled to claim compensation in light of the *erga omnes* character of the obligations relating to preservation of the environment of the high seas and in the Area. In support of this view, reference may be made to article 48 of the ILC Articles on State Responsibility, which provides: Any State other than an injured State is entitled to invoke the responsibility of another State . . . if: (a) the obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group; or (b) the obligation breached is owed to the international community as a whole.' *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 180; *ARSIWA*, Art. 48.

[1047] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Schedule 1, Use of Terms and Scope (emphasis added); also, according to Proelss and Steenkamp: 'One of the purposes of the suggested Environmental Liability Trust Fund is to fund "research into Best Available Techniques for the restoration and rehabilitation of the Area" (Draft Reg. 55(d) of the Draft Exploitation Regulations) which purpose may be left unfulfilled if restoration is unfeasible or impossible.' Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 570

[1048] Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 146.

[1049] Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 146.

[1050] Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 146.

covers the marine environment broadly, including 'not only bodies of water but also the airspace above and the seabed under the water'.[1051]

Neither UNCLOS nor the current Mining Code conceptualise what could constitute a 'damage to the marine environment'. UNCLOS defines 'pollution of the marine environment', as follows:

'Pollution of the marine environment' is the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.[1052]

The definition of pollution of the marine environment is also applicable to deep seabed mining activities including damage to the Area and its resources.[1053] This damage would be under the entitlement of the Authority and other affected entities, users and States.[1054]

Moreover, instead of defining what damage to the marine environment means, the Exploration Regulations only define 'serious harm to the marine environment'. According to the Exploration Regulations, the term means:

"Serious harm to the marine environment" means any effect from activities in the Area on the marine environment which represents a significant adverse change in the marine environment determined according to the rules, regulations and procedures adopted by the Authority on the basis of internationally recognized standards and practices.[1055]

At the international level, the extension of damage will depend on the future scope of the regulations developed by the ISA when the Draft Exploitation Regulations are concluded.[1056]

[1051] Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 146; in this same sense, Henry Burmester, 'Liability for Damage from Antarctic Mineral Resource Activities' (1989) 29 *VaJIntlL* 621, 633.
[1052] *UNCLOS*, Art. 1(4).
[1053] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 179; Rosemary Rayfuse, 'Differentiating the Common the Responsibilities and Obligations of States Sponsoring Deep Seabed Mining Activities in the Area' (2011) 54 *German Yearbook of International Law* 459, 482.
[1054] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 179.
[1055] *Polymetallic Nodules Exploration Regulation,* Reg. 1(3)(f); *Polymetallic Sulphides Exploration Regulation,* Reg. 1(3)(f); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 1(3)(f).
[1056] Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 14.

5.1.1.3 Causal link between failure and damage

Furthermore, in order to liability for such damage to exist, according to the Seabed Disputes Chamber, there must be a link between the failure act and the damage.[1057] It is necessary to demonstrate that the damage in question was the result of the failure to carry out their relevant obligations.[1058] However, the liability framework established by the deep seabed mining regime does not address the attribution of liability to sponsored contractors and to sponsoring States.[1059]

As above mentioned, Article 22, Annex III, of UNCLOS provides that 'the contractor shall have responsibility or liability for any damage arising out of wrongful acts in the conduct of its operations'.[1060] This third condition is the causal link between the damage and the failure to carry out the responsibilities by the contractor. The causal link between damage and the wrongful act by the contractor must be proven, and the standard of such proof of causation has to be determined by the risk of the specific activity in the Area.

5.1.2 Polluter pays principle

The main principle that leads to the liability of the sponsored contractors at the international level is the polluter pays principle. According to this principle, the burden for the wrongful act must be carried out by those that committed it.[1061] The polluter pays principle embodies the compensation and liability for damage on the potential affected environment or other possible

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[1057] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 181-184.

[1058] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 182; Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 141.

[1059] 'The rules on the liability of sponsoring States set out in article 139, paragraph 2, of the Convention and in the related instruments are in line with the rules of customary international law on this issue. Under international law, the acts of private entities are not directly attributable to States except where the entity in question is empowered to act as a State organ (article 5 of the ILC Articles on State Responsibility) or where its conduct is acknowledged and adopted by a State as its own (article 11 of the ILC Articles on State Responsibility)'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 182.

[1060] *UNCLOS*, Art. 22, Annex III.

[1061] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 322-326; Robin R. Churchill, 'The LOSC regime for the protection of the marine environment – fit for the twenty-first century?', in Rosemary Rayfuse(eds.), *Research Handbook on International Marine Environmental Law* (London, United Kingdom: Routledge, 2015), 10; see also Tarcisio Hardman Reis, *Compensation for Environmental Damages under International Law* (Paris, France: Kluwer Law International, 2011), 162.

victims of the act of damage.[1062] According to the OECD the principle means that: 'polluters should bear the expenses of carrying out the pollution prevention and control measures introduced by public authorities in order to ensure that the environment is in an acceptable state'.[1063]

By its turn, Principle 16 of the Rio Declaration has established regarding the polluter pays principle that:

> National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.[1064]

Several environmental treaties also incorporate this principle.[1065] It firstly appeared in the 1972 OECD Council Recommendation,[1066] to be later incorporated to the 2004 Environmental

[1062] Alan Boyle, 'Polluter Pays' (March 2009), in Rüdiger Wolfrum (eds.), Max Planck Encyclopedias of International Law (Oxford, United Kingdom: Oxford University Press, 2004-2020), 31-84.
[1063] Organisation for Economic Co-operation and Development, *Background note: The implementation of the Polluter Pays Principle* (Paris, France: OECD Publishing, 2022), 5.
[1064] *Rio Declaration,* Principle 16; for a deeper analysis of the principle as present in the Rio Declaration see Priscila Schwartz, 'Principle 16', in Jorge Viñuales (eds.), *The Rio Declaration on Environment and Development: A Commentary* (Oxford, United Kingdom: Oxford University Press, 2015), 429-454.
[1065] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 323; Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area' (2020) 114 *Marine Policy 103503* 2, 5.
[1066] 'The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called Polluter-Pays Principle. This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment'. *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, adopted 26 May 1972, OECD/LEGAL/0102, para. 4; Nicolas de Sadeleer, *Environmental Principles – From Political Slogans to Legal Rules* (Oxford, United Kingdom: Oxford University Press 2020), 31.

Liability Directive,[1067] the 2006 International Law Commission Draft Principles,[1068] and other instruments besides the 1992 Rio Declaration.

The implementation of the principle must be conducted domestically through national legislation and in the best way that suits the State policy. However, the polluter pays principle is neither absolute nor mandatory.[1069] In other words, States are not bound to apply the principle in every case aiming the payment by a determined polluter.

When applied to deep seabed mining activities, the principle is also found in the Draft Exploitation Regulations.[1070] Firstly, the regulations provide that, pursuant Article 145 of UNCLOS,[1071] for an effective protection of the marine environment against harmful effects of exploitation activities, the environmental policy of the ISA must be based on 'The application of "the polluter pays" principle through market-based instruments, mechanisms and other relevant measures'.[1072]

Subsequently, Regulation 49 provides the principle by stating that: 'A Contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the Marine Environment from its activities in the Area, in accordance with the Environmental Management and Monitoring Plan and the applicable Standards and Guidelines'.[1073]

Lastly, in the Section 7(3) the Standard Clauses for an exploitation contract state that:

The Authority shall be liable to the Contractor for the actual amount of any damage caused to the Contractor arising out of its wrongful acts in the exercise of its powers and functions, including violations under article 168 (2) of the Convention, account being taken of contributory acts or omissions by the Contractor, its employees, agents and

[1067] 'The prevention and remedying of the environmental damage should be implemented through the furtherance of the 'polluter-pays' principle, as indicated in the Treaty and in line with the principle of sustainable development. The fundamental principle of this Directive should therefore be that an operator whose activity has caused the environmental damage or the imminent threat of such damage is to be held financially liable, in order to induce operators to adopt measures and develop practices to minimize the risks of environmental damage so that their exposure to financial liability is reduced'. Europe Union, *European Parliament and Council Directive 2004/35/CE of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage* (30 Abril 2004), *Official Journal L 143*, preamble, para. 2.
[1068] International Law Commission, *Draft articles on Responsibility of States for Internationally Wrongful Acts*, with commentaries 2001 (ARSIWA Commentaries) (Adopted 23 April–1 June and 2 July–10 August 2001), ILC Doc. A/56/49(Vol. I)/Corr.4, para. (2).
[1069] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 323.
[1070] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 2(e)(iv).
[1071] *UNCLOS*, Art. 145.
[1072] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 2(e)(iv).
[1073] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 49.

subcontractors, and all persons engaged in working or acting for them in the conduct of its operations under this Contract, or third parties.[1074]

The polluter pays principle is at the heart of the liability of private entities. Consequently, it was supposed to be well expressed in the deep seabed mining activities. Nonetheless, the application of the principle does not lead to an automatic liability of the contractor. For this purpose, liability for private contractors may be established through civil liability and compensation alternatives, especially if the sponsoring States regulate their liability under the standard of strict liability.[1075] For example, in the commentaries to the 2006 *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities*,[1076] the International Law Commission considered the polluter pays principle an essential component to ensure the prompt and adequate compensation to the victims.[1077]

Under the standard of strict liability, it will effectively guarantee the reparation by the means of compensation and, consequently, guarantee the effectiveness of the polluter pays principle.[1078] This standard of liability will be further explained in the next section.

[1074] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex X, Sec. 7(3).
[1075] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 324; Alan Boyle, 'Globalising Environmental Liability: The Interplay of National And International Law' (2005) 17(1) *Journal of Environmental Law* 3; see also Robin R. Churchill, 'Facilitating (Transnational) Civil Liability Litigation for Environmental Damage by Means of Treaties: Progress, Problems, and Prospect' (2001) 12(1) *Yearbook of International Environmental Law* 3; Malgosia Fitzmaurice; David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 328; Nicolas de Sadeleer, *Environmental Principles – From Political Slogans to Legal Rules* (Oxford, United Kingdom: Oxford University Press 2020), 63-65.
[1076] *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities with commentaries*, 61; para. 2; see *Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities* (Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities), Adopted 18 December 2006, Annex, UN Doc. A/RES/61/36; Rüdiger Wolfrum and Petra Minnerop, 'Elements of Coherency in the Conception of International Environmental Liability Law', in R. Wolfrum, C. Langenfeld and P. Minnerop (eds.), *Environmental Liability in International Law: Towards a Coherent Conception* (Berlin, Germany: Erich Schmidt Verlag, 2005), 505.
[1077] *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities with commentaries*, 61; para. 2.
[1078] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 324.

5.1.3 Standard of liability

According to Article 22, Annex III,[1079] the structure of liability establishes the contractor and the ISA as primary responsible for environmental damage.[1080] They must be responsible for their own wrongful acts irrespective of the primary obligations of the sponsoring States,[1081] sharing responsibilities only when the sponsoring States do not comply with obligations of due diligence.[1082] Hence, Article 22, Annex III, seems to imply that the liability rests with the contractors, since they are subjected to the jurisdiction of the ISA under the deep seabed mining regime.[1083] Nevertheless, UNCLOS leaves the assurance of compliance with the obligations of the sponsored contractor to the sponsoring State.[1084]

However, this responsibility to ensure does not imply that there is no liability for the sponsoring States, as is well presented in Articles 139(2) and Article 4(4), Annex III, of UNCLOS.[1085] Articles 139(2) states:

> Without prejudice to the rules of international law and Annex III, article 22, damage caused by the failure of a State Party or international organization to carry out its responsibilities under this Part shall entail liability; States Parties or international organizations acting together shall bear joint and several liability. A State Party shall not however be liable for damage caused by any failure to comply with this Part by a person whom it has sponsored under article 153,

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[1079] *UNCLOS*, Art. 22, Annex III; for further analysis see Louise Angélique de La Fayette, 'International Liability for Damage to the Environment', in Malgosia Fitzmaurice, David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 320-360; Alan Boyle, 'Globalising Environmental Liability: The Interplay Of National And International Law' (2005) 17(1) *Journal of Environmental Law* 3; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (4 edn., Cambridge, United Kingdom: Cambridge University Press, 2018), 735-804.

[1080] Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1081] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 200.

[1082] *UNCLOS*, Art. 139(2); in this sense, 'as a consequence, the sponsoring state is not responsible for residual (uncovered) damages flowing from a contractor's wrongdoing, but rather only for damages that arise from its failure to exercise due diligence'. Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1083] Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 112.

[1084] About this reasoning, Rocha complements that: 'what is dismaying at this point is that, despite the absence of any reference to the sponsoring State in Article 22(1) of Annex III, Article 139(2) of the LOSC and the advisory opinion rendered by the SDC in 2011 emphasise the sponsoring State's accountability. It could be just curious that the general rule on the shared liability of private miners and the Authority is 'hidden' in Annex III, whereas the rule on the liability of sponsoring States is set forth in Article 139 of the LOSC. But it is evidence of how international law is uneasy with private actors participation'. Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 112-113.

[1085] *UNCLOS*, Art. 139(2); *UNCLOS*, Art. 4(4), Annex III.

paragraph 2(b), if the State Party has taken all necessary and appropriate measures to secure effective compliance under article 153, paragraph 4, and Annex III, article 4, paragraph 4.[1086]

This provision is complemented by Article 4(4), Annex III:

The sponsoring State or States shall, pursuant to article 139, have the responsibility to ensure, within their legal systems, that a contractor so sponsored shall carry out activities in the Area in conformity with the terms of its contract and its obligations under this Convention. A sponsoring State shall not, however, be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are, within the framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction.[1087]

In sum, it can be stated that the liability of the sponsoring States will be triggered by their failure to comply with their responsibility to ensure the compliance with the responsibility and obligations imposed by the international legal framework.[1088] Therefore, no residual liability can be imputed from the wrongful acts of contractors to their sponsors, but rather only damages from their own failure to comply with their duty of due diligence.[1089]

As previously mentioned, Article 304 of UNCLOS provides that: 'The provisions of this Convention regarding responsibility and liability for damage are without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under international law'.[1090] While the sponsoring State has the obligation to ensure, the contractor is responsible for its obligation to comply with their obligations. Therefore, besides

[1086] *UNCLOS*, Art. 139(2).
[1087] *UNCLOS*, Art. 4(4), Annex III.
[1088] Hui Zhang, 'The Sponsoring States` Obligation to Ensure In The Development Of The International Seabed Area' (2013) 28(4) *The International Journal of Marine and Coastal Law* 681, 685-686; also, 'Therefore, if liability due to damage arises from the action of a private actor is attributable to a State, there must be evidence that there is a causal link between the failure and the damage. The lack of causal link between failure and damage frees the State from liability'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 112.
[1089] Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 222; see also Donald Anton, 'The Principle of Residual Liability in the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea: The Advisory Opinion on Responsibility and Liability for International Seabed Mining (ITLOS Case No. 179)' (2012) 7 *McGill International Journal of Sustainable Development Law & Policy* 241, 250.
[1090] *UNCLOS*, Art. 304.

existing in parallel, liability of the sponsored contractors is a consequence of their own failures, as well established by the polluter pays principle.[1091]

Another conclusion from Article 304 is that liability standards are not immutable.[1092] According to the moment that liability is analysed, the concept and the stringency of the liability can be changed.[1093] The debate about the possibility to apply the standard of strict liability to contractors arose from the difference of interpretation of the terminology 'wrongful act'. Although the need to do it was acknowledged by the ISA, it does not determine any specific liability regime.[1094] The difference essentially depends on the variation of interpretation of what constitutes a 'wrongful act'.[1095]

Under the standard of strict liability the responsibility for the damage exists regardless of the fault (strict liability).[1096] Some authors indicate that liability must be interpreted as non-strict,

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[1091] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 204; Markos Karavias, 'Corporations and Responsibility under International Law', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden: Brill Nijhoff, 2019), 63.

[1092] Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 569.

[1093] Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 210; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 17.

[1094] Neil Craik, Tara Davenport and Ruth Mackenzie, *Liability for Environmental Harm to the Global Commons* (Cambridge, United Kingdom: Cambridge University Press, 2023), 150.

[1095] 'A third possibility is fault liability with a reverse burden of proof: the operator is deemed to be at fault unless he can prove otherwise. Fault liability is the most common and traditional standard of liability. However, in the past 40–50 years, strict liability has come to be the norm for environmental liability'. Louise Angélique de La Fayette, 'International Liability for Damage to the Environment', in Malgosia Fitzmaurice, David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 325; Nicolas de Sadeleer, *Environmental Principles – From Political Slogans to Legal Rules* (Oxford, United Kingdom: Oxford University Press 2020), 63; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 185; Neil Craik, Tara Davenport and Ruth Mackenzie, *Liability for Environmental Harm to the Global Commons* (Cambridge, United Kingdom: Cambridge University Press, 2023), 151.

[1096] Michael Lodge, Kathleen Segerson and Dale Squires, 'Environmental Policy for Deep Seabed Mining', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequences and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 361; Malgosia Fitzmaurice; David Ong and Panos Merlouris, *Research Handbook on International Environmental Law* (Glos, United Kingdom: Edward Elgar Publishing Limited. 2010), 326; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (4 edn., Cambridge, United Kingdom: Cambridge University Press, 2018), 746-748; Rüdiger Wolfrum and Petra Minnerop, 'Elements of Coherency in the Conception of International Environmental Liability Law', in R. Wolfrum, C. Langenfeld and P. Minnerop (eds.), *Environmental Liability in International Law: Towards a Coherent Conception* (Berlin, Germany: Erich Schmidt Verlag, 2005), 503.

requiring an element of 'fault' (fault-based liability).[1097] The use of the term 'wrongful act' in the Article 22, Annex III, of UNCLOS should not be interpreted as a consequence of a 'fault', leading to a fault-based liability.[1098] Therefore, 'wrongful' must be understood as liable as consequence of the breach of one of the obligations upon the contractors, regardless of the existence of any fault.[1099] In this regard, the author of this present work follows the interpretation that a wrongful act for the contractor must be understood as strict, leading to a strict liability position.

According to some authors,[1100] Article 2 of ARSIWA can be applied for the liability of the contractors.[1101] Article 2 describes a wrongful act as an action or omission that '(a) is attributable to the State under international law; and (b) constitutes a breach of an international obligation of

[1097] see Isabel Feichtner, 'Contractor Liability for Environmental Damage Resulting from Deep Seabed Mining Activities in The Area' (2020) 114 *Marine Policy* 1; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4; Pradeep Singh and Julie Hunter, 'Protection of the Marine Environment: The International and National Regulation of Deep Seabed Mining Activities', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequences and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 361; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 352.

[1098] In the same sense, Boyle states: 'Fault in most cases remains relevant only exceptionally, notably where third parties are implicated, or where owners or operators are themselves acting intentionally or recklessly in causing the damage. In the case of nuclear accidents, fault is relevant only insofar as it allows the operator a right of recourse against any party intentionally causing the damage. In some cases, however, there is broader provision for additional fault liability, including negligence. Under the 1999 Protocol on Liability for Transboundary Waste any person whose failure to comply with laws implementing the 1989 Basel Convention on Transboundary Movements of Hazardous Waste or whose wrongful, intentional, reckless or negligent acts or omissions result in waste causing damage will be liable. While making operators strictly liable for transboundary damage caused by industrial accidents, the 2003 Kiev Protocol also retains additional fault-based liability as provided for by national law.' Alan Boyle, 'Globalising Environmental Liability: The Interplay of National and International Law' (2005) 17(1) *Journal of Environmental Law* 3, 13; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1099] Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4; nonetheless, according to the Legal Working Group on Liability: 'Accidental damage from exploration activities that arises despite all reasonable measures being taken, or damages that are unforeseen, are not currently "wrongful" and, therefore, not compensable under the LOSC. However, where the failure to comply with a direct, primary obligation results in harm, for example, failing to comply with an emergency order, the non-compliance ought to be viewed as wrongful, with liability consequences flowing from the non-compliance'. Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 17.

[1100] Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 372; Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 224.

[1101] *ARSIWA*, Art.2.

the State'.[1102] This may be applied to the contractors since the article makes reference to a breach of an international obligation instead of a rule or norm of international law.[1103] Consequently, the focus will be placed on a concern on the breach of the primary obligations not on the fault.[1104] In the same sense, Xu states that: 'The commentary on the ARSIWA clarifies that "reference is made to the breach of an international obligation rather than a rule or a norm of international"'.[1105] Thus, taking '"a breach of requirements" as a standard definition of wrongful act is not appropriate'.[1106] In turn, according to Sun, the term 'internationally wrongful acts' in the ARSIWA can be applied by analogy to contractors since 'by "wrongful acts", Article 22, Annex III to the UNCLOS means not the requirement of a mental element of "fault" of the contractor, but the objective criterion of "the breach of the primary obligation"'.[1107] Thus, the element to be determined is whether the contractor has breached its primary obligation. The author of this work follows the last position.

Following that, the application of a standard of strict liability to wrongful acts committed by sponsored contractors may have some benefits for the protection of the environment.[1108] One benefit may be that the contractor will need to be more careful on its activities to prevent liability from possible environmental damage. Following this reasoning, according to Craik, 'in light of an environmental harm prevention objective, strict liability may be justified as a means to promote

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[1102] *ARSIWA*, Art.2.
[1103] *ARSIWA Commentary*, Art.2(13).
[1104] Complementing this reasoning, Xue and Xu express: 'Thus, simply taking "a breach of requirements" as a standard definition of "wrongful act" is not appropriate. Since contractors assume non-strict liability under UNCLOS, damnum absque injuria (damage without wrong) may occur. Enhancing contractors' liability could be one approach to solve this problem'. Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 224; *ARSIWA Commentary*, Art.2(3).
[1105] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 185.
[1106] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 185.
[1107] Linlin Sun, *International Environmental Obligations and Liabilities in Deep Seabed Mining* (Cambridge,United Kingdom: Cambridge University Press, 2023), 216.
[1108] Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 2; Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 185; Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 224.

deterrence of risky behaviour by providing greater incentives for operators to take steps to prevent accidental damage'.[1109] In a regulatory matter, such approach enables legislators to 'take risk minimization measures, and therefore to ensure the higher standard of strict liability encourages greater care, as the law requires that the operator take all steps to prevent harm, not just those that are reasonable' and 'externalize the costs of measures taken to protect the environment that go beyond mere negligence', in the absence of strict liability.[1110]

In this sense, another advantage is that the standard of strict liability does not need proof of fault but only requires the causation to determine the responsibility for the wrongful act and subsequent compensation.[1111] This benefit would allow sponsoring States to comply with their primary obligations of 'availability of resources for compensation'.[1112] Strict liability allows exceptions in order to avoid an unrestricted imposition of liability and avoids exceptions in cases such as acts committed by third parties, government negligence, natural phenomena, and others.[1113]

Regulation 33(5) of the Exploration Regulations confirms that the duty of sponsored contractors to take 'necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the area as far as reasonably possible, applying a precautionary approach and best environmental practices'.[1114] The standard of liability

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[1109] Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 2.

[1110] Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 2; additionally, 'As noted in Case 17, the type of mining will change the nature of due diligence obligations, and even strict liability and damage claims may be altered. Thus, the Draft Regulations need to address each type of mining with specific environmental assessment provisions, as the Exploration Regulations have done'. Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 355.

[1111] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 186; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1112] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 186; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1113] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 186; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1114] *Polymetallic Nodules Exploration Regulation,* Reg. 33(5); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5).

on the sponsored contractors requires them to fail to comply with their duty of due diligence. Nonetheless, if damage from failure originated from an accident, it will not be considered a wrongful damage if the contractors took all the necessary measures expected from them.[1115] But, if the contractor is considered liable, a prompt and adequate compensation must be arranged,[1116] as well expressed in the Section 16(1), Annex IV of the Exploration Regulations.[1117]

At the national level, it rests to the sponsoring States to decide whether the standard of liability to be strict or not, since 'the application by a State Party to contractors sponsored by it … of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted … shall not be deemed inconsistent with Part XI'.[1118] However, it may create a situation where private contractors can opt to pursue sponsorship with States that have flexible laws for liability in deep seabed mining, in other words, leading to a forum shopping situation that may lead to a sponsorship of convenience system. This is also corroborated by the current state of affairs, wherein a number of States that have enacted legislation pertaining to the deep seabed do not apply a standard of strict liability in their national legislation.[1119] There

[1115] 'Although where the failure to comply with a direct, primary obligation results in harm, for example, failing to comply with an emergency order, the non-compliance ought to be viewed as wrongful, with liability consequences flowing from the non-compliance'. Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4.

[1116] *UNCLOS*, Art. 235(2).

[1117] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16; see also Armando Rocha, *Private Actors as Participants in International Law: A Critical Analysis of Membership under the Law of the Sea* (London, United Kingdom: Hart Publishers, 2021), 112; James Rudall, *Compensation for Environmental Damage Under International Law* (London: Routledge, 2020), 61; Furthermore, according to Article 235, the determination of the due compensation will be decided by domestic courts and tribunals from the sponsoring State as will be further detailed. *UNCLOS*, Art. 235(2).

[1118] *UNCLOS*, Art. 22, Annex III. (Emphasis added); In the same sense: 'As regards the protection of the marine environment, the laws and regulations and administrative measures of the sponsoring State cannot be less stringent than those adopted by the Authority or less effective than international rules, Regs. and procedures.8 The establishment of a trust fund to cover the damage not covered under the Convention could be considered'. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), 8; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 242.

[1119] In the same reasoning, Craik says, 'The sponsoring state would appear to be obligated to ensure that sources of compensation are available, perhaps through insurance or other forms of security. There is, in principle, no bar to states establishing civil jurisdiction over sponsored contractors for activities and damages in the Area (based on the nationality principle). There may, however, be disincentives for sponsoring states to have more onerous liability requirements for their sponsored contractors, in the absence of commitments from other states to maintain similar standards'. Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 5; see also, Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 187; *Polymetallic Nodules Exploration*

are no mandatory rules suggesting to the ISA, sponsoring States, and sponsored Contractors that they have to follow the same standard of liability.

To provide a more standardised legislation for deep seabed mining, the ISA released in 2019 the Comparative Study of the Existing National Legislation on Deep Seabed Mining.[1120] Nevertheless, on this issue:

> While there are commonalities between the laws studied in this review, particularly between the Pacific Island States, there is also a divergence in specific content and approaches taken. Naturally, this will stem from drafting styles, the particular national regulatory and institutional contexts and differences in common law and civil law legal systems, and how the relationship between the relevant parties is determined for legal purposes. It can be noted in general that the laws adhere closely to the Convention and the Authority's rules, regulations and procedures in relation to sponsorship application processes, but tend to be more individual and detailed in relation to ongoing supervision of the contract. Nevertheless, the content of any sponsoring State rules and regulations is a largely a matter for the sovereign State, albeit within the context of its international legal responsibilities under the Convention, in particular under article 139, and as articulated by the Seabed Disputes Chamber of the International Tribunal on the Law of the Sea.[1121]

By gathering the legislation and conducting this comparative study, 'this review and the common elements derived from the legislation submitted by States is a useful reference for the sponsoring States or other potential sponsoring States to update or adopt legislation in respect of deep seabed mining activities'.[1122] Thus, 'there is no definitive set of rules and regulations that should be adopted by a sovereign State, albeit over time consistent approaches and practices will develop simultaneously as the Authority's legal and administrative framework develops'.[1123]

The contractors must be willing to comply with a strict liability if the sponsoring State wants to apply a strict liability model different from UNCLOS. Through its national legislation, the sponsoring State has the power to apply its option based on Article 21(3), Annex III, of UNCLOS.[1124] In conclusion, the sponsoring State must be applied fault-based liability, while a

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Regulation, Annex IV, Sec. 16(4); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(4); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(4).

[1120] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019).

[1121] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 92.

[1122] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 95.

[1123] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 95.

[1124] *UNCLOS*, Art. 21(3), Annex III.

strict liability is more suitable for the sponsored contractors, thus allowing evidence of the application of the obligation of due diligence of the sponsoring States.[1125]

5.2 Implementation and enforcement of international environmental liability of contractor

5.2.1 Implementation of international environmental liability of contractor

In attributing the liability for damages originating from deep seabed mining activities in the Area, liability must be primarily imputed to the contractor responsible for conducting the activity.[1126] The liability must reach the sponsoring State only in case of non-compliance with its responsibility to ensure. According to the Exploration Regulations and Draft Exploitation Regulation, the contractor will be responsible and liable for the actual amount of any damage arising out of its wrongful acts or omissions, and those of persons engaged in working or acting for it in the conduct of its operations under the contract.[1127] This line of reasoning allows sponsoring States to attribute the responsibility of the contractors and all persons engaging in their operations, such as employees and subcontractors. At the same time, it also incentives sponsoring States to apply more control over the contractors.

The liability of the contractor will not necessarily end after the termination of the contract with the Authority, since 'The contractor shall continue to have responsibility for any damage arising out of wrongful acts in the conduct of its operations, in particular damage to the marine environment, after the completion of the exploration phase'.[1128] However, it may be difficult for the ISA to implement such liability after the end of the contract since it will lose control over the

[1125] Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 228.
[1126] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 199-200.
[1127] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex X, Sec. 7(1); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(1).
[1128] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex X, Sec. 7(1); *Polymetallic Nodules Exploration Regulation,* Reg. 30; *Polymetallic Sulphides Exploration Regulation,* Reg. 32; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 32.

contractors, or they will 'cease to exist', whether because of 'subject to legal division, merge or other rearrangements'.[1129]

After that, the responsibility of the former sponsored contractor to input the liability over the former sponsored contractor arises. In cases where the rights and obligations of the contractor are transferred,[1130] liability originated from damage in the activities in the Area will follow the new proposed transferee.[1131] However, the former contractor can be held liable, depending on whether it is joint or composed of several liability. As previously mentioned, if the damage had its origin in a joint operation, then all contractors must be considered liable. This may be considered a reflection of the adoption of the polluter pays principle.[1132] If the contractor is found liable, it shall indemnify the Authority, its employees, subcontractors and agents 'against all claims and liability of any third party arising out of any wrongful acts or omissions of the Contractor and its employees, agents and subcontractors, and all persons engaged in working or acting for them in the conduct of its operations under this contract'.[1133]

In order to ensure proper indemnity, the Contractor shall maintain appropriate insurances consistent with international practice.[1134]

5.2.2 Enforcement of the environmental liability of private contractors

At the international level, with the exception of private entities, such as private corporations, the liability of the sponsored contractors can be invoked through the Seabed Disputes Chamber.[1135] Based on the international legal framework for deep seabed mining activities, the

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[1129] Linlin Sun, *International Environmental Obligations and Liability in Deep Seabed Mining* (Leiden, Netherlands: Institute of Public Law, 2018), 181.
[1130] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 22; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 22; *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 22.
[1131] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 22(2); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 22(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 22(2).
[1132] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 166 and 201.
[1133] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex X, Sec. 7(2); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(2); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(2); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(2).
[1134] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 36(1); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5).
[1135] *UNCLOS*, Art. 187(c); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 25(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 25(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 25(1).

Disputes Chamber can release final and enforceable decisions within States parties of UNCLOS concerning the international liability of the contractor.[1136] The enforcement of such decisions will be determined by the national legislation of the State.

Regarding the possibility to claim compensation, the Legal Working Group on Liability of the CIGI identifies the following five categories of compensable damages in potential claims: (1) damage to the common heritage of mankind resources; (2) damage to the marine environment in areas beyond national jurisdiction; (3) damage to persons and property in the Area; (4) damage suffered by non-State Parties to UNCLOS operating in areas beyond national jurisdiction; and (5) damage to coastal State interests.[1137] Each of these categories of potential claims have a direct impact on the contentious jurisdiction of the Seabed Disputes Chamber.[1138] According to what was stated at the Advisory Opinion, 'subjects entitled to claim compensation may include the Authority, entities engaged in deep seabed mining, other users of the sea, and coastal States'.[1139]

In this sense, at the international level, the Seabed Disputes Chamber acknowledges itself as the potential fora for the liability of the sponsoring State. In addition, not only the liability can be invoked by the ISA before the Disputes Chamber at the international level but also can be implemented at the national level to the sponsored contractors according to the national laws of their respective sponsoring State.[1140]

[1136] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 139-140.
[1137] Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 4-17; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 20-23.
[1138] Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 573.
[1139] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 179.
[1140] *UNCLOS*, Art. 187; see also Ciarán Burke, 'Article 187', in Alexander Proelss, *United Nations Convention on the Law of the Sea: A Commentary* (London, United Kingdom: Hart Publishing, 2017), 1254-1261; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 21; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 4.

With regard to compensation, with exception of the ISA,[1141] Article 187 of UNCLOS does not make any explicit reference to compensation for liability. According to Davenport,[1142] Article 187 allows an extensive interpretation to support the implementation of compensation for damage caused by sponsoring States or sponsored entities. Accordingly, the Seabed Disputes Chamber has the power to determine its own jurisdiction,[1143] and the interpretation of contracts is directly related to the interpretation of the Convention as required by Article 187.[1144] However, Article 187 does not make any explicit reference to support this reasoning towards claims against private contractors.[1145] The only other actors that have direct access to the Seabed Disputes Chamber are State Parties to the Convention to submit claims against sponsoring States, State contractors or the ISA.[1146]

Nonetheless, even if this broad reasoning was widely accepted to apply to private entities, liability for damages to the marine environment in areas beyond national jurisdiction arising from non-compliance by the private contractors is not able to be enforced by the Seabed Disputes Chamber; thus, the liability against private contractors must be imposed within the national level.[1147] Regarding the national courts and the extension of the compensation from a liable damage, this matter will be discussed in the next chapter with the analysis of the national legislation.

Despite that, there are some criticisms that can be highlighted to this dual system. Some commentators argue that the existence of two methods of enforcing the liability of the contractors,

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[1141] *UNCLOS*, Art. 187.
[1142] Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 3.
[1143] *UNCLOS*, Art. 188(4).
[1144] *UNCLOS*, Art. 187; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 3.
[1145] *UNCLOS*, Art. 187.
[1146] *UNCLOS*, Art. 187(a) and (b); Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 3.
[1147] Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 22; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 180.

namely the national and the international levels, may weaken the international mechanisms.[1148] Some of the problems arising from the existence of two jurisdictions are the possibility of the same case leading to two decisions that could be different or even contradictory, and inconsistencies in the assessment of the environmental damage in different jurisdictions which could lead 'to varying interpretations and application of provisions that are expected to be applied in a uniform manner'.[1149]

In this sense, Mensah expresses that: 'A major drawback is the absence of a widely recognized judicial system to deal with conflicting claims from victims of different nationalities. Civil liability conventions generally reserve jurisdiction over disputes under the conventions to the national courts of the States Parties to the conventions'.[1150] This may mean that the existence of liability for damage and the consequent appropriate compensation may be left to the national judicial institutions to decide in accordance with the legislations of the States where the damage was suffered or caused.[1151] Therefore, the existence of two methods can create problems in the application of UNCLOS. Additionally, the implementation of these decisions will depend on the national legislation of each State, which should provide the enforcement of these decisions.

[1148] For a more detailed analysis see Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 3-8.

[1149] Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 7; additionally, Craik, Davenport and Mackenzie comments that: 'Channelling legal liability to the contractor, to the exclusion of sponsoring States and the ISA, appears to derogate from the intention of the negotiators of UNCLOS on the allocation of liability and may undermine the incentive of their sponsoring State and the ISA to exercise reasonable care in the exercise of their obligations. It is also not clear whether the ISA has the authority to fundamentally change the allocation of liability set out in UNCLOS. While an indemnity under domestic law cannot alter the international legal obligations of sponsoring States, the effect is to allow the sponsoring State to contract out of their responsibilities under UNCLOS'. Neil Craik, Tara Davenport and Ruth Mackenzie, *Liability for Environmental Harm to the Global Commons* (Cambridge, United Kingdom: Cambridge University Press, 2023), 125.

[1150] Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 6.

[1151] Furthermore, 'As a general rule, decisions of the competent national courts on these issues are final and are not subject to appeal in any other forum'. Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 6; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 24; Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 573.

5.3 Forms of reparation for liability

After reviewing these observations on the international liability in the deep seabed mining, this work will analyse the possible forms of reparation. The ARSIWA is the main document related to the responsibility of States in international law, which reflects the customary international law to provide reparations in case of international wrongful acts. According to the document,[1152] there are three forms of reparation for an injury: restitution,[1153] compensation,[1154] and satisfaction.[1155]

5.3.1 Restitution

Restitution can be understood as the obligation to 're-establish the situation which existed before the wrongful act was committed, provided and to the extent that restitution: (a) is not materially impossible; (b) does not involve a burden out of all proportion to the benefit deriving from restitution instead of compensation'.[1156]

The complete restoration of the damaged environment must be the first form of reparation to be considered. However, due to the nature of the deep seabed mining activities in the Area, reparation under restitution would be difficult to achieve. In this regard, it is essential that the sponsoring State and the sponsored contractors conduct their activities in the Area with a more rigorous observation of the primary obligations.

5.3.2 Compensation

Compensation appears to be the most effective and appropriate of the three methods of reparation.[1157] Article 36 of the ARSIWA states that 'the State responsible for an internationally

[1152] *ARSIWA*, Art. 34
[1153] *ARSIWA*, Art. 35.
[1154] *ARSIWA*, Art. 36.
[1155] *ARSIWA*, Art. 37.
[1156] *ARSIWA*, Art. 35.
[1157] 'The obligation for a State to provide for a full compensation or *restituto in integrum* is currently part of customary international law. This conclusion was first reached by the Permanent Court of International Justice in the *Factory of Chorzów* case (*P.C.I.J. Series A, No. 17*, p. 47). This obligation was further reiterated by the International Law Commission. According to article 31, paragraph 1, of the ILC Articles on State Responsibility: "The responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act". The Chamber notes in this context that treaties on specific topics, such as nuclear energy or oil pollution, provide for limitations on liability together with strict liability'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 194; Guifang (Julia) Xue and Xiangxin Xu, ''Contractors' Liability and the Sponsoring States' Role in Enhancing the Liability of the Contractors', in Alfonso Ascencio-Herrera, Myron H. Nordquist, *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 230-231;

wrongful act is under an obligation to compensate for the damage caused thereby, insofar as such damage is not made good by restitution', and 'the compensation shall cover any financially assessable damage including loss of profits insofar as it is established'.[1158] A compensable environmental damage in the context of deep seabed mining regime might encompass: loss or damage by impairment of the marine environment; the costs of reasonable measures of restoration or reinstatement of the marine environment, including natural resources; reasonable measures to introduce the equivalent of destroyed or damaged components of the marine environment; reasonable costs of assessing and monitoring impairment of the marine environment; the costs of reasonable preventive or response measures; and other compensatory response measures.[1159]

The Seabed Disputes Chamber did not adequately address the issue of reparation for liability; however, some considerations can be brought from the Advisory Opinion.[1160] According to the Chamber, 'liability in every case shall be for the actual amount of damage' taking into account the ISA and the sponsored contractors.[1161] Moreover, the Chamber view is that the form of reparation 'will depend on both the actual damage and the technical feasibility of restoring the situation to the *status quo ante*'.[1162] The damage can be divided into two types, monetarily valuated damages and non-economic damages associated with the environmental damage.[1163] Monetary

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Ilias Plakokefalos, 'Analysis Seabed Disputes Chamber of the International Tribunal for the Law of the Sea Responsibilities and Obligations of States and Entities with Respect to Activities in the Area: ADVISORY OPINION' (2011) 24(1) *Journal of Environmental Law* 133, 142; Rüdiger Wolfrum and Petra Minnerop, 'Elements of Coherency in the Conception of International Environmental Liability Law', in R. Wolfrum, C. Langenfeld and P. Minnerop (eds.), *Environmental Liability in International Law: Towards a Coherent Conception* (Berlin, Germany: Erich Schmidt Verlag, 2005), 506, Kristoffer Svendsen. 'Liability and Compensation for Activities in the Area', in Catherine Banet (eds.), *The Law of the Seabed: Access, Uses, and Protection of Seabed Resources* (Leiden: Brill Nijhoff, 2020), 608.

[1158] *ARSIWA*, Art. 36.

[1159] Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 13; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (3 edn., Cambridge, United Kingdom: Cambridge University Press, 2012), 708; Akiho Shibata, 'A New Dimension In International Liability Regimes', in Akiho Shibata, *International Liability Regime for Biodiversity Damage: The Nagoya-Kuala Lumpur Supplementary Protocol* (London, United Kingdom: Routledge, 2016), 36.

[1160] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 193-198.

[1161] *UNCLOS*, Art. 22, Annex III; *Polymetallic Nodules Exploration Regulation,* Reg. 30; *Polymetallic Sulphides Exploration Regulation,* Reg. 32; *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(1).

[1162] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 197.

[1163] Michael Bowman, 'Biodiversity, intrinsic value, and the definition and valuation of environmental harm', in: Michael Bowman and Alan Boyle (eds.), *Environmental damage in international and comparative law: problems of definition and valuation* (Oxford, United Kingdom: Oxford University Press, 2002), 42.

damages are easier to assess than the latter, since in most cases they can be measured simply by looking at market prices. The only problem may lie in the context of environmental damage assessment.[1164] In this sense, the non-economic damages associated with environmental damage may be difficult to value properly. It is therefore essential to minimise environmental damage by complying with primary obligations.[1165]

5.3.2.1 Compulsory insurances

The Exploration Regulations establish the need for compulsory insurance or financial security and compensation funds for the contractors conducting activities in the Area by stating that 'the Contractor shall maintain appropriate insurance policies with internationally recognized carriers, in accordance with generally accepted international maritime practice'.[1166] In addition to that, the Draft Exploitation Regulations also determine the need for the contractors to have

[1164] 'For instance, it may be possible to ascribe economic value to the loss of mineral resources on the basis of some form of commercial valuation. Moreover, in the case of other high levels of transboundary damage, compensation of operators is usually limited to a fixed amount, with other economic measures, such as environmental bonds or insurance, for the guarantee or establishment of a compensation fund'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 115; Ruth Mackenzie, 'Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage' (2019) *CIGI Liability Issues for Deep Seabed Mining Series*, 15; additionally, Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*; Xiangxin Xu and Guifang (Julia) Xue, 'The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime' (2021) 49(6) *Coastal Management* 557; Rüdiger Wolfrum and Petra Minnerop, 'Elements of Coherency in the Conception of International Environmental Liability Law', in R. Wolfrum, C. Langenfeld and P. Minnerop (eds.), *Environmental Liability in International Law: Towards a Coherent Conception* (Berlin, Germany: Erich Schmidt Verlag, 2005), 507.

[1165] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 115; Michael Bowman, 'Biodiversity, intrinsic value, and the definition and valuation of environmental harm', in: Michael Bowman and Alan Boyle (eds.), *Environmental damage in international and comparative law: problems of definition and valuation* (Oxford, United Kingdom: Oxford University Press, 2002), 42.

[1166] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5); additionally, 'With regard to sponsoring States, there is currently no mention or requirement that they maintain adequate insurance. This makes sense since sponsoring States themselves are not involved in activities in the Area and their liability is linked to failures to fulfil their due diligence obligations and, even then, that failure must be linked to the damage that is triggered by the activities of sponsored contractors'. Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 571; see also Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (4 edn., Cambridge, United Kingdom: Cambridge University Press, 2018), 735-804; see also, Tullio Scovazzi, 'Maritime Accidents with Particular Emphasis on Liability and Compensation for Damage from the Exploitation of Mineral Resources of the Seabed', in Andrea de Guttry, Marco Gestri and Gabriella Venturini, *International Disaster Response* (Berlin, Germany: Springer, 2012), 290.

adequate insurances.[1167] As Craik explains, insurance 'provides the base coverage for securing liability obligations'.[1168] The requirements applied to these insurances are structured to have limitations in the cover for the liable fact. These thresholds usually are agreed among the insurance industry and are focused on the amount, scope and risk to be coveraged.[1169] Therefore, the imposition of compulsory insurance may have some problems. Firstly, the deep seabed mining activities not only lack more previous experience, but also lack due environmental assessment to answer scientific uncertainties. This imprecision may hinder the due international environmental liability and, consequently, discourage the granting of insurance.[1170] Second, due to the immensurability of the possible damages to the environment, the contractor may find difficulty in the insurability.[1171]

In this sense, environmental monetary limits can themselves be seen as a limitation of liability, thus creating a potential liability gap.[1172] Limited financial capacity of the contractors, including financial capacity, mandatory insurance, guarantees or compensation funds may restrict the amount of compensation inappropriately in relation to the stringency that the sponsoring States adopt of liability against their sponsored contractors. In addition, such insurance may have a negative dissuasive effect since the operators do not bear the full cost of the behaviour.[1173]

[1167] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 36.

[1168] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 290.

[1169] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 291.

[1170] Michael Faure, *Deterrence, Insurability, and Compensation in Environmental Liability: Future Development in the European Union* (Berlin, Germany: Springer 2003), 126 and 127.

[1171] Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 213.

[1172] 'Monetary limits on liability are also commonplace and exist to facilitate insurance coverage (which will itself be limited), and are likely necessary for public companies, which may be restricted in opening themselves up to unlimited liability. In effect, in other regimes, strict liability is balanced with limits to liability, although within the oil pollution regime the parties have sought to ensure that the limitations attached to insurance caps and compensation funds fairly reflect the scale of potential damages arising from claims'. Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327; Isabel Feichtner, 'Contractor Liability for Environmental Damage Resulting from Deep Seabed Mining Activities in The Area' (2020) 114 *Marine Policy* 1, 7-8.

[1173] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the*

However, some authors disagree with this interpretation and do not see the lack of limitation to the liability of the contractor as a major problem.[1174] Despite the limited number of contractors, this may not cause any further problems due to the possibility of these operators to join some existing insurance scheme.[1175] Protection and Indemnity Clubs (P&I Clubs) may give the opportunity to find the most suitable insurers, including for the international environmental liability of the contractors in the deep seabed mining regime.[1176]

Despite neither UNCLOS nor the Exploration Regulations stated how the insurance compensation would be proceeded, the Draft Exploration Regulations state that the contractor 'shall use its best endeavours to ensure that all insurances required under this regulation shall be endorsed to provide that the underwriters waive any rights of recourse, including rights of subrogation against the Authority in relation to Exploitation'.[1177] In other words, if both the ISA and the sponsored contractor were held liable, the insurance of the contractor would be the first line of defence against a potential compensation.[1178] Combined with that, Regulation 26 offers the exercise of 'Environmental Performances Guarantee' to support the limitation of the financial compensation in cases where the Authority is held liable,[1179] but it 'does not limit the responsibility and liability of the Contractor under its exploitation contract'.[1180] However, a potential liability gap may arise from that regarding the possible liability of the sponsored contractor which is insolvent or whose assets are beyond reach.[1181] To solve this problem, the Seabed Disputes

Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey (Leiden, Netherlands: Brill Nijhoff, 2022), 278.

[1174] Michael Faure and David Grimeaud, 'Financial Assurance Issues of Environmental Liability' (2000) *European Center for Tort and Insurance Law*, iv; Ling Zhu, *Compulsory Insurance and Compensation for Bunker Oil Pollution Damage* (Berlin, Germany: Springer, 2006), 213 and 214.

[1175] Linlin Sun, *International Environmental Obligations and Liabilities in Deep Seabed Mining* (Cambridge, United Kingdom: Cambridge University Press, 2023), 244.

[1176] Erik Røsæg, 'Compulsory Maritime Insurance' (2000) 258 *SIMPLY* 1, 4; Ling Zhu, *Compulsory Insurance and Compensation for Bunker Oil Pollution Damage* (Berlin, Germany: Springer, 2006), 59.

[1177] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 36(2).

[1178] Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 572; see also Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019).

[1179] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 26.

[1180] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 26(8).

[1181] International Seabed Authority, *The Environmental Compensation Fund* (2022), Policy Brief No. 2/2022, para. 9.

Chamber has suggested the establishment of a trust fund to compensate for any damages that the sponsored contractors are unable to cover.[1182]

5.3.2.2 Compensation Fund

Regarding the possibility of the ISA establishing the proposed trust fund, the Seabed Disputes Chamber states that 'situations may arise where a contractor does not meet its liability in full while the sponsoring State is not liable under Article 139(2) of the Convention, the Authority may wish to consider the establishment of a trust fund to compensate for the damage not covered'.[1183] Additionally, this can be associated with the necessity of 'prompt and adequate compensation' brought by Article 235(2) of UNCLOS expressed by the Seabed Disputes Chambers.[1184] Prompt and adequate compensation is recognised as a key objective of the liability regime.[1185] While promptness can be understood as the efficiency in responding to claims for compensation, adequacy refers to the quantum.[1186] However, Article 235(2) presents

[1182] 'Utilizing a compensation fund to pay for the loss not covered is not the creation of the ISA. Since 20th century, as the number of transnational activities at sea has increased, the risk of environmental damage caused by these activities has also increased. In response to this situation, many compensation funds have been established, serving as remedial measures and even preventive measures to damage arising from those transitional activities. Currently, international compensation regimes exist in the fields of oil and bunker fuel pollution, hazardous and noxious substances pollution, nuclear damage, and environmental issues in the Antarctic'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 119 and 120; see also Xiangxin Xu and Guifang (Julia) Xue, 'The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime' (2021) 49(6) *Coastal Management* 557, 564 ; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 203 and 205.

[1183] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 205; according to Scovazzi, outside of what was established within the deep seabed mining regime, liability and compensation for damage as consequence of seabed mining activities in the areas beyond the national jurisdictions are covered by only one international treaty, with the *Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources* the only treaty established. Nevertheless, this convention did not entered into force. For a deeper analysis of the seabed mining activities in areas within the jurisdiction of the States see Tullio Scovazzi, 'Maritime Accidents with Particular Emphasis on Liability and Compensation for Damage from the Exploitation of Mineral Resources of the Seabed', in Andrea de Guttry, Marco Gestri and Gabriella Venturini, *International Disaster Response* (Berlin, Germany: Springer, 2012), 287-322; see also Neil Craik, Tara Davenport and Ruth Mackenzie, *Liability for Environmental Harm to the Global Commons* (Cambridge, United Kingdom: Cambridge University Press, 2023), 242-244.

[1184] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 140.

[1185] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 277; *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, with commentaries*, Principle 3.

[1186] *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, with commentaries*, Principle 4(7).

compensation as a matter of national legislation.[1187] In Article 235(3), with the aim of ensuring a prompt and adequate compensation, the Convention proposes that the States shall cooperate in implementing the current international law and creating further regulations regarding 'responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, the development of criteria and procedures for the payment of adequate compensation, such as compulsory insurance or compensation funds'.[1188]

Nevertheless, compensation funds and trust funds are not synonymous. While the main objective of a compensation fund is to provide prompt and adequate remedies of compensation in order to restore or mitigate environmental damage; the trust fund offers monetary compensation to the potential affected subjects by the damages.[1189] Although using different terms, both Article 235(3) of UNCLOS and the Advisory Opinion suggest the creation of a fund to compensate for potential liable damages to the marine environment.

Moreover, according to Craik, this does not mean that the sponsoring States have to develop an international civil liability regime, although international civil liability regimes can be used as a source of inspiration. In this same sense, this necessity of compensation is often incorporated into civil liability instruments, as can be seen from some international conventions and specific provisions: Articles 10 of the 1960 Paris Convention,[1190] Article 3(2) of the 1962 Nuclear Ships Convention,[1191] Article 7 of the 1963 Vienna Convention,[1192] the 1969 International

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[1187] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 277; see *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(6); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5).

[1188] *UNCLOS*, Art. 235(3).

[1189] Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*, 1-2; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 25; Ilias Bantakes, 'Trust Funds' (October 2010), in Rüdiger Wolfrum (eds.), Max Planck Encyclopedias of International Law (Oxford, United Kingdom: Oxford University Press, 2004-2020), 1.

[1190] *Paris Convention on Third Party Liability in the Field of Nuclear Energy* (1960 Paris Convention), adopted 29 July 1960, additional protocol 28 January 1964, additional protocol 16 November 1982 (Protocol); additional protocol 12 February 2004, OECD/LEGAL/0038, Art. 10.

[1191] *Convention on the Liability of Operators of Nuclear Ships* (1962 Nuclear Ships Convention), adopted 25 May 1962, IUCN (ID: TRE-000585), Art. 3(2).

[1192] *Vienna Convention on Consular Relations Done at Vienna* (1963 Vienna Convention), adopted 24 April 1963, entered into force on 19 March 1967, United Nations, Treaty Series, vo1. 596, Art. 7.

Convention on Civil Liability for Oil Pollution,[1193] Article 8 of the 1977 Seabed Mineral Resources Convention,[1194] 1992 Civil Liability Convention,[1195] Articles 12 of the 1993 Lugano Convention,[1196] Article 14 of the 1999 Basel Protocol,[1197] 2001 Bunker Oil Convention,[1198] Article 11 of the 2003 Kiev Protocol,[1199] and the 2010 Convention on Hazardous and Noxious Substances by Sea.[1200] Therefore, in the deep seabed mining activities, these earlier conventions can be taken into consideration since 'The Contractor shall maintain appropriate insurance policies with internationally recognised carriers, in accordance with generally accepted international maritime practice'.[1201] In other words, the insurance industry for deep seabed mining can look to these sectors for guidance on the appropriate insurance limits for liability.[1202]

The main purpose of international civil liability rules is to preserve and protect the environment.[1203] This same purpose can be found in the Article 235(1) of UNCLOS, which states that 'States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment'.[1204] In this regard, compensation

[1193] see *International Convention on Civil Liability for Oil Pollution Damage* (CLC) (1969 International Convention on Civil Liability for Oil Pollution), adopted 29 November 1969, entry into force 19 June 1975, IOPC Funds; see also Erik Røsæg, 'Compulsory Maritime Insurance' (2000) 258 *SIMPLY* 1.
[1194] *Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources* (1977 Seabed Mineral Resources Convention), June 1977, Misc Series No.8 (1977), Art. 8.
[1195] see *Protocol to the International Convention on Civil Liability for Oil Pollution Damage*, (1992 Civil Liability Convention) Adopted 27 November 1992; entered into force 30 May 1996, IMO LEG/CONF.9/15.
[1196] *Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment* (1993 Lugano Convention), adopted 21 June 1993, ETS 150 – Environment, 21.VI.1993, Art. 12.
[1197] *Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal* (1999 Basel Protocol), adopted 10 December 1999, UN Doc.UNEP/CHW.1/WG/1/9/2, Art. 14.
[1198] see *International Convention on Civil Liability for Bunker Oil Pollution Damage* (2001 Bunker Oil Convention), adopted 23 March 2001, entry into force 21 November 2008, Cm 6693.
[1199] *Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context* (2003 Kiev Protocol), adopted 21 May 2003, entered into force 11 July 2010, UN Doc. ECE/MP.EIA/2003/2, Art. 11.
[1200] see *International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea* (1996 HNS Convention), adopted 3 May 1996, IUCN (ID: TRE-001245).
[1201] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(6); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(6); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5).
[1202] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 291; see also Nick Gaskell, *Compensation for offshore pollution: ships and platforms, Maritime Law Evolving* (Oxford, United Kingdom: Hart Publishing, 2023), 63-93.
[1203] In this sense, see *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities*, Principle 3; *Protocol on Environmental Protection to the Antarctic Treaty*, Art. 16; *1993 Lugano Convention*, Art. 1.
[1204] *UNCLOS*, Art. 235(1).

assurances may offer the funds to guarantee the proper compensation to contribute to the financial reparation of the damages.[1205] In combination with the cooperation proposed by Article 235(2), a coordination of the national laws for liability with proper compensation assurances in the deep seabed mining regime can support a more effective protection of the marine environment.

Based on the work of the Legal Working Group on Liability of the Center for International Governance Innovation (CIGI), some considerations about which inspirations from the civil liability regimes would benefit compensation schemes, such as the insurances and compensation funds for the deep seabed mining, can be observed.[1206] The following considerations can be listed as follows: although the liability is channelled to the contractor, the possibility for the sponsoring States to remain potentially liable for the damage that cannot be compensated by the private contractor; the application of strict liability as the standard of care for liability of the contractor; compulsory insurance supplemented by the compensation fund; the implementation of common rules and procedures within the national courts; and the limitation of the measurable compensation, establishing some exceptions to the imposition of the liability such as armed conflict, intentional damage, contributory negligence, damage caused by negligence of the State, damage caused by compulsory measures of a public authority, damage caused by natural phenomenon of exceptional, inevitable, unforeseeable, and irresistible character.[1207] These common elements can serve as inspiration to the compensation schemes; however, the exceptionality of the deep seabed mining regime must always be considered in the creation of these potential assurances.

In response to the proposal put forth by the Seabed Disputes Chambers,[1208] the ISA has suggested 'Developing a Regulatory Framework for Mineral Exploitation in the Area' and has proposed a fund to be established. Accordingly, the ISA has incorporated this suggestion in the

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[1205] Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 278.

[1206] Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*, 1-2; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 25.

[1207] Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*, 1-2; Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 7-15.

[1208] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 205.

Section 5 of its Draft Exploitation Regulations by establishing the environmental compensation fund under its Regulation 54.[1209] The administration of the fund will supposedly be executed by an independent or existing agency, including the ISA.[1210] In accordance with Regulation 54(1) the ISA is responsible for establishing the fund.[1211] Furthermore, Regulation 54(2) stipulates that the rules and procedures of the compensation fund must be established by the Council based on the recommendation of the Finance Committee.[1212] The Secretary-General of the ISA is mandated to prepare an audited statement.[1213] However, no further information is given about the responsibility for auditing and reviewing the adequacy and effectiveness of the compensation fund.[1214]

In Regulation 55, the ISA states that the main purpose of this fund is:

> (a) The funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be; (b) The promotion of research into methods of marine mining engineering and practice by which environmental damage or impairment resulting from Exploitation activities in the Area may be reduced; (c) Education and training programmes in relation to the protection of the Marine Environment; (d) The funding of research into Best Available Techniques for the restoration and rehabilitation of the Area; and (e) The restoration and rehabilitation of the Area when technically and economically feasible and supported by Best Available Scientific Evidence.[1215]

The establishment of several purposes for the compensation fund is justifiable because the restoration of the damaged marine environment can be unrealistic and unfeasible.[1216] On the other

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[1209] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 54.
[1210] Xiangxin Xu and Guifang (Julia) Xue, 'The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime' (2021) 49(6) *Coastal Management* 557, 562.
[1211] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 54(1); Moreover, the Resolution 54(3) determines that 'The Secretary-General shall, within 90 Days of the end of a Calendar Year, prepare an audited statement of the income and expenditure of the Fund for circulation to the members of the Authority'. *Draft regulations on exploitation of mineral resources in the Area*, Reg. 54(3).
[1212] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 54(2); see also *UNCLOS*, Art. 162(1).
[1213] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 54(3).
[1214] Xiangxin Xu and Guifang (Julia) Xue, 'The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime' (2021) 49(6) *Coastal Management* 557, 563.
[1215] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 55.
[1216] 'It is worth mentioning that the Environmental Liability Trust Fund has been renamed as Environmental Compensation Fund and the trusteeship of the EPG [Environmental Performance Guarantee] by the Fund has been canceled'. Xiangxin Xu and Guifang (Julia) Xue, 'The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime' (2021) 49(6) *Coastal Management* 557, 564; See also C. L. Van Dover, et al, 'Ecological restoration in the deep sea: Desiderata' (2014) 44 *Marine Policy* 98, 98–106; International Seabed Authority, *Comments on the draft regulations on the exploitation of mineral resources in the Area* (4 December 2019), ISA Doc. ISBA/26/C/2, < https://isa.org.jm/files/files/documents/26-c-2-en.pdf> (accessed: 17 December. 2022).

hand, this can lead to a lack of sufficient funds to compensate for damages.[1217] To illustrate, despite the existence of the 1992 International Fund for Compensation for Oil Pollution Damage, with a maximum compensation amount of 203 million SDR (US$284.2 million), the fund was unable to fully compensate for damages in the context of Erika and Prestige accidents.[1218] In the context of deep seabed mining, the damages probably would not be fully compensated based on these previous experiences. Thus, sufficient funds must be ensured to allow the compensation fund to burden all its purposes.

About the funding of the compensation fund, Regulation 56 has determined that:

> The Fund will consist of the following monies: (a) The prescribed percentage or amount of fees paid to the Authority; (b) The prescribed percentage of any penalties paid to the Authority; (c) The prescribed percentage of any amounts recovered by the Authority by negotiation or as a result of legal proceedings in respect of a violation of the terms of an exploitation contract; (d) Any monies paid into the Fund at the direction of the Council, based on recommendations of the Finance Committee; and (e) Any income received by the Fund from the investment of monies belonging to the fund.[1219]

Regulation 56(a) to (c) can be considered an indirect form of 'compulsory contribution' to sponsoring States and contractors given the necessity to pay such fees, penalties, or liquidated damages in appropriate cases.[1220] The sponsoring States and contractors do not need to pay additional contributions, which, according to Xu and Xue, suits the deep seabed mining context

[1217] Deep-Ocean Stewardship Initiative, *Commentary on "Draft Regulations on Exploitation of Mineral Resources in the Area"* (25 March 2019), ISA Doc. ISBA/25/C/ WP.1, <https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/files/documents/dosi_8.pdf> (accessed: 17 November 2023).

[1218] see *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage* (FUND)(1992 Convention on International Fund), adopted 18 December 1971, entered into force 16 October 1978, IOPC Funds; *Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage* (FUND)(Protocol to the 1992 Convention on International Fund), adopted 27 November 1992, entered into force 30 May 1996, IOPC Funds; *Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, adopted 16 May 2003, Cm 6245.

[1219] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 56.

[1220] 'besides the fund for damage to the Antarctic, financed through voluntary contributions by any State or person, most compensation funds have compulsory contributors, such as receivers of oils, receivers of HNS, or nuclear installation States'. Xiangxin Xu and Guifang (Julia) Xue, 'The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime' (2021) 49(6) *Coastal Management* 557, 565; see also Chie Kojima, 'Compensation Fund' (July 2019), in Rüdiger Wolfrum (eds.), *Max Planck Encyclopedias of International Law* (Oxford, United Kingdom: Oxford University Press, 2004-2020); *Draft regulations on exploitation of mineral resources in the Area*, Reg. 56(a)-(c)

and ‘it accords to “polluter pays principle”, plus it would not lay extra financial burden’ on the parties involved.[1221]

Regulation 56(d) provides for additional contributions to be collected by the Council based on recommendations of the Financial Committee.[1222] According to Sand, Peel, Fabra, and Mackenzie, conforming to the polluter pays principle, polluters should contribute.[1223] Based on this reasoning, sponsoring States that fail with their responsibility to ensure or contractors which cause any damages to the marine environment in the context of the contract should contribute to the fund. Furthermore, this includes flag States from polluter vessels or subcontracts in the context of deep seabed mining.[1224] Lastly, Regulation 56(e) provides funding for the compensation fund by potential passive incomes of the fund.[1225]

However, it does not specify any potential contributors.[1226] According to some authors, any polluters should be held responsible for these contributions.[1227] According to UNCLOS and the Seabed Disputes Chamber, Sponsoring States and Contractors are the main liable polluters when any damage is caused by a wrongful act in the context of the contract.[1228] These Contractors, as obliged by UNCLOS and the Mining Code, are required to have mandatory insurance.[1229] Furthermore, the aforementioned insurances also extend to Subcontractors in the context of their respective operations and must be established in accordance with applicable international maritime

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[1221] Xiangxin Xu and Guifang (Julia) Xue, ‘The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime’ (2021) 49(6) *Coastal Management* 557, 565.
[1222] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 56(d).
[1223] Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (4 edn., Cambridge, United Kingdom: Cambridge University Press, 2018), 503.
[1224] See Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019); L. Levin, et al., ‘Defining “serious harm” to the marine environment in the context of deep-seabed mining’ (2016) 74 *Marine Policy* 245, 245–59.
[1225] *Draft regulations on exploitation of mineral resources in the Area*, Reg. 56(e).
[1226] Xiangxin Xu and Guifang (Julia) Xue, ‘The Environmental Compensation Fund: Bridging Liability Gaps in the Deep Seabed Mining Regime’ (2021) 49(6) *Coastal Management* 557, 565.

[1227] Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (4 edn., Cambridge, United Kingdom: Cambridge University Press, 2018), 503.

[1228] *UNCLOS*, Art. 139(2); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 181.

[1229] *UNCLOS*, Art. 235(3); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5); *Draft regulations on exploitation of mineral resources in the Area*, Reg. 36.

practice, consistent with Good Industry Practice and as specified in the relevant Guidelines.[1230] Notwithstanding the importance of such environmental compensation funds, some difficulties in its proper capacity may exist. Some issues are the unwillingness of compulsory contributions, lack of universal adherence by the States, and difficulty in assessing reasonable costs of reparation of the environmental damage.[1231] Furthermore, since the contractors are not the only ones benefiting from the deep seabed mining activities, a more complex fund scheme would be necessary to support all of them.[1232]

Therefore, the purpose of the fund would be to provide supplementary compensation for the restoration of the marine environment in the instances where potential gaps in liability remove the responsibility of the contractor.[1233] Nonetheless, the supplementary compensation funds should not be considered a replacement for the liability of the contractor. Instead, they serve as a complement to the liability. Despite their same purpose of compensation, the compensation funds are a collective mechanism to avoid the absence of compensation for possible environmental damages, 'which is based on solidarity rather than liability'.[1234]

[1230] Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 4; however, no mention in mention regarding it in the Exploration Regulations. *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5).

[1231] XU Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 122 and 123; see Ilias Bantakes, 'Trust Funds' (October 2010), in Rüdiger Wolfrum (eds.), Max Planck Encyclopedias of International Law (Oxford, United Kingdom: Oxford University Press, 2004-2020); see also Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*.

[1232] Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 573; see Ilias Bantakes, 'Trust Funds' (October 2010), in Rüdiger Wolfrum (eds.), Max Planck Encyclopedias of International Law (Oxford, United Kingdom: Oxford University Press, 2004-2020); see also Guifang (Julia) Xue, 'The Use of Compensation Funds, Insurance and Other Financial Security in Environmental Liability Schemes' (2019) *CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 6*.

[1233] In this regard, see *1992 Fund Convention*, Art. 2(1); *2003 Supplementary Fund Convention*, Art. 4(1); *2010 HNS Convention*, Art. 13(1)(a); *2010 HNS Convention*, para. 27; *2001 Bunker Oil Convention*, para. 6; *1963 Vienna Convention*, para. 7(1).

[1234] Nicolas de Sadeleer, *Environmental Principles – From Political Slogans to Legal Rules* (Oxford, United Kingdom: Oxford University Press 2020), 79; see Legal Working Group on Liability, 'Legal Liability for Environmental Harm: synthesis and Overview' (2018) *CIGI: Liability Issues for Deep Seabed Mining Series, Paper No. 1*, 15.

5.3.3 Satisfaction

Finally, satisfaction can be defined as a last effort of reparation in cases in which restitution and compensation are not appropriate in the context of a breach of responsibility.[1235] This 'may consist in an acknowledgement of the breach, an expression of regret, a formal apology or another appropriate modality'.[1236] Satisfaction is usually used regardless of the consequence of the damage caused by a State that cannot be easily measured financially. In other words, satisfaction may be necessary in cases of moral and legal damage of the sponsoring State.[1237] In accordance with the *Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries* (ARSIWA Commentary),[1238] examples of such damage include: insults to the symbols of the State, such as the national flag, violations of sovereignty or territorial integrity, attacks on ships or aircraft, ill-treatment of or deliberate attacks on heads of State or Government or diplomatic or consular representatives or other protected persons and violations of the premises of embassies or consulates or of the residences of members of the mission.[1239]

These examples may be analogically related to the second paragraph of Article 37, which provides an acknowledgement of the breach, an expression of regret, a formal apology or another appropriate modality.[1240] However, as expressed by the use of the term 'another appropriate modality', these forms of satisfaction are merely examples and not exhaustive. A number of further examples can be provided, such as: due inquiry into the causes of an accident resulting in harm or injury, a trust fund to manage compensation payments in the interests of the beneficiaries, disciplinary or penal action against the individuals whose conduct caused the internationally wrongful act, the award of symbolic damages for non-pecuniary injury, or assurances or guarantees of non-repetition.[1241] Nonetheless, some limits must be established to the satisfaction not be out of

[1235] *ARSIWA*, Art. 37(1).
[1236] *ARSIWA*, Art. 37(2).
[1237] 'There is a long established practice of States and international Courts and Tribunals of using satisfaction as a remedy or form of reparation (in the wide sense) for the breach of an international obligation. This practice relates particularly to the case of moral or legal damage done directly to the State, especially as opposed to the case of damage to persons involving international responsibilities'. *Rainbow Warrior Arbitration*, para. 122.
[1238] UNGA. Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries. Text adopted by the International Law Commission at its fifty-third session, in 2001, and submitted to the General Assembly as a part of the Commission's report covering the work of that session (A/56/10). The report, which also contains commentaries on the draft articles, appears in the Yearbook of the International Law Commission, 2001, vol. II, Part Two, as corrected.
[1239] *ARSIWA Commentary*, Art. 37, para. 4.
[1240] *ARSIWA*, Art. 37(2).
[1241] *ARSIWA Commentary*, Art. 37, para. 5.

proportion to the injury and not be humiliating to the responsible State.[1242] The potential for excessive demands underscores the necessity to impose some limitations on the measures of satisfaction which present inconsistencies with the principle of the equality of States.[1243] Satisfaction is not intended to be punitive neither does it include punitive damages.[1244] Article 37(3) establishes two criteria in this sense: 'first, the proportionality of satisfaction to the injury; and secondly, the requirement that satisfaction should not be humiliating to the responsible State.'[1245] 'Humiliating' is an imprecise term to be measured, yet some examples can be observed where the satisfaction is considered humiliating or where the satisfaction is not sufficient.[1246]

Nonetheless, in accordance with what has been expressed by the Seabed Disputes Chamber in the Advisory Opinion, sponsoring States shall not be held liable for damage caused by any failure to comply with their responsibilities of a sponsored contractor, provided that the sponsoring State has taken all necessary and appropriate measures of compliance under UNCLOS.[1247] However, UNCLOS does not afford unlimited powers to the sponsoring State to discretionarily avoid liability.[1248]

5.4 Sponsorship of convenience and the international environmental liability

With regard to the issue of liability and its potential repercussions for contractors, it is first necessary to consider the Advisory Opinion of the Seabed Disputes Chamber. While this opinion

[1242] *ARSIWA*, Art. 37(3).
[1243] *ARSIWA Commentary*, Art. 37, para. 8.
[1244] *ARSIWA Commentary*, Art. 37, para. 8.
[1245] *ARSIWA Commentary*, Art. 37, para. 8.
[1246] 'In other circumstances an apology may not be called for, e.g. where a case is settled on an ex gratia basis, or it may be insufficient. In the LaGrand case the Court considered that "an apology is not sufficient in this case, as it would not be in other cases where foreign nationals have not been advised without delay of their rights under article 36, paragraph 1, of the Vienna Convention and have been subjected to prolonged detention or sentenced to severe penalties'. *ARSIWA Commentary*, Art. 37, para. 7; see also *LaGrand* (Judgement of 27 June 2001), para. 123-124.
[1247] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 185; *UNCLOS*, Art. 153(2)(b); *UNCLOS*, Art. 153(4); *UNCLOS,* Art. 4(4), Annex III.
[1248] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 187; in this sense: 'That said, the deep seabed regime has not yet considered the topic of exemptions in detail and typical exemptions for damage resulting from intentional acts, warand hostilities, terrorism etc. cannot be ruled out'. Alexander Proelss and Robert C. Steenkamp, 'Liability Under Part XI UNCLOS (Deep Seabed Mining)', in Peter Gailhofer, David Krebs, Alexander Proelss, Kirsten Schmalenbach and Roda Verheyen (Eds.). *Corporate Liability for Transboundary Environmental Harm an International and Transnational Perspective* (Berlin, Germany: Springer, 2023), 569.

offers valuable insights into the nature of liability, it lacks more detailed conclusions regarding the standard of liability. The Seabed Disputes Chamber has a particular focus on analysing more generic aspects of the liability, as it considers that the responsibility of the sponsoring States to regulate this issue lies primarily in their legislation. It would be for the national legislation to determine whether or not to apply a standard of strict liability for the contractors.

As well elaborated in the specific section about that, this clearly would benefit a sponsorship of convenience system and fully effective the application of the polluter pays principle. In this matter, it is worth mentioning the civil liability regimes that establish the model of strict liability as examples.[1249] These regimes are agreements created by the States aiming responsibility and liability to specific hazardous activities,[1250] such as: nuclear facilities,[1251] oil

[1249] For a more detailed analysis see Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 8-10; International Law Commission, *Preliminary Report on International Liability for Injurious Consequences Arising out of Acts not Prohibited by International Law of the Special Rapporteur, Mr. Robert Q. Quentin-Baxter* (1980), ILC Doc. A/CN.4/334. Add.1, Add.1/Corr.1, and Add.2, 253; para. 20; Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 71-72; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 364 and 367; Jan Wouters And Anna-Luise Chane, 'Multinational Corporations in International Law', in Math Noortmann, August Reinisch and Cedric Ryngaert, *Non-state Actors in International Law* (London, United Kingdom: Hart Publishing, 2015), 248 and 249; Miriam Mafessanti, 'Responsibility for Environmental Damage Under International Law: Can MNCs Bear the Burden? ... and How?' (2009) 17 *Buff. Envtl. L.J.* 87, 90.

[1250] According with Craik, the key features of these rules are: 'the primary subject of liability is the operator; liability for defined activities and defined damages is imposed without proof of fault; liability may be capped and subject to certain exceptions; and responsible entities are required to maintain insurance or compensation funds as a means to meet the requirement for adequate compensation'. Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 8; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (4 edn., Cambridge, United Kingdom: Cambridge University Press, 2018), 746-748.

[1251] see OECD. *The Paris Convention on Third Party Liability in the Field of Nuclear* Energy. Organisation for Economic Co-operation and Development. 1960; *Vienna Convention on Civil Liability for Nuclear Damage* (1963 Vienna Convention on Civil Liability), adopted 21 May 1963, entered into force 21 May 1963, INFCIRC/500.

pollution,[1252] carriage of hazardous and noxious substances by sea,[1253] bunker oil,[1254] hazardous waste,[1255] living modified organisms,[1256] and Antarctic activities.[1257] As analysed in the pertinent section, based on UNCLOS and the Advisory Opinion of the Seabed Disputes Chamber, the strict liability is present in civil liability regimes while the fault-based liability is present at the international liability regime; thus, a strict standard is applicable for the sponsored contractors.[1258] In this context, it can be argued that sponsoring States are not effective insurers of the responsibility of the sponsored contractors,[1259] but are independently liable for their own acts or omissions.[1260] Consequently, the degree of stringency of the liability of the sponsoring States will be determined according to the decisions of the States in their policy choices.[1261] Nevertheless, it

[1252] *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage* (FUND)(1992 Convention on International Fund), adopted 18 December 1971, entered into force 16 October 1978, IOPC Funds; *Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage* (FUND)(Protocol to the 1992 Convention on International Fund), adopted 27 November 1992, entered into force 30 May 1996, IOPC Funds; *Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, adopted 16 May 2003, Cm 6245.

[1253] *Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea* (2010 HNS Protocol), adopted 30 April 2010, not yet into force, UNEP/CHW.1/WG/1/9/2.

[1254] *International Convention on Civil Liability for Bunker Oil Pollution Damage* (2001 Bunker Oil Convention), adopted 23 March 2001, entry into force 21 November 2008, Cm 6693.

[1255] UNGA. *Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal*. United Nations. 1999.

[1256] *Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety*, adopted 15 October 2010, entry into force 5 March 2018, UN Doc. UNEP/CBD/BS/COP-MOP/5/17.

[1257] see *Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty Liability Arising from Environmental Emergencies* (Liability Arising from Environmental Emergencies), 2005, Att249e.Rev; in the same Craik states that: 'The standard of liability for operators under civil liability regimes is strict, but not absolute. The policy justifications for imposing strict liability include the desire to: ensure prompt and adequate compensation, including available compensation for remediation and reinstatement of environmental harm; encourage a high standard of care and deter pollution; adhere to the polluter pays principle; recognize the fairness of having the creator of risks (as opposed to the victim) bear losses associated with that activity; and achieve greater efficiency of providing for compensation without proof of fault'. Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 9.

[1258] Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327.

[1259] Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327.

[1260] 'Policy choices on such matters must be made by the sponsoring State. In view of this, the Chamber considers that it is not called upon to render specific advice as to the necessary and appropriate measures that the sponsoring State must take in order to fulfil its responsibilities under the Convention. Judicial bodies may not perform functions that are not in keeping with their judicial character'. Neil Craik, 'Liability for Environmental Harm from Deep Seabed Mining: towards a Hybrid Approach' (2019) 33 *Ocean Yearbook* 313, 327.

[1261] 'The Convention leaves it to the sponsoring State to determine what measures will enable it to discharge its responsibilities. Policy choices on such matters must be made by the sponsoring State. In view of this, the Chamber considers that it is not called upon to render specific advice as to the necessary and appropriate measures that the

can be posited that insurances would be unlikely to fully repair all the damage, depending on the degree of the environmental damage caused. In such instances, it would be beneficial for private contractors to utilise a supplementary compensation fund, as recommended by the Seabed Disputes Chamber and prescribed by the Draft Exploitation Regulations.[1262]

When dealing with the matter of compensation funds, the Seabed Disputes Chamber does not properly establish whether this solution could really be adequate for the problem of lack of compensation arising from a liability issue.[1263] In the context of deep seabed mining, the responsibility of the contractor for the international obligations is related both to the deep seabed mining legal framework and the contract with the ISA,[1264] while the responsibility of the sponsoring States is well detailed in the legal framework and the Advisory Opinion. In the event that any damage related to the activities in the Area appears by an act of the contractor, only the contractor will be requested to repair its damage if the sponsoring acts with due diligence and fulfils all its obligations.[1265] In a strict civil liability regime, the contractor would be required to repair the damage regardless of the fault. In contrast, in the deep seabed mining international legal framework, the obligations of the contractor originate from its duty of due diligence.[1266] In its obligation of due diligence, the contractor is obliged to take the necessary measures to protect the

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sponsoring State must take in order to fulfil its responsibilities under the Convention. Judicial bodies may not perform functions that are not in keeping with their judicial character. Nevertheless, without encroaching on the policy choices a sponsoring State may make, the Chamber deems it appropriate to indicate some general considerations that a sponsoring State may find useful in its choice of measures under articles 139, paragraph 2, 153, paragraph 4, and Annex III, article 4, paragraph 4, of the Convention'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 227.

[1262] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 205; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 55; Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 278.

[1263] Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 83.

[1264] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 5(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 5(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 5(1); Markos Karavias. *Corporate Obligations under International Law* (Oxford, United Kingdom: Oxford University Press, 2013), 137 and 138.

[1265] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 203-205; *UNCLOS,* Art. 187.

[1266] Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 84.

environment, not under the standard of strict liability.[1267] However, there is also the possibility that both sponsoring States and contractors are not responsible for any damages. Consequently, a fund would be endowed with resources to cover the entirety of the damage

In an international civil liability, the operator of the activity is held to the standard of strict liability, thus is under the obligation to compensate; for that reason, it is necessary to have an insurance policy or a compensation fund in place to provide the necessary resources.[1268] As it is also well stated in both Exploration Regulations and Draft Exploitation Regulations,[1269] however, for exploration activities, this insurance would cover only situations where the contractor committed a wrongful act or an omission. It is unlikely that any insurance would cover a strict liability case where the contractor would be liable for any damage. Therefore, it is necessary to reiterate the same position and propose a solution. This would be the establishment of a compensation fund to compensate for residual damage in a strict liability system as recommended by the Seabed Disputes Chamber and prescribed by the Draft Exploration Regulations.[1270] In other words, a potential solution to this problem would be insurance to compensate for any damage related to the fault of the contractor, and a compensation fund for the compensation for any damage not originating from the fault of the contractor.

In order to achieve the aforementioned objective, it is of the utmost importance to standardise the liability model for the deep seabed mining regime. This should be done by utilising the civil liability regimes as a model. This is a crucial step in regulating environmental obligations

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[1267] *Polymetallic Nodules Exploration Regulation,* Reg. 31(3); *Polymetallic Sulphides Exploration Regulation,* Reg. 33(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 33(5); *UNCLOS*, Art. 145.

[1268] Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 85.

[1269] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Reg. 36(1); *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5).

[1270] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para 205; *Draft regulations on exploitation of mineral resources in the Area*, Reg. 55; Neil Craik, 'Insurance and Compensation Fund Design for Deep-Seabed Liability Lessons from Existing Civil Liability Regimes', in Alfonso Ascencio-Herrera and Myron Nordquist (eds.), *The United Nations Convention on the Law of the Sea, Part XI Regime and the International Seabed Authority: A Twenty-Five Year Journey* (Leiden, Netherlands: Brill Nijhoff, 2022), 278; Michael Faure and Ton Hartlief, 'Compensation Funds versus Liability and Insurance for Remedying Environmental Damage' (1996) 5(4) *RECIEL* 321, 321-327; Thomas Mensah, 'The Civil Liability and Compensation for Environmental Damage in the 1982 Convention on the Law of the Sea', *The Hamburg Lectures on Maritime Affairs* (Berlin, Germany: Springer, 2009), 6 and 7; Ilias Plakokefalos, 'Chapter 5 The Limits of Responsibility: Liability for Damage in the Deep Seabed?', in Photini Pazartzis and Panos Merkouris (eds), *Permutations of Responsibility in International Law* (Leiden, Netherlands: Brill Nijhoff, 2019), 86.

and liability for damages to the environment.[1271] Such standardisation, or harmonisation,[1272] as supported by Article 235(2) of UNCLOS,[1273] can contribute both to the environmental obligations that the contractors must comply with or to avoiding any differences between the liability and compensation mechanism that the contractors may have to comply with depending on their sponsoring State. This unpredictability also reduces the possibility of sponsorships of convenience based on environmental obligations and liability. According to Boyle, 'it helps to create shared expectations on a regional or global basis which may make the risks posed by hazardous activities more socially acceptable to those likely to be affected'.[1274] The application of a strict liability may lead to several benefits, such as: relieving courts of the task of setting appropriate standards of reasonable care and plaintiffs of the burden of proving breach of those standards; it would be unjust and inappropriate to make litigants carry a heavy burden of proof where risks of an activity are acceptable only because of its social utility, especially for subjects affected by the damage who do not belong to a State that is benefited by the specific activity; and covering the risk of very serious or widespread damage.[1275]

Such scheme would contribute to the elimination of the proliferation of forum shopping related to the selection of the sponsor by the contractors and the incentives from States to attract those for potential economic gains.[1276] However, there may be differences or similarities between the consequences of damage and the general strict civil liability treaties and the international legal framework for deep seabed mining. Firstly, although strict civil liability is accepted, the deep seabed mining legal framework does not pacifically follow this reasoning by imposing a non-strict liability standard for sponsoring States and a strict one for contractors Furthermore, as will be presented in the next chapter, when analysing the national legislation, it is evident that there is a lack of consistency. Secondly, as in strict civil liability treaties, the deep seabed mining legal framework allows the liability to be shared between the contractor and other participants of the

[1271] Alan Boyle, 'Globalising Environmental Liability: The Interplay of National And International Law' (2005) 17(1) *Journal of Environmental Law* 3, 12.
[1272] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 316-326.
[1273] *UNCLOS*, Art. 235.
[1274] Alan Boyle, 'Globalising Environmental Liability: The Interplay of National and International Law' (2005) 17(1) *Journal of Environmental Law* 3, 12.
[1275] Alan Boyle, 'Globalising Environmental Liability: The Interplay of National and International Law' (2005) 17(1) *Journal of Environmental Law* 3, 13.
[1276] see Klaas Willaert, 'Forum Shopping Within the Context of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116.

operation, including subcontractors, in the deep seabed mining activities. Thirdly, the compensation was individually thought for the specificities of the sector to each international civil liability treaty was created, in other words, an individual model would also need to be created for the deep seabed mining regime.[1277]

Ultimately, the discretion to determine the stringency of liability lies with the sponsoring State in its national legislation. In order to regulate this matter so as to equalise the standard of liability pursuing a strict one, even if the sponsoring State internalises all the international legal framework for deep seabed mining as they are supposed to, the State can still opt whether the liability applied will be strict or fault-based, since there is no precise standard established. This might cause huge differences in how States treat their sponsored contractors and, thus, opens the possibility of forum shopping, possibly favouring sponsorships of convenience.

5.5 Conclusion

As demonstrated above, the sponsorship regime can be a successful path to allow the appropriate party to assume responsibility and liability of the proper responsible in case of occurrence of damage caused by the sponsored contractor. In case the sponsored contractor is the one to be at fault for the occurrence of damage, the sponsored State must act through its national legislation in order to stipulate its liability and reparation. However, there is no precise standard establishing what the sponsoring State must determine to regulate the compliance of the sponsored contractors. This may result in significant discrepancies in the manner in which States treat their sponsored contractors, thereby creating the potential for forum shopping and the possibility of sponsorships being granted for convenience.

An analysis of the obligations and liability of private contractors reveals that the limited powers to enforce these at the international level may pose a challenge to the effective implementation of the sponsorship system. The discretion of sponsoring States to regulate their legislation may result in inconsistencies and disparities between contractors depending on which

[1277] For a deeper analysis see Alan Boyle, 'Globalising Environmental Liability: The Interplay of National And International Law' (2005) 17(1) *Journal of Environmental Law* 3, 15; see Robin R. Churchill, 'Facilitating (Transnational) Civil Liability Litigation for Environmental Damage by Means of Treaties: Progress, Problems, and Prospect' (2001) 12(1) *Yearbook of International Environmental Law* 3.

State is their sponsor. Consequently, in the context of deep seabed mining activities, it remains unclear whether the use of sponsoring States of convenience will be realised. The proposed solution to this problem was the possibility of applying a standard strict liability system for private contractors. This would impose liability for any damage arising from mining activities in the Area, regardless of the fault of the contractor. In order to finance this and to reduce the duty of reparation of the contractor in cases where their guilt is absent, such a proposal to apply strict liability must be followed by a compensation fund. In this context, the subsequent chapter of this work will examine the manner in which the sponsoring States have incorporated these obligations and liability for contractors in their respective national legislation.

PART IV: NATIONAL ENVIRONMENTAL OBLIGATIONS AND LIABILITY OF PRIVATE CONTRACTORS

Chapter 6: Environmental obligations and liability of private contractors in the national legislation

Having considered the preceding matters, the work is now entering its final chapter. As previously stated, the sponsoring States must incorporate the deep seabed mining international legal framework with the purpose of it being applicable to the contractors, especially if these are private contractors. In this sense, the focus of this chapter will be on demonstrating how the sponsoring States with national legislation specialised in deep seabed activities have incorporated the international legal framework regarding the environmental obligations and liability. As expected, the chapter will emphasise sponsoring States with private corporations as sponsored contractors.

The initial section of the chapter will present an overview of the States that have enacted national legislation regulating deep seabed mining. This section will be brief, as it will be followed by a more detailed analysis of the obligations and liability under national legislation of the sponsoring States. The second and third sections will examine in greater depth how the sponsoring States with deep seabed mining national legislation incorporate the international obligations and liability, respectively. In the fourth section, the objective of this chapter will be fulfilled through an analysis of the national legislation of sponsoring States that employ private contractors. This final comparative analysis in the fourth section will investigate whether a system of convenience sponsorship can be produced based on how the States incorporate the environmental international obligations and liability.

Based on that, and with all the study in the previous chapters, this work will be able to finally conduct an assessment to present a conclusion to the main enquiry of this work.

6.1 National legislation for deep seabed mining

The adoption of the international legal framework for deep seabed mining by the sponsoring States within their national legislation is essential to guarantee compliance with the obligations of contractors and exempt the States from any potential liability.[1278] According to Article 139(1) of UNCLOS,[1279] the obligation of sponsoring States, as part of their 'responsibility to ensure', is an international obligation imposed on States. However, international obligations cannot mostly be directly enforced to contractors, especially private ones. It is only after the obligations have been internalised at the national level that they become binding on contractors.

It is the responsibility of the sponsoring States to ensure that contractors comply with the internalised obligations. This is part of a major obligation of due diligence.[1280] In essence, in its due diligence obligation, the sponsoring States have a responsibility of conduct, not an obligation of result, that contractors comply with the internalised obligations.[1281] The Seabed Disputes Chamber defines the obligation as follows: 'it is an obligation to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result'.[1282] Moreover, the content of the obligation of due diligence is variable and mutable. The obligation must be fulfilled in accordance with the current scientific and technological knowledge of the time or the activity in the Area (e.g. prospecting, exploration or exploitation) that it is applied to.[1283]

[1278] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 6.
[1279] *UNCLOS*, Art. 139(1).
[1280] For a more detailed analysis regarding the obligation of due diligence, see Nele Matz-Lück and Erik Van Doorn, 'Due Diligence Obligations and the Protection of the Marine Environment' (2017) 42(1) *L'Observateur des Nations Unies* 169, 180; see also Julian Aguon and Julie Hunter, 'Second Wave Due Diligence: The Case for Incorporating Free, Prior, and Informed Consent into the Deep Sea Mining Regulatory Regime' (2008) 38 *Stan. Envtl. L.J.* 3; Elana Geddis, 'The due Diligence obligation of a sponsoring state: a framework for implementation', in Myron H. Nordquist, John Norton Moore and Ronan Long. *International Marine Economy: Law and Policy* (Leiden, Netherlands: Brill, 2017), 248-253; Donald K. Anton, Robert A. Makgill and Cymie R. Payne, 'Seabed Mining – Advisory Opinion on Responsibility and Liability' (2011) 41(2) *Environmental Policy and Law* 60; Yoshifumi Tanaka, 'Obligations and Liability of Sponsoring states Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011' (2011) 60 *Netherlands International Law Review* 205, 209; Irini Papanicolopulu, 'Due Diligence in the Law of the Sea', in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds.), *Due Diligence in the International Legal Order* (Oxford, United States: Oxford University Press, 2020), 147-162; Xiangxin Xu, Minghao Li and Guifang Xue, 'Revisiting the "Responsibility to Ensure": Two-Line Standards of the Sponsoring state's National Legislation on Deep Seabed Mining' (2023) 15(10) *Sustainability* 1, 3 and 4.
[1281] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 110; Donald K. Anton, Robert A. Makgill and Cymie R. Payne, 'Seabed Mining – Advisory Opinion on Responsibility and Liability' (2011) 41(2) *Environmental Policy and Law* 60, 63.
[1282] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 110.
[1283] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 117.

In accordance with the Seabed Disputes Chamber, Article 4(4), Annex III,[1284] of UNCLOS requires sponsoring States to adopt laws and regulations and to take administrative measures.[1285] Consequently, in addition to the existing national laws, some administrative measures may be necessary, depending on the extent and scope of the national laws and regulations and the administrative measures present in the respective sponsoring State legal system.[1286] Those may be necessary to support the enforcement of the obligation of the contractors under the national jurisdictions of the sponsoring States to allow effective internal enforcement mechanisms and cooperation with other potential sponsoring States and the ISA.[1287] Despite that, the existence of precedent laws, regulations and administrative measures is not a mandatory condition for concluding a contract with the ISA, but it is a necessary requirement for compliance with the obligations, thus exempting Sponsoring states from a potential liability in the occurrence of damage.[1288] However, as previously stated, the sponsoring States are constrained by the minimum level of stringency set forth by the international legal framework for deep seabed mining, particularly with regard to the laws, regulations, and administrative measures designed to safeguard the marine environment.[1289]

In addition to the implementation of laws, regulations and administrative measures, another potential avenue for encouraging contractor compliance are the means of the contract.[1290] These contractual arrangements can determine the respective obligations, allowing sponsoring States to

[1284] *UNCLOS*, Annex III, Art. 4(4).
[1285] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218.
[1286] 'The adoption of laws and regulations is prescribed because not all the obligations of a contractor may be enforced through administrative measures or contractual arrangements alone'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218.
[1287] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 218.
[1288] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 219; moreover, the Seabed Disputes Chamber stated that 'It may be observed in this regard that the Nodules Regulations were approved after the pioneer investors had been registered. In view of this, certifying States are required, if necessary, to bring their laws, regulations and administrative measures in keeping with the provisions of the Regulations'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 220.
[1289] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 241; International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 8.
[1290] *UNCLOS*, Annex III, Art. 21(1); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), paras. 223-226.

regulate, supervise and enforce the obligations and responsibilities to contractors.[1291] However, according to the Seabed Disputes Chamber, contractual arrangements 'alone cannot satisfy the obligation undertaken by the sponsoring state'.[1292] Furthermore, the Draft Exploitation Regulations stipulate that 'nothing in an exploitation contract shall relieve a contractor from its lawful obligations under any national law to which it is subject, including the laws of a sponsoring state and flag State'.[1293] Additionally, States and the ISA shall cooperate to avoid any unnecessary duplication of administrative procedures and compliance requirements.[1294]

At the national level, it is the responsibility of the sponsoring States to ensure the liability of the sponsored contractors.[1295] This is in accordance with Article 235(2) of UNCLOS, which rules that the sponsoring states shall 'ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction'.[1296]

Upon analysis of the Mining Code, both the Exploration Regulations and the Draft Exploitation Regulations make reference to the wording of the liability provisions present under UNCLOS. However, no specific direction is provided as to how sponsoring States should address

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[1291] 'The "contractual" approach would, moreover, lack transparency. It will be difficult to verify, through publicly available measures, that the sponsoring state had met its obligations. A sponsorship agreement may not be publicly available and, in fact, may not be required at all. Annex III of the Convention, and the Nodules Regulations and the Sulphides Regulations contain no requirement that a sponsorship agreement, if any, between the sponsoring states and the contractor should be submitted to the Authority or made publicly available. The only requirement is the submission of a certificate of sponsorship issued by the sponsoring state …, in which the sponsoring state declares that it "assumes responsibility in accordance with article 139, article 153, paragraph 4, and Annex III, article 4, paragraph 4, of the Convention"'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 225. (emphasis added)

[1292] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 226;
'Mere contractual obligations between the sponsoring state and the sponsored contractor may not serve as an effective substitute for the laws and regulations and administrative measures referred to in Annex III, article 4, paragraph 4, of the Convention. Nor would they establish legal obligations that could be invoked against the sponsoring state by entities other than the sponsored contractor'. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 224.

[1293] *Draft Exploitation Regulations*, Reg. 43(1).

[1294] *Draft Exploitation Regulations*, Reg. 3(b).

[1295] *UNCLOS*, Art. 153(3)(b); Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 2-3.

[1296] *UNCLOS*, Art. 235(2); Additionally, Article 235(3) states about the liability in cases of damage to the marine environment that 'With the objective of assuring prompt and adequate compensation in respect of all damage caused by pollution of the marine environment, States shall cooperate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds'. *UNCLOS*, Art. 235(3).

liability issues.[1297] During the seventeenth session of the ISA in 2011, the Council invited sponsoring States and other members to provide information on relevant national laws, regulations and administrative measures to the ISA Secretariat.[1298] The national legislation database with respect to activities in the Area of the ISA is kept updated based on the information that the States send to the ISA.

Many laws, regulations and administrative measures regulate the deep seabed mining activities in the Area. A total of 38 States members of the ISA have provided information regarding measures taken in order to administrate and regulate activities in the Area.[1299] However, not all these national laws, regulations and administrative measures include the international legal framework for deep seabed mining. The legislative models of internalisation employed by States may be distinguished according to whether they introduce the international legal framework within previously existing related legislative texts or generate a single new legislation dedicated to deep seabed mining.[1300]

In the first case, States may have enacted legislation dedicated to onshore and offshore mining activities, but do not include mining activities in the Area. The previous legislation can be more easily modified by the inclusion of amendments and supplements or any new provisions that supplant the former configuration of the legislation to update it into the context of deep seabed mining activities in the Area.[1301] A number of examples of this legislative configuration can be found in the legislative configuration of Cook Islands, France, Tonga, Tuvalu, and Kiribati.[1302]

[1297] Hannah Lily, 'Sponsoring state Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 3; see also *Draft Regulations on Exploitation of Mineral Resources in the Area*, Regs. 40 and 91.

[1298] International Seabed Authority, *Decision of the Council of the International Seabed Authority. International Seabed Authority* (21 July 2011), ISA Doc. ISBA/17/C/20, para. 3.

[1299] The list of States until is composed by: Bangladesh, Belgium, Benin, Brazil, China, Cook Islands, Cuba, Czech Republic, Dominican Republic, Ecuador, Egypt, Federated States of Micronesia, Fiji, France, Georgia, Germany, Guyana, India, Japan, Kenya, Kiribati, Mexico, Montenegro, Nauru, Netherlands, New, Zealand, Nigeria, Niue, Oman, Pacific, Island, Region, Republic of Korea, Russian Federation, Singapore, Tonga, Tuvalu, United Kingdom, United States of America, Zambia. International Seabed Authority, *National Legislation Database*, <https://www.isa.org.jm/exploration-contracts> (accessed 21 December 2023).

[1300] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 138.

[1301] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 139.

[1302] *Seabed Minerals Act* (Cook Islands' Seabed Minerals Act 2019), adopted 17 June 2019, 2019, No. 5; *Seabed Minerals Act 2017* (Kiribati's Seabed Minerals Act 2017), adopted 18 May 2017, LEX-FAOC177489; *Republic of Nauru International Seabed Minerals Act 2015* (Nauru's International Seabed Minerals Act 2015), adopted 23 October 2015, No. 26 of 2015; *Seabed Minerals Act 2014* (Tonga's Seabed Minerals Act 2014), adopted 20 August 2014, No. 10 of 2014; *Tuvalu Seabed Minerals Act 2014* (Tuvalu's Seabed Minerals Act 2014), adopted 19 December

With regard to the second option, it is possible that some States may be more inclined to develop a completely new national legislation for deep seabed mining activities in the Area. A single piece of text could be more beneficial not only to contractors and the Authority to operate in their respective obligations but also to fulfilling the responsibility to ensure the sponsoring State that enacted it. In the context of private contractors, this legislative format is undoubtedly more beneficial to them, especially for foreign corporations intending to create subsidiaries in those States. This preference for attracting foreign investors is reflected in the fact that States with enacted legislation for deep seabed mining activities in the Area tend to favour this legislative model.[1303]

Until February 2024, those States were: Bangladesh, Belgium, Benin, Brazil, China, Cook Islands, Cuba, Czech Republic, Dominican Republic, Ecuador, Federated States of Micronesia, Fiji, France, Georgia, Germany, Guyana, India, Japan, Kenya, Kiribati, Mexico, Montenegro, Nauru, Netherlands, New Zealand, Nigeria, Niue, Oman, Pacific Island Region, Republic of Korea, Russian Federation, Singapore, Tonga, Tuvalu, United Kingdom, United States of America, Zambia.[1304] A total of 37 States have provided information on or the text of their national legislation.[1305]

Such legislation can be divided into three categories, or three periods in accordance with their moment of promulgation.[1306] The first period refers to legislation enacted before the adoption of UNCLOS, which is known as the reciprocating States regime.[1307] The second period is

2014, Act No. 14 of 2014; see also International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 13.

[1303] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 138.

[1304] International Seabed Authority, *National Legislation Database*, <https://www.isa.org.jm/exploration-contracts> (accessed 17 December 2022).

[1305] Information updated from ISA's Comparative Study of the Existing National Legislation on Deep Seabed Mining. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 11.

[1306] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 12.

[1307] 'The first instrument of the RSR (reciprocating States regime) was the US Deep Seabed Hard Mineral Resource Act of 1980, providing "an interim procedure for the orderly development of hard mineral resources in the deep seabed pending adoption of an international regime". The Act provided a scheme for regulation of seabed mining, inter alia forbidding exploration or commercial recovery of minerals unless licensed by the United States or a "reciprocating" State or permitted by an international agreement in force for the United States. It designated a reciprocating State as such if it regulated seabed mining in a manner compatible with the Act, recognized licences issued under the Act and prohibited exploration or commercial production in conflict with that authorized under the Act. Similar legislation was adopted by other States. Germany adopted the Act of Interim Regulation of Deep Seabed Mining 1980 (amended

constituted by the legislation elaborated after the entry into force of UNCLOS and before the Advisory Opinion Responsibilities and Obligations of States and Entities with Respect to Activities in the Area of the Seabed Disputes Chamber.[1308] The third period refers to legislation adopted after the Advisory Opinion. Such legislation is summarised in Table 3 below.

Table 3: National legislation relating to activities in the Area

Group	State	Legislation
Reciprocating States Regime (1980s)	Germany	Act of Interim Regulation of Deep Seabed Mining 1980: amended 1982
	United Kingdom	Deep Seabed Mining (Temporary provisions)
	France	Law on the Exploration and Exploitation of the Mineral Resources of the Deep Seabed 1981
	Japan	Law on Interim Measures for Deep Sea-Bed Mining 1982
	Italy	Regulations on the Exploration and Exploitation of the Mineral Resources of the Deep Sea-bed 1985
After Entry into Force of the Convention (1994-2011)	Russian Federation	Russian Federation Decree of the President No. 2099 of 22 November 1994 on the activities of Russian physical and legal entities related to the exploration and development of the mineral resources of the seabed outside the continental shelf and Government Decree No. 410 of 25 April 1994 on the procedure of activities of Russian physical and legal entities related to the development of mineral resources of the seabed outside the continental shelf
	Germany	Germany Seabed Mining Act of 6 June 1995, amended by article 74 of the Act of 8 December 2010
	New Zealand	New Zealand United Nations Convention on the Law of the Sea Act 1996
	Czech Republic	Czech Republic Act. No. 158/2000 of 18 May 2000 on Prospecting, Exploration for and exploitation of Mineral Resources from the Seabed beyond the limits of National Jurisdiction
	Belgium	Belgium Act on Prospecting and exploration for and exploitation of, resources of the seabed and ocean floor and subsoil thereof,

1982); the United Kingdom adopted the Deep Seabed Mining (Temporary Provisions) Act 1981; France adopted the Law on the Exploration and Exploitation of the Mineral Resources of the Deep Seabed 1981; Japan adopted the Law on Interim Measures for Deep Sea-Bed Mining 1982; and Italy adopted the Regulations on the Exploration and Exploitation of the Mineral Resources of the Deep Sea-bed 1985'. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 13.

[1308] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 14.

Post Advisory Opinion period (2011-)		beyond the limits of national jurisdiction, adopted on 17 August 2013
	Fiji	Fiji International Seabed Mineral Management Degree 2013
	United Kingdom	United Kingdom Deep Seabed Mining (Temporary Provision) Act 1981, as amended by the Deep Seabed Mining Act 2014, which entered into force on 14 July 2014
	Tonga	Tonga Seabed Minerals Act 2014
	Tuvalu	Tuvalu Seabed Minerals Act 2014
	Federated States of Micronesia	Seabed Resources Act of 2014
	Singapore	Singapore Deep Seabed Mining Act 2015
	Nauru	Nauru International Seabed Minerals Act 2015
	China	Deep Seabed Area Resource Exploration and Exploitation Law of the People's Republic of China
	Kiribati	Kiribati Seabed Mineral Act 2017
	France	France Ordinance No. 2016-1687 of 8 December 2016 relating to the maritime areas under the sovereignty or jurisdiction of the Republic of France
	Cook Islands	Seabed Minerals Act 2019

Source: Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 130-131. Additionally, the present information was updated based on the current status of the national legislation.

Upon a comprehensive examination of the national level, as demonstrated by Table 1, it becomes evident that only 11 of the 21 sponsoring States have enacted legislation specifically addressing deep seabed mining.[1309] The remaining States have either general legislation that may be applied to activities in the area or lack national legislation altogether. In this sense, France and Russian Federation address the sponsorship issues within their general national laws.[1310] The rest of the States do not possess legislation or are still with their draft legislation pending.[1311]

[1309] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 16.
[1310] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 16.
[1311] 'According to the information received, Georgia and Guyana do not have such national legislation relating to activities in the Area. The national legislation submitted by Cuba, Ecuador, India, Kenya, Mexico, Montenegro, Nigeria, Niue, Oman and Zambia deal with mining on land or under its national jurisdiction, maritime zones, and/or marine environmental protection, without directly regulating activities in the Area. Brazil, Cuba, Dominican Republic, Netherlands, Republic of Korea and Russian Federation are in the process of reviewing, amending or adopting their

The Comparative Study of the Existing National Legislation on Deep Seabed Mining of the ISA reveals that certain common elements can be identified in the national laws of various States.[1312] Those common elements are: (a) Purposes and objectives; (b) General principles; (c) National competent authorities; (d) Requirements for prospecting; (e) Licencing regime for activities in the Area; (f) Rights, obligations and responsibility/liability of a licensee/sponsored party/contractor; (g) Role and responsibilities of the sponsoring state; (h) Monitoring, supervision and inspection; (i) Marine environmental protection; (j) Data and information; (k) Financial arrangements; (l) Offences and penalties; (m) Due regard to other users of the marine environment; (n) Objects of an archaeological or historical nature; (o) Rights of other States; (p) Dispute settlement; (q) Terms and interpretation; (r) Implementing regulations and guidelines; and (s) Cooperation mechanisms with the Authority.[1313]

Alternatively, some scholars propose other recommendations and analyses regarding the optimal national legislation for deep seabed mining.[1314] For example, Willaert has conducted an analysis of the national legislation of Germany, France, Belgium and the Cook Islands in order to provide a patchwork to 'crafting the perfect deep sea mining legislation'.[1315] His proposal suggests

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national legislation relating to the activities in the Area. In 2009, the Cook Islands adopted its Seabed Minerals Act 2009, which was amended in 2015 by Seabed Minerals (Amendment) Act 2015, and also promulgated its Seabed Minerals (Prospecting and Exploration) Regulations 2015; these instruments regulate the management of the seabed minerals within national jurisdiction of the Cook Islands. In 2019, the Cook Islands adopted its Seabed Minerals Act 2019 which also covers seabed mining in international seabed area, as amended by Seabed Minerals Amendment Act 2020'. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 11.

[1312] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 22.

[1313] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 22.

[1314] Alan Boyle, 'Globalising Environmental Liability: The Interplay of National and International Law' (2005) 17(1) *Journal of Environmental Law* 3, 13; Neil Craik, *Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities, Liability Issues for Deep Seabed Mining Series* (Kingston, Jamaica: International Seabed Authority 2018), 4; Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring states of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 175; Klaas Willaert, 'Crafting the Perfect Deep Sea Mining Legislation: A Patchwork of National Laws' (2020) 119 *Marine Policy* 104055; Klaas Willaert, *In-Depth Analysis of the Belgian Legislation on Deep Sea Mining* (Morges, Switzerland: WWF, 2019); Klaas Willaert, 'On the Legitimacy of National Interests of Sponsoring states: A Deep Sea Mining Conundrum' (2021) 36(1) *The International Journal of Marine and Coastal Law* 136, 138; Xiangxin Xu and Guifang (Julia) Xue, 'Potential Contribution of Sponsoring state and Its National Legislation to the Deep Seabed Mining Regime' (2021) 13 *Sustainability*, 1; Xiangxin Xu, *Responsibility to Ensure Sponsoring states Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 135.

[1315] See Klaas Willaert, 'Crafting the Perfect Deep Sea Mining Legislation: A Patchwork of National Laws' (2020) 119 *Marine Policy* 104055.

the necessity of a comprehensive list of definitions; precise principles applied to activities in the Area with the specification of their applicability for each deep seabed mining phase; detailed procedures to obtain sponsorships certificates, such as eligible candidates for sponsorship, precise references to terms, technical and financial qualifications, proof regarding the technical and financial capabilities, and so on; the statement of the rights and duties of the parties involved, such as the precise obligation and liability or the mandatory insurances for contractors; transparency in the data information; financial arrangements; rules about the monitoring and assessment of the activities in the Area; suspension or termination of the deep seabed mining contract; and the enforcement of penal sanctions in cases of non-compliance with an exhaustive list of offences and adequate penalties.[1316] Xu also provides extensive work on the responsibility to ensure, as she analyses key elements for a 'reasonably appropriate' environmental legislation for deep seabed mining activities in the Area.[1317] She establishes four mandatory components that must be present in national legislation at minimum: licensing regime; environmental duties and obligations of the contractor; rights of the contractor; and monitoring and enforcement.[1318]

Notwithstanding the writing of the national legislation on deep seabed mining, the scope of this work will encompass the environmental obligations and liability of private contractors within the national legislation focused on activities in the Area of the States. In this sense, the next section of this chapter will go further in these points.

6.2 Environmental obligations of contractors under national legislation

It is the duty of the sponsoring States to incorporate in their national legislation the obligations based on UNCLOS and the Mining Code that the contractors must comply with.[1319]

[1316] Klaas Willaert, 'Crafting the Perfect Deep Sea Mining Legislation: A Patchwork of National Laws' (2020) 119 *Marine Policy* 104055, 5; see also Klaas Willaert, *In-Depth Analysis of the Belgian Legislation on Deep Sea Mining* (Morges, Switzerland: WWF, 2019); Klaas Willaert, 'On the Legitimacy of National Interests of Sponsoring states: A Deep Sea Mining Conundrum' (2021) 36(1) *The International Journal of Marine and Coastal Law* 136.
[1317] see Xiangxin Xu, *Responsibility to Ensure Sponsoring states Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), Chapter 3.; see also Xiangxin Xu and Guifang (Julia) Xue, 'Potential Contribution of Sponsoring state and Its National Legislation to the Deep Seabed Mining Regime' (2021) 13 *Sustainability*, 1.
[1318] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 144.
[1319] *UNCLOS*, Art. 235(3).

These obligations can be divided into two categories.[1320] The first category is that of the general obligations, 'such as the duty to protect and preserve the marine environment and rare or fragile ecosystems'.[1321] The application of those general obligations could be achieved by the incorporation of environmental principles expressed in the deep seabed mining legal framework to be determined by each State in its respective legislation.[1322] The second category comprises specific obligations that are either abstract, 'such as the precautionary approach and best environmental practices', or are difficult to implement due to the lack of specific standards, such as baseline data collection and Environmental Impact Assessment.[1323]

For instance, all States express the need for the protection of the environment.[1324] Some, such as Cook Islands, Kiribati, Micronesia, Nauru, Tonga, Tuvalu, and the United Kingdom, express the protection of the marine environment as a criterion of the licence or certificate of sponsorship.[1325] Others, such as Belgium, China, Czech Republic, Germany, Japan, and United Kingdom, express the protection of the marine environment as a general or specific obligation for

[1320] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 158.
[1321] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 158.
[1322] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 158.
[1323] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 159; see also Aline Jaeckel, *The Implementation of the Precautionary Approach by the International Seabed Authority*. *International Seabed Authority Discussion Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2017).
[1324] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 57.
[1325] *Seabed Minerals Act* (Cook Islands' Seabed Minerals Act 2019), adopted 17 June 2019, 2019, No. 5, Sec. 6(1); *Seabed Minerals Act 2017* (Kiribati's Seabed Minerals Act 2017), adopted 18 May 2017, LEX-FAOC177489, Sec. 81(1)(k)(ii); *Congressional Act No. 20-91* (Micronesia's Seabed Resources Act 2014), adopted 6 June 2017, ACT NO. 20-91, Sec. 46(a); *Republic of Nauru International Seabed Minerals Act 2015* (Nauru's International Seabed Minerals Act 2015), adopted 23 October 2015, No. 26 of 2015, Sec. 30(e); *Seabed Minerals Act 2014* (Tonga's Seabed Minerals Act 2014), adopted 20 August 2014, No. 10 of 2014, Sec. 2(2)(e) and 2(2)(f); *Tuvalu Seabed Minerals Act 2014* (Tuvalu's Seabed Minerals Act 2014), adopted 19 December 2014, Act No. 14 of 2014, Sec. 58(e); *Deep Sea Mining (Temporary Provisions) Act 1981, Amended by Deep Sea Mining Act 2014 (Chapter 15)* (United Kingdom's Deep Sea Mining 1981), 28 July 1981, S.I. 2015/2012, Sec. 6.

the sponsored entities.[1326] Furthermore, several States, such as Cook Islands,[1327] Fiji,[1328] Kiribati,[1329] Micronesia,[1330] Nauru,[1331] Tonga,[1332] and Tuvalu,[1333] have compiled lists of terms and definitions to prevent any potential confusion regarding the terminology used in their legislation. This includes terms such as environment, environmental act, environmental impact assessment, marine environment and the precautionary approach.[1334]

A number of states have established principles that must be adhered to in the context of deep seabed mining activities.[1335] China confirms in its legislation the principles of peaceful use, cooperation and sharing, protection of the marine environment, precautionary approach and best environmental practice, and safeguarding the common interest of mankind.[1336] Furthermore,

[1326] *Loi relative à la prospection, l'exploration et l'exploitation des ressources des fonds marins et leur sous-sol au-delà des limites de la jurisdiction nationale* (Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013), adopted 4 July 2013, 13/00523, Sec. 9(1); *Law of the People's Republic of China on Exploration for and Exploitation of Resources in the Deep Seabed Area* (China's Law on Exploration and Exploitation of Resources in the Area 2016), adopted 26 February 2016, entered into force 1 May 2016, No. (16) – 12*,* Art. 2; *Act No. 158 of May 18, 2000 on Prospecting, Exploration for and Exploitation of Mineral Resources from the Seabed beyond Limits of National Jurisdiction and Amendments to Related Acts* (Czech Republic Act 2000), adopted 18 May 2000, Act. 158/2000 Coll, Art. 1(2); *Seabed Mining Act of 6 June 1995 (the Act), Amended by article 74 of the Act of 8 December 2010* (Germany's Seabed Mining Act 1995), adopted 8 December 2010, Federal Law Gazette I, p. 1864, Sec. 1(2)(1.); *Mining Act* (Japan's Mining Act 1950), adopted 20 December 1950, amended 22 July 2011, Act No. 289, Sec. 14.

[1327] *Cook Islands' Seabed Minerals Act 2019*, Sec. 6.

[1328] *International Seabed Mineral Management Decree 2013* (Fiji's International Seabed Mineral Management Degree 2013), adopted 8 July 2013, Decree No. 21 of 2013, Sec. 2.

[1329] *Kiribati's Seabed Minerals Act 2017*, Sec. 3.

[1330] *Micronesia's Seabed Resources Act 2014*, Sec. 4.

[1331] *Nauru's International Seabed Minerals Act 2015*, Sec. 4.

[1332] *Tonga's Seabed Minerals Act 2014*, Sec. 2.

[1333] *Tuvalu's Seabed Minerals Act 2014*, Sec. 3.

[1334] The complete common list of terms and definitions includes: 'affiliate, ancillary operations, applicant, application, continental shelf, Environmental Act, environment, environmental impact assessment, exclusive economic zone, incident, inspector, installation, licence, licensee, marine environment, marine reserve, marine scientific research, Minister, Ministry, person, the precautionary approach, protected area, public official, qualification criteria, quality and qualified, regulations, rules of the Authority, seabed mineral activities, serious harm, sponsored party, sponsorship certificate, sponsorship qualification criteria, sponsoring State, and State Party'. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 86.

[1335] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 24.

[1336] *China's Law on Exploration and Exploitation of Resources in the Area 2016,* Art. 3; International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 24.

Czech Republic, Kiribati, Micronesia, Nauru, Tonga, and Tuvalu expressly recognize the principle of common heritage of mankind.[1337]

Moreover, the Comparative Study of the Existing National Legislation on Deep Seabed Mining of the ISA compilates the national obligations that sponsored entities must incur in order to proceed with activities in the Area, which are:[1338] protect the marine environment in the Area,[1339] remove the consequences of damage caused by prospecting or activities in the Area,[1340] dispose any waste material resulting from processing or other treatment of any mineral resources extracted on any ship,[1341] avoid or minimise any harmful effects to marine creatures, plants and other organisms and their habitat,[1342] apply the precautionary approach and best environmental practice,[1343] not dump mineral materials or waste,[1344] and to not proceed or continue with activities if it is likely to cause a significant adverse impact to the marine environment.[1345]

In accordance to the ISA, several national legislation frameworks stipulate that reasonable consideration should be given to the interests of other users of the marine environment.[1346] While the United Kingdom obliges the sponsored entity to act with reasonable regard to the interest of other entities in their exercise of the freedom of the high seas;[1347] others, such as Cook Islands,[1348]

[1337] *Czech Republic Act 2000,* Art. 1(2); *Kiribati's Seabed Minerals Act 2017*, Sec. 8; *Micronesia's Seabed Resources Act 2014*, Sec. 9(b)(1); *Nauru's International Seabed Minerals Act 2015*, Secs. 6(a) and 7(2); *Tonga's Seabed Minerals Act 2014*, Sec. 8(b)(i); *Tuvalu's Seabed Minerals Act 2014*, Sec. 8(b)(i).
[1338] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 54.
[1339] *China's Law on Exploration and Exploitation of Resources in the Area 2016,* Art. 1; *Germany's Seabed Mining Act 1995*, Sec. 1.
[1340] *Czech Republic Act 2000,* Art. 11(c),
[1341] *United Kingdom's Deep Sea Mining 1981*, Secs. 3(4)(3A)(c).
[1342] *United Kingdom's Deep Sea Mining 1981*, Secs. 6 and 14.
[1343] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 4(3); *Cook Islands' Seabed Minerals Act 2019*, Sec. 6(1); *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(e); *Kiribati's Seabed Minerals Act 2017*, Sec. 45(a); *Micronesia's Seabed Resources Act 2014*, Sec. 96(e); *Nauru's International Seabed Minerals Act 2015*, Sec. 28(d); *Tonga's Seabed Minerals Act 2014*, Secs. 39(b) and 39(c); *Tuvalu's Seabed Minerals Act 2014*, Sec. 45(a).
[1344] *Cook Islands' Seabed Minerals Act 2019*, Sec. 109; *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(k); *Nauru's International Seabed Minerals Act 2015*, Sec. 28(j).
[1345] *Cook Islands' Seabed Minerals Act 2019*, Sec. 88; *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(l); *Nauru's International Seabed Minerals Act 2015*, Sec. 4(1)(c).
[1346] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 79.
[1347] *United Kingdom's Deep Sea Mining 1981*, Secs. 4(3a), 4(b) and (g).
[1348] *Cook Islands' Seabed Minerals Act 2019*, Sec. 119.

Fiji,[1349] Kiribati,[1350] Micronesia,[1351] Nauru,[1352] Tonga,[1353] and Tuvalu,[1354] additionally to the freedom of the high seas express that their sponsored contractors must not interfere in the right of others to conduct marine scientific research. In addition, Fiji,[1355] Kiribati,[1356] Nauru,[1357] Tonga,[1358] and Tuvalu[1359] include the interference in the use of the high seas for marine scientific research and other activities as justification to discontinue activities in the Area.

In accordance with the ISA,[1360] Kiribati,[1361] Micronesia,[1362] and Tuvalu[1363] provide that their legislation shall be interpreted in accordance with the following obligations present in the international legal framework for deep seabed mining. These obligations include the protection and preservation of the marine environment and rare or fragile ecosystems and habitats, as well as the prevention, reduction, and control of pollution from seabed activities. The aforementioned obligations pertain to the prevention of activities that may cause harm to the marine environment, including those that may be caused by ships or by the dumping of waste and other matter at sea. Additionally, the obligations require the prevention of transboundary harm, the conservation of biodiversity, the application of the precautionary approach, the utilisation of best environmental practice, and the conduct of prior environmental impact assessments of activities that may cause serious harm to the marine environment. Furthermore, the obligations necessitate the implementation of measures for ensuring safety at sea.[1364]

It is also worth noting that several national legislations impose a number of other obligations. These include the obligation to report incidents, the response and inquiry to processes

[1349] *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 50.
[1350] *Kiribati's Seabed Minerals Act 2017*, Sec. 118(1).
[1351] *Micronesia's Seabed Resources Act 2014*, Sec. 4(1)(d)(v)(b).
[1352] *Nauru's International Seabed Minerals Act 2015*, Sec. 48.
[1353] *Tonga's Seabed Minerals Act 2014*, Sec. 109(1).
[1354] *Tuvalu's Seabed Minerals Act 2014*, Sec. 113(1)
[1355] *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(l)(ii).
[1356] *Kiribati's Seabed Minerals Act 2017*, Sec. 118(3)(a).
[1357] *Nauru's International Seabed Minerals Act 2015*, Sec. 28.
[1358] *Tonga's Seabed Minerals Act 2014*, Sec. 39.
[1359] *Tuvalu's Seabed Minerals Act 2014*, Sec. 45(d).
[1360] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 63.
[1361] *Kiribati's Seabed Minerals Act 2017*, Sec. 3.
[1362] *Micronesia's Seabed Resources Act 2014*, Sec. 4((2).
[1363] *Tuvalu's Seabed Minerals Act 2014*, Sec. 3.
[1364] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 63.

triggered by pollution or serious harm to the environment,[1365] the necessity of effective control, and the protection and preservation of the marine environment in deep seabed mining activities by the competent national authority.[1366]

With regard to the environmental impact assessment, Kiribati and Tuvalu have incorporated the relevant content into the Seabed Minerals Act 2017 and the Seabed Minerals Act 2014, respectively.[1367] Both States stipulate that the EIA shall be required about 'any aspect of Seabed Mineral Activities or Ancillary Operations, including bulk-sampling or test-mining and equipment-testing, where it appears to the Licensee, Secretariat or the Environment Conservation Division that the nature or degree of that Activity is such that it is likely to result in Serious Harm to the Environment'.[1368] Also, Kiribati legislation stipulates that any seabed minerals activity that requires EIA must not commence until the Environmental Impact Assessment or any other 'subsequent amendments to the environmental management and impact mitigation plan, work plan, or Licence terms have been completed to the satisfaction of the Environment Conservation Division';[1369] and that 'Further procedures and requirements for an Environmental Impact Assessment for Seabed Mineral Activities may be Prescribed'.[1370]

With regard to the establishment of the environmental baselines, China provides, followed by other obligations, the necessity of introducing an environmental baseline. Those other obligations are: apply the available advanced technology; establish environmental baselines, and assess the impact of the exploration or exploitation activities to the marine environment; establish and implement the environmental monitoring programme; and take necessary measures to protect and preserve rare or fragile ecosystem as well as the habitat of depleted, threatened or endangered species and other forms of marine life, protect marine biodiversity and ensure sustainable use of

[1365] *Cook Islands' Seabed Minerals Act 2019*, Sec. 85; *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 26(e); *Kiribati's Seabed Minerals Act 2017*, Sec. 88(1)(b)(iv)(C); *Micronesia's Seabed Resources Act 2014*, Sec. 78(1)(a)(xii)(c); *Nauru's International Seabed Minerals Act 2015*, Sec. 22(e)(iii); *Tonga's Seabed Minerals Act 2014*, Sec. 2(1)(e); *Tuvalu's Seabed Minerals Act 2014*, Sec. 118(4)(i).
[1366] *Cook Islands' Seabed Minerals Act 2019*, Sec. 121(d)(ii); *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 3(1)(d); *Kiribati's Seabed Minerals Act 2017*, Sec. 8(c); *Micronesia's Seabed Resources Act 2014*, Sec. 9(c); *Nauru's International Seabed Minerals Act 2015*, Sec. 30(b); *Tonga's Seabed Minerals Act 2014*, Sec. 85(e); *Tuvalu's Seabed Minerals Act 2014*, Sec. 8(c).
[1367] *Kiribati's Seabed Minerals Act 2017*, Sec. 76; *Tuvalu's Seabed Minerals Act 2014*, Sec. 77.
[1368] *Kiribati's Seabed Minerals Act 2017*, Sec. 76(1)(c); *Tuvalu's Seabed Minerals Act 2014*, Sec. 77(1)(c)
[1369] *Kiribati's Seabed Minerals Act 2017*, Sec. 76(3).
[1370] *Kiribati's Seabed Minerals Act 2017*, Sec. 76(4).

marine resources.[1371] Lastly, the Cook Islands,[1372] Kiribati,[1373] Tonga,[1374] and Tuvalu[1375] give power to the minister of their respective States to create regulations to give effect to the provisions of their legislation. Among the matters addressed by their regulations, these States include the environmental impact assessment and the establishment of environmental baseline data.[1376]

As previously noted, while the ISA does not prescribe a specific direction, the application of the precautionary approach lies within the discretion of each State. In this regard, the Cook Islands,[1377] Fiji,[1378] Kiribati,[1379] Micronesia,[1380] Nauru,[1381] Tonga,[1382] and Tuvalu,[1383] explicitly mention the precautionary approach in their respective legislation.

At the national level, the sponsoring States have the authority to establish the necessary stringency of their liability parameters, as the international codes and guidelines are not legally binding. The States would have the power to make the international regulations and guidelines mandatory or not within their national laws according to their discretionary.[1384] Cook Islands,[1385] Fiji,[1386] Kiribati,[1387] Micronesia,[1388] Nauru,[1389] Tonga,[1390] and Tuvalu[1391] emphasise the best

[1371] Chelsea Zhaoxi Chen, 'China's Domestic Law on the Exploration and Development of Resources in Deep Seabed Areas', in Catherine Banet (eds.), *The Law of the Seabed: Access, Uses, and Protection of Seabed Resources* (Leiden: Brill Nijhoff, 2020), 355-370; International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 61.
[1372] *Cook Islands' Seabed Minerals Act 2019*, Sec. 121.
[1373] *Kiribati's Seabed Minerals Act 2017*, Sec. 132(c).
[1374] *Tonga's Seabed Minerals Act 2014*, Sec. 123(c).
[1375] *Tuvalu's Seabed Minerals Act 2014*, Sec. 128(c).
[1376] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 87.
[1377] *Cook Islands' Seabed Minerals Act 2019*, Sec. 6(1).
[1378] *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(e).
[1379] *Kiribati's Seabed Minerals Act 2017*, Sec. 93(e).
[1380] *Micronesia's Seabed Resources Act 2014*, Sec. 96(e).
[1381] *Nauru's International Seabed Minerals Act 2015*, Sec. 30(e).
[1382] *Tonga's Seabed Minerals Act 2014*, Secs. 2(2)(e) and 2(2)(f).
[1383] *Tuvalu's Seabed Minerals Act 2014*, Sec. 94(e).
[1384] Leonardus Gerbera and Renee Grogan, 'Challenges of Operationalizing Good Industry Practice and Best Environmental Practice in Deep Seabed Mining Regulation' (2020) *114 Marine Policy* 103257 1, 4.
[1385] *Cook Islands' Seabed Minerals Act 2019*, Sec. 6(1).
[1386] *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(e).
[1387] *Kiribati's Seabed Minerals Act 2017*, Sec. 93(e).
[1388] *Micronesia's Seabed Resources Act 2014*, Sec. 96(e).
[1389] *Nauru's International Seabed Minerals Act 2015*, Sec. 30(e).
[1390] *Tonga's Seabed Minerals Act 2014*, Secs. 2(2)(f).
[1391] *Tuvalu's Seabed Minerals Act 2014*, Sec. 94(e).

environmental practices in their respective legislation.[1392] For example, Fiji issued that any person engaged in seabed mining activities shall be required to 'employ best environmental practice in accordance with prevailing international standards in order to avoid, mitigate, or remedy adverse effects of Seabed Mineral Activities on the marine environment'.[1393] Kiribati, Micronesia, Nauru, Tonga and Tuvalu promote the application of the precautionary approach and best environmental practices.[1394]

6.3 Environmental liability of contractors under national legislation

As is evident, liability regulations exist at both the international and national levels, with the objective of imposing sanctions on those responsible for wrongdoing or of restoring damages.[1395] However, for these regulations to be effective, they must be implemented at the national level. This is particularly important in the context of sponsored contractors, including private contractors, who must be held liable. In this regard, Article 22, Annex III, states that:

> The contractor shall have responsibility or liability for any damage arising out of wrongful acts in the conduct of its operations, account being taken of contributory acts or omissions by the Authority. Similarly, the Authority shall have responsibility or liability for any damage arising out of wrongful acts in the exercise of its powers and functions, including violations under article 168, paragraph 2, account being taken of contributory acts or omissions by the contractor. Liability in every case shall be for the actual amount of damage.[1396]

Article 235(2) of UNCLOS requires that resources must be available in legal systems of the States for 'prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction'.[1397] In

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[1392] 'others implicitly include these principles by endorsing the Authority's rules, Regs. and procedures'. In this sense see International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 59.
[1393] *Fiji's International Seabed Mineral Management Degree 2013*, Sec. 32(e).
[1394] *Kiribati's Seabed Minerals Act 2017*, Sec. 93(e); *Micronesia's Seabed Resources Act 2014*, Sec. 96(e); *Nauru's International Seabed Minerals Act 2015*, Sec. 30(e); *Tonga's Seabed Minerals Act 2014*, Sec. 2(2)(f); *Tuvalu's Seabed Minerals Act 2014*, Sec. 94(e).
[1395] 'Finally, they may indicate the approach to get compensation for damage in implementing the polluter pays principle'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 183; Philippe Sands, Jacqueline Peel, Adriana Fabra and Ruth Mackenzie, *Principles of International Environmental Law* (3 edn., Cambridge, United Kingdom: Cambridge University Press, 2012), 228-229; Christopher Murgatroyd, 'The World Bank: A Case for Lender Liability?' (1992) 1(4) *Review of European Community & International Environmental Law* 436, 436.
[1396] *UNCLOS*, Art. 22, Annex III.
[1397] *UNCLOS,* Art. 235(2). (emphasis added)

the same sense, the Seabed Disputes Chamber reiterates that 'the sponsored contractor meets its obligation under Annex III, article 22, of the Convention to provide reparation for damages caused by wrongful acts committed in the course of its activities in the Area'.[1398]

The Exploration Regulations also highlight that:

> The Contractor shall be liable for the actual amount of any damage, including damage to the marine environment, arising out of its wrongful acts or omissions, and those of its employees, subcontractors, agents and all persons engaged in working or acting for them in the conduct of its operations under this contract, including the costs of reasonable measures to prevent or limit damage to the marine environment, account being taken of any contributory acts or omissions by the Authority.[1399]

Similarly, the Draft Exploitation Regulations states:

> The Contractor shall be liable to the Authority for the actual amount of any damage, including damage to the Marine Environment, arising out of its wrongful acts or omissions, and those of its employees, subcontractors, agents and all persons engaged in working or acting for them in the conduct of its operations under this Contract, including the costs of reasonable measures to prevent and limit damage to the Marine Environment, account being taken of any contributory acts or omissions by the Authority or third parties. This clause survives the termination of the Contract and applies to all damage caused by the Contractor regardless of whether it is caused or arises before, during or after the completion of the Exploitation activities or Contract term.[1400]

The International Law Commission also asserts that 'each State should take all necessary measures to ensure that prompt and adequate compensation is available for victims of transboundary damage caused by hazardous activities located within its territory or otherwise under its jurisdiction or control'.[1401] Consequently, the responsibility for enforcement of such procedures falls within the national legislation of the States.

Upon examination of such legislation, as previously demonstrated, it becomes evident that the majority of them establish the primary obligation of the States with their 'responsibility to

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[1398] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 140.

[1399] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(1); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(1); in this sense, some legislation also internalises this matter. *Tuvalu's Seabed Minerals Act 2014*, Sec. 93; *Micronesia's Seabed Resources Act 2014*, Sec. 95(1).

[1400] *Draft Regulations on Exploitation of Mineral Resources in the Area*, Annex X, Sec. 7(1).

[1401] *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities*, principle 4(1).

ensure'.[1402] Through the national legislation, the majority of sponsoring States are held liable for any damage, compensation or penalties arising from their wrongful act originated from activities in the Area.[1403] In this regard, Tuvalu Seabed Minerals Act 2014 issues that the sponsored entity 'shall be responsible for the performance of all Seabed Mineral Activities carried out within the Contract Area, and their compliance with the Rules of the ISA'.[1404] Furthermore, the majority of States allow the possibility of indemnification by the sponsoring States against any liability incurred by the sponsoring state in relation to exploration and exploitation activities.[1405]

Each of the legislation expresses the requirement for sponsored contractors to comply with UNCLOS and the ISA regulations. However, some States have presented this requirement in more detail than others.[1406] For example, while the legislation of France covers briefly the sponsorship system,[1407] Nauru expresses it in detail in its legislation with 56 sections.[1408]

Some States, such as the Czech Republic, the United Kingdom and Singapore, are more lenient towards contractors since they do not require any regular reporting from their contractors. In this same sense, Belgium and Singapore do not include any powers to States to inspect their contractors. Nonetheless, China, Nauru, Kiribati, and Tonga express a vast regulatory framework concerning the regulatory and inspection powers and substantial requirements to sponsored contractors to provide information.[1409]

[1402] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 5.
[1403] For example, the legislation from Belgium, Cook Islands, Fiji, Kiribati, Micronesia (Federated States of), Nauru, Singapore, Tonga and Tuvalu. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 52 and 54.
[1404] *Tuvalu's Seabed Minerals Act 2014*, Sec. 93(1); see also *Micronesia's Seabed Resources Act 2014*, Sec. 95(1).
[1405] These States are: Cook Islands, Fiji, Kiribati, Micronesia (Federated States of), Nauru, Singapore, Tonga and Tuvalu. International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 54; *Kiribati's Seabed Minerals Act 2017*, Sec. 5; *Deep Seabed Mining Act 2015* (Singapore's Deep Seabed Mining Act 2015), adopted 1 March 2015, entered into force 1 April 2015, SGP-2015-L-100537, Sec. 3; *Germany's Seabed Mining Act 1995*, Sec. 1; *Cook Islands' Seabed Minerals Act 2019*, Sec. 33 and 142; *Tuvalu's Seabed Minerals Act 2014*, Sec. 78; *Micronesia's Seabed Resources Act 2014*, Sec. 79(2).
[1406] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 5.
[1407] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), 26.
[1408] see *Nauru's International Seabed Minerals Act 2015*.
[1409] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 6.

In the event of a potential breach of legal responsibilities and obligations by the contractor in its duty to monitor activities, the sponsoring State must provide possible corrections or sanctions to implement these corrective measures. If the contractor persists in the wrongful activity, more serious sanctions may be implemented, such as suspension, revocation, and termination of a licence or certificate of sponsorship by the State.[1410] States such as Japan, Singapore, and the United Kingdom express that the violation of the licence or of their national law leads to suspension or revocation of the contract.[1411] Similarly, the Cook Islands, Kiribati, Nauru, and Tonga indicate the same consequences when there has been a serious, persistent, or wilful breach of the rules of the ISA or national laws.[1412] Finally, the Czech Republic indicates that the certification of sponsorship can be revoked when the sponsored contractor refuses the inspection of the regulatory agency. It is also pertinent to note that even in the event of the loss of certification of sponsorship, the sponsored contractor remains liable for non-compliance during the period of validity of the sponsorship,[1413] including liability that persists beyond the termination of the contract as stipulated in the Cook Islands, Micronesia, Singapore and Tuvalu legislation.[1414] With the exception of France and the Russian Federation, financial penalties are present in almost all the national legislation.[1415] The financial penalty is directly proportional to the violation committed by the sponsored contractor. As the Seabed Disputes Chamber has noted: 'This provision applies to the sponsoring State as the State with jurisdiction over the persons that caused the damage'.[1416] Therefore, by requiring the sponsoring State to establish procedures, and, if necessary, substantive rules governing claims for damages before its domestic courts, 'this provision serves the purpose of ensuring that the sponsored contractor meets its obligation under Annex III, article 22, of the

[1410] *Cook Island's Seabed Minerals Amendment 2020*, Sec. 117.
[1411] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 49.
[1412] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 49.
[1413] *Czech Republic Act 2000,* Art. 17(1)(b).
[1414] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 46; *Cook Islands' Seabed Minerals Act 2019*, Sec. 152; *Tuvalu's Seabed Minerals Act 2014*, Sec. 78(4); *Micronesia's Seabed Resources Act 2014*, Secs. 79(4); 85; and 100.
[1415] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), 21 and 22.
[1416] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 140.

Convention to provide reparation for damages caused by wrongful acts committed in the course of its activities in the Area'.[1417]

In this same regard, the Comparative Study of the ISA summarises the sanctions as reiterated below in Table 4.

Table 4: Sanctions in national legislation

States	Suspension/ Revocation	Levels of fines relating to various offences (as in the legislation)	Imprisonment	Compensations/ remedy for damage
Belgium	√	€ 25 to 25,000	15 days to 1 year	√
China	√	¥ 20,000 to 100,00	criminal penalty	√
Cook Islands	√	$ 250,000 to 1,000,000	2 to 10 years	√
Czech Republic	√	CZK 1 to 100 million		
Fiji	√	up to $ 10,000	5 years	√
France	-	-	-	-
Germany	√	up to € 50,000	up to 5 years	
Japan	√	up to ¥ 1,000,000	1 to 5 years	√
Kiribati	√	$50,000 to 500,000	up to 10 years	√
Micronesia (Federated States of)			up to 5 years	
Nauru	√	$ 5000 to 100,000	up to 10 years	√
New Zealand	√	$ 200,000 + up to 3 times the value of commercial gains	Potentially	Potentially
Russian Federation	-	-	-	-
Singapore	√	up to $ 500,000	up to 3 months	√
Tonga	√	$ 100,000 to 1,000,000	up to 10 years	√
Tuvalu	√	up to $ 250,000	up to 10 years	√

[1417] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 140.

the United Kingdom	√	£ 1,000 or another sum fixed by order	up to 2 years	

Source: International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), 22-23. Additionally, the present information was updated based on the current status of the national legislation.

Upon examination of the liability provisions in the legislation of the sponsoring States, it becomes evident that almost all laws incorporate some degree of sanction in the event of non-compliance by sponsored contractors. Table 5 provides a summary of the liability presented within the national legislation.

Table 5: Treatment of liability within national legislation of sponsoring States

Country and Title of Measure	Liability Expressly Addressed?	Causes of Action/ Standard of Harm?	Fund or Bond?	Insurance?	Contractor Indemnity for State?	Access to Domestic Courts?	Enforcement of Judgements?
United Kingdom Deep Sea Mining (Temporary Provisions) Act 1981, as amended by Deep Sea Mining Act (2014) Deep Sea Mining (Exploration Licences) Regulations (1984)	No	No	Not expressly covered, but sponsorship licences 'may contain such terms and conditions as the Secretary of State thinks fit'.		Yes (model contract terms)	No	SDC decisions and LOSC arbitral awards can be enforced domestically.
Japan Act on Interim Measures for Deep Seabed Mining (1982)	Yes	Yes	Not expressly covered, but conditions may be placed on sponsorship permits.			Yes	No
Russian Federation Russian Federation Decree of the President (1994)	No	No	No	No	No	No	No

Germany Act Regulating Seabed Mining 1995 (revised 2010)	No	No	Not expressly covered, but sponsorship approval can be made subject to conditions necessary to meet the law's objectives (which include compliance with the LOSC).			No	No
Czech Republic Prospecting, Exploration for and Exploitation of Mineral Resources from the Seabed beyond Limits of National Jurisdiction (2000)	No	No	No	No	No	No	No
Belgium Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction (2013)	Yes	UNCLOS	No	Yes	No	No	No
Micronesia (The Federal States of) Seabed Resources Act (2014)	Yes	UNCLOS	Yes	Yes	Yes	Yes	Yes
Tonga Seabed Minerals Act (2014)	Yes	UNCLOS	Yes	Yes	Yes	No	No
Tuvalu Seabed Minerals Act (2014)	Yes	UNCLOS	Yes	Yes	Yes	Yes	Yes
Nauru International Seabed Minerals Act (2015)	Yes	UNCLOS	Yes	Yes	Yes	Yes	No
Singapore	Yes	UNCLOS	Not expressly,	No	Yes	Yes	SDC decisions and LOSC

Deep Seabed Mining Act (2015)			but conditions can be set for each licence by the minister.				arbitral awards can be enforced domestically.
China Law on Exploration and Exploitation of Resources in the Area (2016)	No	No	No	No	No	No	No
France Ordinance No. 2016-1687 relating to Maritime Areas under the Sovereignty or Jurisdiction of the French Republic (2016)	No	No	No	No	No	No	No
Kiribati Seabed Minerals Act (2017)	Yes	UNCLOS	Yes	Yes	Yes	Yes	No
Cook Islands Seabed Minerals Act (2019)	Yes	UNCLOS	Yes	Yes	Yes	Yes	No

Source: Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 6 and 7. Additionally, the present information was updated based on the current status of the national legislation.

It is typically established that environmental damage or harm claims must be submitted where they occur or where the defendant is domiciled.[1418] In the context of deep seabed mining activities, the domestic courts to which the case could be brought normally are the national courts

[1418] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3 edn., Oxford, United Kingdom: Oxford University Press, 2009), 312; *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities*, principle 4.

of the injured State or the court of the sponsoring State that has effective control of the contractor.[1419] For this purpose, according to Article 235(2),[1420] States must ensure adequate mechanisms to respond to these claims of compensation.[1421] In a similar vein, the Seabed Disputes Chamber emphasises the necessity for sponsoring States to incorporate these mechanisms into their national legislation, which constitutes a direct obligation.[1422] The extension of these will be determined by the discretion of each State.

Regarding provisions related to dispute settlement in domestic courts and tribunals for environmental damage claims, the Cook Islands, Japan, Nauru and Singapore have the clearest rules to allow the claimant the right to access domestic courts for environmental damages perpetrated by the sponsored contractors.[1423] However, Japan does not explicitly enshrine such a right in its legislation pertaining to deep seabed mining. Instead, it is enshrined in its Mining Act, a more generic law to regulate mining.[1424] In its Act on Interim Measures for Deep Seabed Mining 1982, Japan expresses the right to seek compensation for environmental damage within three years of the awareness of the damage or twenty years of its occurrence,[1425] either through mediation or not.[1426] Nauru gives to its supreme court jurisdiction to conduct proceedings to establish liability and provide resources to compensate for damage caused by seabed mineral activities. This is achieved through the following means: '(a) judicial review of administrative decisions, determinations, actions or inquiries taken under this Act; or (b) proceedings to establish liability and to provide recourse for prompt and adequate compensation in the event of an unlawful damage caused by Seabed Mineral Activities, in accordance with Article 235(2) of UNCLOS'.[1427]

[1419] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 192; Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 3.
[1420] *UNCLOS*, Art. 235(2).
[1421] Tara Davenport, *Responsibility and Liability for Damage Arising Out of Activities in the Area: Potential Claimants and Possible Fora, CIGI Liability Issues for Deep Seabed Mining Series, Paper No. 5* (Kingston, Jamaica: International Seabed Authority, 2019), 3.
[1422] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para. 230.
[1423] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8; *Cook Islands' Seabed Minerals Act 2019*, Sec. 96.
[1424] see *Japan's Mining Act 1950*; see also *Act on Interim Measures for Deep Seabed Mining* (Japan's Act on Interim Measures for Deep Seabed Mining 1982), adopted 20 July 1982, Act No. 64 of 1982).
[1425] *Japan's Act on Interim Measures for Deep Seabed Mining 1982*, Art. 27.
[1426] *Japan's Act on Interim Measures for Deep Seabed Mining 1982,* Art. 28.
[1427] *Nauru's International Seabed Minerals Act 2015*, Sec. 46. (emphasis added)

Furthermore, the Cook Islands and Singapore permit the enforcement of claims against their sponsored contractors in the event of wrongful acts.[1428]

The United Kingdom legislation permits the initiation of legal proceedings against any individual in any court, [1429] provided that the act in question is deemed to be an offence under the relevant legislation or secondary legislation.[1430] Also, the decisions in accordance with Article 187(c), (d) and (e) of UNCLOS of the Seabed Disputes Chamber,[1431] can be enforced through national courts exclusively in relation to disputes arising between the sponsoring state, the ISA, or the contractor as stated in the United Kingdom Legislation.[1432] However, as some critics express, 'it is not clear whether this might, in any circumstances, serve to avail a third-party claimant of national remedy'.[1433] The legislation of Kiribati and Tonga also provides for dispute settlement mechanisms within their national legal systems for cases between the sponsoring State and sponsored contractor.[1434] The legislation of the two States provide that any dispute between the sponsoring State and its sponsored contractor arising in connection with the administration of the national Act shall be dealt with by 'the parties attempting to reach settlement by mutual agreement or mediation'.[1435] However, in the event this is not successful, while Tonga provides that the a

[1428] *Singapore's Deep Seabed Mining Act 2015*, Sec. 17-20; *Cook Islands' Seabed Minerals Act 2019*, Sec. 96(2).
[1429] 'Proceedings for an offence under this Act or under regulations made under this Act may be taken, and the offence may for incidental purposes be treated as having been committed, in any place in the United Kingdom'. *United Kingdom's Deep Sea Mining Act*, Sec. 14(1); see also *United Kingdom's Deep Sea Mining Act*, Sec. 8(A)-(C).
[1430] According to Lily: '"Offence" is not expressly defined, but in this act, and in English law generally, the term appears to refer to criminal offences only'. Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.
[1431] '(c) disputes between parties to a contract, being States Parties, the Authority or the Enterprise, state enterprises and natural or juridical persons referred to in article 153, paragraph 2(b), concerning: (i) the interpretation or application of a relevant contract or a plan of work; or (ii) acts or omissions of a party to the contract relating to activities in the Area and directed to the other party or directly affecting its legitimate interests; (d) disputes between the Authority and a prospective contractor who has been sponsored by a State as provided in article 153, paragraph 2(b), and has duly fulfilled the conditions referred to in Annex III, article 4, paragraph 6, and article 13, paragraph 2, concerning the refusal of a contract or a legal issue arising in the negotiation of the contract; (e) disputes between the Authority and a State Party, a state enterprise or a natural or juridical person sponsored by a State Party as provided for in article 153, paragraph 2(b), where it is alleged that the Authority has incurred liability as provided in Annex III, article 22'. *UNCLOS*, Art. 187(c)-(e).
[1432] *United Kingdom's Deep Sea Mining 1981*, Sec. 8A.
[1433] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8; additionally, in this same regard, New Zealand legislation also mentions that decisions of the Seabed Disputes Chamber are enforceable "as if it were a decision of the High Court, and all the provisions of the law of New Zealand shall apply accordingly with any necessary modifications. *United Nations Convention on the Law of the Sea Act 1996* (New Zealand Act 1996), 26 July 1996, 1996 No 69*,* Art. 14(3).
[1434] *Tonga's Seabed Minerals Act 2014*, Sec. 122; *Kiribati's Seabed Minerals Act 2017*, Sec. 130.
[1435] *Tonga's Seabed Minerals Act 2014*, Sec. 122(2)(a); *Kiribati's Seabed Minerals Act 2017*, Sec. 130(II)(a).

judicial proceed must be submitted to its supreme court,[1436] Kiribati stipulates that this dispute must be submitted to arbitration or to be decided at ITLOS.[1437] Furthermore, Chinese law only allows the court to impose monetary fines or criminal sanctions upon the contractors for environmental damages for non-compliance with their contract or the Mining Code.[1438]

It can be observed that the majority of national legislation makes a clear statement regarding the necessity of proof of the financial capacity of the applicant for sponsorship.[1439] Insurances not only work for the protection in case of a necessity of compensation against environmental damages caused by the contractor but also protect victims against harm from activities in the Area.[1440] Despite the Exploration Regulations only mentioning it superficially,[1441] insurance plays an important role in States more economically capable, such as developing sponsoring States. The ISA acknowledges the significance of insurance and is developing the requirement in greater detail in the Draft Exploitation Regulations. This will enable the national legislation of sponsoring States to be developed and updated in accordance with a potential standard.[1442] However, the fact that the Draft Exploitation Regulations are still pending means that sponsored contractors must purchase insurance to enable the due reparation of potential damages from their activities.[1443] Consequently, the Exploitation Regulations must provide more detailed information in their final version regarding the necessity of compulsory insurance. In this regard, the international civil liability conventions, in addition to requiring the implementation of

[1436] *Tonga's Seabed Minerals Act 2014*, Sec. 122(2)(b).
[1437] *Kiribati's Seabed Minerals Act 2017*, Sec. 130(II)(b).
[1438] *China's Law on Exploration and Exploitation of Resources in the Area 2016*, Art. 23-26; Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.
[1439] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.
[1440] Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 194.
[1441] *Polymetallic Nodules Exploration Regulation,* Annex IV, Sec. 16(5); *Polymetallic Sulphides Exploration Regulation,* Annex IV, Sec. 16(5); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Annex IV, Sec. 16(5).
[1442] Ling Zhu, 'Probing Compulsory Insurance for Maritime Liability' (2014) 45(1) *Journal of Maritime Law and Commerce* 63, 68.
[1443] Ling Zhu, 'Probing Compulsory Insurance for Maritime Liability' (2014) 45(1) *Journal of Maritime Law and Commerce* 63, 68; additionally see Ling Zhu, *Compulsory Insurance and Compensation for Bunker Oil Pollution Damage* (Berlin, Germany: Springer, 2006).

compulsory insurance, also stipulate specific requirements pertaining to the amount, liability insurer, and other pertinent details.[1444]

In this context, it is necessary for Kiribati, Nauru, and Tonga to require a security deposit from the contractor as a guarantee in the event that the contractor fails to fulfil its obligations or to repair any damage that may occur.[1445] Kiribati and Tonga include that these guarantees shall cover costs of any pollution or other incidents resulting from the activities in the Area conducted by the sponsored contractor.[1446] The Czech Republic, Tonga, Nauru, Belgium and Kiribati require contractor insurances.[1447] The Belgian legislation, in its Article 9(2) states that the sponsored contractor shall have appropriate international insurance policies in accordance with generally accepted international practices.[1448] In a similar vein, Micronesia emphasises that the contractor must possess both financial and technical resources and capabilities to 'respond to any incident or activity that causes Serious Harm to the Marine Environment, including having sufficient funding or insurance to cover the costs of any potential liability arising from accidents or pollution occurring as a result of the Seabed Mineral Activities'.[1449]

With regard to compensation or other forms of relief within the context of national legislation, it is notable that a significant proportion of it merely reiterates Article 22, Annex III, of UNCLOS, which says that 'Liability in every case shall be for the actual amount of damage'.[1450] Only the legislation of a few of the States requires guarantees after the sponsorship is granted.[1451] Complementing it, Singapore provides that a high court can order both compensation and other

[1444] Ling Zhu, 'Probing Compulsory Insurance for Maritime Liability' (2014) 45(1) *Journal of Maritime Law and Commerce* 63, 68.
[1445] *Nauru's International Seabed Minerals Act 2015*, Sec. 45; *Kiribati's Seabed Minerals Act*, Sec. 107; *Tonga's Seabed Minerals Act,* Sec. 93.
[1446] *Kiribati's Seabed Minerals Act*, Sec. 107; *Tonga's Seabed Minerals Act,* Sec. 93.
[1447] 'The terms are often rather vague, which may be due to the lack of an existing insurance market for seabed mining at the time of legislative drafting'. Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8; *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9; *Nauru's International Seabed Minerals Act 2015*, Sec. 29; *Tonga's Seabed Minerals Act 2014*, Sec. 109; *Kiribati's Seabed Minerals Act 2017*, Sec. 77; *Czech Republic Act 2000,* Art. 2.
[1448] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(2).
[1449] *Micronesia's Seabed Resources Act 2014*, Secs. 60(24)(c)(ii) and 62(2)(b)(ii).
[1450] *UNCLOS*, Art. 22, Annex III.
[1451] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.

remedy pursuant Article 22, Annex III, of UNCLOS.[1452] The Japanese Mining Act 1950 also provides that restoration may be sought in lieu of monetary compensation.[1453] The Belgian legislation specifies that the cost incurred by the claimant in taking reasonable measures to limit or prevent the environmental damage can be recovered within the definition of the actual damage.[1454] Chinese law, as previously mentioned in table 4, allows the imposition of monetary fines or criminal sanctions upon sponsored contractors in case of failure to comply with the law or their contract with the ISA.[1455] Finally, the Czech Republic legislation requires sponsored contractors to restore the damage, environmental damage or not, caused by their activities in the Area.[1456]

In respect of damages caused by pollution of the marine environment, according to Article 21(3), Annex III, of UNCLOS:

> No State Party may impose conditions on a contractor that are inconsistent with Part XI. However, the application by a State Party to contractors sponsored by it, or to ships flying its flag, of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted pursuant to article 17, paragraph 2(f), of this Annex shall not be deemed inconsistent with Part XI.[1457]

However, as some authors have already observed,[1458] the national laws that mention the sponsorship system do not provide details about 'what type or degree of harm is actionable nor expand upon what standard of liability is applied to a contractor by the sponsoring state's national

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[1452] *Singapore's Deep Seabed Mining Act* 2015, Sec. 17.
[1453] *Japan's Mining Act 1950*, Sec. 27(5) and 111; additionally, 'This suggests that the cost implication for a contractor could exceed the "actual amount of damage" threshold otherwise applicable — although this is tempered somewhat by the stipulation in the Japanese law that the cost of restoration demanded must be proportionate to the alternative quantum for compensation for loss (and, of course, restoration to an original state must be a reasonable possibility)'. Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 9.
[1454] 'Le contractant est responsable du dommage effectif, y compris le dommage causé au milieu marin et imputable à des actes illicites ou à des manquements de sa part ou de la part de ses travailleurs, de ses sous-traitants ou de ses agentes et de toutes autres personnes qui travaillent ou agissent pour leur compte dans la conduite des opération en vertu du contrat en question, y compris du coût des mesures raisonnables prises pour prévenir ou limiter les dommages affectant le milieu marin, compte tenu, le cas échéant, des actes ou des manquements dans le chef de l`Autorité'. *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(1); Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 9.
[1455] *China`s Law on Exploration and Exploitation of Resources in the International Seabed Area of 2016*, Art. 26.
[1456] For example: 'in this instance damage means death, damage to health or property, and harm to the marine environment the Area'. *Czech Republic's Act*, Art. 11(c). (emphasis added)
[1457] *UNCLOS*, Art. 21(3), Annex III.
[1458] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 9.

regime'.[1459] As previously mentioned, several laws, including those from Belgium, Cook Islands, Kiribati, Nauru, Singapore, and Tonga, reiterate Art. 22, Annex III, of UNCLOS in its saying that the liability of the sponsored contractor is 'for any damage arising out of wrongful acts in the conduct of its operations',[1460] but do not go further on what could constitute a 'wrongful act'.[1461]

In addition, Belgian law states that sponsored entities must adhere to the Polluter Pays Principle, in other words, the costs of the damage are the responsibility of the polluter.[1462] This principle may imply a strict liability model as will be shown in more detail.[1463] In this sense, the ISA states in its comparative study that the Belgian legislation provides the application of precautionary approach and principles of prevention, sustainable management, polluter pays and restoration, and 'authorises adoption of rules for the protection of the marine environment, for the protection of human life and for conditions applicable to installations used for activities in the Area, which should be more stringent than the rules, regulations and procedures of the Authority'.[1464]

According to Article 5 of the Belgian legislation, the State may determine rules related to the protection of the marine environment and to the facilitation of activities in the Area stricter than the regulations of the ISA.[1465] The United Kingdom has opted for a non-strict liability regime, as its legislation stipulates that civil liability can only be invoked in the context of personal injury

[1459] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 9.
[1460] *UNCLOS*, Art. 22, Annex III
[1461] 'Nauru also uses the terminology "unlawful damage caused by Seabed Mineral Activities" in its statutory provision that empowers third parties to take proceedings within national courts. This could be taken to imply a fault-based approach — or at least to exclude contractor liability in a circumstance in which the contractor had adhered to the rules and yet still caused unanticipated damage'. Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10; *Nauru's International Seabed Minerals Act 2015*, Sec. 46(b).
[1462] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 4(3).
[1463] 'The Japanese law provides that claims can be brought for fair and appropriate compensation for damage caused by discharge of wastewater, accumulation of tailings or release of plumes occurring as a result of activities under Japanese control. This does not appear to be restricted to fault-based damage, nor only to such damage that the contractor was not permitted by the ISA to cause'. Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10; see also *Japan's Mining Act 1950*, Sec. 27(5).
[1464] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 59.
[1465] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Art. 5; see also *UNCLOS*, Art. 21(3), Annex III.

action.[1466] Consequently, no claims can be brought by third parties under its sponsorship legislation.

6.4 Sponsorship of convenience and the environmental obligations and liability at the national level from sponsoring States with private contractors

As previously mentioned, the sponsoring States must apply the international legal framework for deep seabed mining activities in the Area through their national legislation. In applying the rules regarding its obligations and liability, the sponsoring State must not only incorporate these in the national law but also guarantee compliance by its sponsored contractors. However, when dealing with private contractors, the implementation of such obligations and the potential liability related to non-compliance with these obligations can present a significant challenge. Thus, this section will analyse only the legislation of States that have private contractors, such as Belgium, the Cook Islands, Nauru, Singapore, Tonga, and the United Kingdom. Additionally, the section will analyse only the national legislation of States that have legislation focused on deep seabed mining activities in the Area, consequently, the national laws of Jamaica, which indirectly regulates activities in the Area, will be discussed only when pertinent.

The first two issues that can be identified are the inconsistency between the legislation on how they incorporate international environmental obligations and liability. As well demonstrated in the previous chapter, the national legislation indicates a high regard for environmental protection. With regard to the obligation to protect the marine environment, all States expressly reiterate its necessity.[1467] However, as mentioned in the previous chapter, some differences on how to approach this necessity can be found. The Cook Islands, Kiribati, Nauru, Tonga, and the United Kingdom stipulate that the protection of the marine environment as a prerequisite for the granting of concession sponsorship.[1468] While Belgium and the United Kingdom express the protection

[1466] *United Kingdom's Deep Sea Mining 1981*, Sec. 15(1); Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10.
[1467] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 57.
[1468] *Cook Islands' Seabed Minerals Act 2019*, Sec. 6(1); *Kiribati's Seabed Minerals Act 2017*, Sec. 81(1)(k)(ii); *Nauru's International Seabed Minerals Act 2015*, Sec. 30(e); *Tonga's Seabed Minerals Act 2014*, Sec. 2(2)(e) and 2(2)(f); *United Kingdom's Deep Sea Mining 1981*, Sec. 6.

more generally or in specific aspects for the sponsored entities;[1469] the Cook Islands,[1470] Kiribati,[1471] Nauru,[1472] and Tonga,[1473] establish a list of terms and definitions to avoid any potential misinterpretation by the sponsored contractors.[1474]

With regard to the principles governing the protection of the marine environment in the context of deep-sea mining activities, it can be observed that some laws incorporate all the main principles or specific ones.[1475] For instance, the laws of Kiribati, Nauru, and Tonga, expressly recognize the principle of the common heritage of mankind.[1476] Cook Islands,[1477] Kiribati,[1478] Nauru,[1479] and Tonga[1480] expressly mention the precautionary approach and the best environmental practices in their respective legislation. With regard to the subject of environmental impact assessment, the legislation of Kiribati makes specific reference to the contents of the EIA.[1481] In addition to including the environmental impact assessment, Cook Islands,[1482] Kiribati,[1483] and Tonga[1484] also empowers the ministers of their respective governments to create regulations to give effect to the provisions of their legislation concerning the environmental baselines.[1485]

Furthermore, other national legislation delineates the obligations that sponsored entities must consider in order to proceed with activities in the Area:[1486] dispose of any waste material

[1469] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(1); *United Kingdom's Deep Sea Mining 1981*, Sec. 14.
[1470] *Cook Islands' Seabed Minerals Act 2019*, Sec. 6.
[1471] *Kiribati's Seabed Minerals Act 2017*, Sec. 3.
[1472] *Nauru's International Seabed Minerals Act 2015*, Sec. 4.
[1473] *Tonga's Seabed Minerals Act 2014*, Sec. 2.
[1474] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 86.
[1475] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 24.
[1476] *Kiribati's Seabed Minerals Act 2017*, Sec. 8; *Nauru's International Seabed Minerals Act 2015*, Secs. 6(a) and 7(2); *Tonga's Seabed Minerals Act 2014*, Sec. 8(b)(i).
[1477] *Cook Islands' Seabed Minerals Act 2019*, Sec. 6(1).
[1478] *Kiribati's Seabed Minerals Act 2017*, Sec. 93(e).
[1479] *Nauru's International Seabed Minerals Act 2015*, Sec. 30(e).
[1480] *Tonga's Seabed Minerals Act 2014*, Secs. 2(2)(e) and 2(2)(f).
[1481] *Kiribati's Seabed Minerals Act 2017*, Sec. 76.
[1482] *Cook Islands' Seabed Minerals Act 2019*, Sec. 121.
[1483] *Kiribati's Seabed Minerals Act 2017*, Sec. 132(c).
[1484] *Tonga's Seabed Minerals Act 2014*, Sec. 123(c).
[1485] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 87.
[1486] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 54 and 63.

resulting from processing or other treatment of any mineral resources extracted on any ship;[1487] avoid or minimise any harmful effects to marine creatures, plants and other organisms and their habitat;[1488] prevent transboundary harm;[1489] not dump mineral materials or waste;[1490] not proceed or continue with activities likely to cause significant adverse impact to the marine environment;[1491] protect and preserve the marine environment and rare or fragile ecosystems and habitats;[1492] and protect and preserve the marine environment in deep seabed mining activities through the competent national authority.[1493]

Regarding the liability for the breach of the obligations expressed in the national legislation, a high standard is also preserved. The United Kingdom and Singapore demonstrate a greater degree of tolerance towards the sponsored contractors since they do not require any regular reporting from their contractors.[1494] Singapore also does not include any powers for inspection of the activities, a situation mirrored by Belgium, which also lacks provisions in this regard in its legislation. Nevertheless, Nauru, Kiribati, and Tonga have enacted extensive regulation concerning the regulatory and inspection powers and substantial requirements from the sponsoring States to their respective sponsored contractors to provide information.[1495]

With regard to the termination of contracts due to wrongful acts, the legislation of the Cook Islands stipulates that if the contractor persists in the commission of such acts, the licence or certificate of sponsorship may be suspended, revoked, or terminated.[1496] In contrast, Singapore and the United Kingdom have more rigorous legislation, whereby the contract may be suspended or revoked in the event of a breach of obligations by the contractor.[1497] Similarly, the Cook Islands,

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[1487] *United Kingdom's Deep Sea Mining 1981*, Secs. 3(4)(3A)(c).
[1488] *United Kingdom's Deep Sea Mining 1981*, Secs. 6 and 14.
[1489] *Kiribati's Seabed Minerals Act 2017*, Sec. 3.
[1490] *Cook Islands' Seabed Minerals Act 2019*, Sec. 109; *Kiribati's Seabed Minerals Act 2017*, Sec. 3; *Nauru's International Seabed Minerals Act 2015*, Sec. 28(j).
[1491] *Cook Islands' Seabed Minerals Act 2019*, Sec. 88; *Nauru's International Seabed Minerals Act 2015*, Sec. 4(1)(c).
[1492] *Kiribati's Seabed Minerals Act 2017*, Sec. 3.
[1493] *Cook Islands' Seabed Minerals Act 2019*, Sec. 121(d)(ii); *Kiribati's Seabed Minerals Act 2017*, Sec. 8(c); *Nauru's International Seabed Minerals Act 2015*, Sec. 30(b); *Tonga's Seabed Minerals Act 2014*, Sec. 85(e).
[1494] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 6.
[1495] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 6.
[1496] *Cook Island's Seabed Minerals Amendment 2020*, Sec. 117.
[1497] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 49.

Kiribati, Nauru, and Tonga stipulate the same consequences, but only in the event of a serious, persistent, or wilful breach of the ISA rules or national laws.[1498]

Concerning compensation or other forms of relief, it is notable that a number of the national legislative frameworks, including those of Belgium, Kiribati, Nauru, Singapore, and Tonga, merely reiterate Article 22, Annex III, of UNCLOS, which says 'Liability in every case shall be for the actual amount of damage'.[1499] Only a few require guarantees after the sponsorship is granted.[1500] Complementing it, Singapore provides that a high court can order both compensation or other remedy pursuant to Article 22, Annex III, of UNCLOS.[1501] Belgian legislation specifies that the cost of the claimant in taking reasonable measures to limit or prevent environmental damage can be recovered by the verification of the actual damage.[1502]

Regarding provisions related to dispute settlement in domestic courts and tribunals for environmental damage claims, Cook Islands, Nauru and Singapore allow the claimant the right to access domestic courts against sponsored contractors.[1503] In the case of Nauru, the jurisdiction is vested in the Supreme Court.[1504] Furthermore, the Cook Islands and Singapore also permit the enforcement of claims against sponsored contractors within their respective jurisdictions.[1505] In the United Kingdom, legislation allows cases to be brought against any person in any court if the wrongful act is considered an offence under its legislation.[1506] The national legal systems of Kiribati and Tonga also provide dispute settlement mechanisms for cases between the sponsoring State and the sponsored contractor.[1507]

[1498] International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), para. 49

[1499] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 7; *Kiribati's Seabed Minerals Act 2017*, Sec. 89; *Tonga's Seabed Minerals Act 2014*, Sec. 17.

[1500] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.

[1501] *Singapore's Deep Seabed Mining Act* 2015, Sec. 17.

[1502] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 9; *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(1).

[1503] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.

[1504] *Nauru's International Seabed Minerals Act 2015*, Sec. 46.

[1505] *Singapore's Deep Seabed Mining Act 2015*, Sec. 17-20; *Cook Islands' Seabed Minerals Act 2019*, Sec. 96(2).

[1506] *United Kingdom's Deep Sea Mining Act*, Secs. 8(A)-(C) and 14(1); Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 8.

[1507] *Tonga's Seabed Minerals Act 2014*, Sec. 122; *Kiribati's Seabed Minerals Act 2017*, Sec. 130.

The presence of numerous environmental obligations and liabilities within the national legislation of states with sponsored contractors serves to demonstrate a high standard of protection that may, at least at first glance, seek to fulfil the aim of the exploration. Nevertheless, the discrepancies in the national legislation can be readily identified due to the disparate methodologies employed by each legislative framework, not only when comparing all extant legislation on this subject but also among those States with private contractors. This problem may lead to consequential problems, such as the choice of the sponsor States by a parent corporation to where to establish its subsidiary according to the level of obligations and liability to be imposed on potential contractors.

This can result in an unintentional system of sponsorships of convenience. Initially, some parent corporations may select their sponsors based on the legislative leniency of the States, thereby creating a preference for certain States to be selected as sponsors. Over time, this issue has the potential to evolve into a situation in which a system of sponsorships of convenience is created in practice with the objective of attracting parent corporations to base their subsidiaries and investors or partnerships and joint agreements between the national and private sector.

Additionally, as demonstrated, financial penalties are present in almost all the national legislation of States with sponsored contractors. Kiribati, Nauru, and Tonga require a security deposit to allow exploration activities.[1508] Kiribati and Tonga include that these guarantees shall cover the costs of any pollution or other incidents resulting from the activities in the Area by the sponsored contractor.[1509] Additionally, Tonga, Nauru, Belgium and Kiribati require insurance from the contractor.[1510] Belgium goes further by requesting these insurance policies to adhere to appropriate international insurance standards.[1511] This differentiation of financial penalties and fees between national legislation could indicate a further unintentional form of sponsorship that facilitates the sponsoring States of convenience.

[1508] *Nauru's International Seabed Minerals Act 2015*, Sec. 45; *Kiribati's Seabed Minerals Act*, Sec. 107; *Tonga's Seabed Minerals Act,* Sec. 93.
[1509] *Kiribati's Seabed Minerals Act*, Sec. 107; *Tonga's Seabed Minerals Act,* Sec. 93.
[1510] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9; *Nauru's International Seabed Minerals Act 2015*, Sec. 29; *Tonga's Seabed Minerals Act 2014*, Sec. 109; *Kiribati's Seabed Minerals Act 2017*, Sec. 77; *Czech Republic Act 2000,* Art. 2.
[1511] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(2).

Another issue of these national laws not directly related to environmental obligations and liability is the necessity of effective control. This issue is present in the legislation of the Cook Islands, Kiribati, Nauru and Tonga.[1512] This issue is the necessity of effective control.[1513] As well demonstrated, the tendency of the ISA to accept sponsorship based only on a certificate or declaration of sponsorship by the sponsoring State to the contractor submitting its application may also contribute to the same issue of sponsorships of convenience. The establishment of an implicit system of convenience may facilitate competition between states, encouraging them to enter into sponsorship contracts with private contractors in order to gain advantages and concessions.

Unfortunately, based on the phenomenon of flags of convenience, the prospect is not optimistic.[1514] It is evident that there is no uniformity in the understanding of the effective control, the issuance of the certification of sponsorship, or even the degree of environmental rules, liability, fees, and so forth, at the national level among the various States.[1515] Should this phenomenon persist, it is likely that the registration of corporations in the deep seabed mining sector may be focused on guaranteeing the effective control and certification of sponsorship with the State that

[1512] *Cook Islands' Seabed Minerals Act 2019*, Sec. 85; *Kiribati's Seabed Minerals Act 2017*, Sec. 88(1)(b)(iv)(C); *Nauru's International Seabed Minerals Act 2015*, Sec. 22(e)(iii); *Tonga's Seabed Minerals Act 2014*, Sec. 2(1)(e).
[1513] *Cook Islands' Seabed Minerals Act 2019*, Sec. 121(d)(ii); *Kiribati's Seabed Minerals Act 2017*, Sec. 8(c); *Nauru's International Seabed Minerals Act 2015*, Sec. 30(b); *Tonga's Seabed Minerals Act 2014*, Sec. 85(e).
[1514] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2015), 157-162; Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 209-210, 212-214, and 314-315; Neil Brown, 'Jurisdictional Problems Relating to Non-Flag State Boarding Of Suspect Ships In International Waters: A Practitioner's Observations', in Clive R. Symmons (eds.), *Selected Contemporary Issues in the Law of the Sea* (Leiden, Netherlands: Brill Nijhoff, 2011), 70-71; *UNCLOS,* Art. 92(1); *UNCLOS*, Art. 91*; UNCLOS*, Art 92; *UNCLOS*, Art. 94; *S.S. Lotus,* para. 25.
[1515] In this sense Xu: 'The different characteristics of contractors impact the national legislation of sponsoring States. For instance, legislation of small island developing States (such as Kiribati, Nauru, Tonga, and Tuvalu), which have a lot of similarities, focus on attracting and ensuring robust foreign investment. In addition, those States which belong to the common law system or the civil law system will also generate differences in national legislation. It is, therefore, unrealistic to provide a one-for-all template'. Xiangxin Xu, *Responsibility to Ensure Sponsoring States Environmental Legislation for Deep Seabed Mining and China's Practice* (Leiden, Netherlands: Brill Nijhoff, 2021), 135; see International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019).

offers the most advantageous conditions for activities in the Area,[1516] regardless of previous relations with that State or a 'genuine link'.[1517]

According to Egede,[1518] in the discussion of whether a foreign corporation can incorporate subsidiaries, possibly allowing sponsorship of convenience, the attention of the Seabed Disputes Chamber is on 'the hope of being subjected to less burdensome regulations and controls'.[1519] The Chamber chose this approach rather than a common negative perspective of corporations establishing subsidiaries in developing States.[1520] This rationale can be comprehended, despite the malevolent motives, such as the sponsorship of convenience, that drive corporations to establish subsidiaries in developing States for the purpose of conducting deep seabed mining activities.[1521]

[1516] Yoshifumi Tanaka, *The International Law of the Sea* (Cambridge, United Kingdom: Cambridge University Press, 2015), 162-164; International Seabed Authority, *Comparative Study of the Existing National Legislation on Deep Seabed Mining* (Kingston, Jamaica: International Seabed Authority, 2019), 10-20; *UNCLOS*, Art. 8 and 9(4), Annex III.

[1517] 'Registering a ship in states like Panama, Liberia, the Marshall Islands and the Bahamas, which do not impose a nationality or residency requirement, may for example entail easier registration, avoid stricter safety standards, reduce operating costs and decrease income taxes. It is true that international law introduced the requirement of a 'genuine link', which should have constituted an important limitation to prevent dissolute awards of nationality to ships, but this measure was not effective to scale down the popular practice. The requirement of a genuine link implies that the state concerned exercises effective jurisdiction and supervision in administrative, technical and social matters, and enjoys different avenues to establish and maintain its authority over the ship, but the concept has not been sufficiently elaborated and the absence of a genuine link, expressed by a lack of sufficient jurisdiction or control, cannot be considered a sound legal basis to simply deny the nationality of a ship'. Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116, 122-123; Donald Rothwell, Alex Elfering Oude, Scott Karen and Tim Stephens, *The Oxford Handbook of the Law of the Sea* (Oxford, United Kingdom: Oxford University Press, 2015), 215-216 and 308-310; see also *M/V Saiga (No. 2)* (Judgement), para. 10.

[1518] see Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 157-184.

[1519] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011), para, 159;

[1520] 'Whilst this is no doubt a cause for concern, especially with the experiences of how certain TNCs have been guilty of engaging in poor environmental practices when they are involved in mining activities in developing States, including those in Africa, which have lax legislation and regulations'. Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 168; see B. N. Mexenas, 'Flags of Convenience' (1981) 5(1) *Marine Policy* 52, 52-66; see also Edwin Egede, 'Human Rights and the Environment: Is there a Legally Enforceable Right to a Clean and Healthy Environment for the "Peoples" of the Niger Delta under the Framework of the 1999 Constitution of Nigeria' (2007) 19 *Sri Lanka Journal of International Law* 51, 51–83.

[1521] One of the reasons highlighted by Egede is the lack of the financial and technical capacity of some developing States that want to engage in deep seabed mining since 'qualification standards shall relate to the financial and technical capabilities of the applicant and his performance under any previous contracts with the Authority', the lack of the financial and technical capacity which favours the development of what the author calls 'Nauru/Tonga Model'. Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean*

This model enables these developing countries, which lack both financial and technical capacity, to exercise their rights to conduct deep seabed mining activities in the Area, thereby benefiting from a common heritage of mankind.[1522] In this sense, Nauru stated in its justification for sponsoring NORI that, through this arrangement, it could mitigate the costs of its deep seabed mining activities.[1523] In addition, the benefit for private corporations is the possibility to access the reserved areas exclusive to developing States.[1524]

It is evident that there is considerable variation in the level of detail provided in legislative frameworks pertaining to deep seabed mining across different States. One area of focus that emerges from this analysis is the protection of the marine environment.[1525] For instance, the Singapore Deep Seabed Mining Act 2015, while acknowledging the potential impact of deep seabed mining on the marine environment, primarily focuses on the effective protection of this environment against any harmful effects of these activities or the cessation of these activities.[1526] The only other references are related to the expiration of licences.[1527] Apart from this, the Singaporean legislation on deep seabed mining does not establish the enforcement of powers to regulate and monitor sponsored contractors.[1528]

Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables (Leiden, Netherlands: Brill Nijhoff, 2018), 168-169; *UNCLOS*, Art. 4(2), Annex III; *Polymetallic Nodules Exploration Regulation,* Reg. 12(1); *Polymetallic Sulphides Exploration Regulation,* Reg. 13(1); *Cobalt-rich Ferromanganese Crusts Exploration Regulations,* Reg. 13(1).

[1522] Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 169.

[1523] 'Nauru, like many other developing States, does not yet possess the technical and financial capacity to undertake seafloor mining in international waters. To participate effectively in activities in the Area, these States must engage entities in the global private sector (in much the same way as some developing countries require foreign direct investment)'. International Seabed Authority, *Proposal to seek an advisory opinion from the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters regarding sponsoring State responsibility and liability* (5 March 2010), ISA Doc. ISBA/16/C/6, para. 1.

[1524] *UNCLOS*, Art. 8, Annex III; see *Polymetallic Nodules Exploration Regulation,* Reg. 17.

[1525] Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 174.

[1526] *Singapore's Deep Seabed Mining Act 2015*, Sec. 3(b).

[1527] *Singapore's Deep Seabed Mining Act 2015*, Sec. 16(2)(b); Sec. 16(4); and Sec. 24.

[1528] *Singapore's Deep Seabed Mining Act 2015*, Sec. 24.

In contrast, the legislation of the Pacific Islands States is more detailed in its regulation of the protection of the environment against any damage resulting from deep-sea mining activities.[1529] The Pacific Regional Legislative and Regulatory Framework of Pacific Islands States provides a legal framework that enables these States to guarantee the compliance of sponsored contractors with the primary obligations of the sponsoring States.[1530] Additionally, the legislation of these States emphasises the role of the primary responsibilities and obligations of the sponsoring States concerning the protection of the environment in deep seabed mining and the necessity of application of the precautionary approach and best environmental practices.[1531]

About the regulatory and monitoring body presented by the legislation of the Pacific Island States, the best example in this sense is the Tonga Seabed Minerals Authority,[1532] which, in accordance with Egede:[1533] reviews or obtains a review of Environmental Impact Assessments for Seabed Mineral Activities required under the Deep Seabed Mining Act of Tonga; liaises with the ISA and any other relevant international organisation in accordance with UNCLOS to facilitate the lawful conduct of Seabed Minerals Activities or the protection of the Marine Environment; seeks expert advice on factual matters pertaining to the administration of the Deep Seabed Mining Act of Tonga and concerning the management of the seabed minerals of Tonga, including but not

[1529] For example, see *Cook Islands' Seabed Minerals Act* 2019; Fiji's *International Seabed Mineral Management Decree 2013; Nauru's Deep Seabed Mining Act 2015; Tonga's Deep Seabed Mining Act 2014; Tuvalu's Deep Seabed Mining Act 2014*.

[1530] 'which was made available by the Secretariat of the Pacific Community (SPC) to guide Pacific Island developing States with regard to preparing the appropriate national legislative and regulatory framework in seabed mining to draft national legislation.' Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 175; Maria Borrel, 'Protection and Preservation of the Marine Environment from Seabed Mining Activities on the Continental Shelf: Perspectives from the Pacific Islands Region', in Rosemary Rayfuse (eds.), *Research Handbook on International Marine Environment Law* (Cheltenham, United Kingdom: Edward Elgar Publishing, 2015), 206–228; 210–211; see also Robert Makgill and Ana P. Linhares, 'Deep Seabed Mining: Key Obligations in the Emerging Regulation of Exploration and Development in the Pacific', in Robin Warner and Stuart Kaye, *Routledge Handbook of Maritime Regulation and Enforcement* (Oxford, United Kingdom: Routledge, 2015), 231–26.

[1531] 'apply the Precautionary Approach, and employ best environmental practice in accordance with prevailing international standards in order to avoid, mitigate or remedy adverse effects of Seabed Minerals Activities on the marine environment'. *Fiji's International Seabed Mineral Management Decree 2013*, Sec. 32(e); additionally, *Tonga's Deep Seabed Mining Act 2014*, Sec. 102; *Nauru's Deep Seabed Mining Act 2015*, Sec. 30; *Cook Islands' Seabed Minerals Act 2019*, Sec. 6(1).

[1532] *Tonga's Seabed Minerals Act 2014*, Sec. 9-27.

[1533] Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 177.

limited to advice on economic, legal, scientific, and technical matters, and including advice from experts in the management and conservation of the Marine Environment.[1534] Consequently, this model, in the same way as the Tonga/Nauru model, provides an illustrative example of harmonisation that may guarantee the extent of environmental protection within the national legal frameworks. Nevertheless, it does not preclude the use of such regimes by private contractors as sponsorships of convenience.

Moreover, observations can be made regarding the manner in which such legislation addresses strict liability.[1535] With the exception of the legislation of Pacific Islands States, which exhibits a similar standard and can be analysed as one in some Articles,[1536] the way that legislation of these States approach the stringency of the liability may differ.[1537] According to Lily,[1538] both national legislation of sponsoring States and the Mining Code adhere to UNCLOS provisions of Article 22, Annex III and,[1539] despite being different from the ISA Regulations, the legislation can create stringent national rules to be determined by each State in its capacity.[1540] Nevertheless, the legislative choices of the sponsoring State may be designed to apply the minimum possible standards of strict liability for damages resulting from activities within the area.[1541] For instance,

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[1534] *Tonga's Seabed Minerals Act 2014*, Sec. 12; Edwin Egede, 'The Area: Common Heritage of Mankind, Sponsoring States of Convenience and Developing States', in Markus Kotzur, Nele Matz-Lück and Alexander Proelss, Roda Verheyen, Joachim Sanden. *Sustainable Ocean Resource Governance Deep Sea Mining, Marine Energy and Submarine Cables* (Leiden, Netherlands: Brill Nijhoff, 2018), 177; Joanna Dingwall, 'Commercial Mining Activities in the Deep Seabed beyond National Jurisdiction: the International Legal Framework', in Catherine Banet, *The Law of the Seabed: Access, Uses, and Protection of Seabed Resources* (Leiden, Netherlands: Brill Nijhoff, 2020), 150-151.
[1535] 'Triggers to actually do it are also in place, as shorter and easier procedures, lower fees or less stringent supervision might sound very attractive to a deep sea mining company'. Klaas Willaert, 'Forum Shopping Within The Context Of Deep Sea Mining: Towards Sponsoring States Of Convenience?' (2019) *Revue Belge de Droit International* 116, 136.
[1536] 'The development of their laws by the sponsoring states of Tonga, Nauru and Kiribati (as well as the non-sponsoring states of Fiji and Tuvalu) was supported by the Secretariat of the Pacific Community-European Union (SPC-EU) Deep Sea Minerals Project, which provided tailored technical assistance to Pacific Island nations in the development of seabed mineral laws and promoted the potential benefits of regional harmonization within those laws'. see Secretariat of the Pacific Community, *About the SPC-EU Deep Sea Minerals Project* (2023), <http://dsm.gsd.spc.int/> (accessed 17 July 2023).
[1537] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10.
[1538] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10.
[1539] see *Draft regulations on exploitation of mineral resources in the Area*; *Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area*; *Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area*; *Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area*.
[1540] *UNCLOS*, Art. 21(3), Annex III.
[1541] Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10.

the legislation of some States chooses to neglect it.[1542] The Cook Islands, Nauru, and Tonga, exempt themselves by choosing to indicate that any act of the contractor and those of its employees, officers, subcontractors, and agents in the conduct of the seabed mineral activities or ancillary operations under licence are subject to be liable,[1543] despite creating an indemnification for them as States to be liable for 'wrongful acts and omissions'.[1544] The legislation does not concern itself with the guilt of the contractors; rather, it is concerned with whether the damage in question occurred – in this sense 'a strict liability regime would not be concerned whether an act is wrongful or not to warrant a liability claim'.[1545] The legislation of Tonga also states that 'Nothing under this Act to authorise unnecessary interference with other sea users',[1546] after that, Section 109(4) reaffirms the position that 'Strict liability applies to an offence under this section'.[1547] Therefore, while the States of Cook Islands, Nauru and Tonga create a 'wrongful act' liability standard for their own responsibility, they prescribe a standard of strict liability to their sponsored contractors.

With regard to the legislation of Kiribati, Section 77(1) stipulates that the contractor is 'responsible for the Seabed Mineral Activities and Ancillary Operations carried out within its Licensed Area, and their compliance with this Act, Regulations made under this Act, and the Licence'.[1548] Section 77(2) in a first glance looks like it pushes away the possibility of strict liability by providing that the contractors will be liable for the 'actual amount of any compensation or damage arising out of its failure to comply with this Act Regulations made under this Act, or the Licence'.[1549] However, similarly to the rest of the Pacific Islands States mentioned in the previous paragraph, it complements Section 77(2) by stating that the contractor must be liable for 'any wrongful Acts or omissions and those of its employees, officers, subcontractors, and agents

[1542] Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 360.
[1543] *Cook Islands' Seabed Minerals Act 2019*, Sec. 96(1); *Tonga's Seabed Minerals Act 2014*, Secs. 70 and 84.
[1544] *Nauru's International Seabed Minerals Act 2015*, Sec. 29(1); *Tonga's Seabed Minerals Act 2014*, Sec. 70(3).
[1545] Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 360.
[1546] *Tonga's Seabed Minerals Act 2014*, Sec. 109.
[1547] *Tonga's Seabed Minerals Act 2014*, Sec. 109(4); see *Cook Islands' Seabed Minerals Act 2019*, Sec. 96(1).
[1548] *Kiribati's Seabed Minerals Act 2017*, Sec. 77(1).
[1549] *Kiribati's Seabed Minerals Act 2017*, Sec. 77(2). (emphasis added)

in the conduct of the Seabed Mineral Activities or Ancillary Operations under Licence', which includes but is not limited damages to the marine environment.[1550]

The Singaporean legislation has opted for a broader standard of liability. Section 12(6) provides that any transfer of licences of sponsorship will not affect the criminal or civil liability of the original contractor.[1551] Sections 17 and 18 provide the possibility of domestic enforcement of Annex III judgements and the Seabed Disputes Chamber orders, despite maintaining the right of States to claim their privilege or immunity.[1552] Regarding the liability of private contractors, Section 21(1) expresses that an offence can be committed with the consent or connivance of an officer or be attributable to any neglect on the part of the officer.[1553]

Similarly to Singapore, and as previously shown, the United Kingdom has accepted the enforcement of the Seabed Disputes Chamber.[1554] The United Kingdom has demonstrated in its legislation that civil liability can only be brought in relation to personal injury actions,[1555] in this sense, no claims can be brought by third parties under its sponsorship legislation. Also, the temporary Deep Sea Mining Act 1981 provides a personal liability fund,[1556] although the fund does not protect against environmental damages.[1557] However, the United Kingdom does not include any provisions on the stringency of the liability for environmental protection. In this sense, in MacMaster words: 'the legislation seems to delegate to the ISA and UNCLOS all other claims for damage. This does not appear to satisfy Article 235 of UNCLOS, which requires fulsome domestic legislation'.[1558]

In light of the aforementioned considerations, it is evident that the standard of strict liability applied in the national legislation has been a source of contention. Some States, such as the Cook Islands, Kiribati, Nauru, and Tonga, have opted to focus their model of liability on the contractors

[1550] *Kiribati's Seabed Minerals Act 2017*, Sec. 77(2). (emphasis added)
[1551] *Singapore's Deep Seabed Mining Act 2015*, Sec. 12(6).
[1552] *Singapore's Deep Seabed Mining Act 2015*, Sec. 17 and 18; Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 361.
[1553] *Singapore's Deep Seabed Mining Act 2015*, Sec. 21(1).
[1554] *United Kingdom's Deep Sea Mining Act*, Sec. 9.
[1555] *United Kingdom's Deep Sea Mining Act*, Sec. 15(1); Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10.
[1556] *United Kingdom's Deep Sea Mining Act*, Sec. 15.
[1557] *United Kingdom's Deep Sea Mining Act*, Sec. 15.
[1558] Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 362 and 363.

while absolving themselves. In contrast, Singapore has chosen to adopt a broader standard of liability. The United Kingdom, however, has not established its liability in legislation, but has instead left it to the ISA to implement. This has resulted in a situation where the liability in question is rendered useless without any system of implementation within its national law.

It is unfortunate that this is not a novel issue that has arisen with the enactment of national legislation. Some states, such as Belgium, have already expressed the necessity for 'a balanced relationship between the ISA and contractors, clarity on monitoring rules to avoid "sponsor shopping", and more attention to environmental regulations'.[1559] The Belgian concern with a forum shopping situation is logical, given that the behaviour of the sponsoring States may contravene Articles 209 and 235 of UNCLOS regarding domestic legislation and enforcement of compensations.[1560] In this regard, Belgium manifested this understanding by providing that sponsored entities must take into account the polluter pays principle. In other words, the costs of the damage are the responsibility of the polluter.[1561] This may be indicative of the standard of strict liability,[1562] given that the contractors are held accountable for all damages to the marine environment resulting from their exploration and exploitation activities, regardless of whether or not they were illegal.[1563] The Belgian legislation assigns all responsibility to the contractor,[1564] while leaving to the Belgian State the obligation to ensure that private contractors act in the terms of the contract and UNCLOS.[1565]

[1559] International Institute for Sustainable Development, 'Earth Negotiations Bulletin A Reporting Service for Environment and Development Negotiations' (2018) 25(155) *ISA-24 Part 1 #4* 2, <https://enb.iisd.org/events/1st-part-24th-session-international-seabed-authority> (accessed 21 July 2023).

[1560] Keith Macmaster, 'Environmental Liability for Deep Seabed Mining in the Area: An Urgent Case for a Robust Strict Liability Regime' (2019) 33 *Ocean* Yearbook, 374.

[1561] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 4(3).

[1562] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 4(3); Hannah Lily, 'Sponsoring State Approaches to Liability Regimes for Environmental Damage Caused by Seabed Mining' (2018) *CIGI Liability Issues for Deep Seabed Mining Series Paper No. 3*, 10.

[1563] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(1).

[1564] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(1).

[1565] *Belgium's Law on Prospecting, Exploration and Exploitation of Seabed Mineral Resources Beyond National Jurisdiction 2013*, Sec. 9(2); in this same sense, Willaert states: 'Although there can be no state liability if the state has adopted legislation and has taken measures which are, within the framework of their legal order, reasonably appropriate to secure effective compliance by persons under its jurisdiction (which is arguably the case here), it must be stressed that this has to be evaluated on a case-by-case basis and the responsibility of the sponsoring state cannot be formally precluded by one article in a national law'. Klaas Willaert, *In-Depth Analysis of the Belgian Legislation on Deep Sea Mining* (Morges, Switzerland: WWF, 2019), 7; see also Klaas Willaert, 'On the Legitimacy of National

As some authors have highlighted,[1566] the imposition of strict liability on contractors undertaking deep seabed mining activities introduces a high degree of uncertainty regarding the potential costs of such operations. The strict liability is also based on the polluter pays principle since it holds the contractors liable for all actual environmental costs to the damages in a specific area.[1567] In another sense, States that opt for a fault liability may create a situation in which the polluter-pays principle is not fully implemented since the contractors are not liable for any residual environmental damage that may occur from their activities.[1568] Consequently, the approach chosen by the sponsoring State for the liability may not only impinge upon the prerogative of the corporations to pursue its sponsorship with a State but also affect the final costs of the mineral, reflected in its price and profit margin. This may give rise to a situation in which corporations engage in forum shopping.[1569] Therefore, by adopting the standard of strict liability for environmental harm in their legislation, sponsoring States such as Belgium, Cook Islands, Kiribati, Nauru, and Tonga may collaborate to avoid the possible creation of sponsorships of convenience based to avoid strict environmental obligations and liability.

6.5 Conclusion

As demonstrated in this chapter, the internalisation of environmental obligations and liability, despite inconsistencies, was well presented in the enacted national legislation of the States, with a particular focus on deep seabed mining activities. However, upon closer inspection, it is observed that some of the obligations and liability are not explicitly mentioned. It is to be

Interests of Sponsoring States: A Deep Sea Mining Conundrum' (2021) 36(1) *The International Journal of Marine and Coastal Law* 136, 138.

[1566] Michael Lodge, Kathleen Segerson and Dale Squires, 'Environmental Policy for Deep Seabed Mining', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequenses and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 361.

[1567] Michael Lodge, Kathleen Segerson and Dale Squires, 'Environmental Policy for Deep Seabed Mining', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequenses and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 362.

[1568] Michael Lodge, Kathleen Segerson and Dale Squires, 'Environmental Policy for Deep Seabed Mining', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequenses and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 362.

[1569] 'A negligence rule also creates a weaker incentive for technological innovation designed to reduce environmental risks, although incentives to reduce the compliance costs with the due standard of care still exist'. Michael Lodge, Kathleen Segerson and Dale Squires, 'Environmental Policy for Deep Seabed Mining', in Rahul Sharma, *Environmental Issues of Deep-Sea Mining: Impacts, Consequenses and Policy Perspectives* (Berlin, Germany: Springer International Publishing, 2019), 362.

expected that there will be inconsistencies between legislation, given that each State has discretion to decide how they are supposed to incorporate such regulations.

This inconsistency becomes a significant issue when analysing the national legislation of sponsoring States that engage with private corporations as their sponsored contractors or desire to accept this kind of contractor under their sponsorship. When analysing the incorporation of the obligations, these differences can support the contractors to choose what legislation would be more flexible to pursue their sponsorship. This could lead to sponsoring States reconfiguring their original legislation into flexible national laws in order to attract private contractors and financial benefits with them.

However, this problem becomes even more pronounced when one considers the manner in which sponsoring States choose to incorporate these liability regulations into their legislation. The lack of uniformity in the standard of liability creates an ideal environment for contractors to engage in forum shopping, selecting legislation with fault-based liability over those with strict liability standards. This ultimately leads to the emergence of sponsorships of convenience. Nevertheless, it is the prerogative of each State to determine its own legislation.

PART V: CONCLUSIONS

Chapter 7: Conclusions

In this final chapter, the author will analyse and interpret the necessary points in order to answer the proposed main question of the thesis: namely, whether the environmental obligations and liability present in the legal framework for deep seabed mining enable the creation of a sponsorship of convenience system. In order to reach this conclusion, this chapter will focus on the pertinent points highlighted in the previous chapters 2 to 6.

7.1 The deep seabed mining regime

Since its inception, the deep seabed mining regime has been established with the objective to protect the marine environment beyond the boundaries of national jurisdictions. In contrast to onshore mining operations, the mining activities in deep seabed were anticipated to be subject to regulation prior to their commencement. Proof of that is the great importance given by UNCLOS in its Part XI and XII and Annex III during its development. Another indication of this can be observed in the establishment of the International Seabed Authority, an autonomous international organisation with the mandate to oversee and regulate activities within the Area. Despite the tentative by the 1994 Implementation Agreement to give a market orientation to the deep seabed mining activities, UNCLOS was not severely affected. In a similar vein, the Mining Code of the ISA also exposes an environmental approach to the protection of the marine environment and the common heritage of mankind.

However, the ISA in its administrative and regulatory powers towards deep seabed mining activities lacks proper capacity to monitor contractors, especially private entities. The sponsorship system enables the Authority to delegate the responsibility of ensuring the compliance of contractors with the Mining Code to their respective sponsoring States. Nevertheless, the author of this present work posits that this may give rise to the aforementioned problems, such as the unclarity of the concept of effective control, which could potentially facilitate the formation of sponsoring States of convenience.

7.2 Private contractors

The ISA permits a number of actors to engage in mining activities within the Area, including the Enterprise, States Parties, and other entities that are effectively controlled by their sponsoring States. This is achieved through the implementation of a plan of work. In addition to the entities mentioned in Article 153(2) of the UNCLOS, private entities may also be responsible for conducting mining activities. This opens up a multitude of opportunities and financial benefits for both the States and the private sector. It is evident that these opportunities can be of particular benefit to developing States that may lack the requisite financial, technical and technological capabilities. Consequently, through agreements between developing States and private contractors, the activities in the area can be commonly shared, thereby realising the idealisation of the mining resources of the deep seabed as a common heritage of mankind. The success of these arrangements is shown by the current number of contracts, with 9 out of 31 contracts being directly (7) or indirectly (2) conducted by private corporations. Nevertheless, these beneficial opportunities can potentially lead to the misinterpretation of the true purpose of the sponsorship system established by the international legal framework, both at the international and national levels.

At the international level, certain issues were identified. Firstly, the interpretation of effective control as regulatory control can result in a system that is similar to the flags of convenience system for vessels. By accepting only the registration of companies as proof of the genuine link between the contractor and the sponsoring State to the approval of a plan of work for a contract, the ISA can open the opportunity to the emergence of a sponsorship of convenience system. In conclusion, the author posits that this may result in a ‘golden rush’ among developing States to attract private companies to be sponsored by them. The first evidence of that can be seen by the number of exploration contracts being conducted in reserved areas for developing States: 6 out 9 of the contracts mentioned are conducted in these reserved areas, as previously mentioned.

7.3 International environmental obligations

In examining the environmental obligations and liability of these private contractors at the international level, it becomes evident that the international legal framework for deep seabed mining may offer potential avenues for addressing the issue. The international environmental

obligations include several environmental commitments that sponsoring States and contractors must comply with in order to guarantee their duty of due diligence, direct obligations and specific obligations. However, in order to guarantee that contractors are binding to them, the States must incorporate these obligations in their own national legislation and be responsible for ensuring them.

Despite the obligation of the contractors to comply with their respective environmental obligations, no enforcement can be made at the international level. Nevertheless, they are still obliged to adhere to the minimum standards established by the international legal framework. If their respective sponsoring States do not ensure these minimum standards in their national legislation, the sponsors will be held liable for any damage to the marine environment resulting from the sponsored contract. Accordingly, the author of this work posits that international environmental obligations do not permit the use of sponsorships of convenience. Rather, they permit only the manner and standard by which sponsoring States apply liability to their sponsored entities.

7.4 International environmental liability

To guarantee compliance by the contractors, the sponsoring States must replicate the liability regulations in their national legislation, with the difference that if they do not properly regulate it, the liability as a consequence of a wrongful act committed by the contractor may lie on them. Nonetheless, differently from the international environmental obligations, the international liability can be imposed in some degree to some of the sponsored entities. However, in case of an existent liability to private entities, this cannot be enforced to them at the international level. These decisions imposing liability to private entities must be enforced through the national mechanisms of their respective sponsored contractors.

Beside that, the lack of a precise standard of liability to be imposed on sponsored contractors allows a situation where some States may opt for fault-based liability while others prefer a strict liability. A possible solution to avoid this liability problem for the contractors can be the application of an understanding of the liability as a strict one. As mentioned in the third chapter, according to Article 139(2) and Article 4(4), Annex III, of UNCLOS the liability of the

sponsoring State is a fault-based liability, a liability based on the commitment of a wrongful act by a State. Alternatively, the liability of the contractor can be understood as a strict one, based only on the existence of damage in the marine environment associated with its activities in the Area regardless of its fault. By adopting this approach, States could avoid both the formation of sponsorships of convenience and a possible burden from the liability associated with the conduct of the activities by contractors. Nonetheless, a precise standard is not defined by the international legal framework. Consequently, the determination of which standard to adopt is entirely at the discretion of the States, contingent upon their chosen approach to incorporating the regulations pertaining to international environmental liability within their respective national legal systems.

In order to relieve the contractor from the burden of a strict liability system, a possible solution may be found in the insurances and compensation funds. As previously demonstrated, in order to conduct their activities in the Area, contractors must present guarantees of insurance with their plan of work to the ISA. Hardly any insurances would support an activity that the responsible entity would be liable for any damage that arises independently of the fault of the operator. Consequently, a compensation fund would be an adequate solution to cover any damages from these activities. With the proper application of compensation funds, the insurance companies could only be responsible for damages in the context that the private contractor is found guilty for the damages to the marine environment. However, this alternative would only be viable if the national legislation would follow the same standard of application of the liability for their sponsored contractors as a strict one. If some States chose to apply a fault-based liability for their contractors, this would attract more contractors and push them away from States that apply the standard of strict liability. Unfortunately, it will be to the discretion of each State to determine the stringency of the liability in their legislation. In conclusion, the author of this work acknowledges that without any future changes in the international legal framework requiring the sponsoring State to apply a specific standard of liability, this would be unlikely to be implemented.

7.5 Environmental obligations and liability of private contractors in national legislation

The competition to attract private corporations can lead to a legislative dispute between States, including through the environmental obligations and liability present in the legislation. Since each State has its own national law focusing on deep seabed mining, it is natural that each

legislation incorporates the international legal framework in its own particular way, even though it could lead to imprecisions between them and a possible forum shopping system.

Upon examination of the environmental obligations expressed in legislation from States with private contractors, it can be observed that these obligations are presented in an appropriate manner. Despite the presence of certain inconsistencies in relation to the explicit inclusion of environmental principles and obligations, it cannot be denied that the legislation of these States establishes an adequate system of obligations that their sponsored contractors must comply with.

By analysing the environmental liability in the national legislation from States with private contractors as a whole, the assessment that can be made is that, even though the standard of strict liability is applied in the national legislation of some States, such as the Cook Islands, Belgium, Kiribati, Nauru, and Tonga; Singapore and the United Kingdom did not precisely establish it in their legislation. The Strict liability model creates a high risk for contractors; thus, it would be more likely that contractors would not opt for States with such legislation as their sponsors since a fault-based liability would ensure higher profits from their activities.

In light of the aforementioned considerations, it is possible that the system could be perceived as benefiting sponsoring States of convenience. Regardless of whether this is an intended consequence or not, it is not within the scope of this work to determine whether this is indeed the case. However, if the ISA does not change its understanding of the requirement of effective control and stop turning away from how the acceptance of contracts will be conducted in its future Exploitation Regulations, this could lead to the perpetuation of situations in which parent corporations from developed States create subsidiaries corporations in developing States so they can use more flexible laws and access reserved areas. In a similar vein, the sponsoring States, in particular those seeking to accept private corporations under their sponsorship, must harmonise their legislation to adopt the standard of strict liability for damage to the marine environment in order to preclude any potential loopholes that might give rise to legal competition between States. In such a competitive environment, States would be able to attract private corporations to pursue sponsorship opportunities. This would result in a forum shopping system in which corporations would select the most suitable State as a sponsor, according to the flexibility of their obligations and liability. Nonetheless, it will lie to the discretion of the ISA and States to change this.

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