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The Role of International Environmental Obligations in the Interpretation and Invocation of the Two-year Rule for the Approval or Disapproval of Plans of Work in the Exploitation Phase

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Contents

1 CHAPTER ONE: THE INTRODUCTION

1.1 The Environmental Importance of the Area[1]

The deep ocean encompasses 95% of the oceans' volume and is the largest and least explored biome of the earth's biosphere. [2] Deep Ocean (or in other words, the deep sea) covers more than half of the planet and sequesters atmospheric carbon dioxide and recycles major nutrients[3]. It is an immense, remote biome, critical to the health of the planet and human well-being.[4]

Deep sea ecosystems encompass a wide range of habitats and environmental conditions,[5] with complex ecosystems, structures and extremely slow recovery rates that leave diverse deep-sea communities vulnerable to physical disturbances such as those caused by mining.[6]

Deep-sea diversity is remarkably high, characterized by distinct communities that differ from their shallow-water counterparts.[7] The deep-sea also presents unique ecological phenomena, including species exhibiting gigantism or dwarfism as adaptations to the challenging conditions.[8] Hence, the importance of the environment for human beings and sustenance of life is essential.

These statistics demonstrate the Sea's critical importance to the global marine environment and ecology, especially the Area. As a result, environmental sensitivity and concerns to operations in the Area is anticipated to be high.

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[1] In accordance with Article 1(1) of Law of the Sea Convention (LOSC), the Area means the seabed and ocean floor and subsoil thereof, beyond national jurisdiction. Hence, the legal scope of the Area is narrower than the geographical scope of the Sea.

[2] Danovaro, R., Corinaldesi, C., Dell'Anno, A., & Snelgrove, P. V. (2017). The deep-sea under global change. *Current Biology*, *27*(11), R461-R465.

[3] Mengerink, K. J., Van Dover, C. L., Ardron, J., Baker, M., Escobar-Briones, E., Gjerde, K., ... & Levin, L. A. (2014). A call for deep-ocean stewardship. *Science*, *344*(6185), 696.

[4] Ibid.

[5] Supra note 2.

[6] Wedding, L. M., Reiter, S. M., Smith, C. R., Gjerde, K. M., Kittinger, J. N., Friedlander, A. M., ... & Crowder, L. B. (2015). Managing mining of the deep seabed. *Science*, *349*(6244), 144.

[7] Supra note 2

[8] Ramirez-Llodra, E., Brandt, A., Danovaro, R., De Mol, B., Escobar, E., German, C. R., ... & Vecchione, M. (2010). Deep, diverse and definitely different: unique attributes of the world's largest ecosystem. *Biogeosciences*, *7*(9), 2851-2899.

1.2 The Environmental Concerns in the Area

Deep-sea ecosystems face significant challenges, such as the absence of sunlight beyond a certain depth, resulting in limited primary production.[9] Benthic communities in the deep-sea are often food-limited, leading to low biomass and productivity, except in specialized environments where chemosynthetic organisms thrive.[10]

Unfortunately, human activities are increasingly impacting deep-sea habitats and communities, posing threats to their delicate balance. Efforts to manage and conserve these ecosystems are hindered by limited scientific knowledge, the remoteness of deep-sea habitats, and the complex international governance of the vast expanses of the deep-sea realm.[11] The long-lived, late reproducing, and low fecundity life histories of many deep-sea organisms increase vulnerability to multiple human pressures and global climate change.[12]

It may be concluded that the Area has rare and fragile ecosystems that can be negatively affected by external factors such as human activities, in particular deep seabed mining (DSM) for minerals. It is important to highlight that, for example, mining manganese nodules will likely have a threefold impact on the marine environment: first, when picking up the nodules, the collector vehicle will destroy bottom-dwelling communities living on or between them. Second, collecting the nodules will stir up a near-bottom sediment plume, which will blanket a large Area outside the path of the collector vehicle. Many organisms will be unable to cope with this effect. Third, after pumping up the nodules, the mining ship will have to discard sediments and materials abraded from the nodules, thus creating a second plume close to the ocean's surface, which might affect filter-feeding pelagic organisms[13]. Moreover, deep-sea mining operations will lead to heightened levels of noise and artificial light in both the surface and subsurface marine environments. Therefore, these changes will have adverse effects on the diverse range of fauna, including seabirds, marine mammals, and fish[14].

After consideration of these scientific facts, it is undeniable that although deep seabed mining may be an economically beneficial activity in the short term, it is not necessarily

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[9] Supra note 6.

[10] Ibid

[11] Sparenberg, O. (2019). A historical perspective on deep-sea mining for manganese nodules, 1965–2019. *The Extractive Industries and Society*, *6*(3), 842-854.

[12] Supra note 2.

[13] Ibid.

[14] Boetius, A., & Haeckel, M. (2018). Mind the seafloor. *Science*, *359*(6371), 34-36.

environmentally friendly in the long term, in such a way that even a small DSM operation can result in severe and almost everlasting negative impacts. This is the reason that the legal response to DSM is a controversial issue, especially when the legal regime of the Area is being discussed, especially when, in accordance with the current legal status of DSM, it is claimed that the so-called two-year rule would be a legal basis for starting DSM before the completion of the legal regime of the Area.

1.3 The Current Legal Status of Deep Seabed Mining (DSM) in the Area

With the adoption of United Nations Convention on the Law of the Sea (LOSC), it has been agreed upon by states that all the mining activities in the Area are governed by international law and are subject to Part XI of LOSC, the annex III to the Convention, the 1994 Implementation Agreement, the rules, regulations and procedures (RRPs) of the International Seabed Authority or (ISA)[15].

As far as it has been agreed upon by states to LOSC and the Implementation Agreement, all rights in the resources of the Area[16] are vested in mankind as a whole[17] and no state can claim or exercise sovereignty or sovereign rights over any part of the Area or its resources[18] which have been recognized as common heritage of mankind. In other words, the common heritage of mankind[19] belongs to no state, any natural or judicial persons. In this regard, a distinction must be drawn between in-situ (or not-recovered) resources and recovered (explored and exploited) minerals from the Area.[20] Since states, natural or judicial persons, may claim, acquire, or exercise rights with respect to the recovered minerals in accordance with Part XI of the LOSC and any adopted RRPs by ISA, imposing obligations on them.[21] Although the point of time at which rights such as exploitation rights and post-exploitation rights, including any

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[15] LOSC, Article 153 (1).

[16] Ibid, Article (1) (1)

[17] Ibid, Article 137 (2)

[18] Ibid, Article 137 (1)

[19] Ibid, Article 136; See also the Preamble to UN General Assembly Resolution 2749 (XXV) of 17 December 1970; See also the discussion about ius cogens nature of the common heritage of mankind in Wolfrum, R. (2012). Common heritage of mankind. In *Max Planck Encyclopedia of Public International Law* (pp. 452-458). Oxford University Press.

[20] LOSC, Articles 133(a), 137 (2) and (3)

[21] Ibid, Article 137 (3)

ownership of the recovered minerals, are transferred to the contractors has not been mentioned in the LOSC.

Pursuant to articles 145 and 137(b) of LOSC, it should be assumed that the transfer of any of the aforementioned rights to the contractors may be conditional on the transfer of obligations to the contractors. Legally, this process needs to be justified in accordance with a legal basis that enables the ISA to recognise rights and obligations and then enables it to transfer rights and obligations to the contractors. In accordance with the LOSC, articles 145 and 153(3) enable the ISA to seek the necessary legal basis in the form of RRPs and exploitation contracts. Since the ISA and contractors are not parties to LOSC, and therefore, in need of a legal basis to justify the transfer of rights and obligations to contractors, the LOSC has provided RRPs and exploitation contracts. The signing of contracts as the second condition is preconditional on the first condition of having RRPs.

In accordance with Article 153 of the LOSC, ISA`s RRPs are divided into two categories: exploration and exploitation. [22] To date, ISA has only adopted RRPs for the exploration of three types of mineral deposits: polymetallic nodules, polymetallic sulphides, and ferromanganese crusts. These regulations, collectively known as Exploration Regulations, were adopted in 2000, 2010, and 2012, respectively, and are an integral part of the ISA's Mining Code that is to be completed by the future Exploitation Regulations, which concern many technical and environmental aspects of activities with environmental impacts on the surface, in the water column, and at and below the seafloor.[23]

Back to the first condition regarding the RRPs, two separate system of RRPs for activities in the Area including exploration and exploitation will form the ISA`s Mining Code which both revolve around environmental obligations in international as their cornerstone. This analysis has been reached because of the importance of the environment in LOSC as part of international law.

This thesis infers that the adoption of RRPs and the drafting of exploitation contracts by the ISA as the legal basis for the commencement of DSM should evolve and revolve around the environmental obligations in international law to ensure the protection and preservation of the

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[22] Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, Doc No ISBA/19/C/17 (22 July 2013), Annex, 1(3)(a); LOSC, Article 1 (3); Article 153 (1)

[23] Lodge, M. W., & Verlaan, P. A. (2018). Deep-sea mining: international regulatory challenges and responses. *Elements: An International Magazine of Mineralogy, Geochemistry, and Petrology*, *14*(5), 331.

marine environment.[24] In other words, it may be inferred that compliance with international obligations is the very first legal basis. This presumption will be further defended by the elaboration on the two-year rule.

In line with this conclusion, at the centre of the Mining Code lies the environmental mandate of the ISA, which has the ISA's broad obligation to ensure the protection and preservation of the marine environment at its heart.[25] As far as it is incorporated in the LOSC as a legal obligation by the LOSC, ISA has been assigned the primary responsibility for preventing environmental harm resulting from mining activities in the Area through the adoption of RRPs.[26] Putting this broad and multi-aspect environmental mandate on ISA is because of the crucial importance of the marine ecosystem and the huge and undeniable environmental impacts of seabed mining, such as the direct removal and destruction of seafloor habitats along with their unique fauna,[27] and marine ecosystems, or the sediment plumes that will be created from seafloor disturbance, and also the return of sediment-laden wastewater, which will extend the impacts of DSM horizontally and vertically for tens to hundreds of kilometres.[28]

As of today, on the one hand, through these delicacies and sensitivities around the matter, only exploration regulations have been adopted by the ISA, but there are still no exploration regulations elaborated and adopted by the ISA, no plan of work has been approved, and thence, no mining contract has been signed and entered into force. Because the legal basis for signing exploitation contracts is lacking.

Currently, the rising demand for minerals and metals, particularly in the technology sector, has sparked renewed interest in exploring and exploiting seabed mineral resources. These resources, such as seafloor massive sulphides, cobalt-rich crusts, and manganese nodules, are worthy and easily marketable.

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[24] An example of this conclusion by the author may be found in Article 219 of the LOSC, in which the navigation rights belong to seaworthy ships. In other words, unseaworthy ships can not attain navigation rights, unless complying by international law obligations regarding the prevention of the marine pollution.

[25] Jaeckel, A. L. (2017). *The International Seabed Authority and the precautionary principle: balancing deep seabed mineral mining and marine environmental protection*. Brill, 5.

[26] Ibid, 105.

[27] Amon, D. J., Levin, L. A., Metaxas, A., Mudd, G. M., & Smith, C. R. (2022). Heading to the deep end without knowing how to swim: Do we need deep-seabed mining? *One Earth*, *5*(3), 220.

[28] Ibid

Furthermore, there is a growing focus on extracting methane from gas hydrates on continental slopes and rises. [29]. These matters have triggered discussions around the legal basis for the commencement of DSM, especially when the so-called two-year rule has been adopted to avoid any deadlock in finding the legal basis and prevent unlimited suspension of the DSM contrary to LOSC. The so-called two-year rule seeks

1.4 The Purpose and Research Questions

As soon as possible, the right to conduct DSM should be operationalized in accordance with the legal regime of the Area. This regime is supposed to incorporate the LOSC's and ISA`s RRPs as its components. However, the legal regime of the Area has not been completed, or, in other words, fully established. Since the RRPs for exploitation have not been adopted, the Mining Code has not been completed. This fact has legal implications for the legal capacity to start DSM. Since, according to LOSC, DSM cannot be started until the legal regime of the Area is fully established. This approach is in accordance with UNGA Resolution 2749 (XXV), adopted by the General Assembly.[30]

On the contrary, it has been claimed that, in accordance with Section 1(15)(c) of the Implementation Agreement, DSM can be started even without the adoption of RRPs and the ultimate completion of the Mining Code regarding exploitation. As it is mentioned in Section 1 (15), the target of it is to facilitate the approval of plans of work. This Section imposes an obligation on the ISA to develop and adopt RRPs for regulating activities in the Area. The subparagraphs (a), (b), and (c) outline the timeline for the elaboration and adoption of these RRPs. Among these subparagraphs, subparagraphs (b) and (c), or the so-called 2-year rule, are the most controversial issues regarding the timeframe for the adoption of RRPs. However, Section 1 (15) carries some ambiguities that may affect the legal implications of the 2-year rule. This thesis has the aim of considering the legal relationship between the legal basis and prerequisites for the commencement of DSM, the ISA`s RRPs, and the legal implications of the 2-year rule. In particular, the legal relationship between international obligations and the 2-year rule will be addressed during the time that the legal regime of the Area is not completed. While

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[29] Miller, K. A., Thompson, K. F., Johnston, P., & Santillo, D. (2018). An overview of seabed mining including the current state of development, environmental impacts, and knowledge gaps. *Frontiers in Marine Science*, *4*, 418.

[30] Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction, para 1.

many international players, such as the European Parliament[31], the Alliance of Countries for a Deep-Sea Mining Moratorium[32], the International Union for Conservation of Nature, and brands[33], are calling for a precautionary pause or moratorium in deep seabed mining and exploitation activities due to doubts about the consequential environmental impacts.

In this regard, the research questions that this thesis is trying to answer consist of:

1. What are the substantive and procedural obligations in international law for the protection and preservation of the marine environment in the Area?
2. What is the relationship between the substantive and procedural obligations and the legal basis (or bases) for the transfer of rights and obligations to the contractors?
3. Can the invocation of the 2-year rule change the legal basis and legal prerequisites for starting the DSM?

1.5 The Scope and Methodology

The research begins by identifying the relevant legal rules pertaining to DSM in the Area in line with Article 38 of the Statute of the International Court of Justice (ICJ Statute). In this regard, the exploration regulations (RRPs) that have already been adopted by the ISA will also be considered. As it is presumed in this thesis that the current RRPs in force resemble degrees of state practice on the individual level and on the collective level, they have legal status in accordance with Article 145 of LOSC. as well as the adopted RRPs by the ISA that can resemble to some degrees the state practice.

Overall, the main resources include international agreements such as the United Nations Convention on the Law of the Sea (UNCLOS), Annex III to the Convention, the 1994 Implementation Agreement and its annex, and the International Seabed Authority (ISA) RRPs as primary sources, and then, in some discussions, international jurisprudence as secondary sources have been taken advantage of in order to clarify the issues from an international practical point of view.

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[31] See European Parliament resolution of 9 June 2021 on the EU Biodiversity Strategy for 2030: Bringing nature back into our lives (2020/2273(INI)), para 181. (https://www.europarl.europa.eu/doceo/document/TA-9-2021-0277_EN.pdf)

[32] https://gov.fm/index.php/component/content/Article/27-fsm-pio/news-and-updates/622-following-palau-s-leadership-fsm-to-join-alliance-of-countries-for-a-deep-sea-mining-moratorium-president-panuelo-to-solicit-members-of-pacific-islands-forum-to-oppose-deep-sea-mining?Itemid=177

[33] See motion 069 - Protection of deep-ocean ecosystems and biodiversity through a moratorium on seabed mining (https://www.iucncongress2020.org/motion/069)

The legal sources are then analysed and interpreted to identify the procedural and substantive prerequisites in order to find any relationship with the legal basis (or bases) that should be invoked for the transfer of rights and obligations to contractors, or in other words, the legal basis based on which plans of work and exploitation contracts can be adopted and agreed upon. This thesis involves trying to deploy the text of the related documents, and if there is any ambiguity regarding the meanings of terms or otherwise necessary rules, the Vienna Convention on the Law of Treaties (VCLT) will be taken advantage of. It is undeniable that considering any relevant legal commentary or scholarly analysis in accordance with Article 38(d) of the ICJ Statute and VCLT should be a privilege.

Furthermore, the 2-year rule and its legal implications will be given specific attention. This thesis critically evaluates the legal basis (or bases) that this rule may be referring to in the mirror of international obligations to ensure that, from the perspective of the law of obligations, a systematic approach can be adopted to the transfer of rights and obligations to contractors.

Overall, this thesis will try to provide a comprehensive understanding of the interrelationship between the applicable rules of international law to the Area and the international obligations in the current regulatory framework for deep seabed mining in the International Seabed Area while drawing conclusions based on the analysis of the legal sources and providing insights into the procedural and substantive prerequisites necessary for commencing deep seabed mining activities.

Finally, it should be noted that this thesis, by delivering reasoning purely based on understanding and interpreting the current rules related to the Area while taking advantage of scholarly works and jurisprudence and legal concepts such as obligation, has adopted a doctrinal approach and aims to contribute to the scholarly understanding of the regulatory and practical framework for deep seabed mining in the International Seabed Area and provide insights for policymakers, legal practitioners, and stakeholders involved in the sustainable management of deep seabed resources.

2 CHAPTER TWO: THE LEGAL FRAMEWORK FOR DEEP SEABED MINING IN INTERNATIONAL LAW

2.1 The Historical Development of the International Legal Framework of the Area

As discussed by Sparenberg, the legal status of the Area (referring to the seabed beyond national jurisdiction) has a significant historical connection to the concept of the freedom of the seas. In the past, the seas were perceived as lacking valuable minerals. Consequently, the most contentious issues that initially shaped the legal status of the seas beyond any state's national

jurisdiction were related to the freedom of transportation and commerce.[34] In fact, a commercial reason was behind the arguments for the discussion on the legal regime of the Area.

Tanaka argues that the principle of freedom was primarily intended to ensure unimpeded navigation, promoting international trade and commerce. During this era, after the discovery of valuable resources like manganese nodules and other precious minerals on the seabed, the principle of freedom was further endorsed in favour of unrestricted access to these newly found resources. These resources were even described as being politically free and exempt from royalties or other charges.[35]

The perception of the seas shifted as valuable resources were discovered, and the principle of freedom expanded to include access to these resources for exploitation without undue restrictions. This evolution in the understanding of freedom in relation to the resources in the Area and the attributed conflict of interests among states have played a pivotal role in reshaping the legal framework governing activities on the seabed beyond national jurisdiction.

In 1969, Resolution 2574D, adopted by the United Nations General Assembly, demanded that both states and individuals, whether they are physical or legal entities, refrain from engaging in any activities involving the exploitation of resources found in the Area of the seabed, ocean floor, and its subsoil beyond the boundaries of national jurisdiction.[36] It also declares that no claims to any part of that Area or its resources shall be recognized. Essentially, it imposes a moratorium on any activities related to the exploitation of resources in the international seabed Area.[37] One year later, in 1970, the United Nations General Assembly adopted Resolution 2749, which further reinforced the previous resolution. [38] It reiterates that no state or individual, whether natural or legal, shall lay claim to, exercise, or acquire rights concerning the Area or its resources that are incompatible with the international regime to be established and the principles outlined in that declaration. In essence, it continues the prohibition on making any claims or exercising rights that could conflict with the future international legal regime to be developed for the Area beyond national jurisdiction.

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[34] Sparenberg, O. (2019). A historical perspective on deep-sea mining for manganese nodules, 1965–2019. *The Extractive Industries and Society*, *6*(3), 842-854; Tanaka, Y. (2019). *The international law of the sea*. Cambridge University Press, p. 22.

[35] Mero, J. L. (1964). *The mineral resources of the sea* (Vol. 1). Elsevier Publishing Company, p.275.

[36] United Nation General Assembly, Resolution 2574D (15 Dec 1969)

[37] Ibid

[38] United Nation General Assembly, Resolution 2749 (17Dec 1970)

Both resolutions underscore the importance of safeguarding the resources of the international seabed Area and demonstrate the international community's commitment to establishing a comprehensive legal framework to govern activities in this region. These resolutions laid the groundwork for the subsequent development of the United Nations Convention on the Law of the Sea (LOSC), which later provided a framework for the management and exploitation of resources in the Area beyond national jurisdiction.

Indeed, after years of efforts by the international community under the mandate of the United Nations, the culmination was the adoption of the United Nations Convention on the Law of the Sea (LOSC) in 1982. The LOSC, often referred to as the "package deal," is a comprehensive treaty that covers various aspects of the law of the sea, including the governance of the Area (the seabed and ocean floor beyond the limits of national jurisdiction).

The LOSC was the result of extensive negotiations and compromises among states with diverse interests in ocean affairs. It sought to strike a delicate balance between the rights and interests of coastal states, flag states (the states whose vessels sail under their flag), and the international community as a whole.

Most of the provisions within the LOSC, especially those concerning the Area, reflect customary international law principles that have been evolving over time[39]. By codifying these customary practices into a binding international treaty, the LOSC brought greater clarity and certainty to the legal framework governing the use and management of marine resources in the Area.

The LOSC also established the International Seabed Authority (ISA) as the regulatory body responsible for managing seabed resources in the Area for the benefit of humankind as a whole. The ISA plays a central role in issuing regulations and administering contracts for exploration and exploitation activities in the Area, ensuring that these activities are conducted in a manner that respects the principles of sustainable development and environmental protection.

In summary, the adoption of the LOSC in 1982 represented a significant milestone in international law, providing a comprehensive legal regime for the governance of the world's oceans, including the Area. The treaty integrated many customary international law principles,

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[39] Lee, M. L. (2005). The interrelation between the law of the sea convention and customary international law. *San Diego Int'l LJ*, *7*, 406; Van Overbeek, W. (1989). Article 121 (3) LOSC in Mexican State Practice in the Pacific. *Int'l J. Estuarine & Coastal L.*, *4*, 265; König, D. (2013). Marine environment, international protection. *Max Planck Encyclopedia of Public International Law*

creating a framework that governs the exploration and exploitation of resources in the seabed beyond national jurisdiction.

2.2 The Current Applicable Rules to Area

In order to count the current applicable rules in the Area, following the content of Article 38 of the Statute of the International Court of Justice (ICJ) is of paramount importance in international law. In accordance with Article 38(1)(a), the UN Convention on the Law of the Sea is the first source, which is the basis and primary source for the current legal regime of the Area, provides a legal basis for the rights and obligations of states and prospective contractors as well as the ISA.[40] As discussed in the Oxford Handbook of the Law of the Sea, `the basic legal principles underpinning the regime are set out in Part XI (Articles 133 to 191) and Annex III of the Convention.[41] Moreover, it has been mentioned that the 1994 Implementation Agreement made radical changes to the legal regime set out in Part XI and Annex III[42]. Therefore, as of today, the overarching regime of the Area is built upon the LOSC framework, which is supposed to include the Rules, Regulations, and Procedures (RRPs) to be adopted by the International Seabed Authority as its constituents. In this regard, it should be mentioned that, in the opinion of this thesis, the legal regime of the Area will be completed and fully established just in the case of the completion of the Mining Code to cover the exploitation phase. In other words, it can be claimed that the regime will be established when the ISA elaborates and adopts the RRPs in accordance with Article 145 of the LOSC. Furthermore, it is the completion of the legal regime of the Area that will ultimately encompass the legal basis for the transfer of rights and obligations to contractors and will be the legal basis for the commencement of DSM as aimed at by the LOSC. Although the two-year rule in the Annex to the Implementation Agreement seems to make a change to the form of the legal basis but not the content that evolves around the international obligations, For a better understanding of this assumption, this thesis will consider the applicable rules from the perspective of obligation in their contents.

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[40] Lodge, L, M, The Deep Seabed, Chapter 11, Rothwell, D., Oude Elferink, A. G., Scott, K. N., & Stephens, T. (2015). Oxford Handbook of the Law of the Sea, 226.

[41] Ibid

[42] Ibid

2.2.1 The United Nations Convention of the Law of the Sea and the Area

The United Nations Convention on the Law of the Sea (the LOSC) is an international treaty that was adopted in 1982 and came into force in 1994. It provides a comprehensive framework for the governance and use of the world's oceans and seas. The LOSC is often referred to as the "constitution for the oceans" because it establishes a set of rules and principles that govern various aspects of ocean-related activities.[43]

The related and important aspect of the LOSC to this thesis is how it has structured a system of core obligations to transfer rights and international environmental obligations to contractors, primarily through the RRPs and contracts. It seems that the legal mechanism and function of the RRPs are far more important than their legal status.

Here's a brief overview of the LOSC provisions related to the Area to show how the legal regime of the Area structures itself around international obligations:

1. **International Seabed Authority (ISA):** The LOSC established the International Seabed Authority, an autonomous international organization, to regulate and manage mineral-related activities in the Area. The ISA ensures that activities in the Area are conducted for the benefit of mankind as a whole, taking into account the interests and needs of both developing and developed countries.[44] It may be concluded that the ISA has the obligation to transfer international obligations to the contractors to legally ensure the protection and preservation of the environment.
2. **Common Heritage of Mankind:** The Area and its resources are considered the "common heritage of mankind." This principle emphasizes that the benefits derived from the exploration and exploitation of the resources in the Area should be shared equitably among all countries, regardless of their level of technological development or financial capability.[45] It may be concluded that respecting the concept of common heritage of mankind is a general obligation that all role players have to abide by.
3. **Freedom of the Seas:** The LOSC maintains the principle of freedom of the high seas, meaning that all states have the right to navigate, fish, conduct scientific research, lay submarine cables, and construct artificial islands within the Area.[46] It may be concluded

[43] LOSC, Preamble.

[44] Ibid, Article 140(1)

[45] Ibid, Article 140(2)

[46] Ibid, Article 87.

that all role players are under an international obligation to respect the freedom of the sea.

4. **Protection of the Marine Environment:** The LOSC includes provisions to ensure the protection and preservation of the marine environment in the Area. Activities in the Area must be conducted in a manner that avoids significant adverse impacts on the environment. Undoubtedly, this is a universal obligation. This customary law obligation will be further discussed. However, this is the foremost obligation in international law.
5. **Environmental Impact Assessments (EIAs):** The LOSC obligates states or entities to conduct Environmental Impact Assessments (EIAs) to assess the potential environmental consequences of their activities, prior to initiating any exploration or exploitation activities in the Area. [47] Conducting EIAs is another international law obligation that has a procedural status.

These are the core provisions of UNCLOS related to the Area. The convention seeks to balance the interests of states in exploring and exploiting the resources of the seabed with the obligation to protect and preserve the marine environment for the benefit of present and future generations. It should be re-emphasised that a deeper look inside these provisions demonstrates that they encompass core obligations. This is an important presumption that will help clarify the legal implication of Section 1(15)(c) in this thesis.

2.2.2 The Implementation Agreement of 1994 (IA)

The Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (The Implementation Agreement) was adopted in 1994 to address certain issues related to the deep seabed mining regime established under Part XI of UNCLOS. The Agreement was developed in response to concerns raised by some states, particularly developed countries, regarding the original provisions of Part XI.[48]

Here are some key provisions of the Implementing Agreement of Part XI:

1. **Financial Regime:** The Implementing Agreement modified the financial regime established under Part XI to ensure a balance between the interests of developing and developed countries. It introduced a new system of payment obligations for contractors

[47] Ibid, Article 206

[48] Implementation Agreement, Preamble.

engaged in deep seabed mining activities, with a focus on revenue-sharing and technology transfer to developing countries.[49]

2. **Protection of the Marine Environment:** The Agreement emphasizes the protection and preservation of the marine environment in the Area and requires contractors to conduct Environmental Impact Assessments (EIAs) before engaging in mining activities.[50]
3. **Review and Amendment:** The Implementing Agreement includes provisions for periodic reviews of the financial and payment regime, allowing for adjustments and amendments based on changing circumstances and experiences.[51]

The Implementing Agreement of Part XI aimed to address concerns and improve the functioning of the deep seabed mining regime established by the LOSC. It sought to strike a balance between the interests of different states, especially regarding the equitable sharing of benefits and technology transfer. However, the important aspect of the Implementation Agreement for this thesis is that it follows the obligations structured in the LOSC that facilitate the transfer of rights and obligations to prospective contractors seeking a balance between the protection of the marine environment and commercial interests.

2.2.3 Customary Law

One of the pithiest descriptions of customary law as a source of international law of the sea has been discussed by Redgwell. Redgwell discusses that while the vast majority of states' environmental rights and obligations are derived from freely agreed treaty obligations, it would be inaccurate to claim that no customary international law standards impact state activity. As a result of state practice, a variety of customary law principles have emerged. The most significant is the 'good neighbor' or 'no damage' principle, according to which governments have a responsibility to prevent, mitigate, and manage pollution and transboundary environmental impact. It has been mentioned in judicial decisions as well as soft law pronouncements. The common law requirement to consult and notify regarding potential transboundary impact is reinforced by state practice.[52] This conclusion by Redgwell clearly

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[49] Annex to Implementation Agreement, Sections 5 and 8.

[50] Ibid, Section 1(7)

[51] Ibid, Section 1(5)(d)

[52] International Environmental Law (Chapter 21), Redgwell, C. in Evans, M. D. (Ed.). (2003). *International law*. Oxford University Press, USA, 664

demonstrates that it can be claimed that the nature of customary law should be interpreted as inclusive of obligations. Otherwise, compliance with non-obligations or compliance with customary law makes no sense in a legal context.

2.3 International Jurisprudence

Pursuant to Article 38(1)(d) of the Statute of the ICJ, judicial decisions are subsidiary means for the determination of the law. Therefore, recognition of international environmental law obligations in the form of particular customs or principles are examples of that function.[53] In other words, international case law (or jurisprudence) is not a primary source of international law. It does not create any obligations, but as a complementary source, it plays an important recognitive role in international law of the sea, particularly regarding the content of environmental obligations in the form of norms and principles.[54]

Furthermore, having in mind the similarity and functions of norms and principles regarding environmental protections in international law with the norms or principles in the LOSC package deal, including the Implementation Agreement, international jurisprudence may affect the interpretation of Section 1(15)(c) of the Implementation Agreement by clarifying the content of the `norms` and `principles` in the Convention and the Agreement. The first legal basis mentioned in Section 1(15)(c) mentions the environmental RRPs adopted by the ISA in accordance with Article 145. As far as the ISA is concerned in that article, the ISA can include environmental obligations at its discretion that may not have even been mentioned in the LOSC, but they may be known in international law as norms and principles. Because Article 145 empowers the ISA to adopt necessary measures to prevent harmful effects from seabed mining activities.[55] As it has been discussed in the Gabkovo-Nagymaros case, the norms` and `principles` of the LOSC resemble international environmental law obligations.[56] Now, by invoking international jurisprudence, it may be certain that the terms norms` and `principles` in

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[53] Boschiero, N., Scovazzi, T., Pitea, C., & Ragni, C. (Eds.). (2013). *International courts and the development of international law: essays in honour of Tullio Treves*. Springer Science & Business Media, 67.

[54] Payandeh, M. (2010). The concept of international law in the jurisprudence of HLA Hart. *European Journal of International Law, 21*(4), 967-995.

[55] Markus, T., & Singh, P. (2016). Promoting consistency in the deep seabed: Addressing regulatory dimensions in designing the international seabed authority's exploitation code. *Review of European, Comparative & International Environmental Law, 25*(3), 360.

[56] Brandt, R. B. (1964). The concepts of obligation and duty. *Mind, 73*(291), 374-393; Perry, S. (2005). Law and obligation. *Am. J. Juris., 50*, 264; Supra Note 66, paras 140 and 141.

Section 1(15)(C) are a reiteration of obligations that may have been derived from international law. With this presumption about the content of international law, core obligations will be further discussed in the next chapters to ultimately be able to analyse the form and content of the legal basis enshrined in the so-called two-year rule.

3 CHAPTER THREE: PROCEDUAL OBLIGATIONS FOR COMMENCING DEEP SEABED MINING IN INTERNATIONAL LAW

3.1 The Legal Basis of the Obligations

The core of international law or any international treaty encompasses rights and obligations that are to be respected in good faith. Hence, it is not an error, if concluded that customary law and treaties are made of obligations that rights also derive from.[57] The LOSC is not an exception, and the environmental obligations comprise the basic frame of the legal regime of the Area, upon which the rights of states (and on behalf of the states, the contractors) can be based. In this regard, obligations in the Area concern two players, including the ISA and the states. Hence, in the next paragraphs, the content of obligations will be discussed.

3.2 The States` General Environmental Obligation

The Part XI of the LOSC does not have any indication of direct environmental obligations on states. The reason behind this seems maybe crystal clear, and that is because of the existence of the erga omnes obligations paved into Article 192 and the general obligation to protect and preserve the marine environment, the breach of which can lead to the international responsibility of states[58]. As a result, the introduction of any general environmental obligation on states in the Area could definitely have been fruitless and may have caused interpretative controversies.

3.3 The International Seabed Authority (ISA)`s General Environmental Obligation

As read in the text of Article 145 of the LOSC, a broad environmental obligation on the ISA has been included, the content of which can be best described as the environmental mandate of

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[57] Lukashuk, I. I. (1989). The principle pacta sunt servanda and the nature of obligation under international law. *American Journal of International Law*, *83*(3), 514.

[58] Responsibilities and obligations of States with respect to activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011 (SDC Advisory Opinion), p 10, para 180; International Law Commission, Articles on Responsibility of States for Internationally Wrongful Acts, reprinted in 'Report of the International Law Commission on its Fifty-third session', UN Doc A/56/10 (2001), Article 48.

the ISA.[59] This mandate functions as environmental enforcement of the LOSC, both legally and practically. This obligation, per se, creates a regulatory jurisdiction for the ISA that includes its environmental mandate, which enables the ISA to adopt RRPs and take any protective actions that are in contradiction to international law.

3.3.1 The Environmental Mandate of the ISA

As discussed by Joyer, protection and preservation of the marine environment and ocean space have enjoyed greater international agreement than any other issue in the law of the sea.[60] In this regard and as a part of this collective international agreement, the LOSC, which is called the constitution of the oceans in its preamble, and the Implementation Agreement play a huge role, in particular by conferring a broad mandate and discretion upon the ISA, including any measures aiming at the protection and preservation of the marine environment, the responsibility for equitable sharing of the financial and economic benefits derived from the Area, and the institutional management and administration of the Area.[61] Hence, the mandate of the ISA comprises not only the environment but also administrative matters related to the institution of the ISA and the Area.[62] The point may be that the ISA`s mandate has no limitation for controlling activities unless, being contrary to international law. in addition, not following international environmental oblations is a contrary point.

The division between environmental mandate and by the drafters of the LOSC has been deliberate and can be a sign of the importance of striking a balance between marine environment protection and commercial activities. As the terms `measures` and `marine environment` in Article 145 are broadly construed,[63] the ISA`s mandate covers any activity conducted in the Area, including all measures to protect the marine environment, prevent pollution,

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[59] Jaeckel, A. (2020). Strategic environmental planning for deep seabed mining in the Area. *Marine Policy*, *114*, 103423, 2.

[60] Joyner, C. C. (1995). The Antarctic Treaty System and the Law of the Sea-Competing Regimes in the Southern Ocean. *Int'l J. Marine & Coastal L.*, *10*, 301.

[61] UNCLOS Arts 160(2)(f)(ii), 162(2)(o)(ii); Annex III Article 17; See also the 1994 Agreement Annex ss 1, 6, 8, 9

[62] LOSC, Articles 145, 153 (1), 157 (1).

[63] Supra note 58, para. 10; Peter B Payoyo, Cries of the Sea: World Inequality, Sustainable Development and the Common Heritage of Humanity (Martinus Nijhoff Publishers, 1997), pages 334-337.

contamination, and other hazards to the marine environment, and conserve the natural resources of the Area and its flora and fauna. [64]

The important thing here is that the ISA`s mandate should be interpreted in a dynamic (and not static) manner that takes into account the growing concern for the global environment and covers both unlimited discretions to make rules and unlimited discretion to review rules.[65] This approach is in line with international jurisprudence. As discussed in the Gabkovo-Nagymaros Judgement, owing to new scientific insights and a growing awareness of the risks for mankind—for present and future generations—of the pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed and set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration and given proper weight, not only when states contemplate new activities but also when continuing with activities begun in the past.[66] Now, it can be presumed that the broad mandate of ISA entails a broad interpretation of the rules governing its jurisdiction, which will be discussed below in detail.

3.3.2 The Scope of the ISA`s Environmental Mandate

In the Area, the protection and preservation of the marine environment have two main players or pillars: the ISA`s obligations and the state parties' obligations, which are complementary to each other. In practice, both kinds of obligations are broad and need to be addressed in order to have a clear mandate and practicable obligations. Regarding the ISA, this happens through the elaboration and adoption of RRPs, and regarding the state parties, through the adoption of more detail-oriented legal documents.

In accordance with Article 145, the prevention, reduction, and control of pollution and other hazards to the marine environment and interference with the ecological balance of the marine environment, the protection and conservation of the natural resources of the Area, and the prevention of damage to the flora and fauna of the marine environment are included in the ISA`s environmental mandate. Jackael argues that Article 145 sets the framework for the environmental protection from seabed mining in the Area, provides guidance on the subjective environmental conservation objectives the ISA must adopt, and furthermore concludes that the

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[64] Declaration of principles governing the seabed and the ocean floor, and subsoil thereof, beyond the limits of national jurisdiction (17 December 1970), paragraph 11

[65] Implementation Agreement, Preamble.

[66] Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Award of 25 Sep 1997, para 140.

list of activities named in Article 145 is non-exhaustive.[67] This conclusion is a positive argument in favour of the broadness of the environmental mandate of the ISA, which can be further enshrined in the adoption of RRPs.

Moreover, in addition to article 145 of the LOSC, article 17(2)(f) of Annex III to the Convention further elaborates on environmental obligations in more detail, which supports Jaeckel`s argument about the non-exhaustive nature of article 145.

The broad and general mandate of ISA to protect and preserve the marine environment can be defended by two more arguments. First, LOSC puts no limitation on the obligations of ISA`s internal organs to adopt or review environmental measures. Article 162(2)(o)(ii) enables the council to adopt RRPs related to prospecting, exploration, and exploitation in the Area, and articles 165(2)(f) and (g) and 165(2)(e) give the legal and technical commission (LTC) the competence to formulate, submit, and make recommendations to the council for the protection of the marine environment while keeping environmental RRPs under constant review. Moreover, LOSC has a standard-setting role in environmental matters. Section 1(5)(g) enables the ISA to adopt RRPs incorporating applicable standards for the protection and preservation of the marine environment to later be followed by states parties. In this regard, articles 209 (1) and (2) are important. In accordance with article 209(1), RRPs shall be established in accordance with Part XI of the LOSC, and in accordance with article 209(2), states parties shall adopt laws and regulations no less effective than the international RRPs adopted by the ISA. In this article, there is also no imitation of environmental RRPs. This can be another argument in favour of the broad environmental mandate of the ISA. In addition, states parties that have jurisdiction to combat environmental pollution from seabed activities shall also adopt laws and regulations no less effective than international rules, standards, and recommended practices and procedures.[68] Article 208(1), while defining a broad obligation on states parties without any limitation, does not specify any content, but Article 208(3) employs a rule of reference.[69]

Wacht further argues that due to the requirement to respect an international minimum standard, states may be bound by international instruments they have not consented to. Nevertheless, this does not lead to a violation of the pacta tertiis rule because states, by becoming parties to

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[67] Jaeckel, A. (2015). *The International Seabed Authority and marine environmental protection: a case study in implementing the precautionary principle* (Doctoral dissertation, UNSW Sydney).

[68] LOSC, Article 208(1).

[69] Proelss, A. (2017). *United Nations Convention on the Law of the Sea: A commentary*. Nomos Verlagsgesellschaft.1435.

UNCLOS, voluntarily subject themselves to the terms of other treaties, so that they cannot be seen as third states to such instruments anymore. [70] As it is not logical that states adopt very different or even contradictory measures in the ISA, global rules regarding minimum instruments comprise the ISA`s RRPs. This approach can be confirmed by Article 31(3)(c) of the Vienna Convention on the Law of Treaties, which states that in interpreting the international rules, standards, practices, and procedures, ISA`s RRPs can be included in international law and state practice. [71] It is very important to shed light on the fact that the relationship between ISA's RRPs and broader international rules, standards, and procedures is interactive, and both revolve around the common pillars of due diligence and precaution. Because the core of environmental protection encompasses due diligence and precautionary approach is also an integral part of due diligence.[72] This is a good reason to consider the relationship between the ISA`s mandate and precaution in the next part.

3.3.3 The ISA`s Mandate and Precaution

Although the precautionary approach has not been directly named by the LOSC, it cannot be denied that it is one of the key elements of the legal regime for the protection of the marine environment. [73] As Judge Treves argues, the precautionary approach seems to be inherent in the very notion of provisional measures in the LOSC. [74] Because prudence and caution have always been factors in the conservation of the marine environment. [75]

In accordance with principle 15 of the Rio Declaration, in order to protect the marine environment, the precautionary approach shall be widely applied by states according to their capabilities[76]. Apart from the legal status of the Rio Declaration at the time of its adoption, the

[70] Supra note 69. 1435 1436

[71] Statute of the ICJ, Article 38(b).

[72] ICJ, Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment of 20 April 2010, para 956; Supra note 58, para 131.

[73] Southern Bluefin Tuna Cases (New Zealand v Japan, Australia v Japan) (Provisional Measures) (ITLOS Cases No 3 & 4, 27 August 1999) (Separate Opinion of Judge Laing), paragraph 17

[74] Southern Bluefin Tuna Cases (New Zealand v Japan, Australia v Japan) (Provisional Measures) (ITLOS Cases No 3 & 4, 27 August 1999) (Separate Opinion of Judge Treves), paragraph 9.

[75] Southern Bluefin Tuna case, para 77.

[76] Rio Declaration on Environment and Development, principle 15.

precautionary approach has been recognised by international jurisprudence[77] and practice,[78] and it is binding in the ISA`s Regulations.[79] It is now argued that treaties dealing with the environment should be interpreted wherever possible in the light of a precautionary approach, regardless of the date of their adoption.[80] In this regard, ITLOS in the SDC Advisory Opinion has directly supported the idea that the interpretation of a treaty including LOSC should include precautionary elements.

In practice, ISA, as the regulator and controller of the activities in the Area, has interpreted its mandate in accordance with Part XI based on precaution and applied it. The ISA`s RRPs, in the names of Polymetallic Nodules Regulations,[81] Polymetallic Sulphides Regulations,[82] and Cobalt-rich Ferromanganese Crusts Regulations,[83] oblige the contractors to apply a precautionary approach as reflected in principle 15 of the Rio Declaration. Moreover, with a closer look at the ISA`s decisions, it is inferred that the ISA has not only made reference to the precautionary approach in these regulations but also a precautionary structure. ISA has adopted a plan for the Clarion-Clipperton Zone to adopt protected Areas to ensure an ecosystem approach separate from LOSC. No activities can be conducted in the protected Areas, which

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[77] Supra note 66, para 113 and 140; Supra note 72, para 164.

[78] Convention for the Protection of the Marine Environment of the North-East Atlantic, Art 2; Fish Stocks Agreement, Article 5(c); OSPAR, Article 2; United Nations Framework Convention on Climate Change, Article 3; Convention on Biological Diversity preamble, para 9; Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Article 3; Convention on the Protection of the Marine Environment of the Baltic Sea Area, Article 3; Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, Articles 2 and 3; Convention on the Conservation and Management of High Migratory Fish Stocks in the Western and Central Pacific Ocean, Article 6; International Convention for the Conservation of Atlantic Tunas, Art 4; Convention for the Protection of the Marine Environment of the North-East Atlantic, Art 2; The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Articles 5(c) and 6.

[79] Supra Note 58, para 127.

[80] Whaling in the Antarctic (Australia v Japan: New Zealand intervening) (Judgment) (ICJ, 31 March 2014) (Separate Opinion of Judge Ad Hoc Charlesworth), paragraph 9.

[81] Supra note 22

[82] ISBA/16/A/12REV 1

[83] Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area (ISBA/18/A/11)

resembles a precautionary approach.[84] The application of the precautionary approach has been proposed as one of the fundamental policies and principles[85]. This approach is in line with the SDC Advisory Opinion, which allows for the precautionary approach to be among the most important of the direct obligations incumbent on sponsoring states. [86]

3.3.4 The ISA`s Mandate and Due Diligence

The Britannica World Language Edition of Funk & Wagnall's Standard Dictionary (1959) offers as one of five definitions of the adjective "due" the following: "Suitable; lawful; sufficient; regular" with a note to the effect that the root is the Latin verb "to owe". For "diligence" the same source gives us: "(1) Assiduous application; industry; (2) Proper heed or attention; meticulous care".[87] Similar to precautionary approach, due diligence can be attributed to both states,[88] and contractors.[89] Hence, in the context of DSM, it can be discussed in two different relationships: ISA-Sponsoring State and the ISA-Contractor's relationships.

On the side of state parties, it has been referred to as an obligation to act with due diligence in respect of all activities that take place under the jurisdiction and control of each party. It is an obligation that 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 undertaken by such operators, to safeguard the rights of the other party.[90] On the side of contractors, it implies the obligation to comply with the rules, regulations, and procedures adopted by the Authority to ensure effective protection for the marine environment and exercise reasonable regard for other activities in the marine environment.[91]

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[84]Preliminary strategy for the development of regional environmental management plans for the Area (ISBA/24/C/3): https://www.isa.org.jm/wp-content/uploads/2022/06/isba24-c3-e.pdf

[85] Draft regulations on exploitation of mineral resources in the Area (ISBA/25/C/WP.1), Article 2 (e)(ii)

[86] Supra note 58, para 122 and 127.

[87] VillAreal Jr, D. R. (1970). The Concept of Due Diligence in Maritime Law. *J. Mar. L. & Com.*, *2*, 765.

[88] The South China Sea Arbitration case (The Republic of Philippines v. The People's Republic of China), Award of 12 July 2016, para 959, 944 and 964.

[89] Supra note 85, Annex X Standard clauses for exploitation contract, Article 3.3(d)

[90] Supra note 72, case, para 197.

[91] Supra note 85, Annex X Standard clauses for exploitation contract, Article 3.3(d): https://www.isa.org.jm/wp-content/uploads/2022/06/isba_25_c_wp1-e_0.pdf

It is important to note that the legal basis of due diligence for state parties is different from that for contractors. In the view of this thesis, the imposition of due diligence obligations on the states parties derives from international law and RRPs as part of the LOSC, but due diligence obligations on contractors should be imposed as a contractual obligation, which refers to the RRPs. This is important. Without RRPs in force, it is not possible to demand and enforce due diligence obligations against contractors unless another form of legal basis could be taken advantage of. Another interesting point that can be discussed here is that one of the due diligence obligations of states parties to LOSC is to ensure contractors compliance with their obligations [92]. This is very debatable in the case that there are no RRPs adopted for further exploitation of the Area.

3.3.5 The Role of the ISA` RRPs in the Legal Regime of the Area

In 1969, the United Nations General Assembly (UNGA) passed a resolution that imposed a demand on states and individuals, whether they are physical or legal entities, to refrain from engaging in any activities involving the exploitation of resources found in the Area of the seabed, ocean floor, and its subsoil beyond the boundaries of national jurisdiction[93]. The UNGA resolution also explicitly stated that no claims to any part of that Area or its resources shall be recognized. This indicates that the resolution intended to impose a kind of moratorium, in line with Article 137(1) and (2) of the United Nations Convention on the Law of the Sea (LOSC), which essentially echoes the content of UNGA Resolution 2574D. One year later, UNGA Resolution 2749 further reiterated the stance by declaring that no state or individual, whether natural or legal, shall lay claim to, exercise, or acquire rights concerning the Area or its resources that are incompatible with the international regime to be established and the principles outlined in that declaration.[94] It is important to mention that, in the view of scholars such as Rothwell, the UNGA Resolution 2574 D is called the Moratorium Resolution. However, legal effect of this resolution to date can be contested.[95]

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[92] Supra Note 58, para 239; Stephens, T., & Hutton, G. (2010). What Future for Deep Seabed Mining in the Pacific. *Asia Pac. J. Envtl. L.*, *13*, 155.

[93] United Nation General Assembly, Resolution 2574D (15 Dec 1969), Article (a).

[94] United Nation General Assembly, Resolution 2749 (16 Dec 1970), Article (3).

[95] Rothwell, D. R., & Stephens, T. (2016). *The Law of the Sea*. London/Sydney: Bloomsbury-Hart Publishing, 234.

A closer comparison between the United Nations Convention on the Law of the Sea (LOSC) and the United Nations General Assembly (UNGA) Resolutions indeed indicates that the moratorium on activities of exploitation in the Area continues until the international legal regime is established. This implies that the prohibition on exploiting the resources of the seabed, ocean floor, and subsoil beyond national jurisdiction remains in effect until a comprehensive legal framework governing such activities is put in place.

The crucial question that arises is when the legal regime for the Area is considered to be established. The LOSC, after its adoption, provides a broad set of rules regarding the Area. However, it also incorporates rules of reference that point to the Regulations, Rules, and Procedures (RRPs) of the International Seabed Authority (ISA).

In essence, the ISA's RRPs play a significant role in shaping and implementing the international legal regime for the Area. As such, the establishment of the legal regime is not solely reliant on the adoption of the LOSC but also on the development and acceptance by the ISA of specific regulations, rules, and procedures to govern the exploitation of resources in the international seabed Area. Therefore, it may be concluded that until the ISA finalises and adopts these crucial RRPs and the international legal regime, especially for the implementation of articles 145 and 192, is completed, the moratorium on exploitation activities in the Area may remain in effect as per the UNGA resolutions and the LOSC's framework.

One reason that RRPs are the agreed method to complete the LOSC legal regime of the Area is that RRPs can be recognised as rules of reference. Rules of reference in the LOSC `require States parties to observe provisions contained in other treaties or standards adopted by international organisations, whether or not they are parties to those treaties or members of those organisations`.[96] In this respect, states may be bound by international instruments, including ISA`s RRPs, even if they have not directly consented to them. Nevertheless, this does not lead to a violation of the Pacta Tertiis rule. States, by becoming parties to UNCLOS, voluntarily subject themselves to the terms of other treaties, so they cannot be seen as third states to such instruments anymore.[97] It can be inferred that rules of reference play a somewhat complementary role.

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[96] , Rothwell, D., Oude Elferink, A. G., Scott, K. N., & Stephens, T. (2015). Oxford Handbook of the Law of the Sea, 31.

[97] Supra note 69, 1397.

As far as the area is concerned, the LOSC has established two systems of exploration and exploitation that may be regulated by international law and future RRPs. The ISA has only adopted the exploration RRPs. Hence, it may be concluded that the international regime in the area has been established but not completed, and the moratorium declared by the UNGA is still applicable. Because, in accordance with the LOSC, a completed regulatory framework is a prerequisite for the commencement of commercial-scale mineral exploitation, plans of work can be considered and approved.[98]

In the meantime, even some scholars like Singh demand the moratorium be declared by the ISA as one of its options after the invocation of the 2-year rule for precautionary reasons.[99] Although this reasoning does not take into account the aforementioned conclusion regarding the necessity of completion of the legal regime of the area as a prerequisite to the fulfilment of Article 145 and for the commencement of any exploitation activities, it does satisfy any precaution and prudence as well.

This conclusion has been debatable due to Section 1(15)(c) of the Annex to the Implementation Agreement 1994 and needs clarification, especially in the current time that Section 1(15)(c) has been invoked to the contrary by Nauru.[100] This section`s role in the legal status of the area regarding the commencement or non-commencement of DSM is undeniable but needs to be clarified. It seems certain that in the case of any legal controversy regarding this Section making the ISA unable to approve any plans of work, the moratorium can be invoked against states and their nationals.

Anyway, pursuant to the aforementioned Section, it can be justified that the ISA can invoke other forms of legal basis but with the same content, or better to say, with the same obligations corresponding to the core obligations in the Mining Code, commencement of the DSM can be expected. This topic will be covered in greater detail in Chapter 6. But before that, it is necessary to discuss the core environmental obligations that are common in exploration regulations, the LOSC, the Implementation Agreement, and customary law.

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[98] Supra note 67. 5.

[99] Singh, P. A. (2021). What Are the Next Steps for the International Seabed Authority after the Invocation of the 'Two-year Rule'?. *The International Journal of Marine and Coastal Law*, *37*(1), 161.

[100] Feichtner, I. (2019). Sharing the riches of the sea: The redistributive and fiscal dimension of deep seabed exploitation. *European Journal of International Law*, *30*(2), 630.

4 CHAPTER FOUR: PROCEDURAL OBLIGATIONS FOR COMMENCING DEEP SEABED MINING IN INTERNATIONAL LAW

4.1 The Obligation to Cooperate

`If due diligence is the first rule of transboundary environmental risk management, cooperation is the second`. [101] This statement by international scholars demonstrates the importance of cooperation as an obligation in the protection and preservation of the marine environment. Otherwise, any non-obligation nature of cooperation cannot be enforced against contractors or states and lacks legal value. As a result, breaches of cooperation cannot be subject to litigation. Moreover, in a legal context, non-obligations or ethical obligations play no role and should not be discussed.

Anyway, to find a better understanding of the obligation to cooperate, Principle 24 of the Stockholm Declaration also mirrors the same conclusion regarding the importance of cooperation. [102] Moreover, twenty years later, the 1992 Rio Declaration on Environment and Development has been developed based on cooperation among states to deal with pollution, employing the same concept. In other words, the Rio Declaration has based its structure on cooperation in order to fulfil its goals, which also consist of obligations. [103] The Rio Declaration has included notification in the concept of cooperation. This approach is in line with draft articles on the prevention of transboundary harm from hazardous activities, which include notification and consultations. [104]

In addition, and in a broader context, OCED member states from years ago have adopted resolutions that shed light on the importance of information and consultation.[105] This historical background is an example of the status of cooperation internationally. In the international law of the sea, it may be concluded that the LOSC has given cooperation an undeniable obligation status aimed at the protection and preservation of the marine environment.[106] Reading Article

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[101] Birnie, P., Boyle, A., & Redgwell, C. (2009). International Law and the Environment (3rd edn, Oxford University Press), 175.

[102] Declaration of the United Nations Conference on the Human Environment (1972), Principle 24.

[103] Rio Declaration on Environment and Development (1992), Principles 7, 9, 12, 13 and 27

[104] Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, Article 8 and 9.

[105] Recommendation of the Council concerning Information Exchange related to Export of Banned or Severely Restricted Chemicals, OECD Resolution C(71)73 (1971); Recommendation of the Council on Principles concerning Transfrontier Pollution, OECD Resolution C(74)224 (1974)

[106] LOSC, Article 197.

197 of the LOSC shows the importance of cooperation, the elaboration of structures, and the protection and preservation of the marine environment. It is now clear that the duty to cooperate is equally well established in international environmental law as the duty, or better to say, as an obligation to prevent harm.[107] This understanding of cooperation has also gained status as another global instrument for the conservation of biological diversity.[108] Apart from the importance of the obligation to cooperate at a global scale and among states, cooperation among states, cooperation among contractors, and the ISA have also been recognised as obligations. For instance, contractors shall cooperate with and assist in the inspection of any vessel or installation.[109] In another instance, cooperation in the establishment and implementation of programmes for monitoring and evaluating the potential impacts of the exploration for and exploitation of polymetallic nodules on the marine environment.[110] Hence, it is clear that cooperation among ISA and contractors is essential to the preservation and protection of the marine environment. Binding contractors with the obligation to cooperate in order to ultimately protect the environment has two preconditions. The first is to have RRPs for DSM, and secondly, there must be a contract that binds contractors based on reference to RRPs.[111]

4.2 The Environmental Impact Assessment

In the USA, there has been a regulation that requires any state or federal land management entity to consider the significant impacts of their actions or alternatives on other states or affected federal land management entities. If there is any disagreement on these impacts, a written assessment with views is prepared and included in a detailed statement known as the Environmental Impact Statement (EIS).[112] The EIS is considered the precursor to today's Environmental Impact Assessment (EIA).

This preliminary version of the Environmental Impact Assessment (EIA) imposes an obligation on the government to assess its actions' potential environmental impacts. Recognising the positive outcomes of the EIS, the international community adopted the Global Environment

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[107] Craik, N. (2020). The duty to cooperate in the customary law of environmental impact assessment. *International & Comparative Law Quarterly*, *69*(1), 246.

[108] United Nations Convention on Biological Diversity (CBD), Article 5.

[109] Supra note 22, regulation 14(4)(b).

[110] Supra note 22, regulation 5(2).

[111] Supra note 22, Standard clauses for exploration contract, section 13.

[112] United States National Environmental Policy Act of 1969, Sec 102. https://www.energy.gov/nepa/Articles/national-environmental-policy-act-1969

Assessment Programme (Earthwatch) in 1972, which included environmental assessment as a core concept. This approach was a response to the growing awareness among states about the increasing interactions between the environment and human activities.[113] However, the Stockholm Declaration, despite its principles 14 and 15, addressing environmental issues, did not directly mention the Environmental Impact Assessment (EIA) by name but rather included the conceptual components related to environmental assessment.[114] In fact, this regulation seems to have had the aim of creating productive and enjoyable harmony between man and his environment.[115]

In line with UNGA Resolution 2398, which recognised the correlation between development and environment,[116] forty-five states have ratified the Espoo Convention,[117] which underlies the interrelationship between economic activities and their environmental consequences.[118] It is a fact that, since the 1960s, states have gradually become aware of the seriousness of the environmental impacts of human activity on the environment.

Almost two decades later, the Protocol on Environmental Protection to the Antarctic Treaty regarding, in particular, the protection and conservation of the Antarctic and its resources entails conducting EIA under specific assessment procedures.[119] At the universal level, the LOSC in Article 206 and the Convention on Biological Diversity (CBD) have universally recognised conducting EIA as an obligation regarding any activities and projects that may have adverse effects on the environment.[120] The importance of EIAs as a procedural element in combating the marine environment has also been noted in negotiations around the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction. As it has been negotiated, part IV of the draft Convention on the Law of the Sea on the conservation and

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[113] United Nations Conference on the Human Environment, Report of the Conference A/CONF.48/14/Rev.1 (1972): https://www.un.org/en/conferences/environment/stockholm1972

[114] Epiney, A. (2021). Environmental impact assessment. *Max Planck Encyclopedia of Public International Law*.

[115] United States National Environmental Policy Act of 1969, Purpose.

[116] United Nations General Assemly Resolution 2398 (1968)

[117] https://unece.org/environment/press/unece-espoo-convention-environmental-impact-assessment-becomes-global-instrument

[118] Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), Preamble.

[119] Protocol on Environmental Protection to the Antarctic Treaty, Article 8.

[120] CBD, Article 14.

sustainable use of marine biological diversity in areas beyond national jurisdiction is about the obligation to conduct EIA.[121]

As Warner discussed, `the obligation to conduct EIA of activities with the potential for significant impact on the marine environment both within and beyond national jurisdiction has attained customary international law status.[122] Hence, this obligation must be fulfilled by states irrespective of the ISA`s RRPs. In this regard, a very important prerequisite to DSM is conducting EIA even if there are no RRPs for exploitation in force. Because, as discussed earlier, the negative environmental impacts of DSM are now beyond doubt, ITLOS in the SDC Advisory Opinion has also reiterated the customary status of EIA,[123] which is in line with the International Court of Justice (ICJ) in the Pulp Mills case when 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.[124]

As discussed by Sands and Peel, EIA is a mechanism for `ensuring the participation of potentially affected persons in the decision-making process`.[125] However, Craik represents the view that despite the EIA`s pedigree as a firmly established requirement in international law, the obligation to conduct EIAs remains controversial as both a conceptual and methodological matter. [126] Ultimately, it is worth noting that this obligation is now a part of the Mining Code regarding the exploration regulations.

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[121] Revised draft text of an agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of Areas beyond national jurisdiction, Part IV (Environmental Impact Assessment)

[122] Warner, R. (2012). Oceans beyond boundaries: environmental assessment frameworks. *The International Journal of Marine and Coastal Law*, *27*(2), 481; Supra note 72, para 204; Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica) (Merits) (Certain Activities/Construction of a Road Case) [2015] ICJ Rep 665, paras 104 and 153.

[123] Supra note58, paragraphs 145

[124] Supra note 72, para 204.

[125] Sands, P., & Peel, J. (2012). *Principles of international environmental law*. Cambridge University Press, 601.

[126] Craik, N. (2020). The duty to cooperate in the customary law of environmental impact assessment. *International & Comparative Law Quarterly*, *69*(1), 240.

4.2.1 The Environmental Impact Assessment and Precautionary Principle

Epiney in the Max Planck Encyclopaedia of Public International Law represents the idea that `the point of departure of environmental impact assessment (EIA) is the idea that the impact of (potentially) environmentally harmful projects should be analysed before the authorization of the project is granted, in order to be able to take a decision in view of all impacts of a project. In this sense, EIA is also a direct consequence of the precautionary principle and in order to prevent environmental harm, it is necessary to understand the environmental impacts of a project as early as possible.[127] This conclusion is in line with Jacekel`s description of how EIA is also closely linked to the precautionary principle. [128] Also, as Article 192 imposes a due diligence obligation on states,[129]the precautionary approach is an integral part of the due diligence[130]. As a result, a breach of the EIA can result in a breach of other obligations under the LOSC as well.

4.2.2 The Environmental Impact Assessment and the ISA

As discussed above, the obligation to conduct EIA is an obligation of customary international law and an obligation of due diligence.[131] This approach has been reiterated in the cases of Certain Activities/ Construction of a Road and Pulp Mills.[132]

Hence, with or without the adoption of RRPs and other domestic laws concerning the sea within or beyond national jurisdiction, EIA is a part of the general obligations of states,[133] to protect and preserve the marine environment and the living resources,[134] which apply to all planned activities under their jurisdiction irrespective of the place.[135] In order to have this general obligation of states fulfilled by contractors under the supervision of the ISA, Section 1(7) of the Annex to the Implementation Agreement imposes on the contractors the obligation to include EIA in their plans of work for approval by the ISA. This provision is derived from the general

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[127] Supra note 114.

[128] Supra note 67. 135.

[129] Supra note 88, para 959.

[130] Supra note 58, para 131.

[131] Supra note 58, Replies to Question 1 submitted by the Council

[132] Certain Activities/Construction of a Road Case, paras 104 and 153; Supra Note 72, para. 204

[133] LOSC, Article 192.

[134] Supra note 69, 832.

[135] Nordquist, M. H., Rosenne, S., Yankov, A., & Nandan, S. N. (1985). United Nations Convention on the Law of the Sea, 1982; a commentary. v. 4, 124.

obligation and is fully in line with LOSC. Hence, its legal basis is international law and broader concepts of LOSC, and therefore, it is not suspendable even if the legal basis is norms contained in LOSC. Moreover, it has roots in due diligence obligations, which restate it as an integral part of Article 192 and beyond the scope of application of specific provisions of the ISA`s Regulations.[136]

4.2.3 The Environmental Impact Assessment and RRPs

In addition to Section 1(7) of the Annex to the Implementation Agreement, which explains the obligation of contractors to conduct EIA, the Legal and Technical Commission (LTC) has a similar obligation to prepare assessments of the environmental implications of activities in the area.[137] ISA has not conducted any EIA on its initiative but has adopted Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area by the LTC.[138] Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area,[139] Regulations on prospecting and exploration for polymetallic sulphides in the Area,[140] and Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area contain provisions regarding conducting EIA by the contractors.[141] Although these endeavours of ISA are based on RRPs for exploration (not the exploitation phase), they well approve the notion that EIA is a very essential stage in taking the measures necessary to ensure effective protection of the marine environment from the harmful effects that may arise from activities in the area in accordance with articles 145 and 192 of the LOSC.

4.3 Monitoring

Another obligation that is separate but closely related and somehow complementary to conducting an environmental impact assessment is to monitor the environmental impacts constantly.[142] Although this obligation starts with the EIA, it continues with further assessments

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[136] Supra note 58, para 150.

[137] LOSC, Article 165(2)(d)

[138] Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area (ISBA/25/LTC/6/Rev.1)

[139] Supra note 22.

[140] Regulations on prospecting and exploration for polymetallic sulphides in the Area (ISBA/16/A/12/Rev.1)

[S] Supra note 83.

[142] Supra note 67. 140.

afterwards. Monitoring is part of the due diligence obligation of states to protect and preserve the marine environment.[143] Monitoring is also part of the universal regime against pollution in the LOSC. Article 204(1) obliges states to observe, measure, evaluate, and analyse the risks or effects of the pollution of the marine environment. As discussed earlier, EIA obligations have found a customary status in international law. Hence, it may be conceivable to state that monitoring obligations have also found customary status as part of EIAs. This is in line with the USA`s approach, which claims customary status for most of the LOSC. For this reason, monitoring can be a part of the general obligation of ISA in Article 145, which states in Article 192 to protect and preserve the marine environment. On the side of the ISA, article 165(2)(h) predicts an obligation on LTC to make recommendations to the council regarding the establishment of a monitoring programme and to measure, evaluate, and analyse the risks or effects of pollution from the activities in the ea. This article is a reason for the importance of monitoring the integrity of general environmental obligations.

4.3.1 Monitoring and Marine Protected Areas (MPAs)

Marine Protected Areas (MPAs) are spatially-delimited Areas of the marine environment that are managed, at least in part, for the conservation of biodiversity.[144] In this sense, it seems that EIA has found a new and undeniable use in the protection and preservation of the environment. By including these MPAs, it seems that the ISA has further developed the concept of EIA. In accordance with ISA`s Regulations for Exploitation, 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.[145] MPAs under the names of impact reference zones and preservation reference zones have been included by ISA in its mandate to protect the marine environment. `Impact reference zones` mean areas to be used for assessing the effect of activities in the area on the marine environment and which are representative of the environmental characteristics of the area. `Preservation reference zones` mean areas in which no mining shall occur to ensure a representative and stable biota of the seabed in order to assess any changes in the biodiversity of the marine environment.[146] These zones are now part of the

[143] Supra note 58, para 197.

[144] Edgar, G. J., Russ, G. R., & Babcock, R. C. (2007). Marine protected Areas. *Marine ecology*, *27*, 533-555.

[145] Supra note 140, Article 33(6)

[146] Ibid, Article 33(6)

ISA`s programme for environmental impact assessment in order to fulfil the general obligation to protect and preserve the marine environment. Because of this environmental inclusion, EIA and the aforementioned zones are also included in the draft regulations on the exploitation of mineral resources in the area prepared by the Legal and Technical Commission.[147] It seems that the exploitation regime of the area is not fully established or completed without the adoption of these zones.

4.4 The Equitable Sharing of the Financial Benefits of Seabed Mining

Another procedural obligation in the legal regime of the area is the obligation for the equitable sharing of the financial benefits of the area. This obligation is in line with the essence of the legal status of the area as the common heritage of mankind.[148] In accordance with Article 137(2), all rights in the resources of the area are vested in mankind as a whole. No state or natural or judicial person can claim, acquire, or exercise rights in the area; in other words, no activities can be conducted in the area unless in accordance with the RRPs of the ISA. One of the regulatory scopes of RRPs is the benefit distribution mechanism in the area to ensure that activities in the area are carried out for the benefit of mankind.[149] Consequently, the legal regime of the area shall include efficient rules regarding this essential aspect. This procedural obligation has two main sub-obligations. On the one hand, ISA has the obligation to adopt RRPs for the equitable sharing of financial and other economic benefits derived from activities in the area,[150] and on the other hand, states have the obligation to make payments and contributions. Moreover, regarding the developing states, benefit-sharing must account for the differentiated economic positions and capabilities of the populations of developing states and self-determining peoples.[151]

To put emphasis on the importance of this mechanism, it has been discussed by some legal scholars that beyond the detail of financial benefit sharing, however, an emerging approach that seeks to grant locations, habitats, and ecosystems `Rights of Nature` could bring a fundamentally different perspective to debates on deep-sea mining by enabling a re-evaluation

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[147] Supra note 85.

[148] Wilde, D., Lily, H., Craik, N., & Chakraborty, A. (2023). Equitable sharing of deep-sea mining benefits: More questions than answers. *Marine Policy*, *151*, 105572.

[149] LOSC, Article 140(1) and (2)

[150] LOSC, Articles 160(2)(f)(i) and 162(2)(o)(i)

[151] Supra note 148.

of the relationship between humanity and the natural world.[152] This approach explains that a right of nature framework would recognise the ocean as a rights-bearing subject rather than an object to be owned, controlled, and exploited.[153]

5 CHAPTER FIVE: SUBSTANTIVE OBLIGATIONS FOR COMMENCING DEEP SEABED MINING IN INTERNATIONAL LAW

5.1 Due Diligence Obligation as the Basis for Protection and Preservation of the Marine Environment

As discussed earlier, the protection and preservation of the area have three players: states, ISA, and contractors. The states are obliged by customary international law and Article 192 of the LOSC to protect and preserve the marine environment. ISA`s environmental mandate in accordance with Article 145 is also connected to member states' individual and collective obligations to protect and preserve the marine environment.[154] Because the ISA consists of states that are the real decision-makers in the ISA, like other international organisations. Hence, in consideration of the relationship between individual and collective functions of states in articles 145 and 192, two issues may be considered. First, the superiority of collective measures in the form of the ISA`s RRPs to individual measures of states in the area Because, as the text of Article 209(2) suggests, domestic laws can be no less effective than the ISA's RRPs. Secondly, it seems that due diligence can only be fulfilled if states follow the measures of the ISA. This can be justified by the nature of the general environmental obligation in Articles 145 and 192, which imposes an obligation of due diligence under the ISA.[155] Therefore, due diligence can also be attributed to the ISA`s RRPs regarding the states collective obligations in accordance with Article 194(1) of the LOSC.[156] Since the ISA is the only collective mechanism through which states can jointly take measures necessary to prevent, reduce, and control

[152] Miller, K. A., Brigden, K., Santillo, D., Currie, D., Johnston, P., & Thompson, K. F. (2021). Challenging the need for deep seabed mining from the perspective of metal demand, biodiversity, ecosystems services, and benefit sharing. *Frontiers in Marine Science*, *8*, 706161.

[153] Borràs, S. (2016). New transitions from human rights to the environment to the rights of nature. *Transnational Environmental Law*, *5*(1), 113-143.

[154] LOSC, Articles 194(1) and 192.

[155] Supra note 88, para. 959.

[156] Supra note 69, 1407.

pollution while satisfying the due diligence obligation, This understanding seems to be in line with Article 209(1) of the LOSC.[157]

The ICJ elaborates on the concept of due diligence to include 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,[158] that covers all living,[159] and non-living marine nature,[160] including rare or fragile ecosystems as well as the habitat of depleted, threatened, or endangered species and other forms of marine life.[161] Pursuant to Article 209(2), domestic laws shall be no less effective than the RRPs.[162] It is clear that article 209(2) has a presumption, and that is the adoption of RRPs. It can be concluded that, in accordance with LOSC, without the adoption of RRPs, the obligations of states cannot be fulfilled. But what if Section 1(15)(c) is invoked? Does this invocation make any changes to the structure of the LOSC regarding due diligence? In other words, how is due diligence justified? First of all, it is crystal clear that Section 1(15)(c) as a short section may not be providing any new environmental basis or even any new legal basis rather than a provision for invocation of international law directly. With this presumption, it can be concluded that Section 1(15)(c) cannot have any lessening effect on the due diligence obligations of states. But the aforesaid elaborations on the due diligence concept can definitely help in interpreting Section 1(15)(c). In the case that the ISA is considering the plans of work, the due diligence obligation of states can only be fulfilled when the norms and principles are elaborated by the ISA and then satisfied by the plans of work. Otherwise, due diligence obligations and the individual obligations of states cannot be fulfilled. Hence, collective obligations can only be satisfied in the form of the adoption of RRPs in the area or the interpretation of norms and principles at the discretion of the ISA, not contrary to LOSC and international law. The legal effect is that under the ordinary legal regime of the area, individual states cannot fulfil their environmental obligations individually. In other words, it seems that the regal regime of the area is not invocable for commencing DSM unless the ISA provides for RRPs, so-called provisional RRPs,

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[157] LOSC, Article 209(1).

[158] Supra note 72, para 197; Supra note 58, para. 131.

[159] ITLOS, Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures, Order of 27 August 1999, para. 70

[160] Supra note 69, 1287.

[161] LOSC, Article 194(5).

[162] LOSC, Article 209(2).

or the interpretation of norms and principles in Section at its discretion. Ultimately, it should be reconsidered that the content of principles and norms may not be different from international environmental obligations.

5.2 Preservation of the Marine Biodiversity and Ecosystems

Overexploitation, water pollution, fragmentation, and destruction or degradation of habitat are primary threats to the marine aquatic environment. Pursuant to the interconnectedness of waters, the occurrence of any of these challenges and risks in one geographical area can cause the same negative impacts on other areas, in particular the neighbouring ones. These factors are destructive to marine ecosystems and marine biodiversity.[163] With this background, the essence of the due diligence obligation enshrined in Article 192 and its customary nature may particularly cover the protection and preservation of marine ecosystems as well. Because if marine ecosystems are saved, the abiotic conditions of soil, air, and water, as well as the biotic conditions (biodiversity) at the ecosystem habitat, species community, and genetic level, are all inclusively protected.[164] Hence, this thesis claims that at the heart of Article 192 lies the obligation to protect and preserve marine biodiversity,[165] that definitely covers all the living resources as well.[166] As it was discussed in the Fisheries Jurisdiction case, conservation of living resources for the benefit of all has been recognised as an obligation in international jurisprudence.[167] In the Icelandic Fisheries case, the South China Sea case, and the LOSC case, it has been supported to have an obligation to cooperate for the conservation and sustainable use of marine ecosystems, biodiversity, and living resources.[168] Moreover, conservation of biological diversity has been introduced as a common concern of humankind.[169] Overall, the provisions of a growing body of global and regional treaties concerned with biological

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[163] Maxim, L., Spangenberg, J. H., & O'Connor, M. (2009). An analysis of risks for biodiversity under the DPSIR framework. *Ecological economics*, *69*(1), 19.

[164] European Environment Agency (EEA), 2007. Halting the loss of biodiversity by 2010: proposal for a first set of indicators to monitor progress in Europe. EEA Technical Report no. 11/2007. European Environment Agency, Copenhagen, p.13.

[165] Supra note 22, Regulation 1(3)(c)

[166] ITLOS, Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures, Order of 27 August 1999, ITLOS Reports (1999), 280, para. 70

[167] Fisheries Jurisdiction case (UK v Iceland), ICJ Reports (1974), para 72.

[168] Supra note 101, 139.

[169] The Convention on the Biological Diversity, Preamble.

diversity, wildlife, conservation, habitat protection, endangered species, specially protected Areas, and cultural and natural heritage suggest that conservation and sustainable use of natural resources and ecosystems have acquired a wider legal significance beyond that implied by the Icelandic Fisheries cases.[170] Now, it is beyond doubt that the core of the international obligation in both Articles 145 and 192 concerns primarily the living aspect of the environment. This may entail more detailed obligations on the prospective contractors that engage with DSM based on contractual obligations that bind them pursuant to their acceptance of agreements with the ISA. Although contractors cannot primarily be expected to have a role in this matter, as a result, the ISA is responsible for imposing the necessary obligations on the contractors for the exploitation phase as it has acted in the exploratory phase under the Regulations.[171] This conclusion, like the other conclusions in this thesis, may concern the legal effects of Section 1(15)(c) in clarifying the terms `provisional RRPs`, `norms, and `principles`. The unique obligation of the ISA to elaborate the environmental obligations to protect and preserve the marine ecosystems and biodiversity will result in a conclusion that enables the ISA to elaborate the norms and principles in that Section to cover the obligation to protect and preserve the marine ecosystems and biodiversity, and Section 1(15)(c) cannot be invoked until this obligation has been fully accomplished. In addition. Plans of work shall be inclusive of all necessary steps to ensure the protection of the marine environment, and the ISA has the only legal jurisdiction to verify the accomplishment of this task that has a contractual basis with the contractors. This legal fact can be applied by the ISA in interpreting Section 1(15)(c) in a way that shows Section 1(15)(c) should seek to follow the aforementioned international obligation regardless of the form of the legal basis. It seems that Section 1(15)(c) can only be of effect if it is interpreted in such a way that the international environmental obligations, including the preservation and protection of biodiversities and ecosystems, are included, regardless of the form of the basis.

5.3 The Precautionary Approach

Before elaborating on the precautionary approach as far as it can be contemplated to be related to the activities and DSM in the Area, it must be noted that the precautionary approach in connection with prospective contractors in the Area has a contractually binding status. Hence, abiding by this approach or principle is a contractual obligation for contractors.[172] This fact

[170] Supra note 101, 140.

[171] Supra note 22, Regulation 13.3(b)

[172] Supra note 22, Regulation 31(5)

may have other related legal issues, such as enforceability and the right to termination of the contract by the ISA as the obligee.[173] However, the precautionary approach has a broader role in relation to the ISA and the overall function of the legal regime of the area, such as regarding any proposed moratorium or the imposition of MPAs. It seems that the core of the approach or principle is applicable in both contexts. Basically, the precautionary principle is the idea that environmentally sensitive activities should be avoided and precautionary measures taken, even in situations where there is a potential hazard but scientific uncertainty as to the impact of the environmentally sensitive activity.[174]

In fact, the birthplace of this approach or principle as it is understood today can be traced to international law. In international law, the precautionary principle or approach was first elaborated as Principle 15 of the Rio Declaration. Pursuant to this principle, 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, a lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.[175] Although this clarification of the approach is broad and vague, it is clear that the precautionary principle or approach is now part of international law on sustainable use of natural resources, and its precise implications can only be understood in the context of specific treaties.[176] However, that broadness and vagueness should definitely be addressed by the ISA. Imposition of a contractual obligation on contractors without clarifying it may be the source of legal issues. Issues to be addressed may include a wide range of subjects, such as burden of proof and causation.[177] Moreover, other important issues that may be necessary to be addressed can include the scientific basis for predicting the possibility of harmful effects and reasons for applying the precautionary approach.[178]

It can be concluded now that precaution is not only an international obligation that ISA may respect in its decision-making process, including the DSM contracts, but also a contractual obligation on contractors. The implementation of this contractual obligation on contractors is

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[173] Supra note 22, Standard clauses for exploration contract, Section 21

[174] Schröder, M. (2021). Precautionary Approach/Principle. *Max Planck Encyclopedia of Public International Law*

[175] The Rio Declaration (1992), Principle 15.

[176] Supra note 101, 141.

[177] Ibid, 173.

[178] Ibid, 174.

conditional upon its elaboration by the ISA. It seems that DSM should be preconditioned upon such elaborations. While, in a no-doubt situation, the contractual obligation and the international obligation can be respected and implemented by the ISA and the prospective contractors, Ultimately, as discussed in the SDC Advisory Opinion, the precautionary approach is also an integral part of the general obligation of due diligence.[179] This conclusion may also relate fulfilment of due diligence obligation to satisfying the precautionary approach. In other words, due diligence obligation is not fulfilled, unless other requirements including implementing precaution has been respected. This conclusion may also be related to Section 1(15)(c). It seems that apart from the form of the legal basis, the result of the application of the Section should include the imposition of the precautionary principle as a contractual obligation on contractors.

5.4 The Obligation to Prevent Transboundary Pollution and Environmental Harm

Principle 2 of the Rio Declaration encompasses a general preventive obligation that may also be known as the duty to prevent.[180] Pursuant to this principle, states have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond the limits of their national jurisdiction. In Pulp Mills case, the ICJ recognised the principle as customary international law, which has its origins in due diligence.[181] It was also emphasised that this obligation is now part of the corpus of international law relating to the environment.[182] However, in the ITLOS Advisory Opinion on Responsibilities and Obligations in the Area, the Seabed Disputes Chamber noted that the content of due diligence obligations may not easily be described in precise terms since the concept is variable and may change over time, although the standard has to be more severe for the riskier activities.[183] Application of this international law obligation to contractors has already been given a contractual nature in the Exploration Regulations,[184] and is supposed to be included in the Exploitation Regulations.[185] The inclusion of this international obligation in

[179] Supra note 58, para. 131.

[180] Rio Declaration, Principle 2.

[181] Supra note 72, para. 101.

[182] Ibid.

[183] Supra note 125, p. 212; Supra Note 58, para 117.

[184] Supra note 22, Standard clauses for exploration contract, Section 5.

[185] Supra note 85, Regulation 49.

mining contracts is proof of its importance. Without doubt, it is now clear that DSM cannot be started unless this obligation, as well as other obligations in international law, has been included in contracts, regardless of the legal basis, the ISA is considering the plans of work on.

6 CHAPTER SIX: THE TWO-YEAR RULE

The key general environmental obligations in international law have been addressed and described in the preceding chapters. It should be now clear that because of their normative content and importance, they have also been introduced as contractual obligations in the Mining Code. The main reason for this conclusion is that, in accordance with Article 145 of the LOSC, those environmental obligations must also be applicable in the Area primarily through the RRPs, whether approved by the Assembly,[186] or adopted provisionally by the Council.[187] In other words, it seems that, in accordance with LOSC, the interpretation and detailing of those obligations that have already been formed in international law are at the discretion of the ISA in order to be adopted and adapted to the special circumstances and risks associated with exploration and exploitation activities in the Area. In this regard, it should be emphasised that this environmental role of the ISA entails the assumption of a science-based role.[188] This assumption can be based on the nature of article 145 and the inclusion of the Legal and Technical Commission[189] in the general role and decision-making processes within the ISA.

As previously concluded, the environmental obligations in the LOSC are only applicable to states under international law.[190] To the contrary, exploitation in the Area is supposed to be conducted by contractors that are not states and can include private entities as well. Contractors can, however, be subject to these obligations contractually if they sign exploration or exploitation contracts with the ISA. However, these contracts obligate the contractors to abide by the mandate of the ISA in a broader context, [191] rather than being solely a foundation for

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[186] LOSC, Article 160(2)(f)(ii)

[187] LOSC, Article 162(2)(o)(ii)

[188] Ginzky, H., Singh, P. A., & Markus, T. (2020). Strengthening the International Seabed Authority's knowledge-base: addressing uncertainties to enhance decision-making. *Marine Policy*, *114*, 103823, 2.; Lodge, M. (2009). International Seabed Authority. *Int'l J. Marine & Coastal L.*, *24*, 186.

[189] LOSC, Article 153(3)

[190] Vienna Convention on the Law of Treaties, Articles 6, 24, 26, 34

[191] UN General Assembly Resolution on Oceans and the law of the sea (Resolution A/RES/77/248 adopted by the General Assembly on 30 December 2022); Lodge, M. W. (2011). International Seabed Authority. *Int'l J. Marine & Coastal L.*, *26*, 469.

rights and obligations in the Area. Therefore, this thesis claims that science and scientific management are at the core of the ISA`s mandate. This means that, in consideration of the mandate of the ISA, a relative relationship between the adoption of RRPs and scientific understanding of the Area and associated risks can be found that can also encompass the precautionary principle as discussed earlier. [192] This understanding may alleviate the risks of information asymmetry (or asymmetric information) concerning the risk and the awareness of the risk in relation to the activities in the Area. To some degree, it is also in line with what economic analysis of law seeks, namely, the elimination of information gaps between science and the effects of activities that may be sources of risks.[193] Hence, science and discretion to adopt RRPs should both be included in the mandate of the ISA, and the inclusion of LTC can also be justified based on this reason. This conclusion about the application of primary international environmental obligations in the Mining Code can have a broader role for consideration of any proposed plans of work than the claim that Section 1(15)(c) of the Annex to the Implementation Agreement provides for two other legal bases rather than the LOSC in the case that Section 1(15)(b) is invoked.

Pursuant to Section 1(15), the Authority shall develop and adopt rules, regulations, and procedures based on the principles contained in Sections 2, 5, 6, 7, and 8 of the Annex, as well as any additional rules, regulations, and procedures required to facilitate the approval of plans of work for exploration or exploitation, in accordance with Article 162, Paragraph 2 (o) (ii) of the Convention.[194] According to the first part of Section 1(15)(a), the Council may undertake such elaboration any time it deems that all or any of such rules, regulations, or procedures are required for the conduct of activities in the Area, or when it determines that commercial exploitation is imminent. This provision is an exact reiteration of Article 145 that is in line with the science-oriented mandate of the ISA and places the elaboration and adoption of the RRPs at the full discretion of the ISA. This approach to seeking RRPs is also consistent with the Declaration of Principles Governing the Seabed and the Ocean Floor, and Subsoil thereof,

[192] UN General Assembly Resolution on Oceans and the law of the sea (Resolution 2574D adopted by the General Assembly on 15 December 1969)

[193] Bag, S. (2018). *Economic analysis of contract law: incomplete contracts and asymmetric information*. Springer.

[194] Section 1(15) of the Annex to the Implementation Agreement.

Beyond the Limits of National Jurisdiction, aiming at the completion of the Area's legal framework, which must be developed in accordance with the LOSC.[195]

But what happens if the RRPs are not adopted? In other words, what are the legal ramifications of failing to adopt RRPs for exploitative activities that must be carried out in compliance with the ISA's RRPs in a contractual framework? Can the delay in the adoption of science-oriented RRPs be a legal ground for the suspension of consideration of any plan of work or activities in the Area that is per se a right for states to be given effect in accordance with LOSC?

According to the second part of Section 1(15)(a), the Council may carry out such elaboration at the request of a state whose nationals intend to apply for approval of an exploitation plan of work.[196] As it will be discussed, this may not be an exception to the ISA's general jurisdiction, regarding the normal process for the adoption of RRPs, but for making the RRPs the legal basis for consideration, the approval of plans of works, and the signing of exploitation contracts. Furthermore, pursuant to Sections 1(15)(b) and (c) that encompass the so-called two-year rule, if a state mentioned in subparagraph (a) submits a request, the Council must adopt the rules, regulations, and procedures within two years, in accordance with the requirements of the Convention. But if the Council fails to finish the development of these regulations within the time frame indicated and there is a pending application for approval of an exploitation plan, the Council must still review and provisionally approve the plan. The approval will be based on the requirements of the Convention, any rules or processes that the Council has provisionally approved, as well as the norms, terms, and principles indicated in the Annex, as well as the principle of non-discrimination among contractors.[197]

Apart from the various degrees of legal uncertainty in the interpretation and application of the introduced legal bases, it is unclear whether this Section is also changing the ISA's environmental mandate, science-oriented role in the area, and the normal procedure and basis for adoption of RRPs in accordance with the LOSC, or if the implementation of this Section can result in the deployment of environmental obligations on the contractors. Moreover, it is unclear how the ISA can maintain its scientific role, which entails free hands for research and adoption of RRPs in accordance with the environmental baseline data in a progressive way.

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[195] Declaration of principles governing the seabed and the ocean floor, and subsoil thereof, beyond the limits of national jurisdiction, UNGA, UN Doc A/RES/2749(XXV) (17 December 1970)

[196] LOSC, Section 1(15)(a).

[197] Ibid, sections 1(15)(b) and (c)

In addition, it is undeniable that the two-year rule, which encompasses the second part of Section 1(15)(a), Sections 1(15)(b), and 1(15)(c), can also be subject to different interpretations with different implications, as discussed by Singh[198]. The author represents the idea that these questions could have been answered if any clarification of Section 1(15)(c) could have been reached to show integrity and unity among them in accordance with international obligations and legal techniques. Therefore, in this chapter and in the following paragraphs, sticking to the text of the Implementation Agreement and LOSC in accordance with Article 31(1) of the VCLT, it has been tried to deliver the least-doubtful implications that have a solid rather than rigid legal analysis from the perspective of the concept of obligation. The main question, however, is whether the two-year rule provides different or other types of legal obligations as the legal basis for contractors to abide by in their work plans in comparison with when there are RRPs adopted as the legal basis for consideration and approval of plans of work in accordance with ordinary procedure of the LOSC. In this regard, the general implications of the two-year rule, the relationship between the two-year rule and the mandate of the ISS, the content of the two-year rule, the relationship between the legal bases in the two-year rule, and related implications are to be discussed.

6.1 General Implications of the Two-year Rule

The first implication is that Sections 1(15)(b) and (c) have degrees of compelling and urging impact on the ISA to adopt the relevant RRPs for exploitation or approve work plans without the corresponding RRPs being adopted.[199] Although this is not in line with a general interpretative understanding of Part XI of the LOSC, in particular Articles 145 and 137(2) and (3), plans of work cannot be considered until the RRPs have been adopted and the legal regime of the Area has been fully created, following which the exploitation phase would then be permitted. As it can be inferred from the two-year rule, exploitation and exploitative activities can be started even without the adoption of the RRPs in accordance with the powers and

[198] Singh, P. A. (2022). The invocation of the 'Two-Year Rule'at the international seabed authority: legal consequences and implications. *The International Journal of Marine and Coastal Law*, *37*(3), 375-412.

[199] Singh, P. A. (2021). The two-year deadline to complete the International Seabed Authority's Mining Code: Key outstanding matters that still need to be resolved. *Marine Policy*, *134*, 104804, 1; Willaert, K. (2021). Under pressure: the impact of invoking the two-year rule within the context of deep sea mining in the Area. *The International Journal of Marine and Coastal Law*, *36*(3), 508.

functions of the Assembly,[200] but rather in accordance with the powers and functions of the Council or in accordance with norms and principles of the LOSC and the Implementation Agreement.[201] However, any type of RRP shall ultimately be based on obligations to be later enforceable by states, including those recognised in accordance with international law. The certainty is that no exploitation can start without compliance with international law obligations in terms of Section 1(15)(c). having this presumption, the text of the Section will be further discussed.

The Section 1(15)(c) provides two bases for plans of work to be considered and approved, which include:

a) The provisions of the Convention and any provisional Regulations, Rules, and Procedures (RRPs), and

b) the norms outlined in the Convention, the terms and principles mentioned in the Annex, and the principle of non-discrimination among contractors.

It may be concluded that the application of this section evades the Assembly-adopted RRPs for plans of work to be considered. But can it be inferred that these two bases evade the normal obligations as well? Because the yes or no answer may make the two legal bases closer to or farther from each other, In this regard, before delving into the matter of whether these bases encompass different contents or not, it is important to consider the relationship between the two-year rule and environmental mandate of the ISA and the temporal aspect of the RRPs.

6.2 The Relationship between the Two-year Rule and the Mandate of the ISA

As Section 1(15)(c) is read, the council `shall none the less consider and provisionally approve such plan of work based on the provisions of the Convention and any rules, regulations, and procedures that the Council may have adopted provisionally, or on the basis of the norms contained in the Convention and the terms and principles contained in this Annex, as well as the principle of non-discrimination among contractors`.

The imposition of a duty or the conferral of a discretion on the ISA by this Section is a contentious issue, with roots primarily in the words 'shall' and 'approve'. Because, as discussed earlier, the first part of Section 1(15)(a) is fully in line with Article 145 of the LOSC, which

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[200] LOSC, Article 160(2)(f)(ii)

[201] Ibid, Article 162(2)(o)(ii)

places the adoption of RRPs within the mandate of the ISA and at its discretion to treat timeliness without pushing to meet any pre-defined time limits. The difference is that when the timeliness is out of the control of the ISA, pressure limits the discretion and pushes forward even if it is undesirable or against the science-based core of the ISA`s mandate in accordance with the full discretion subject to Article 145 of the LOSC. In other words, this approach, instead of solving the asymmetric information issues, may make room for their ignorance.

It is important to emphasise that a lack of clarity regarding the legal basis for such review or approval and ambiguities regarding the legal effects of any provisional approval add to the section's vagueness and must be answered before any approval of plans of work in accordance with Section 1(15).[202] Because it seems that in ordinary process, subject to Articles 145, 160, and 162 of the LOSC, the legal basis to consider the plans of work encompasses the adopted RRPs, But, in accordance with Section 1(15), the ISA is forced to delve into international law, including the norms contained in the LOSC, if no provisional RRPs have been adopted. Therefore, at first, it may seem that ignorance of ISA`s discretion for the timeliness of adopting the RRPs is contrary to its environmental mandate. But it may be concluded that Section 1(15) is an exception to the approval of any plans of work in accordance with RRPs and not an exception to Article 145. By taking a deep look at Article 145, it seems that the obligation to `ensure effective protection for the marine environment from harmful effects` is legally different from the function to adopt appropriate rules, regulations, and procedures`. Therefore, Section 1(15)(c) and the two-year rule may not make any change to the environmental mandate of the ISA. This may result in the conclusion that the environmental interpretation of international environmental obligations in application of Section 1(15)(c) is at the discretion of the ISA. Moreover, `norms`, principles, or provisions in the LOSC and related documents definitely contain environmental obligations that require consideration and approval. Because of the legal nature of the basis, there should be an obligation to enable the ISA to assess it. This legal point can lead to the application of international environmental obligations in the interpretation of the terms `norms` and `principles`. Since then, it has also been the methodology of the Mining Code to encompass international obligations, as discussed in the preceding chapters.

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[202] Willaert, K. (2021). Under pressure: the impact of invoking the two-year rule within the context of deep sea mining in the Area. *The International Journal of Marine and Coastal Law*, *36*(3), 509.

6.3 The Content of the Two-year Rule

The LOSC describing the powers and functions of the Assembly and the powers and functions of the Council employ the word `to approve`, respectively. [203] Moreover, the term `to consider` has also been deployed in the LOSC. In addition, the terms `to disapprove` and `to reject` have been used by the LOSC. [204] Hence, the legal meanings and effects of these terms are known and can be discussed in accordance with Article 31(1) of the VCLT. These terms refer to the different and independent decisions that can be adopted in a decision-making process. It may be interesting to shed light on the fact that, according to the headings of articles 160 and 162, those decisions are prescribed within the powers and functions of the ISA`s internal organs and not described as mere obligations. The legal point here is that all these different terms are deployed following Article 160(2)(f)(ii). Pursuant to this Article, the Assembly shall consider and approve the RRPs of the Authority in on a non-discriminatory basis.[205] Having a broader view of these articles, the wording ` shall consider and approve` does not mean that the ISA shall approve them.[206] Moreover. It may be understood that `shall` refers to the consideration and not the approval.

With this short background in mind, Section 1(15)(c) can be re-considered in line with Article 31(1) of the VCLT. Concluding that following the process in the LOSC, in accordance with the Implementation Agreement, the council can disapprove a plan of work if certain circumstances are met.[207] Hence, the concept of disapproval is included in the Section. Moreover, Section 1(15)(c) employs `shall consider and approve` in the same way as Article 160(2)(f)(ii). In this regard, it may seem that the potentiality of disapproval in Section 3(11)(a) of the Annex to the Implementation Agreement is a logical consequence.[208] In addition, it seems that Section 1(15)(c) is not aiming at any amendment of the previously agreed structure of the LOSC. It may be concluded that Section 1(15) does not make any amendment to the application of

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[203] LOSC, Articles 160(2)(f)(i) and 162(2)(j)(i)

[204] Ibid, Articles 160(2)(f)(i), 162(2)(j)(i) and 313.

[205] Ibid, Article 140(2)

[206] Supra Note 69, 1142.

[207] The Implementation Agreement, The Annex, Section 3(11)(a)

[208] Singh, P. A. (2021). What Are the Next Steps for the International Seabed Authority after the Invocation of the 'Two-year Rule'?. *The International Journal of Marine and Coastal Law*, *37*(1), 164; Willaert, K. (2021). Under pressure: the impact of invoking the two year rule within the context of deep sea mining in the Area. *The International Journal of Marine and Coastal Law*, *36*(3), 510.

Section 3(11)(a)'s consideration process. Because, first of all, this Section is just describing the invocation of legal bases, and secondly, the decision-making process within the Authority and the legal basis of any consideration process in LOSC are subject to different provisions. As a result, expecting Section 1(15)(c) to change a legal structure does not seem logical. This means that Section 1(15)(c) does not even change the adoption procedure that LTC has been included in.

6.4 The Relationship between the Legal Bases Mentioned in Section 1(15)(c)

States are obligated to protect and preserve the marine environment. This is in line with the LOSC and international law, which place the primary obligation to protect and preserve the marine environment on states in accordance with Article 192 of the LOSC. The ISA`s obligation, on the other hand, is to ensure effective protection for the marine environment through the RRPs in accordance with Article 145. In other words, the ISA may be assumed to be the obligee of this obligation on behalf of the international community. But the question is: how can the ISA legally ensure the protection and preservation of the marine environment in the practice of contractors in a certain way? In this regard, understanding the law of obligations may be helpful in clarifying the answer.

As far as it is clear, prospective contractors are supposed to do the DSM only if they sign exploitation contracts with the ISA and gain rights.[209] Hence, in a mutual legal relationship that brings rights to the obligor, the obligee is owed obligations. Therefore, the only legal basis on which at least some legal certainty for the protection of the area should be expected is the obligation.

This discussion can be further elaborated if the role of Section 1(15)(c) is considered based on the concept of the obligation. Both the legal bases mentioned in that section are the legal bases that contractual obligations and enforcement should ultimately derive from. As a result, the legal nature of those legal bases should both consist of obligations. Legally speaking, otherwise, it would be impossible to derive obligations from. Moreover, the ISA has an obligation through Article 145, and those legal bases should be of the same nature to transfer the ISA's obligation into contractors` obligations.

As discussed earlier in the preceding chapters, in international law, there are a few obligations that the ISA is obligated to follow. The ISA is supposed to follow those core obligations through

[209] In the context of the law of Obligations, rights are gained through accepting to be obligated by obligations based on an agreement among parties, whether verbal or written.

the adoption of the RRPs. Consequently, if the RRPs are adopted, they should at least consist of those obligations. But, when the RRPs are not adopted, those obligations are to be followed and invoked as the legal basis in another legal form or forms. In international law, the obligation for protection and preservation of the marine environment has been introduced as a norm of international law, and in the South China Sea case, Articles 194(5) and 192 have been described as obligations to protect and preserve the marine environment. [210] In this regard, international environmental obligations seem to be described as norms of international law.

In this regard, although the meanings of "provisions," "norms," "terms," and "principles" are not explicitly defined in LOSC or the Agreement, which may add to their ambiguity, it may be that their legal nature and content should be described as like obligations.

Furthermore, it is important to note that both of these legal bases mentioned in Section 1(15)(c) are grounded in the United Nations Convention on the Law of the Sea (LOSC) as part of international law. As per Article 31(3)(c) of the Vienna Convention on the Law of Treaties, a treaty should be interpreted in accordance with international law. Since the LOSC is an integral part of international law, its various provisions, including the Implementation Agreement and its Annex, must be interpreted in harmony with each other. [211] Hence, clarification of these terms can also be based on their harmony as obligations. With this presumption, it is concluded that both legal bases in Section 1(15)(c) consist of obligations that are already known in international law regarding the protection and preservation of the marine environment.

On the other hand, the nature of RRPs is not permanent. Because it would not be consistent with the nature of Article 192, which is based on the due diligence obligation and is adaptive to different requirements, such as new scientific discoveries.[212] Therefore, the nature of the RRPs being adopted in accordance with the LOSC and the RRPs named in the Implementation Agreement should be provisional. Hence, from this temporal aspect, it may also be concluded that Section 1(15)(c) is not introducing any new type of RRP or making a division between permanent and provisional RRPs. Moreover, the ISA should follow the minimum international legal obligations for the protection of the marine environment. In addition, in Article 160(2)(f)(ii), the term `provisional` has been deployed without making a different legal effect on the content of the RRPs.

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[210] Supra note 69, 1340 and 1021.

[211] Implementation Agreement, Article 2.

[212] Supra note 58, para 117.

This may result in the conclusion that even Section 1(15)(c) is not introducing any new legal bases and that "provisional RRPs," provisions, norms," "terms," and "principles" should contain the same international core obligations. In addition, this thesis believes that the Section does not act as an exception that disregards those international law prerequisites and instead introduces new legal bases ignoring them and previous structures in the LOSC. Having reached this conclusion, if there is no difference in the two legal bases mentioned in Section 1(15) with each other or even with the RRPs named in the LOSC, while both should describe internationally recognised core obligations as prerequisites for the approval of plans of work and the commencement of DSM, the question can be asked as to why the Implementing Agreement has introduced two different wordings. Due to the fact that the author has not been able to find the negotiation records prior to the adoption of Section 1, the provision of a definite answer is almost impossible, but legally concluding, it seems that the use of the mentioned terminology in Section 1(15)(c) may not be of any substantive intention but maybe of a procedural intention. Since the ISA and contractors are not parties to the Convention. Therefore, they cannot invoke the Convention directly.[213]. In this regard, it seems that the reason behind using such terminology may have been to respect the international environmental obligations on the side of the ISA through exploitation contracts without being directly able to invoke the LOSC. While. The ISA and the contractors are not parties to the LOSC.

As a conclusion, it may seem that Section 1(15)(c) is not emphasising the two-year temporal element for further approval but, to the contrary, it is providing the legal basis afterwards.

6.5 Implications of the Invocation of the Two-year Rule

The legal effect of the legal discussions in the preceding chapters and paragraphs is that the Council is not obligated to approve the plans of work in the context of the two-year rule but is obligated to consider and declare if it cannot approve, and the legal provision has been provided for the consideration in Section. The only difference that Section 1(15)(c) seeks in comparison with Article 160(2)(f)(ii) is that the ISA can invoke international obligations directly rather than the self-adopted RRPs. This function is exactly in line with the environmental mandate in Article 145. In line with this conclusion, some scholars, including Willaert, represent the view that the duty of the Council to ‘consider and provisionally approve such a plan of work’ also

[213] Supra note 190.

entails the possibility of rejecting it.[214] Since automatic approval is contrary to the organisational discretion that has been conferred upon the ISA in accordance with Article 145 and is also contrary to the concept of obligation to consideration, the possibility to reject, or, in other words, to disapprove, the proposed plans of work In this regard, it can be finally concluded that, in the view of this thesis, Section 1(15)(c) should follow the mechanism of Article 160(2)(f)(ii) with only one exception, which is the ability to invoke international obligations directly.

7 CHAPTER SEVEN: CONCLUSION

This thesis has begun its text by introducing the general importance of the Area and then explaining the general legal framework in international law. In particular, environmental obligations that have already existed in international law are introduced. These obligations have been considered between states and the ISA, aware of the fact that the prospective contractors are supposed to conduct activities in the Area, and therefore, their practice will be the source of risks to the Area. Hence, it is important to consider the obligations in a way related to contractors. This necessity has a precondition, and that is finding a legal basis, through which the obligations from states will be transferred to individual contractors. In international law, the two-year rule is the legal foundation that the basis can be based on. However, this rule has been vague and subject to different interpretations. Since then, it seems that it has introduced other bases rather than the LOSC without clarification. In order to solve the case and find a legal clarification, this thesis tries to adopt a new analytical approach towards the two-year rule in such a way that the concept of obligation plays the leading role. This approach has a legal reason, and that is the enforcement of contracts. The thesis perceives that the application of the two-year rule is supposed to end up in the drafting of contractual obligations in the form of a legal agreement between the ISA and the prospective contractors after signing exploitation contracts. Hence, the ultimate result of the two-year rule is the production of obligations for such contractors. Based on the exploration regulations that are already in force, the ISA has adopted the obligations that have already been recognised in international law and given them contractual status. Moreover, on the one hand, states have a due diligence obligation to enforce contractors' obligations; on the other hand, the obligations and the legal basis are not clear. This

[214] Willaert, K. (2021). Under pressure: the impact of invoking the two-year rule within the context of deep sea mining in the Area. *The International Journal of Marine and Coastal Law*, *36*(3), 510.

thesis, with the presumption that all RRPs are of a provisional nature and therefore Section 1(15)(c) cannot be interpreted in a way that it is implied that a new sort of RRP is introduced, explains the reason why the Implementation Agreement has deployed the `norms` and `principles` alongside the RRPs and what may be their contents. Since, first of all, contractors are not members of the LOSC, and secondly, in the case that no RRPs are adopted, the legal gap for the conclusion of the contracts should be filled by another legal basis, which is desirably by the Section is the direct invocation of international obligations in the name of norms and principles. This conclusion is in line with exploration regulations that carry the same international environmental obligations as discussed earlier in this thesis. In this regard, in the case that the RRPs are not adopted and application of Section 1(15)(c) can be justified, the form of the legal basis may be transformed from RRPs to norms and principles, but the content should remain the same. This means that these so-called norms and principles are the legal basis for transferring international obligations to contractors through contracts. Hence, the legal implication of the two-year rule would not make any changes to the positive or negative decisions of the ISA and would not necessarily force the ISA to approve. Concerning this, even so, the similarity of the text of Article 160(2)(f)(ii) with Section 1(15)(c) has been considered in order to show that from the two bases in Section 1(15)(c) texts, only one intention can be expected. I believe that there is a non-legal reason behind the inclusion of norms and principles as a legal basis to bind contractors, and that is to provoke the states interested in the environment and the ISA to adopt the RRPs as soon as possible. However, this presumption will be correct if I believe that Section 1(15)(c) does not make any changes to the decision-making process regarding the RRPs and does not seek any other sorts of RRPs than what is meant by the LOSC.

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Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction.

8.3.1 The ISA`s Documents:

Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area (ISBA/25/LTC/6/Rev.1)

Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (ISBA/19/C/17)

Regulations on prospecting and exploration for polymetallic sulphides in the Area (ISBA/16/A/12/Rev.1)

Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area (ISBA/18/A/11)

Draft regulations on exploitation of mineral resources in the Area (ISBA/25/C/WP.1)

Standard clauses for exploitation contract in Draft regulations on exploitation of mineral resources in the Area (ISBA/25/C/WP.1)

Annex.to Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (ISBA/19/C/17)

Preliminary strategy for the development of regional environmental management plans for the Area (ISBA/24/C/3)

Standard clauses for exploration contract in Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (ISBA/19/C/17)

8.4 International Cases:

The South China Sea Arbitration case (The Republic of Philippines v. The People's Republic of China), Award of 12 July 2016.

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