

Legitimate Interest of Coastal States in Seabed Mining: Indonesia's Practice

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Abstract: This paper focuses on the utilization of sea mineral resources in areas within national jurisdiction and in the international seabed area (hereafter known as the Area). It discusses Indonesian laws relevant to seabed mining and the need for such laws to take into consideration the maritime zones and activities in the Area, as stipulated by UNCLOS 1982. This paper begins with the identification of potential sea minerals both within national jurisdiction and in the Area. Next, it analyzes the international legal framework on seabed mining, including a discussion on the meaning of "legitimate interests of coastal States" and on the participation of developing states in the Area, as stipulated in Article 142 and 148 of UNCLOS 1982. Then, the national legal framework relating to seabed mining is discussed. Using the juridical-normative method, this paper finds that Indonesia does not currently have comprehensive national regulations covering seabed mining within its jurisdiction and in the Area. Although there is a presidential decree on the exploitation of sea sand, it is limited to institutional arrangements and only focuses on sea sand. Thus, this paper recommends the formulation of national regulations regarding the use of the seabed, both within and beyond national jurisdiction.

Keywords: Deep-Sea Mining; International Seabed Authority; Mining; Offshore Mineral Mining

1. Introduction

As the largest archipelagic state in the world, having vast areas of sea, Indonesia has the advantage of owning the marine resources within its territory. The United Nations Convention on the Law of the Sea 1982 (UNCLOS 1982) instituted various maritime zones, where different degrees of coastal state authority exist.¹ Maritime zones arrangement gives coastal states sovereignty and sovereign rights over a certain amount of sea space along with the seabed and subsoil underneath. According to UNCLOS 1982, coastal states can exercise sovereignty over certain areas of the sea, including internal waters,²

¹ Oude Elferink A.G. and Rothwell, D.R (eds), *Ocean Managements in the 21st Century: Institutional Frameworks and Responses* (Leiden: Martinus Nijhoff Publishers, 2004); Robin Churchill and Vaughan Lowe, *Law of the Sea*, 3rd Ed. (Huntington: Juris Publishing, Inc, 1999)

² According to Article 8 of UNCLOS 1982, internal waters can be defined as waters on the landward side of the baseline of the territorial sea. There is no right of passage for foreign vessels, unless with prior authorization from the coastal state.

territorial sea³ and, in the case of an archipelagic state, archipelagic waters.⁴ Furthermore, UNCLOS 1982 also gives coastal states sovereign rights over certain areas of the sea, namely the contiguous zone,⁵ exclusive economic zone (EEZ)⁶ and continental shelf;⁷ coastal states have exclusive authority over the above areas only relating to exploration and exploitation of marine resources. The sea space beyond the EEZ is known as the high seas, and “no state may validly purport to subject any part of the high seas to its sovereignty.”⁸ Such legal regime also applies to the seabed and subsoil beneath the high seas, also known as the international seabed area (hereinafter referred to as “the Area”).

Since this paper is related to the utilization of marine mineral resources in the areas within Indonesia’s national jurisdiction and in the Area, which is beyond national jurisdiction, only offshore mineral mining regulations will be discussed. According to UNCLOS 1982, Indonesia’s sovereignty extends also to the seabed and subsoil beneath the sea space where Indonesia exercises its sovereignty, that is the seabed and subsoil beneath the internal waters, archipelagic waters and territorial waters. Furthermore, Indonesia also has sovereign rights to explore and exploit the seabed and subsoil beneath the sea space where Indonesia exercises its sovereign rights, that is beneath the EEZ and continental shelf. In addition to this, there are also provisions in UNCLOS 1982 concerning the exploration and exploitation of the Area that might affect the seabed and subsoil within national jurisdiction. While Article 148 of UNCLOS 1982 stipulates that the effective participation of developing states in activities in the Area shall be promoted, having due regard to their special interests and needs,⁹ Article 142 paragraph (1) of

³ It is the adjacent belt of the sea to the land territory and internal waters, and in the case of an archipelagic state, archipelagic waters go as far as a maximum of 12 nautical miles from the baselines. A coastal state might exercise sovereignty over its territorial sea subject to the convention and other rules of international laws. Such sovereignty extends to the airspace above the territorial sea as well as to its seabed and subsoil. See Article 2 and 3 of UNCLOS 1982.

⁴ It refers to the waters enclosed by the archipelagic baselines drawn in accordance with article 47, regardless of their depth or distance from the coast. See Article 49 paragraph (1) of UNCLOS 1982.

⁵ The coastal state may exercise control over this zone to prevent infringement on its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea; and to punish infringement on the above laws and regulations committed within its territory or territorial sea. See Article 33 of UNCLOS 1982. However, with regard to the sovereign rights that a coastal state has over the contiguous zone, it is submitted that the contiguous zone is considered as a part of the exclusive economic zone (EEZ). See: Dhiana Puspitawati, *Hukum Laut Internasional* (Jakarta: Prenada Media Group, 2019).

⁶ It is an area beyond and adjacent to the territorial sea which shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. In the EEZ, a coastal state has sovereign rights for the purposes of exploring and exploiting as well as conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds. See: Article 55-57 of UNCLOS 1982

⁷ It is the seabed and subsoil of the submarine areas that extend beyond the territorial sea throughout the natural prolongation of the land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance. In the continental shelf, the coastal state has sovereign rights for the purposes of exploring and exploiting natural resources. See Article 76 paragraph (1) and Article 77 of UNCLOS 1982.

⁸ Article 89 of UNCLOS 1982

⁹ Article 148 of UNCLOS 1982 on Participation of developing States in activities in the Area reads: “The effective participation of developing States in activities in the Area shall be promoted as specifically provided for in this Part, having due regard to their special interests and needs, and in particular to the special need of the land-locked and geographically disadvantaged among them to overcome obstacles arising from their disadvantaged location, including remoteness from the Area and difficulty of access to and from it.”

UNCLOS 1982 specifically concerns instances where mineral deposits are located across national jurisdiction and the Area.¹⁰ Since environmental concerns and potential harm affecting areas within national jurisdiction may arise as a result of activities in the Area, Indonesia's national laws relating to offshore mineral mining should cover mineral mining in the seabed and subsoil within national jurisdiction and activities in the Area.

This paper discusses Indonesian law relevant to seabed mining and the need for such laws to take into consideration maritime zones and activities in the Area, as stipulated in UNCLOS 1982. It begins with a brief description of potential sea minerals both within national jurisdiction and beyond, followed by an analysis of international legal framework in seabed mining, which includes a discussion on the meaning of "legitimate interest of coastal States" and on developing states' participation in the Area, as stated in Article 142 and 148 of UNCLOS 1982. This paper then discusses Indonesian legal framework relating to seabed mining. It argues that Indonesia should formulate a comprehensive national regulation covering seabed mining that applies to areas within its jurisdiction and to activities in the Area.

2. Method

This is a normative research using the statutory approach. Beside the statutory approach,¹¹ this research also uses existing principles in international law of the sea. The research, firstly, seeks to determine whether Indonesia has a comprehensive national law covering offshore mineral mining that applies to areas within its jurisdiction and to activities in the Area. Secondly, the research looks at how national offshore mining laws, which have provisions on the utilization of the seabed and subsoil beneath national jurisdiction, deals with activities conducted in the Area which might environmentally affect areas within national jurisdiction.

3. Potential Sea Minerals in Indonesia: Within National Jurisdiction and Beyond

The exploration and exploitation of sea minerals actually began long before the international community came up with the idea of producing comprehensive international regulations on the use of sea resources. The Challenger expedition of 1873–1876 found manganese nodules that form on rocks, plants and animals when mechanical erosion occurs in the sea.¹² These nodules when removed from the sea and processed become marine metals, which are very beneficial to human life.¹³ Also, in 1976, Murphy

¹⁰ Article 142 paragraph (1) of UNCLOS 1982 on Rights and legitimate interests of coastal States reads: "Activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such deposits lie.

¹¹ The statutory approach can be seen as one of the approaches in normative research methodology. See: J. Ibrahim, *Teori dan Metodologi Penelitian Hukum Normatif* (Malang: Bayumedia Publishing, 2006).

¹² Churchill, Lowe and Sander, *The Law of the Sea*, 4th Edition, Manchester University Press, 2021, 413

¹³ *Ibid.*

stated that the seabeds of the Pacific Ocean, Indian Ocean and Atlantic Ocean are completely covered with these manganese nodules.¹⁴

As an archipelagic state with vast areas of sea, Indonesia is advantaged due to its ownership of the natural resources contained within its sea space, both living resources and non-living resources.¹⁵ The potential marine resources under Indonesia's sovereignty as well as sovereign rights are very large. In addition, there is the potential of marine resources in the Area adjacent to Indonesia's national jurisdiction. Various minerals can be found in the sea, especially in Indonesian waters regardless of the depth. For instance, while hydrothermal vents (at ocean ridges) and seamounts might be found in the deep sea, minerals such as diamond, tin, phosphate, etc. are abundant in shallow waters. However, sulphides and crust are located in areas that are not as deep as the abyssal plains (nodules).¹⁶

Lelono argues that depositional environment can be divided into three, namely land, transitional space and the ocean. He further explains that in general, sediment deposition on the seabed is influenced by the source of the sediment, the distance from the source and the dynamics of the ocean itself, such as waves, currents, tides and so on. On the seabed, coarser sediments are found near land (sand, sandstone), while finer sediments are found towards the sea (clay, claystone).¹⁷ The seabed mineral resources found in the Indonesian territorial sea are in the form of placer deposits, which are deposits of minerals or rocks that have undergone weathering and transportation processes and are then deposited at a lower place. The most important placer deposit in Indonesia is tin deposit, found in the islands of Bangka Belitung and Singkep.¹⁸ However, hydrothermal indication can be found in Weh Island, Serui, and Eastern Indonesia; the seabed sediments and rocks collected around Serui contain rare earth metals.¹⁹ The map below shows the location of indications of mineral resources in the Indonesian territorial sea. The red box shows the islands of Bangka Belitung and Singkep, where the exploitation of placer tin deposits takes place, both on land and at sea. The yellow box is the location of hydrothermal research conducted by the Ministry of Energy and Mineral Resources (Aceh and Nusa Tenggara) in collaboration with relevant ministries/agencies.²⁰

¹⁴ J.M. Murphy, 'Deep-Ocean Mining: Beginning of a New Era' (1976) 8(1), *Case Western Reserved Journal of International Law*, 46-68.

¹⁵ Warner, Robin, *Legal Aspects of Sustainable Development: Protecting the Oceans Beyond National Jurisdiction. Strengthening the International Legal Framework*, Martinus Nijhof Publisher, 2019

¹⁶ Third meeting of the Global Ocean Commission, "Strengthening Deep Seabed Mining Regulation", November 2013; See also Putuhena, M Ilham F, "Urgensi Pengaturan mengenai Eksplorasi dan Eksploitasi Pertambangan di Area Dasar Laut Internasional," *Rechvindings*, v.8, n.2, August 2019

¹⁷ Lelono, Eko Budi, "Potensi Sumber Daya Alam di Perairan Nasional dan Internasional", Paper presented at *ISILL Talk Urgensi Pengaturan Terkait Penambangan Bawah Laut*, 15 September 2021

¹⁸ Miningsciencepedia, "Placer atau Aluvial", accessible online at <https://miningsciencepedia.blogspot.com/2011/10/placer-atau-aluvial.html>, accessed on 1 March 2022

¹⁹ See also Wibawa, Aria C, "An Analysis of the Marine Aggregate Extraction in Indonesia from Maritime Security Perspectives," *Proceedings of the 2018 International Conference of Energy and Mining Law*, 2018

²⁰ Ibid.

Figure 1. Location of indications of mineral resources in the Indonesian territorial sea²¹



Commercially, there are at least four types of marine minerals that can be found in the Area, namely polymetallic nodules (manganese), polymetallic sulphides, cobalt crusts and phosphates.²² The nodules contain many metals, including manganese, iron, copper, nickel, cobalt and zinc.²³ These minerals are found in the sea at a depth of 4,000 to 6,000 meters.²⁴ However, polymetallic sulphides can be found in the sea at a depth of about 1,000 to 4,000 meters.²⁵ Meanwhile, cobalt crusts can be found on the sides or on the top of sea mountains, at a depth of 800 to 2,500 meters. The Pacific Ocean, east of Japan, and the Mariana Islands are places that contain a lot of cobalt crusts. Phosphorite (or phosphates) is a group of calcium phosphates that are very useful in agriculture, usually found in the waters around Namibia and southeast of New Zealand.²⁶ While there is still so much more to be done in mapping the sea minerals found in Indonesian waters and the area adjacent to its national jurisdiction, it is certain that Indonesian seas contain a huge mineral potential, which should be used for the benefit of humankind in general and Indonesian people in particular.

Marine geological surveys and mapping have increased over the last decades, especially in relation to the search for mineral resources of strategic and economic value to support national development, which contributes to the increasing scarcity of terrestrial mineral and energy resources.²⁷ The Indonesian Agency for Marine Geology Research and Development Centre, also known as Badan Pusat Penelitian dan Pengembangan Geologi

²¹ Lelono, Eko Budi, "Potensi Sumber Daya Alam di Perairan Nasional dan Internasional", Paper presented at ISILL Talk Urgensi Pengaturan Terkait Penambangan Bawah Laut, 15 September 2021

²² Third meeting of the Global Ocean Commission, "Strengthening Deep Seabed Mining Regulation", November 2013

²³ PEW Charitable Trusts, 'A Fact Sheet from the PEW Charitable Trusts, Deep Sea Mining; The Basic', available at <https://www.pewtrusts.org/en/research-and-.../fact-sheets/.../deep-sea-mining-the-basics>, accessed 22 March 2021.

²⁴ Putuhena, M Ilham F, "Urgensi Pengaturan mengenai Eksplorasi dan Eksploitasi Pertambangan di Area Dasar Laut International (International Seabed Area)", *Jurnal Rechtsvinding*, v.8, n.2, August 2019, 167-183, 167.

²⁵ Nugroho, Arif Satrio and Putranti, Ika Riswanti, "International Seabed Regimes in Southeast Asia: The Lack of ASEAN's Member States' Role in Seabed," *Indonesian Perspectives*, v.3, n.1, 2018, 37-51, 38

²⁶ Ibid. See also Traversono, Valentina, "Deep Sea Mining: what is it and why should we care?" available online at <https://eco-nnect.com/deep-sea-mining/>

²⁷ Jannah, Aisyah Khairatul, "Potensi dan Ancaman Pertambangan Bawah Laut Indonesia," <https://geotimes.id/opini/potensi-dan-ancaman-pertambangan-bawah-laut-di-indonesia/>, accessed on 27 September 2023

Kelautan (PPPGL), stated that there are at least 128 sedimentary basins in Indonesia. This agency has conducted various mapping exercises as well as research relating to exploration and exploitation of sea non-living resources.²⁸

4. International Legal Framework on Seabed Mining

The United Nations Convention on the Law of the Sea 1982 (UNCLOS 1982) is an international convention that accommodates the interests of different groups of countries regarding the use of the sea. These conflicting interests are actually not easy to accommodate, but UNCLOS 1982 managed to accommodate them, which is the hallmark of UNCLOS 1982.²⁹ Significant provisions of UNCLOS 1982, which can be considered as a breakthrough of the development of the law of the sea, are the provisions relating to the arrangement of maritime zones. Based on the existence of maritime zones as stipulated by UNCLOS 1982 and as explained earlier in this paper, coastal states have the right to explore and exploit the seabed beneath the sea space under their sovereignty. This right also extends to the seabed beneath the sea space under the sovereign rights regime, known as the continental shelf³⁰ of coastal states.

At this point, it is necessary to briefly explain the similarity and differences between the EEZ and continental shelf. The similarity is associated with the legal regime governing the EEZ and continental shelf, which is the sovereign rights regime. The coastal state's sovereign rights over both the EEZ and continental shelf are exclusive: to explore and exploit natural resources contained therein. No state can explore and exploit those natural resources without the coastal state's consent.³¹ However, the sovereign rights over both the EEZ and the continental shelf have their limits, which is respect for navigational rights and other rights as stipulated in UNCLOS 1982.³² On the other hand, the difference between the EEZ and continental shelf is that the EEZ is dependent upon proclamation, while the continental shelf is not. Therefore, the sovereign rights over the continental shelf are inherent.³³ Furthermore, while the continental shelf only concerns the seabed and subsoil, the EEZ includes the water column. In addition to this, while the maximum extent of the EEZ is 200 nautical miles, the continental shelf may extend beyond 200 nautical miles from the baselines, depending on the depth, shape as well as

²⁸ For details of activities and programmes that has been conducted by Indonesia, see the Agency website at <https://mgi.esdm.go.id/2022/06/08/kegiatan/>

²⁹ It represents the "package deals" nature of UNCLOS 1982. For further discussion on the "package deals" nature of UNCLOS 1982, read D. Puspitawati, *The Concept of an Archipelagic State and its Implementation in Indonesia*, Unpublished Ph.D Dissertation, Business, Economic and Law Faculty, School of Laws, University of Queensland, Australia, 2008. Read also Agoes, Eddy, R, *Konvensi Hukum Laut 1982: Masalah Pengaturan Hak Lintas Kapal Asing* (1991)

³⁰ Article 76 paragraph (1) of UNCLOS 1982 reads: "The continental shelf of a coastal state comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.

³¹ International Law Commission, *Yearbook of the International Law Commission 1956*, UNCLOS 1982, Article 77 paragraph (2).

³² Article 78 paragraph (2) of UNCLOS 1982.

³³ Schofield, Clive and Arsana, Made Andi, "*Beyond the Limits?: Outer Continental Shelf Opportunities and Challenges in East and Southeast Asia*", *Contemporary Southeast Asia*, v.13, n.1, 2009, p.1

geophysical characteristics of the seabed and subsoil.³⁴ The continental shelf that extends beyond 200 nautical miles is known as extended continental shelf (ECS). There are differences between a continental shelf within the limit of 200 nautical miles and that beyond 200 nautical miles. Given that the sea space within 200 nautical miles consists of the territorial sea, contiguous zone and EEZ, coastal states can exercise their sovereignty and sovereign rights on the water column within 200 nautical miles. Therefore, coastal states have the right to explore and exploit the seabed up to 200 nautical miles, and so their national laws may regulate the exploration and exploitation of natural resources contained therein. Similarly, Catherine and Roux stated that “[s]eabed mining applications that fall within a country’s EEZ (within national jurisdiction) are regulated by that country’s domestic law.”³⁵ The table below illustrates the similarities and the differences:

Table 1. Similarities and differences between EEZ and Continental Shelf

Type	EEZ	Continental Shelf
Legal Regimes	Sovereign rights	Sovereign rights
Scope of coastal States’ sovereign rights	Explore and exploit living resources	Explore and exploit non-living resources
Claim	Upon proclamation	Inherent
Areas of concerns	Water column	Seabed and subsoil
Limit	Maximum of 200 nautical miles from the baselines Note: In the case of ECS, the water column above the ECS is under the regime of the high seas	Below the EEZ and, accordingly, may be extended to a maximum of 350 nautical miles under certain conditions and known as Extended Continental Shelf (ECS)

Meanwhile, the sea space beyond 200 nautical miles, above the ECS, is known as the high seas, where no state can exercise its jurisdiction. The ECS is, therefore, not an extension of the EEZ.³⁶ Some of the coastal state’s sovereign rights over the EEZ, especially the right to the resources of the water column (e.g., pelagic fisheries), cannot be applied in the ECS. However, sedentary species found beyond 200 nautical miles can be considered as part of the continental shelf. Thus, activities in the Area are governed by UNCLOS 1982 and regulated by the International Seabed Authority (ISA).³⁷ While seabed mining within national jurisdiction is clearly regulated by UNCLOS 1982 under the regime of sovereign rights, seabed mining conducted beyond 200 nautical miles needs further arrangement.

³⁴ Article 57 of UNCLOS 1982 and Article 76 paragraph (4) and (5) of UNCLOS 1982.

³⁵ Catherine, Horsfield and Roux, Saul, “Review of National Legislations Applicable to Seabed Mineral Resources Exploitation,” in Banet, Catherine, *The Law of Seabed: Access, Uses and Protection of Seabed Resources*, Brill Nijhoff, 2020, 311.

³⁶ Krisadtyo, Nikki, “Extended Continental Shelf Regime in International Law: Its Application in Indonesia”, *Jurnal Hukum Internasional*, v.12, n.3, April 2015, 319-320.

³⁷ See also Dingwall, J, “Commercial Mining Activities in the Deep Seabed Beyond National Jurisdiction: The International Legal Framework”, in Banet, Catherine, *The Law of Seabed: Access, Uses and Protection of Seabed Resources*, Brill Nijhoff, 2020, 139

Another difference between the continental shelf within the limit of 200 nautical miles and the ECS is seen in Article 82 of UNCLOS 1982. According Article 82 of UNCLOS 1982, if coastal states wish to conduct activities relevant to exploration and exploitation of the ECS, payment should be made to the International Seabed Authority (ISA). Nikki elaborates the rationale behind the payment which should be made to the ISA, in case ECS exists.³⁸ Since activities in the Area are governed by the ISA under the mandate of UNCLOS 1982, the existence of the ECS is considered an incursion Area, which is supposed to fall under the ISA's jurisdiction. Therefore, if the coastal state wishes to explore and exploit its ECS, it has to pay a certain amount of money to the ISA. Also, the arrangement provided by Article 82 of UNCLOS was formulated based on the consideration of the legal regime of the Area, which is a common heritage of mankind, so any activities in the Area should contribute to the welfare of mankind.³⁹ In this regard, it is questionable whether it is beneficial for a coastal state to claim its ECS. Although a coastal state is entitled to its ECS, would it be better if such ECS remains unclaimed, considering Article 148 of UNCLOS 1982, which prescribes developing states' participation, especially the participation of land-locked states and geographically disadvantage states, in the activities conducted in the Area? Article 148 of UNCLOS 1982 concerning the participation of developing states in the activities in the Area reads:

“The effective participation of developing states in activities in the Area shall be promoted as specifically provided for in this Part, having due regard to their interests and needs, and in particular to the special need of the land-locked and geographically disadvantage among them to overcome obstacles arising from their disadvantaged location, including remoteness from the Area and difficulty of access to and from it.”⁴⁰

The seabed mining conducted within national jurisdiction (that is up to 200 nautical miles) should also take into consideration the activities conducted in the Area (that is beyond 200 nautical miles / beyond national jurisdiction). This is because it is possible for mineral deposits to be found in a location across national jurisdiction and the Area. In that case, environmental issues and other potential harm arising from activities in the Area might affect the areas within national jurisdiction. Article 142 of UNCLOS 1982 on the rights and legitimate interests of coastal states anticipated such possibility and made some declarations to preserve the rights and legitimate interests of coastal states. The article states as follows:

“Activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal state across whose jurisdiction such deposits lie.”⁴¹

It is clear from the above that while Article 142 of UNCLOS 1982 acknowledges the rights and legitimate interests of coastal states in cases where resource deposits in the Area lie across the limit of national jurisdiction, unfortunately, UNCLOS 1982 is silent on the mechanism of enforcing the rights and legitimate interests of coastal states. Thus, it is

³⁸ Krisadtyo, Nikki, “Extended Continental Shelf Regime in International Law: Its Application in Indonesia”, *Jurnal Hukum Internasional*, v.12, n.3, April 2015, 319-320.

³⁹ Ribeiro, Martha Chantal, “What is the Area and International Seabed Authority?” *l’Institut Océanographique*, 2013, p. 1-3.

⁴⁰ Article 148 of UNCLOS 1982.

⁴¹ Article 142 of UNCLOS 1982

argued that the national law of a coastal state regulating seabed mining within national jurisdiction should also consider measures to be taken by the coastal state if any activities in the Area affect national jurisdiction, i.e., with regard to potential harm and environmental issues.

Furthermore, Article 153 of UNCLOS 1982 stipulates that such activities should be conducted in association with the ISA. Although the existence of national legislation as well as administrative measures are not required to conclude a contract with the ISA, there are some requirements: obligation to apply a precautionary approach, obligation to apply best environmental practices, obligation to provide guarantees in the event of an emergency order by the Authority for protection of the marine environment and obligation relating to providing compensation. It can be said that such obligations implicitly require a state to enact a specific national legislation on its participation in conducting seabed mining. In addition to this, the existence of national laws is also needed pursuant to Article 148 of UNCLOS 1982 on the rights and legitimate interest of a coastal state.

It is further submitted that the rights and legitimate interests stipulated in Article 148 of UNCLOS 1982 cannot be separated from the fact that the legal regime regulating the Area designates it as a common heritage of mankind (CHM). It should be noted that similar to *res communis* (shared ownership),⁴² under the CHM principle, the usage of such resources is free and open to all states. Under the CHM principle, since the ownership is bestowed on mankind, the gains of such exploitation cannot be enjoyed solely by the party exploiting the resources. Thus, the usage of resources under the CHM principle would need approval from mankind, which in this context is represented by the parties of the Convention. In this regard, relating to non-living resources in the Area, mankind is represented by the ISA. CHM is also known as *res communis humanitatis*, that is property of mankind.⁴³ Thus, CHM can be seen as *restricted res communis*, which exists to guarantee the distribution of the gains of resource exploitation and usage. Its existence was encouraged by the desire to achieve equal access to resources. The CHM principle requires approval from the representative of mankind to use the resources in question.

5. National Legal Framework on Seabed Mining

Located at the intersection of the Ring of Fire and the Alpide Belt,⁴⁴ Indonesia has abundant mineral resources, including tin, gold, natural gas, coal, nickel, and copper. Silver, bauxite, and petroleum are also available in smaller quantities.⁴⁵ Globally, the

⁴² Waseem Ahmad Qureshi, "Protecting the Common Heritage of Mankind beyond National Jurisdiction," *Arizona Journal of International and Comparative Law*, v. 36, n. 1 (2019), 82.

⁴³ Nicolas Zorzin, "Privatization of a Common? A Focus on Exit Festival," dalam *Petrovaradin: Managing Historic Urban Landscapes* (Serbia: Dossier, 2019), 108–11.

⁴⁴ The term Alpide Belt refers to the geographical region of southern Eurasia. This area is prone to earthquakes and is the second most active area for seismic activity in the world. In fact, the Alps belt accounts for 15% of all earthquakes in the world.

⁴⁵ Putuhena, M Ilham F, "Urgensi Pengaturan mengenai Eksplorasi dan Eksploitasi Pertambangan di Area Dasar Laut International (International Seabed Area)", *Jurnal Rechtsvinding*, v.8, n.2, August 2019, 167-183, 168; see also Jannah, Aisyah Khairatul, "Potensi dan Ancaman Pertambangan Bawah Laut Indonesia," <https://geotimes.id/opini/potensi-dan-ancaman-pertambangan-bawah-laut-di-indonesia/>, accessed on 27 September 2023

country is major producer of copper, nickel, and gold. In the management of natural resources, Indonesia refers to the Indonesian Constitution of 1945 (hereinafter referred to as the 1945 Constitution).⁴⁶ According to Article 33 paragraph (3) of the 1945 Constitution, the land, waters and natural resources contained therein should be used for the welfare of Indonesian people.⁴⁷ With regard to the exploration and exploitation of mineral resources, Indonesia proclaimed the Indonesian Law Number 4 Year 2009 on Minerals and Coal (Mining Law 2009). This law was further revised by the Indonesian Law Number 3 Year 2020 on the revision of Indonesian Law Number 4 Year 2009 on Minerals and Coal (Mining Law 2020). In addition to this, there is also the Indonesian Law Number 22 Year 2001 on Oil and Natural Gas (hereinafter refers to Oil and Natural Gas Law 2001). However, the process to revise this law commenced since 2011 through the Draft Revision of Indonesian Law Number 22 Year 2001 on Oil and Natural Gas (Draft Revision on Oil and Natural Gas Law). Unfortunately, at the time of writing this paper, no progress has been made on the draft revision.

In general, both Mining Law 2009 and 2020 do not specifically provide a legal framework for seabed mining within national jurisdiction and beyond. However, Article 6 paragraph (f) and Article 7 paragraph (1) (b) of Mining Law 2009 regulate the authority of the government to issue mining business licenses, which cover a sea space of up to 12 nautical miles from the coastline (for provincial government) or 4 nautical miles (for district/city government). The government is also authorized to assist and resolve community conflicts as well as supervise mining businesses. The above sea space division is a reference to Indonesian Law Number 27 Year 2007 relating to Coastal Management and Outer Islands (Coastal Management and Outer Islands Law 2007). However, the Coastal Management and Outer Islands Law 2007 has been replaced by Indonesian Law Number 1 Year 2014 on the Revision of Coastal Management and Outer Islands Law, and the sea space division has been removed.

The new law, nonetheless, only removed the authority of the district/city government to manage the sea space of 4 nautical miles from the coastline, while the management of 12 nautical miles of sea space remains under the authority of the provincial government. In the process of enacting Mining Law 2020, seabed mining activities were actually raised and discussed within the text consideration stage. However, when this law was enacted, there was not a single article on seabed mining within national jurisdiction or beyond. This is related to the elimination of the district/city government authority to manage 4 nautical miles of sea space. Nonetheless, the authority of the provincial government over 12 nautical miles of sea space remains, as stated in Article 27 paragraph (3) of Indonesian Law Number 23 Year 2014 relating to Regional Government (Regional Government Law 2014), as follows:

⁴⁶ The 1945 Constitution of the Republic of Indonesia as amended by the First Amendment of 1999, the Second Amendment of 2000, the Third Amendment of 2001 and the Fourth Amendment of 2002

⁴⁷ Article 3 paragraph (3) of the 1945 Constitution of the Republic of Indonesia as amended by the First Amendment of 1999, the Second Amendment of 2000, the Third Amendment of 2001 and the Fourth Amendment of 2002 reads: "The land, the waters and the natural resources within shall be under the powers of the State and shall be used to the greatest benefit of the people."

“The authority of the Provincial Government to manage ocean natural resources as referred to in paragraph (1) covers a maximum of 12 (twelve) nautical miles measured from the coastline towards the high seas and/or towards the archipelagic waters.”⁴⁸

Initially, the measurement of 12 nautical miles from the coastline raised questions. The explanatory section of Regional Government Law 2014 stated that “the coastline refers to the boundary between the sea and land at the highest tide, and it is used for measurements involving sea management.”⁴⁹ This is contrary to UNCLOS 1982, which provides that maritime zones should be measured from the baselines, that is the lowest water mark, not the coastlines.⁵⁰

Furthermore, the Mining Law 2020 states that the mining area includes a sea space that will be determined by the ministry after coordination with relevant institutions. Article 1 paragraph (28a) states as follows: “[m]ining Area is the entire land and sea territory, including the subsoil as a single unit, Indonesian archipelago, its seabed and continental shelf.”⁵¹ Another provision which mentions the sea space can be found in Article 17 paragraph (2): “[t]he boundaries and areas of mining business license for metallic minerals and coal at the sea are determined by the ministry after coordination with relevant institutions.” Similar to Article 1 paragraph (28a) of the Mining Law 2020, Article 1 paragraph (15) of the Oil and Natural Gas Law 2001 also provides that the mining area consist of the land, waters and continental shelf of Indonesia. The term ‘waters’ here refers to Indonesian waters. Another national law which mentions seabed mining is Indonesian Law Number 32 Year 2014 on Indonesian Ocean Act (Indonesian Ocean Act 2014).

Although Article 21 of the Indonesian Ocean Act 2014 is in accordance with the 1945 Indonesian Constitution, especially Article 33 paragraph (3), and UNCLOS 1982 (relating to maritime zones), unfortunately, this Article does not specify which area of the sea it refers to. Does it refer to the seabed and subsoil within national jurisdiction or does it include the Area, which is beyond national jurisdiction? At the time of writing this paper, no further regulation has been made to help implement Article 17 paragraph (2) of the Mining Act 2020 and Article 21 of the Indonesian Ocean Act 2014.

There is an existing regulation with regard to the exploration and exploitation of sea sand: the Presidential Decree Number 33 Year 2002 relating to the Control and Monitoring of the exploitation of Sea Sand (Decree Number 33 Year 2002). This presidential decree limits itself to institutional arrangements regarding the mechanism for supervising the exploitation of sea sand. Article 1 paragraph (1) of the Presidential Decree Number 33 Year 2002 provides that “[s]ea sand is sand mining materials located in Indonesian waters which do not contain mineral elements of class A and/or group B in significant amounts

⁴⁸ Article 27 Paragraph (1) stipulates that provincial areas are given the authority to manage the natural resources in the sea within their territory.

⁴⁹ Explanatory Notes of Article 27 Paragraph (3) of Law Number 23 of 2014 concerning Local Government.

⁵⁰ Article 3 of UNCLOS 1982

⁵¹ Article 1 paragraph (28a) of Mining Law 2020. See also Puspitawati, Dhiana, Putra, Teddy Minahasa and Wardana, Rangga Vandy, “Reformulasi Pengaturan Penambangan Bawa Laut di Perairan Indonesia”, *Jurnal Magister Hukum Udayana*, v.10, n. 4, 2020.

from a mining economic point of view.”⁵² Emphasis is placed on “Indonesian waters”. According to Indonesian Law Number 6 Year 1996 relating to Indonesian Waters, Article 3 paragraph (1) stipulates that Indonesian waters include its territorial sea, archipelagic waters and internal waters. Thus, it is submitted that Decree Number 33 Year 2002 refers to mining within national jurisdiction. Unfortunately, only sea sand is regulated by this decree, but there are many other non-living resources that can be exploited within national jurisdiction, such as tin, gold, natural gas, coal, nickel, copper, silver and bauxite. This decree is silent on many legal issues and mechanisms but only deals with institution arrangement from the business perspective. In addition to this, since the decree was proclaimed in 2002, it should be revised in accordance with the most recent mining law, that is Mining Law 2020. Therefore, it is submitted that Indonesia does not currently have adequate regulations covering seabed mining that applies to areas within its jurisdiction and to activities in the Area.

6. Urgency of National Regulation relating to Seabed Mining: Within National Jurisdiction and the Area

From the discussion presented previously, it is submitted that while Indonesia is potentially rich in sea mineral resources, unfortunately, seabed mining within national jurisdiction as well as activities in the Area are not yet priorities in Indonesia. In addition, while there have been research and mapping on the potential value of seabed mining, exploiting the resources of the seabed needs consistent support from the state, especially concerning funding. However, there is no legal framework specifically regulating seabed mining both within national jurisdiction and beyond. Among the mining-related laws in Indonesia, Decree Number 33 Year 2002 only refers to the mining of sea sand and not the main minerals; Also, it is limited to national jurisdiction. Further, the main laws relating to mining, such as the Oil and Natural Gas Law 2001, Mining Law 2020 and Indonesian Ocean Act 2014, do not clearly regulate mining activities within national jurisdiction and in the Area, as explained earlier.

From the above discussion, there are two main problems affecting seabed mining regulations within national jurisdiction and in the Area. First, there is a lack of mechanism and legal basis for seabed mining activities within national jurisdiction. Second, the rights and obligations of coastal states regarding activities conducted in the Area are unclear. Thus, Indonesia does not have a legal mandate to carry out activities in the Area (i.e., the ECS) and cannot protect its interests affected by activities in the Area. Article 142 of UNCLOS 1982 on the rights and legitimate interests of coastal states should be infused into national laws to protect Indonesia’s interests regarding potential environmental harm emerging from activities in the Area.

Although Indonesian law does not specifically regulate seabed mining, Chapter II of the Attachment to Presidential Regulation Number 16 of 2017 concerning Indonesian Ocean Policy, under the title of Water Areas, Sovereign Rights, Jurisdiction Areas and the High

⁵² Article 1 paragraph (1) Presidential Decree Number 33 Year 2002 relating to the Control and Monitoring of the exploitation of Sea Sand. Emphasized from the author.

Seas and International Seabed Areas, provides for participation in activities in the Area. The regulation states that:

"In addition to the sovereignty and sovereign rights that Indonesia has in these maritime zones, Indonesia also has certain interests outside the area of national jurisdiction and the high seas, as well as the seabed in international waters for the national interest as well as the common interest of mankind. The management of Indonesian waters must not forget the great potential of Indonesia's role in participating in managing the high seas and the deep seabed..."⁵³

However, until now, Indonesia does not have a national regulation on Indonesian participation in the use of the seabed. However, recent developments indicate that Indonesia is currently preparing a Draft Presidential Regulation on the seabed. Unfortunately, this draft still has many shortcomings, one of which is that its preamble only mentions Indonesia's rights and interests regarding the seabed that is directly adjacent its jurisdiction, without mentioning Indonesia's obligations as a coastal state.⁵⁴

However, UNCLOS 1982 explicitly regulates the obligations of coastal states directly bordering the seabed. States have the obligation to protect the marine environment⁵⁵ and are responsible for the damage caused by activities in the Area.⁵⁶ Besides, it is also the obligation of states to ensure that their conduct in relation to the Area is in accordance with the UN charter⁵⁷ and that the Area is used for peaceful purposes⁵⁸. The ISA provides guidance for countries preparing their national regulations, so that they can participate in the use of the seabed. According to the ISA, national regulations must at least contain the following: (i) basic objectives and principles, (ii) competent national institutions, (iii) requirements and permits, (iv) rights and obligations of sponsoring and implementing countries, (v) supervision, enforcement and sanctions, (vi) relations with authorities, (vii) data and information, (viii) financial mechanisms, (ix) dispute resolution, and (x) marine environment and archaeological objects.⁵⁹

In a national process, because it is necessary to involve the private sector and foreign parties, it is ideal if the national regulations also regulate the relationship between the private and foreign parties with the country concerned. While Indonesia still does not have any national laws in place, several countries have enacted their national laws relating to seabed mining in the Area beyond national jurisdiction, as shown in Table 1 below:

⁵³ Chapter II of the Attachment to Presidential Regulation Number 16 of 2017 concerning Indonesian Ocean Policy

⁵⁴ G. A. Siswandi, 'Peran Aktif Indonesia di Kawasan Dasar Laut Indonesia (ISA): Elemen Penting in Regulasi Nasional' paper presented in *Lokakarya Nasional Percepatan Penyusunan Regulasi Nasional Peran Aktif Indonesia di Kawasan Dasar Laut Internasional*, Kemenkomarvest, Jakarta 16 June 2021

⁵⁵ Article 145 and 146 of UNCLOS 1982

⁵⁶ Article 139 of UNCLOS 1982

⁵⁷ Article 137 and 138 of UNCLOS 1982

⁵⁸ Article 141 of UNCLOS 1982

⁵⁹ ISA, 2017, see also www.isa.org

Table 2. List of States having National Laws relating to seabed mining in the Area beyond national Jurisdiction.⁶⁰

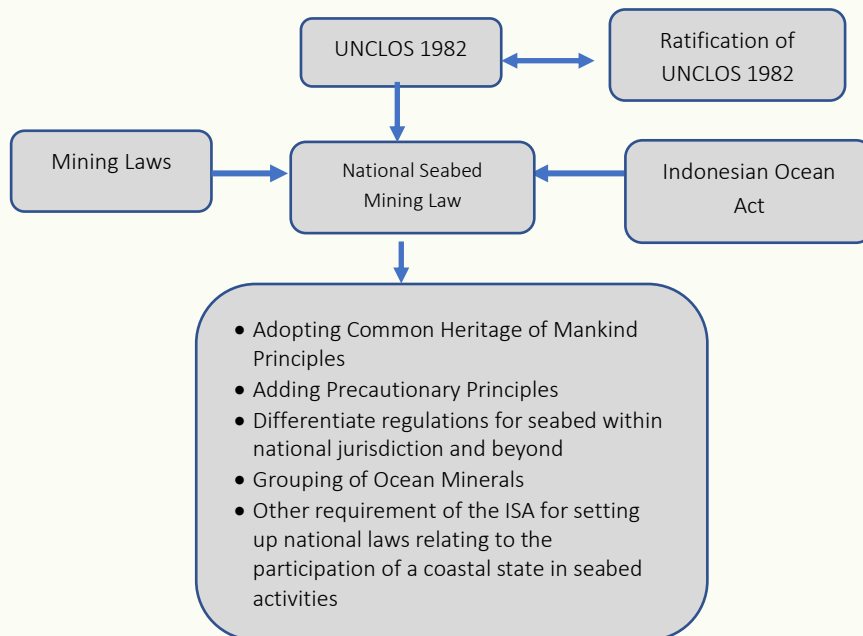
Belgium	Act on prospecting and exploration for, and exploitation of, resources of the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction, adopted on 17 August 2013
China	Law of the People's Republic of China on Exploration for and Exploitation of Resources in the Deep Seabed Area, adopted February 26, 2016, and effective as of May 1, 2016
Czech Republic	Act No. 158/2000 of 18 May 2000 on Prospecting, Exploration for and Exploitation of Mineral Resources from the Seabed beyond the Limits of National Jurisdiction
France	Ordinance No. 2016-1687 of 8 December 2016 relating to the maritime areas under the sovereignty or jurisdiction of the Republic of France
Fiji	International Seabed Mineral Management Decree (Decree No. 21, 12.07.2013).
Germany	Seabed Mining Act of 6 June 1995 (Amended by Article 74 of the Act of 8 December 2010)
Japan	Law on Interim Measures for Deep Seabed Mining, 1982
Kiribati	Seabed Minerals Act (2017)
Nauru	International Seabed Minerals Act (Act No. 26 of 2015)
New Zealand	United Nations Convention on the Law of the Sea Act (1996)
Rusia	Decree of the President of November 22, 1994, No. 2099 "About activities of the Russian physical and legal entities for exploration and development of mineral resources of the seabed outside the continental shelf"
	Government Decree of April 25, 1995 No. 410 "About the procedure of activities of the Russian physical and legal entities for development of mineral resources of the seabed outside the continental shelf"
Singapore	Deep Seabed Mining Act (2015)
Tonga	Tonga Seabed Minerals Act (2014)
Tuvalu	Tuvalu Seabed Minerals Act (2014)
United Kingdom	Deep Sea Mining (Temporary Provisions) Act 1981 (amended by the Deep Sea Mining Act 2014)

⁶⁰ ISA, Comparative Study of the Existing National Legislation on Deep-sea Mining, accessible at <https://www.isa.org.im/files/files/documents/compstudy-nld.pdf> (accessed on 01 September 2021)

In 2017, the Assembly of ISA adopted a decision relating to the final report of the first periodical review of national legislation pursuant to Article 154 of UNCLOS 1982.⁶¹ While the due diligence measures that a sponsoring state should take in discharging its responsibility include the adoption of laws and regulations and the implementation of administrative measures to secure compliance, these are to be reasonably appropriate within the context of a state’s domestic legal system. Thus, while there is no definite pattern of what national laws relating to seabed mining in the Area should contain, it is important for a state to have national legislation ready for its participation in activities in the Area.

From the discussion above, it is further submitted that Indonesia should formulate national laws which specifically regulate seabed mining, both within national jurisdiction and in the Area beyond national jurisdiction. While Indonesia already has a mining act, it is silent on seabed mining, both within national jurisdiction and beyond. Such national laws should also consider the rights and legitimate interests of Indonesia as an archipelagic state regarding the activities in the Area adjacent to national jurisdiction. Such laws should also consider the provisions of UNCLOS 1982 and set up grouping/clusterization of ocean minerals in order to make the activities easier to monitor and control. Below is the proposed model for national laws on seabed mining:

Figure 2. Model for National Laws for Seabed Mining Activities⁶²



⁶¹ The study can be accessed online at <https://cil.nus.edu.sg/wp-content/uploads/2019/04/Comparative-Study-on-National-Legislation-.pdf>. Accessed on 29 September 2023

⁶² Summarized by the Author

Since Indonesia is one of ratifying states of UNCLOS 1982, it should regulate seabed mining both within national jurisdiction and beyond in a separate legislation from the existing Mining Law. This is because in the sea, different arrangements exist for different maritime zones. Such a national seabed mining law should be based on UNCLOS 1982 and should adopt the principle of common heritage of mankind and, most importantly, should differentiate between seabed mining within national jurisdiction and beyond. The precautionary principle is also important since the seabed mining activities may harm marine environment. The existing sea mapping and resource explorations should result in clustering of seabed resources and minerals, which would guide the regulation-making process. Indonesia should also equip itself with the requirements of the ISA relating to national participation in deep-seabed mining. In addition to this, relevant national laws should also regulate the relationship between the private and foreign parties with the country concerned.

7. Conclusion

The utilization of sea minerals commenced when the international community realized the richness of the sea in terms of minerals. While the rights and obligations of a coastal state to explore and exploit the seabed in areas within its national jurisdiction is clear under UNCLOS 1982, activities in the Area beyond national jurisdiction requires more attention, especially from the coastal state. Since the coastal state also has the right to claim an ECS, the activities in the Area adjacent to national jurisdiction might affect the rights and legitimate interests of the coastal state. Although UNCLOS 1982 allows all states (coastal state, land-locked state as well as geographically disadvantaged state) to participate in activities conducted in the Area, such participation needs to be clearly regulated in their national laws. Such national Laws while regulating seabed mining activities within national jurisdiction should also consider the effect of activities in the Area under Article 142 and 148 of UNCLOS 1982.

Unfortunately, Indonesia does not have a comprehensive national law concerning seabed mining. Although there is a very narrow law, at the level of the presidential degree, regulating the mining of sea sand in areas within national jurisdiction, that law is silent on ocean usage and mining of minerals. In addition, that law is outdated. Thus, Indonesia should formulate a comprehensive national regulation covering seabed mining that applies to areas within its jurisdiction and to activities in the Area.

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