Indonesian Journal of International Law

Volume 21 | Number 1 Article 5

October 2023

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## Recommended Citation

Syofyan, Ahmad; Natamiharja, Rudi; Aida, Melly; Aini, Desy Churul; Daryanti, Daryanti; and Januarti, Rasti Putri (2023) "Discourse Enterprise in Natural Resource Management for the Common Heritage of Mankind," *Indonesian Journal of International Law*: Vol. 21: No. 1, Article 5.
Available at: https://scholarhub.ui.ac.id/ijil/vol21/iss1/5

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# Discourse Enterprise in Natural Resource Management for the Common Heritage of Mankind


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This article is available in Indonesian Journal of International Law: https://scholarhub.ui.ac.id/ijil/vol21/iss1/5

Indonesian Journal of International Law (2023), Vol. 21 No. 1, pp. 29-50
https://doi.org/10.17304/ijil.vol21.1.2

# DISCOURSE ENTERPRISE IN NATURAL RESOURCE MANAGEMENT FOR THE COMMON HERITAGE OF MANKIND

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**Abstract**

*Common Heritage of Mankind (CHM) is a principle in which all entities can manage the natural resources that exist in the world and must share the benefits of their exploitation with other entities for the common good. However, the principle of CHM has not been structurally and legally regulated in space. The enthusiasm about 'infinite natural wealth' that space and seabed mining can produce, particularly in developing countries, means that they can benefit from the activities carried out in order for their regional and mineral resources to be declared as the heritage of mankind. The hypothesis obtained from this research will explore the principles of rules for the management of exploration and exploitation in general of natural resources by international enterprise within the CHM regime and analyze the need to establish management enterprise and international authorities/ organization to manage natural resource exploitation activities as a common heritage. Finding and formulating the urgency of the formation of a business entity and finding a suitable formulation of principles for managing the results of natural resource exploitation activities with international organizations in CHM for international enterprise as business actors who are obliged to have ideas about the mechanisms and procedures in managing Space that has brought out for the exploration and exploitation of the common heritage of mankind. The idea in the International Statute could be the basis for adding a new norm in international law.*

***Keywords**: Enterprise, Management, Common Heritage of Mankind*

Submitted: 15 October 2022 | Revised: 30 May 2023 | Accepted: 12 September 2023

## I. INTRODUCTION

The international community has made progress in the practice of law regarding the regime that regulates the use of natural resources, one of which is the Common Heritage of Mankind (CHM).[1] This general heritage is a regime

[1] Agustina Merdekawati, Marsudi Triatmodjo, Irkham Afnan, Trisandi Hasibuan, Vivin Purnamawati, and Nahda Anisa Rahma, "Arti Penting Common Heritage of Mankind dalam Rezim Pengaturan Area dan Perkembangannya [The Importance of the Common Heritage of Mankind Principle in the Regulation of the Area Regime and Its Development]," Law Review

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Published by Lembaga Pengkajian Hukum Internasional

of international law that represents the idea that natural elements globally consider usefulness for mankind as a whole form and not unilaterally exploited for the sake of a particular state or company's interest, or an entity that exploits the natural resources of mankind heritage under the rules of the international legal regime. Specific natural resources provided for in international law are designated as common property, i.e., those in the international sea, space resources, and the moon and other celestial bodies.[2]

The idea that there are one or more global spaces should be considered a 'Common Heritage of Mankind', and not a novelty. In 1967, Maltese Ambassador to the United Nations (UN), Arvid Pardo, submitted his proposal to the First Committee of the UN General Assembly calling for a deep seabed outside of national jurisdiction and the resources contained therein to be declared a common heritage of mankind. On the fulfilment of mankind interests,[3] the 1948 Draft World Constitution (Draft World Constitution 1948) stipulated that the Earth and its resources must belong to the common property of mankind and be managed for the common good.[4] Traces of Heritage Similarity are also found in the 1967 Space Treaty, which regulates exploration and exploitation in outer space, the moon, and other celestial bodies. However, the Principle on Common Heritage is currently only regarding the 1967 Law Conference regarding the rule regarding the high seas as a 'common heritage of mankind'. It states that the seabed must be subject to the UN regarding jurisdiction and the regulation of international law.

Under international law, the state is a subject of international law with a sea boundary from the coastline as far as two hundred miles towards the outer sea.[5] Outside of the two-hundred-mile boundary, there are marine resources that are based on the high seas and are accessible areas as shared property (res communis).[6] On the high seabed, it is regulated and controlled by the International Seabed Authority (ISA) under UN regulations. Like other organizations, the ISA generally regulates the obligations attached to

21, no. 3 (2022): 282, https://doi.org/10.1016/j.ocecoaman.2020.105191.

[2] Nico Schrijver, "Managing the Global Commons: Common Good or Common Sink?," *Third World Quarterly* 37, no. 7 (2016): 1253, https://doi.org/10.1080/01436597.2016.1154441.

[3] Enny Narwati and Asih Indah Camelia, "Kedaulatan Negara Atas Wilayah Laut [State Sovereignty at Sea]," in *Dinamika Hukum Agraria Indonesia : Dalam Rangka Memperingati 70 Tahun Guru Kami, Prof. Dr.Sri Hajati, S.H.,M.S.* (Jakarta: Kencana, 2020), 212.

[4] *Ibid.*

[5] Amritha Shenoy, *Freedom of the Seas, International Law and the South China Sea Dispute*, Center for International Legal Studies, Jawaharlal Nehru University, 2020, 2.

[6] Gelorya Br. Pinem, "Pengelolaan Sumber Daya Alam Terhadap Penangkapan Ikan Oleh Negara Di Laut Lepas Menurut Hukum Internasional [Natural Resources Management on Fishing Activity on The High Seas]," *Lex Et Societatis* 7, no. 5 (2019): 116, https://doi.org/10.35796/LES.V7I5.24730.

its members. ISA also developed regulations related to exploiting mineral resources in the Area in 2014.[7]

The resources scattered throughout the region are huge enrichments officially known as minerals, namely polymetallic nodules, consisting of layers of ore formed around marine debris. It is thought that, collectively, nodules at the bottom of the ocean contain more cobalt, nickel, and earth metals than on land, and contain tellurium found abundant in some areas of the oceanic basin, one of which is in the Clarion-Clipperton Zone (CCZ), on a sizeable abyssal plain the width of the United States of America located 4.000 to 6.000 meters below the surface of the Eastern Pacific Ocean.[8] Space, moons, and asteroids also contain a rich diversity of minerals, gases, and water that can be used to provide raw materials, energy, and even food sources to sustain mankind life and allow further exploration into Space.

Along with the rapid development of science and technology, exploration activities and utilization of natural resources (natural resources) have reached Space and not only on the international seabed. The discovery of potential mineral resources in Space, one of which was marked by the launch of the Sputnik satellite belonging to the Soviet Union (Russia) in 1957.[9] The satellite launch prompted many developed countries to race to fill Space.[10] However, along with this, there are concerns about space-related legal challenges. Along with the start of space utilization activities, legal regulations have emerged that regulate space utilization activities. To regulate this, it began with the resolutions of the United Nations, which later gave birth to the Outer Space Treaty 1967 (hereafter OST), and its elaboration took the form of international treaties and/or conventions.[11]

While the area of international seabed utilization activities was first discovered in the Challenger Expedition in 1873, where large quantities of metal ore were discovered in the waters of the northern Pacific.[12] The

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[7] "The Mining Code," International Seabed Authority, accessed 29 December 2022, https://www.isa.org.jm/mining-code.

[8] Putuhena Ilham, "Setting the Urgency of Exploration and Exploitation of Mining in the International Sea Bed Area," *Marine Policy* 8, no. 10 (2019): 168.

[9] Irma Hanafi, "Penempatan Wahana Ruang Angkasa Di Wilayah Indonesia," *Faculty of Law Pattimura University*, 6 May 2015, https://fh.unpatti.ac.id/penempatan-wahana-ruang-angkasa-di-wilayah-indonesia/.

[10] "Efisiensi Hukum Ruang Angkasa Internasional: Problematika Dibalik Outer Space Treaty 1967 *Fakultas Hukum," Fakultas Hukum Universitas Ahmad Dahlan*, 2 March 2022, https://law.uad.ac.id/efisiensi-hukum-ruang-angkasa-internasional-problematika-dibalik-outer-space-treaty-1967-2/.

[11] *Ibid.*

[12] Igor M. Belkin, Per S. Andersson, and Jörgen Langhof, "On the Discovery of Ferroman-

international seabed area is located in a high sea area over which no state sovereignty exists. The difficulty of access to this area incurs considerable costs for efforts to utilize the use of natural resources in it so that the exploitation of this area relies not only on the state but also on large-scale mining enterprises. Since the discovery in 1970-1980, several mining enterprises began to look at the economic potential of seabed mining. The regulatory framework related to the international seabed is included in Chapter XI of UNCLOS 1982.

The high skills and costs required to explore and exploit space and seabed natural resources mean that such activities can only be carried out limited to a few specific countries. Several large mining enterprises then domiciled in developed countries began to make large-scale investments to take advantage of the benefits of existing resources in the region. The enthusiasm regarding the 'immeasurable wealth' that international space and seabed mining can generate, as well as the potential for economic development, enforces the belief that International Law must ensure that all States, especially developing countries, can benefit from the activities carried out so that the region and its mineral resources are declared as the common heritage of mankind. The fact that exploration and exploitation are carried out only by a select few countries and the concern that a select group of developed countries will dominate the exploitation of resources available in Space led to the establishment of a treaty stating that no state should take part in Space or an international celestial body or seabed with claims of sovereignty through use, residential or in other ways.

As a result of the application of the principle of common heritage, i.e., peaceful use, the principle of non-exclusive use and international management, exploration and exploitation of resources in the space area and seabed is not only fully economically oriented.[13] But it must also pay attention to the norms of togetherness so that its use is fully utilized for the benefit of mankind. The Principle of Common Heritage is presented as an answer to the limitations of the applicable legal framework and as an innovative and fair basis for addressing territories outside the national jurisdiction.

Furthermore, on the principle of Common Heritage, the seabed and Space and its resources will become common property that countries beyond a specific limit cannot have. As a shared property, the Space will be open to the international community (countries), but its use will be subject to

ganese Nodules in the World Ocean," *Deep Sea Research Part I: Oceanographic Research Papers* 175, (2021): 103589, https://doi.org/10.1016/J.DSR.2021.103589.

[13] Dedi Wahyudi, "Implementasi Prinsip Common Heritage Of Mankind Oleh International Seabed Authority Menurut UNCLOS 1982 [Implementation of Common Heritage of Mankind Principle by International Seabed Authority]," *Jurnal Ilmiah Mahasiswa Hukum* 1, no. 3 (November 2021): 37.

international rules and administration for the common good of all mankind. The administration of exploitation rights regarding mineral resources that are part of a common heritage raises further questions about how the resources from the exploration findings are managed. In particular, it is debated whether exploitation rights regarding deep-sea mineral wealth should be managed centrally and whether international mining enterprises should mine such rights (International Mining Enterprise) or be subject to public or private mining enterprises' (private) exploitation.[14] The compromise eventually reached in UNCLOS was the creation of the international body ISA (International Seabed Authority) to manage exploitation rights. UNCLOS further considers the establishment of an international mining operation called the Company (from now on referred to as the Enterprise) while not also prohibiting mining activities by state enterprises (State Enterprise) and commercial enterprises (Commercial Enterprises).[15]

While the international seabed, through one of the chapters in UNCLOS 1982, provides precise regulation of the bodies governing the exploration and exploitation of the seabed, Space does not have similar regulations. Although the Outer Space Treaty states its CHM principles in the Treaty regarding the activities of states on the moon and other space objects, The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies or the Moon Treaty was made by the UN in 1979. This treaty does not regulate who has the authority to manage exploration and exploitation activities if the project is possible. The document states two essential principles, namely that space objects should be used for peaceful purposes[16] and that the moon and its resources are a shared legacy for all mankind, but statements alone are not enough. An international body or authority must be established to manage the exploitation of every available resource.

CHM is a draft principle, so there is no discrimination in utilizing the shared heritage resources of mankind. In a viewpoint that meets the subject of international law, mankind as a whole is not a collective subject of international law that transcends time and Space.[17] Then comes the issue

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[14] Jennifer T. Le, Lisa A. Levin, and Richard T. Carson, "Incorporating Ecosystem Services into Environmental Management of Deep-Seabed Mining," *Deep Sea Research Part II: Topical Studies in Oceanography* 137 (2017): 489, https://doi.org/10.1016/J.DSR2.2016.08.007.

[15] *Ibid.*

[16] Ida Kurnia, *Aspek Nasional dan Internasional Pemanfaatan Surplus Perikanan di Zona Ekonomi Ekslusif Indonesia* [*National and International Aspects on Fisheries Surplus on Indonesia EEZ*] (Jakarta: Sinar Grafika, 2017), 25.

[17] Chuanliang Wang and Yen Chiang Chang, "A New Interpretation of the Common Heritage of Mankind in the Context of the International Law of the Sea," *Ocean and Coastal Management* 191, no. 179 (2020): 3, https://doi.org/10.1016/j.ocecoaman.2020.105191.

of how the state explores and exploits natural resources based on CHM in practice. The law of the sea, for example, encourages joint participation for all countries through the establishment of an international organization, the mining has an unavoidable and intrinsically high environmental impact that requires careful management. The two regulations of the CHM regime in international agreements do not touch on the principles of good management of mining businesses by enterprises at all. In contrast, the mining industry presents several challenges that require a particular approach because such activities have severe environmental impacts. Careless actions by some mining enterprises can provoke widespread opposition to mining in all forms, contributing to project delays, cost overruns, and, in extreme cases, the inability to resume production.

The absence of bodies or authorities such as the ISA on the space regime and the absence of regulations made regarding the official management of natural resources resulting from the exploration and exploitation of the international seabed and Space generate a skeptical view of the mission of achieving the management of a common heritage dedicated to the common good of mankind. Based on the background above, this research will explore the principles of managing the exploration and exploitation of jointly owned natural resources carried out by international enterprise in the CHM regime.

Through normative juridical research with international legal materials and literature materials, this research touches on different aspects of previous research, regarding exploration and exploitation activities, by analyzing the need for establishing corporate management and international authorities to manage activities of exploitation of common heritage resources. The novelty in this study is that researchers want to offer recommendations for the establishment of international bodies to manage the exploitation of every resource, both seabed and Space, so there is a need for arrangements in the current international rules for the existence of corporate arrangements and ideas on the seabed regime and international authorities in the space regime in managing specific resources as a new rule into international law.

To achieve this goal, this research will begin with a discussion of the historical background of the common heritage regime on both the seabed and Space, a brief overview of the Treaties currently in force, and the principles used in international law. From the discussion, this research can provide consideration of the reasons underlying the idea of research. The substantive part of the paper, in turn, deals with the interpretation of Treaties and International law, emphasizing challenges regarding the establishment of enterprise and the establishment of authorities in each regime while also taking

into account the need, feasibility, and possibility of equitable cooperation between the state and private parties.

## II. UTILIZATION OF THE POTENTIAL OF NATURAL RESOURCES OF MANKIND'S SHARED HERITAGE IN SPACE AND SEABED

The principle of the existence of a common heritage of mankind emerged and has become a pro-con to this day. This polemic is related to the content, scope, and common status in the principle of the Common Heritage of Mankind with other legal principles. The principles in CHM have four interrelated principles, such as:[18]

> 1) Users of areas outside the boundaries of national jurisdiction shall use it only for peaceful purposes/principles of peaceful use;
>
> 2) The use of areas outside the boundaries of national jurisdiction is prohibited from falling into the category of sovereignty/principle of non-exclusive use;
>
> 3) The need for regional use, such as for the exploration and exploitation of natural resources, must be carried out with the aim of the common benefit of all mankind/the principle of mutual benefit of mankind;
>
> 4) The use of several types of management internationally is necessary to regulate and supervise in the context of the use of the area and natural resources contained therein/principles of international management.

The purpose of the CHM is to replace the previous law on "freedom of the high seas"[19] and proclaim the sea area outside the jurisdiction of the state as common property as provided for in UNCLOS 1982, which consists of a span of 12 nautical miles (22 km)[20] of coastline and includes air space, then an Exclusive Economic Zone/EEZ of 200 nautical miles (370 km). Furthermore,

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[18] Siavash Mirzaee, "The Conceptual Foundations of the Common Heritage of Mankind," *Eurasian Law Journal*, no.10 (2017): 50.

[19] "ABNJ includes the high seas and the Area. The area refers to the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction." United Nations Convention on The Law of The Sea, opened for signature 10 December 1982, 1833 UNTS 397 (entered into forced 16 November 1994), art. 1.1(1).

[20] Nadhif Fadhlan Musyaffa, Arie Kusuma Paksi, and Lalu Radi Myarta, "Measuring the Dominant Paradigma in United Nations Convention on the Law of the Sea," *Lampung Journal of International Law* 4, no. 2 (October 2022): 92, https://doi.org/10.25041/LAJIL.V4I2.2595.

areas that are outside the national jurisdiction use the term "the area"[21] for the seabed and seawater column, which later was declared as a common heritage of mankind and is the responsibility of ISA as the controller of all forms of activities in "the area" under UNCLOS, which divides three parts into marine mining activities, namely in Article 136, Article 137 (2), and Article 145 with the scope of CHM, resources, and protection of the marine environment.

The principle of the deepest seabed arose because of the tendency of exploration and exploitation that exceeds the natural wealth found on the seabed and the land below. Through technological capabilities possessed by developed countries, they can explore and exploit natural resources on the deep seabed. This situation is expected to be very detrimental to other countries that do not have the ability or do not have the technology that developed countries have, including developing countries. Seeing the situation, at a session of the United Nations General Assembly held on 17 August 1967, Ambassador Arvid Pardo, Malta's permanent representative at the United Nations, submitted a proposal to the Assembly to make rules on exploration and exploitation on the deep seabed. As a reason and consideration, Arvid Pardo states as follows:[22]

> a. Given the rapid development of technology, there is a possibility that the seabed outside the Continental Shelf could become a national target of state demands. If this happens, the Seabed and Deep Sea Floor, which mankind capabilities may achieve, will soon become a military competition arena with a specific deployment of weapons. Moreover, developed countries with the latest technological capabilities will soon exploit their abundant natural resources to increase their profits.
>
> b. Therefore, it is considered that it is time to immediately issue a declaration stating that the Seabed of the Deep Ocean is a "common heritage of mankind". To this end, an international treaty is proposed to immediately prepare to regulate legal principles on 1. The seabed and deep seabed outside the boundaries of national jurisdiction are not subjected to national demands; 2. Regional exploration shall be carried out consistent with the principles and objectives of the UN charter; 3. The utilization of the area and its exploitation of wealth is carried out to secure the interests of poor countries in a particular area; and 4. The area should be used only for peaceful purposes.

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[21] United Nations Convention on The Law of The Sea, opened for signature 10 December 1982, 1833 UNTS 397 (entered into forced 16 November 1994), art. 1.1(1).

[22] Jean Buttigieg, "Arvid Pardo – a Diplomat with a Mission," *Symposia Melitensia* 12, no. 12 (2016): 13

Subsequently, in the session, the UN Secretary-General proposed a stance,

> "Declarations and icons of treaties on reservations are exclusive if, for peaceful purposes on the seabed, the underlying at sea beyond its limits constitutes national jurisdiction, and it uses their resources for the benefit of the common people."

Based on Malta's proposal,[23] in December 1968, the General Assembly established a Committee on the Peaceful Uses of the Seabed and Seabed Beyond the Limits of National Jurisdiction, abbreviated as the UN Seabed Committee, to formulate recommendations related to the problems currently at hand. The UN 1969, through the General Assembly, adopted a Resolution known as the "Moratorium Resolution," which stated that before the establishment of an international regulatory arrangement (International Regime) on the seabed and the land beneath it and all its natural wealth, beyond the boundaries of national jurisdiction, it would not be recognized.

International Seabed Authority, as an organization that oversees the activities of utilizing sea-based natural resources, has so far agreed to 27 exploration contracts.[24] The contractor in the utilization of natural resources as determined has an applicability of 15 years and can be extended for five years. The scope is that contracts for the exploration of polymetallic nodules cover 75.000 $km^2$, Seabed/Seafloor Massive Sulphides cover 10.000 $km^2$, and cobalt-rich ferromagnetic crusts cover a maximum of 20 $km^2$. Discussions on the exploration and use of natural resources based on the sea need to be carried out in a transparent manner by actors as managers.[25]

Based on the prospect that seabed mining has been part of the scientific, legal, and cultural domains for a long time, along with technical, legal, and environmental views on this issue, there are also those critical of the construction of the seabed and how it will develop. It is clear that the Enterprise, as an international mining operator established by the Authority, must carry out activities in the Region directly, following article 153 paragraph 2 (a) of UNCLOS, as well as the transportation, processing, and marketing of minerals produced from the Region. However, no regulations have yet been made on

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[23] Tirza Meyer, *Elisabeth Mann Borgese and the Law of the Sea* (Brill Publisher, 2022), 63.

[24] "Exploration Contracts," International Seabed Authority, accessed 2 January 2023, https://www.isa.org.jm/deep-seabed-minerals-contractors.

[25] Kathryn A. Miller et al., "An Overview of Seabed Mining Including the Current State of Development, Environmental Impacts, and Knowledge Gaps," *Frontiers in Marine Science* 4, (2018): 312755, https://doi.org/10.3389/fmars.2017.00418.

how the official management of natural resources is generated from mining by Enterprise as a contractor to achieve the mission of dedicated shared heritage management.

Projects on the exploitation and exploration of natural resources on the seabed require the management of seabed mining and are still being developed. One example of the Sea Mineral Project is the Pacific community and the European Union (2011), which aims to improve the governance of marine mineral resources in the region with international law. Another example of an Enterprise that has received exploration and exploitation permits is China Minmetals Corp., a Chinese state-owned mining metal company. China Minmetals Exploration Corp. received a location permit at the CCZ for the exploration of Polymetallic nodules, which was contracted from 12 May 2017 to 11 May 2031.[26] Regarding compliance and non-compliance from contractors, ISA needs to step up efforts related to protection as a result of "irreversible damage" stemming from the results of such exploration activities.[27]

Then space exploration set out in the OST on any form of mankind activity in Space and establishes rights and obligations for the state, the status of Space, the moon, and other celestial bodies. Derived from the OST then came the legal perspective on air space and Space in the form of regulations referred to as the 'Five United Nations Treaties on Outer Space' or five conventions governing Space, namely: 1) The Rescue Agreement; 2) The Outer Space Treaty; 3) The Liability Convention; 4) The Registration Convention; and 5) The Moon Agreement.[28] Regarding the use of Space under Article 4 of the OST, the principle of freedom in Space has guaranteed a ban on military activities in Space. OST also offers a form of cooperation between countries because not all countries can utilize Space, as stated in Article 5 and Articles 9 to 13 of the OST. There needs to be openness and transparency in the process of utilizing Space.

Another problem with the exploitation of natural resource utilization lies in the wording in Article 4[29], Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All

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[26] *Ibid*., Table 2, 8.

[27] *Ibid.*, 7.

[28] Tasya Ester Loijens, "Implikasi Yuridis Pemberlakuan Wacana Earth to Earth Transportation Oleh SpaceX [Juridical Impacts in SpaceX Earth to Earth Transportation Plan]," *Lex Generalis* 1, no. 8 (2020): 50, DOI: 10.56370/JHLG.V1I8.221.

[29] Article 4 "International cooperation should be conducted in the modes that are considered most effective and appropriate by the countries concerned, including, *inter alia*, governmental and non-governmental; commercial and non-commercial; global, multilateral, regional or bilateral; and international cooperation among countries in all levels of development."

States, Taking into Particular Account the Needs of Developing Countries[30] which states that international cooperation shall be carried out in ways that are deemed most effective and appropriate by the countries concerned, including government and non-governmental alike; commercial and non-commercial; global, multilateral, regional or bilateral; and international cooperation between countries at all levels of development. The article gives States the ability to choose the most effective and appropriate means that may be commercial, non-commercial, governmental, and non-governmental, meaning the mining of resources in Space can be carried out by private enterprise following the broad objectives of the lunar agreement. In other words, the State can delegate certain functions to private bodies relating to the exploration and use of Space, and it is feared that private enterprises have an economic orientation instead of providing the benefit of the results of exploration and exploitation activities to the international community based on the principle of common heritage.

The sustainability of exploration and exploitation in Space has come under criticism from some critics who disagree that it is without balance and supervision, and clear goals and brings benefits to all mankind, as in the Russian Federation (2013), which made activities on the mining of space resources an activity approved by the President of the Federation until the period 2030. Then Belgium and Greece proposed the establishment of an international regime for the exploration and exploitation of space resources associated with "these activities have potentially disruptive economic impacts," and there is global inequality. This encourages the need for new international governance as a prerequisite for the "legitimate and sustainable exploitation of space resources."[31]

Regarding mining carried out in Space, it is divided into two principles, namely:[32] first, whether the space resource project has complied with the non-appropriation principle of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies or Outer Space Treaty (hereafter OST). Second, whether the projects have met the requirements of the 'common interest of mankind' as stated in Article 1 of the OST.[33]

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[30] General Assembly Resolution 51/122, *Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries*, A/RES/51/122 (13 December 1996).

[31] Mahulena Hofmann and Federico Bergamasco, "Space Resources Activities from the Perspective of Sustainability: Legal Aspects," *Global Sustainability* 3 (2020): e4, DOI: 10.1017/SUS.2019.27.

[32] *Ibid.*, 3.

[33] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies [Outer Space Treaty], opened for

"The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind."

On the principle of non-appropriation that outer Space, the moon, and other celestial bodies are not subjects of federal usurpation or by way of claim sovereignty by way of use and are regarded as a custom of international law.[34] Under Article 6.2 of the Moon Treaty, it is explained that samples taken from space resources can be seized by the state and utilized for scientific purposes. Thus, the Moon Agreement shows an attribution attitude regarding the right to deprive space resources used for scientific purposes so that the country that took the sample enjoyed its appropriation rights.

Related to the utilization of mankind resources in space, only private entities and some countries have mastered space technology. The freedom to be able to utilize and use will eventually give rise to substantive instability and injustice that will harm the interests of countries that do not yet have the technology, which in this case, then gives rise to different views regarding the attribution of profits from exploration and exploitation of space resources, where the profits from exploration and exploitation are for the benefit of mankind. On the other hand, the state and private entities have exclusive rights to material profits from these space activities.[35] So that through consideration from parties in the international community, it is necessary to emphasize the correct attribution for the exploration and exploitation of resources in Space.[36]

## III. PRINCIPLES OF NATURAL RESOURCE MANAGEMENT OF MANKIND SHARED HERITAGE FOR PROSPERITY

Based on UNCLOS 1982, three forms of seabed areas will be discussed. First, the seabed under the territorial (sovereign) sea includes archipelagic waters. Secondly, the seabed is subject to and is under the jurisdiction of the state. Third, the seabed is beyond the state's sovereignty and jurisdiction, where no country can conquer this seabed area under its jurisdiction or known as the International Seabed Area. Natural heritage for future generations, both its

signature 27 January 1967, 610 UNTS 205 (entered into force 10 October 1967).

[34] Outer Space Treaty, art. 2.

[35] Jinyuan Su, "Legality of Unilateral Exploitation of Space Resources Under International Law," *International & Comparative Law Quarterly* 66, no. 4 (2017): 995.

[36] Zhao Yun, "A Multilateral Regime for Space Resource Exploration and Utilization," *Indonesian Journal of International Law* 17, no. 3 (2020): 333, https://doi.org/10.17304/ijil.vol17.3.789.

waters and its seabed and subsoils, urgently need management arrangements that are rigid to protect from all nations. Therefore, it requires the cooperation of coastal states through a unique body known as the International Seabed Authority (ISA). As stipulated in Article 137 of UNCLOS 1982, the legal status of territories and wealth in the International Seabed Area:[37]

No State may claim or exercise its sovereignty or sovereign rights over any part of its territory or assets, nor shall any State or legal entity, or individual take ownership of any action over any part of the territory. No claim or exercise of sovereignty or sovereign right or act of ownership shall be recognized as such;

All rights to the property of the Region rest with mankind as a whole, on whose behalf the Authority acts. These assets are not subject to the transfer of rights. However, excavated material produced from the area may only be transferred following the provisions of this Chapter and the provisions, rules, and procedures of the Authority;

No State, legal entity, or individual may sue, acquire or exercise any relevant rights to minerals produced from such areas unless done following the provisions of this Chapter. Otherwise, no claim, acquisition, or exercise of such rights will be recognized.

Then Article 140 (1) UNCLOS 1982[38] specified that the Authority, in this case, the ISA, should determine the equitable distribution of benefits and other economic benefits derived from its activities in the regions through appropriate and non-discriminatory mechanisms following articles 160 (2) (f) to (i). In the management of these marine resources, the involvement of coastal states is also regulated, among other things, that the use of International Deep Sea Areas or Areas is solely for peaceful purposes by all States, both coastal and non-coastal states, without discrimination and without harming other states.[39]

Then it is regulated explicitly in Article 142 of UNCLOS 1982 on the legal rights and interests of coastal states, namely: 1) Activities in the regions concerning the storage of wealth in areas located opposite the boundaries of

[37] United Nations Convention on the Law of The Sea, art. 137.

[38] Article 140 (1) UNCLOS 1982, "Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations in accordance with General Assembly resolution 1514 (XV) and other relevant General Assembly resolutions."

[39] Article 141 UNCLOS 1982, "The Area shall be open to use exclusively for peaceful purposes by all States, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of this Part."

national jurisdiction are carried out with due regard to the necessary legitimate rights and interests of each coastal State whose jurisdiction is crossed by such deposits; 2) Consultations, including methods of prior notice, shall be maintained with the State concerned, with a view to preventing the occurrence of violations of such rights and interests. In the event that activities in the Region may result in the exploitation of assets located within the country of its jurisdiction, prior approval from the coastal State concerned is required; 3) nor the rights granted or exercised under this Chapter, shall not affect the right of the coastal state to take such action in accordance with the relevant provisions of Chapter XII as it deems necessary to prevent, reduce or eliminate any harm incurred that threatens its coastline or related interests from pollution or the threat of pollution or other harmful events originating from or caused by any activity in the area.

Based on this, all activities in the international seabed area are carried out with due regard to the legitimate rights and interests of each coastal state whose jurisdiction there is such sediment crossed, and in the event that activities in the international seabed area may result in the exploitation of assets located within the national jurisdiction, then the prior approval of the coastal state concerned is required. Specifically related to Exploration and Exploitation, it is stipulated in Article 153 of UNCLOS 1982 that activities in the area (International Seabed Area) must be regulated, implemented, and controlled by the ISA. Regional activities in the International Seabed Area shall be carried out by the company, and together with power by a state party or state corporation, or a legal entity or individual who has citizenship of the participating country or who is effectively controlled by them or their citizens then, if it is sponsored by those States or by one of the previous groups that meet the specified requirements. From this arrangement, it can be seen that the position of the sponsoring state is significant in the implementation of exploration and exploitation.

Regarding the utilization and use of natural resources in the CHM area, there are problems in applying a balance between the interests of several groups and the common interests in their implementation, especially in Space.[40] In implementing exploration and exploitation activities, effective enforcement is needed to achieve a level of common interest and compliance with applicable laws. Simultaneously, this also applies to paying attention to the economy and efficiency through a risk-based approach to inspections that

[40] Dedi Wahyudi, "Implementasi Prinsip Common Heritage Of Mankind Oleh International Seabed Authority Menurut UNCLOS 1982 [Implementation of Common Heritage of Mankind Principle by International Seabed Authority]," *Jurnal Ilmiah Mahasiswa Hukum* 1, no. 3 (November 2021): 40.

must be developed to ensure minimal risk to CHM activities in the sea and Space.[41]

Unlike the rules of the law of the sea regime, specifically, the Moon treaty does not provide for an institutional structure to regulate exploitation on the Moon. Then in the description, it only shows its purpose on the prospects of orderly and safe development, rational management, and fair profit sharing. Nico Schrijver's research entitled "Managing the Global Commons: Common Good or Common Sink?" gives the same opinion as the author that this regime will work as "that exploitation" is desired to be realized soon. Because this treaty delegitimizes unilateral actions by interested states and more prosperous and more developed and developed states that have that capacity. However, on the other hand, the current exploration of Mars and increased awareness of the depletion and fragility of the ozone layer are driving interest in space governance, to be more precise.[42]

The formation of the law of Space was initially marked by the existence of UNCOPUOS (Committee on the Peaceful Uses of Outer Space). The basis for countries to carry out activities in Space is the Space Treaty of 1967. According to many experts, many articles have multiple interpretations regarding the use of Space based on the CHM principle with the principle of freedom. Jus cogens in the law of Space states that all natural resources, including Space, must be enjoyed and utilized for the common good. Seeing that the principle of CHM does exist and applies in the Space area. However, it is not limited to the actors bound by it, which are exclusively state parties in 1979 and other Celestial Bodies, but also by objects and their contents.

The norms of international law governing space activities took center stage after mankind first colonization of Space on earth. After the launch of the first man in space Yury Gagarin in 1961, the Union of Soviet Socialist Republics (USSR)[43] prompted an international treaty on the principle of state activity for the research and use of Space, including the Moon and other celestial bodies, came into force, which was abbreviated as the Outer Space Treaty.[44] This treaty is a universal interstate treaty in force and has now been signed by more than 120 countries, including superpowers, namely the United States and Russia. The treaty contains basic principles such as the principle of peaceful use of Space and the denial of state control over objects from outer space.

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[41] *Ibid.*

[42] Schrijver, "Managing the Global Commons," 1257.

[43] James Clay Moltz, "The Changing Dynamics of Twenty-First- Century Space Power," *Journal of Strategic Security* 12, no. 1 (2019): 18, https://doi.org/10.5038/1944-0472.12.1.1729.

[44] *Ibid.*, 19.

In the last two decades, during the 3rd UN Conference on Peace Exploration and Use of Space (UNISPACE III 1999), there have been several issues that have become questions regarding the context of the environmental aspects of space technology and its use in reducing the impact of natural disasters. Later, Patricio Palacios Cevallos of Ecuador, the President of the Group of Latin America and the Caribbean (GRULAC), recognized that space is a Common Heritage of Mankind and essential to undertake regional and international cooperation on Space. The agreement on the principles governing the activities of states in the exploration and use of Space, including the Moon and other Celestial Bodies, better known as OST 1967, is a positive law.

However, there is a comparison between the application of CHM to the seabed and space regions. For example, in the law of the sea, the Area through the principle attached to the moon and the area, namely the principle of non-appropriation, in Article 135 and Article 136 of UNCLOS 1982 is a CHM region, and on that basis, it is an area that cannot be claimed and owned by any one country.[45] Currently, many countries in the world participate in sponsoring the natural resource exploration process and, in this case, are supervised by ISA to grant permits and regulate the utilization and use of the area through regulations issued to ensure CHM maintains its ecosystem for future generations.[46] In carrying out natural resource management activities in the international seabed area supervised by the ISA, the participating countries of UNCLOS 1982 have *ipso facto* status.[47] This is still not true in Space, similar to surveillance in utilization and use activities on the seabed.

The principle of CHM in its application to the utilization and use of space and the seabed requires interrelated management. There needs to be the same structure in implementing surveillance and law enforcement on using space CHM with seabed CHM. As the sharing of materials/profits for international companies for CHM and in the interests of the sustainability of their activities in exploring and exploiting needs management between UNCOPUOS and UNCLOS in limiting related exploration and exploitation to address the principle of freedom in using CHM. In addition, UNCOPUOS requires a broader scope of authority regarding the use of CHM's natural resources.

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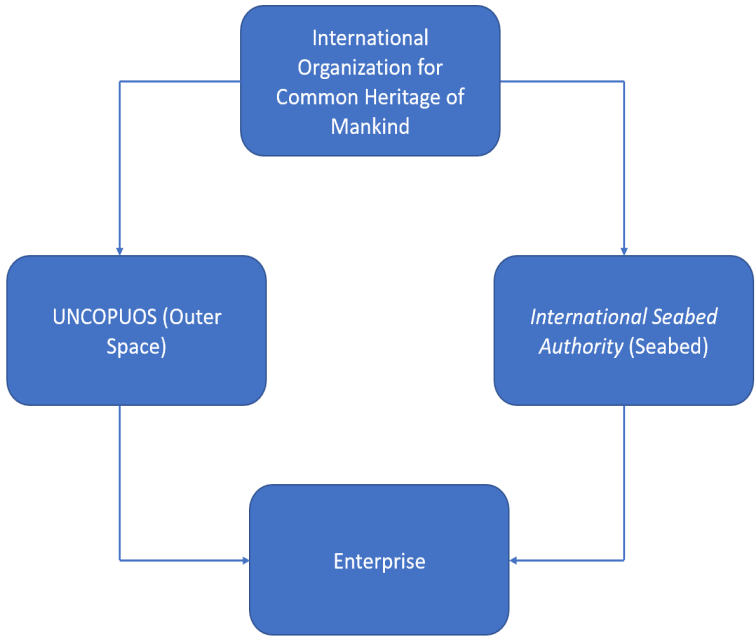
[45] Taufik Rachmat Nugraha, "Program Artemis: Tantangan Hukum Ruang Angkasa di Era Baru [Artemis Program: New Challenges for Space Law]," *Veritas et Justitia* 8, no. 1 (2022): 82, https://doi.org/10.25123/VEJ.V8I1.4388.

[46] *Ibid.*, 83.

[47] United Nations Convention on The Law of The Sea, art. 156.

Figure 1: Concept of International Organization to Manage Common Heritage of Mankind




There needs to be a parent in an international organization overseeing the ISA and the same body as the ISA for space at UNCOPUOS regarding using CHM's natural resources for a sustainable environment. This can be done by amending both UNCLOS and OST concerning the International Organization, which is the umbrella of the parent organization for the management of natural resources in seabed and outer space.

Throughout the Treaty of Space to date, it can be seen that there is much emphasis on the common interests of all mankind. In its preamble, it is emphasized twice; however, no part of Outer Space states explicitly to be the Common Heritage of Mankind in that treaty. The goal of exploration and exploitation of resources on the Moon or other celestial bodies became more active in 1979, marked by the existence of the Treaty to Space and the Lunar Agreement. Applying the principle of CHM to Outer Space, the moon and other celestial bodies have always been associated with some problems. So this creates uncertainty regarding the opposition, the imperfections, the ineffectiveness of the Moon Agreement, and the absence of international

entities to manage indefinitely are the most critical challenges. Therefore, an organizational entity is needed so that there can be a reference for using space resources such as ISA.

The application of the CHM principle has been carried out in Space in the form of a treaty, but it does not explicitly address CHM, as a result of which the state carries out such activities according to their respective interpretations. After UNCOPUOS, there were regulatory developments in the 1967 Space Treaty in the hope that a continuation of the international space law regime would be established, but in principle, it has not been mentioned, discussed, or explored together regarding the heritage of mankind, so there is a vacuum in the international legal arrangements regarding the management of shared heritage in Space. Therefore, it is necessary to establish an interstate international organization to regulate the common heritage of mankind not only in the context of the use of the seabed but also in the use of Space, specifically regulating mining activities in Space, such as definition, setting technological standards, setting standards for actions to take the preventive and environmental analysis of the impacts, rights and obligations of states, Duration, sanctions and implementation of exploration and exploitation both on the seabed and Space. In addition, it is necessary to establish an agency for CHM in charge of ISA and International Organization in space that has the authority to supervise and limit the use and use of CHM for a sustainable environment.

## IV. CONCLUSION

Based on the discussion that has been outlined, this study concludes that the Common Heritage of Mankind is a legal principle in international law that provides a general framework for universal responsibility as well as for sustainable law and environmental protection. This principle states that outer Space and all celestial bodies are the common heritage of mankind so that it must be utilized for the good of mankind, and establishes a close relationship between the laws of Space and the sea and the laws governing territories outside national jurisdictions, such as the high seas, to the deep seabed.

The establishment of space law was initially marked by the existence of UNCOPUOS and developed in the 1967 Outer Space Treaty, which was the basis for countries to carry out activities in Space. The Common Heritage of Mankind is a legal principle that applies to three areas, namely: The Treaty of Space and the Moon, The International Seabed Area (Chapter XI of The UNCLOS 1982 and The 1994 Implementation Agreements ), and The

Antarctic Treaty.

In applying the principles of Common Heritage of Mankind contained in Chapter XI of UNCLOS 1982 that was implemented under the 1994 Implementation Agreement, which was later established by the International Organization as a governing and supervising body with full authority to regulate and manage existing resources in the Seabed and Deep Sea Areas which are the common heritage of mankind. However, in the space treaty, there is no organization that overshadows the common heritage of mankind, so it is necessary to establish an organization to carry out its functions and roles in implementing the CHM Principles in Space. With the establishment of the Authority Agency, it is hoped that the management of existing resources in the Seabed and Space Area can provide justice for developing countries that are financially and technologically unable to utilize the Seabed and Space Area and utilize its management. Because Space is not only enjoyed by developed countries, but also all mankind based on the Principle of the Common Heritage of mankind itself.

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