

PROTECTING THE COMMON HERITAGE OF MANKIND BEYOND NATIONAL JURISDICTION

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TABLE OF CONTENTS

ABSTRACT	82
I. INTRODUCTION.....	83
II. WHAT IS THE CHM PRINCIPLE?.....	84
A. The Origins of the CHM Principle.....	84
B. The Development Phases of the CHM Principle	84
C. Core Elements of the CHM Principle	86
D. The Concept of Equity and the CHM Principle.....	88
III. THE LEGAL STATUS OF THE CHM PRINCIPLE	89
A. Jus Cogens	90
B. Treaty Law	91
C. The 1982 Convention on the Law of the Sea and the CHM Principle.....	92
D. International Customary Law	95
IV. THE INTERNATIONAL SEABED AUTHORITY AND THE CHM PRINCIPLE.....	97
A. Responsibilities of the ISA in Relation to Implementation of the CHM Principle.....	98
B. Hurdles Faced by the ISA in the Implementation of the CHM Principle ..	100
V. POTENTIAL EFFECTS OF THE APPLICATION OF THE CHM PRINCIPLE	101
A. Application of the CHM Principle in the Continental Shelf and Exclusive Economic Zones	102
B. Application in Deep-Seabed Mining.....	102
C. Application of the CHM Principle on the Utilization of Living Resources in ABNJ	103
VI. CONTROVERSIES AND ISSUES RELATED TO THE IMPLEMENTATION OF THE CHM PRINCIPLE.....	104
A. Jurisdiction	105
B. Equitable Distribution	105
C. Peaceful Utilization of the Area.....	106
D. Environmental Protection	107
E. Changes Brought into the Original CHM Principle	107
F. Other Issues	108
VII. CONCLUSION	109

ABSTRACT

The principle of the common heritage of mankind (CHM) has been formulated to regulate the utilization of resources in areas beyond national jurisdiction (ABNJ). This principle considers that the resources in ABNJ are the property of the whole of mankind and therefore cannot be exploited unilaterally by a particular state or corporation. Furthermore, it mandates that such resources are to be utilized only for the benefit of the whole of mankind, and such utilization must also entail peaceful and environmentally friendly measures. Furthermore, the benefits incurred from the resources must be shared equitably among all states. The United Nations Law of the Sea Convention 1982 provides provisions that build up the underlying rubrics of this principle. Accordingly, the International Seabed Authority has been entrusted with powers to regulate areas of the common heritage of mankind in order to equitably divide and allocate the benefits derived from the resources in the area to all states. At present, the CHM principle is applicable on the continental shelf between 200 nautical miles and 350 nautical miles from states, the entire seabed, and ABNJ. There are also some shortcomings in the CHM principle, as it provides no particular mechanisms for equitably sharing the benefits and for sustainably utilizing the resources in the area. As a result, the proponents of environmental protection in ABNJ demand limits and an overhaul of the CHM principle to make it more favorable toward biodiversity in ABNJ.

Keywords. Common heritage of mankind (CHM), area beyond national jurisdiction (ABNJ), Law of the Sea Convention, Moon Treaty.

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I. INTRODUCTION

The common heritage of mankind (CHM) principle ratifies areas beyond national jurisdiction (ABNJ) as areas of the common ownership of the whole of mankind.¹ In particular, it sanctions that all human beings can acquire the benefits from the resources of such areas in an equitable manner, though only for peaceful purposes.² Furthermore, such areas cannot be exploited unilaterally by states, groups of states, corporations, or individuals.³ The entire seabed, oceanic subsoil, and exclusive economic zones, as well as space, the moon, and other planets and their resources, are ratified as areas of the common ownership of mankind.⁴ The CHM principle is closely linked with the United Nations Convention on the Law of the Sea (UNCLOS) because certain provisions of UNCLOS set the rubrics for implementing the CHM principle in marine ABNJ.⁵ The CHM principle is also considered a part of customary international law as well as of treaty law;⁶ however, its inclusion in customary law is a bit contentious in nature,⁷ which will be elaborated in detail in this article.

Notably, this article intends to explain the key elements of the CHM principle alongside the concept of equity, which is currently being raised along with the CHM principle. Furthermore, this article will also explain the key rubrics of UNCLOS, which are considered the basis of the CHM principle.

The International Seabed Authority (ISA) has been assigned a special role under UNCLOS for implementing the CHM principle.⁸ The roles and responsibilities of the ISA and the challenges faced by it in relation to the implementation of the CHM principle will also be elaborated in this article. At the end of this article, the controversies raised by the CHM principle will also be elaborated in relation to an explanation of the key elements and functions of this principle.

¹ VICTOR PRESCOTT & GILLIAN DOREEN TRIGGS, *INTERNATIONAL FRONTIERS AND BOUNDARIES: LAW, POLITICS AND GEOGRAPHY* 402 (2008).

² ANTÔNIO AUGUSTO CAÑADO TRINDADE, *INTERNATIONAL LAW FOR HUMANKIND: TOWARDS A NEW JUS GENTIUM* 351 (2nd ed. 2013); *see* DEFINITIONS FOR THE LAW OF THE SEA: TERMS NOT DEFINED BY THE 1982 CONVENTION 137 (George Walker ed., 2011) [hereinafter *DEFINITIONS FOR THE LAW OF THE SEA*].

³ *See* PRESCOTT & TRIGGS, *supra* note 1.

⁴ *Id.*

⁵ *See* Prue Taylor, *The concept of the common heritage of mankind*, in *RESEARCH HANDBOOK ON FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL LAW* 313 (Douglas Fisher ed., 2016) [hereinafter Taylor, *Concept*].

⁶ *See* JOANNA MOSSOP, *THE LAW APPLICABLE TO THE CONTINENTAL SHELF BEYOND 200NM* 90 (2016).

⁷ *Id.*

⁸ *See* Taylor, *concept*, *supra* note 5.

II. WHAT IS THE CHM PRINCIPLE?

The CHM principle presents the idea that resources in areas beyond national jurisdiction (ABNJ) are collectively owned by the whole of humanity.⁹ The CHM principle strictly mandates that such resources in ABNJ should be utilized for beneficial purposes for the whole of mankind.¹⁰ Furthermore, it prohibits any entity or state from unilaterally exploiting such resources.¹¹ Thus, it considers that resources in ABNJ must be jointly managed and utilized by all states in a manner that can serve the whole of mankind beneficially.¹² For this purpose, it also endorses the establishment of specific mechanisms or programs that could facilitate the joint exploitation of resources in ABNJ.¹³

A. The Origins of the CHM Principle

The concepts of *res communis* and *res nullius*, which come from ancient Roman law, were initial attempts at defining the right to own and abandon a particular common property, respectively.¹⁴ *Res communis* considers that the seas, marine species, minerals, underground water, etc., are the common resources of humanity and therefore owned by all human beings.¹⁵ Thus, this notion accords with the modern-day principle of CHM, which approves the assertion that the seas and their resources in ABNJ are commonly owned by the whole of humanity and that a particular organization, individual, or state cannot exploit or own such resources and areas exclusively.¹⁶ This notional analogy between the CHM principle and *res communis* illustrates that the CHM principle has its roots in the age-old concept of *res communis*.

B. The Development Phases of the CHM Principle

⁹ See PRESCOTT & TRIGGS, *supra* note 1, at 252.

¹⁰ Sumudu Atapattu & Carmen G. Gonzalez, *The North-South Divide in International Environmental Law: Framing the Issues*, in INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH 83 (Shawkat Alam et al. eds., 2015).

¹¹ See PRESCOTT & TRIGGS, *supra* note 1.

¹² PIERRE-MARIE DUPUY & JORGE E. VIÑUALES, INTERNATIONAL ENVIRONMENTAL LAW 84 (2015).

¹³ *Id.*

¹⁴ Edwin Egede, *Common Heritage of Mankind*, OXFORD BIBLIOGRAPHIES, <http://www.oxfordbibliographies.com/view/document/obo-9780199796953/obo-9780199796953-0109.xml> (last updated July 30, 2014).

¹⁵ Sai Manoj Reddy, *Res communis and res nullius*, THE LEX WARRIER (Apr. 8, 2015), <http://lex-warrier.in/2015/04/res-communis-and-res-nullius>.

¹⁶ See PRESCOTT & TRIGGS, *supra* note 1.

A speech given by the former ambassador of Malta to the United Nations (UN) in a session of the General Assembly of the UN (UNGA) in November 1967 is regarded as the fundamental stimulus for the modern-day CHM principle.¹⁷ In his speech, the ambassador, Arvid Pardo, stressed the need to implement stringent actions to declare the deep seabed and its resources, particularly those located in ABNJ of states, as the common property or the common heritage of the whole of mankind.¹⁸ The provocative factor behind this speech to the General Assembly was the apprehension felt by some developing states at that time that developed states might extract all resources in ABNJ by using their rich technological infrastructure and, consequently, the poor states would get nothing from those resources.¹⁹ The stance adopted in Pardo's speech was endorsed by several developing states.²⁰

Prior to that, the Economic and Social Council of the UN asked the UN in 1966 to locate such resources, which were considered beneficial for developing countries.²¹ Consequently, the UN Secretary General made it among his primary responsibilities to investigate the maximum potential at which the usage of the seabed resources could be made beneficial for developing states.²² The developing states overwhelmingly supported this action.²³ Consequently, calls for the modification of the 1958 Geneva Law of the Sea were made,²⁴ and the resources of the high seas and the whole of the seabed were ratified as the common heritage of mankind in the fifteenth resolution of the World Peace through Law Conference (Conference), held in July 1967.²⁵ The Conference accepted that the resources in the seabed and the high seas were exploitable through utilizing modern technology.²⁶ Therefore, it recognized the high seas and the seabed as CHM to provide some opportunities to poor states to reap the benefits from such resources.²⁷

¹⁷ See FABIO TRONCHETTI, *THE EXPLOITATION OF NATURAL RESOURCES OF THE MOON AND OTHER CELESTIAL BODIES: A PROPOSAL FOR A LEGAL REGIME* 92 (2009).

¹⁸ See TAYO O. AKINTOBA, *AFRICAN STATES AND CONTEMPORARY INTERNATIONAL LAW: A CASE STUDY OF THE 1982 LAW OF THE SEA CONVENTION AND THE EXCLUSIVE ECONOMIC ZONE* 4 (1996); see also Egede, *supra* note 14.

¹⁹ See Egede, *supra* note 14.

²⁰ See BJARNI MÁR MAGNÚSSON, *THE CONTINENTAL SHELF BEYOND 200 NAUTICAL MILES: DELINEATION, DELIMITATION AND DISPUTE SETTLEMENT* 13 (2015).

²¹ See Riidiger Wolfrum, *The Principle of the Common Heritage of Mankind*, 43 *HEIDELBERG J. INT'L L.* 312, 315 (1983); see also BJØRN-OLIVER MAGSIG, *INTERNATIONAL WATER LAW AND THE QUEST FOR COMMON SECURITY* 127 (2015).

²² See *id.* at 315.

²³ *Id.*

²⁴ *Id.*

²⁵ See MAGNÚSSON, *supra* note 20; see also Wolfrum, *supra* note 21; see also MAGSIG, *supra* note 21.

²⁶ See Wolfrum, *supra* note 21.

²⁷ *Id.* The wording of Resolution 15 is as follows: "Whereas, new technology and oceanography have revealed the possibility of exploitation of untold resources of the High seas, and the bed thereof beyond the continental shelf; and, more than half of mankind find

Although the common heritage principle was considered applicable on the deep seabed as well as in Antarctica and space, including on the moon,²⁸ the concept was originally not included in the 1959 Antarctic Treaty.²⁹ To begin with, the CHM principle was only associated with resources in the marine ABNJ and it was therefore dependent on the rubrics of the law of the sea. However, with the passage of time, the principle has evolved and encapsulated diverse domains other than marine ABNJ.³⁰ For instance, the CHM principle now also considers Antarctica, other planets, the moon, and human genomes, as well as genetic resources attained from plants and microorganisms, as the common heritage of the whole of mankind.³¹

C. Core Elements of the CHM Principle

The CHM principle has six essential elements.³² The first two fundamental elements prohibit acquiring or gaining control of the area or of the resources in the area regarded as CHM.³³ These elements relate to the juridical status of the area and its resources of common heritage.³⁴ They consider that the area and its resources, regarded as CHM, are the property of the whole of humanity.³⁵ That is, the whole of humanity has the right to benefit from such

itself underprivileged, underfed and underdeveloped; and, that the high seas are the common heritage of all mankind [the Conference] resolved that the World Peace through Law Center recommends to the General Assembly of the United Nations the issuance of a proclamation declaring that the bed of the sea appertain to the United Nations and are subject to its jurisdiction and control.” For details, see *id.* at 315–16. See also MAGSIG, *supra* note 21, at 127.

²⁸ See ANNETTE FROELICH, *SPACE RESOURCE UTILIZATION: A VIEW FROM AN EMERGING SPACE FARING NATION* 19 (2018).

²⁹ See Erik Franckx, *The International Seabed Authority and the Common Heritage of Mankind: The Need for States to Establish the Outer Limits of their Continental Shelf*, 25 *Int’l J. Marine and Coastal L.*, 543, 544 (2010).

³⁰ See TRONCHETTI, *supra* note 17, at 125.

³¹ See Egede, *supra* note 14; see also Emmanuel Agius, *Patenting Life: Our Responsibilities to Present and Future Generations*, in *GERM-LINE INTERVENTION AND OUR RESPONSIBILITIES TO FUTURE GENERATIONS* 77 (Emmanuel Agius & S. Busuttill eds., 2012).

³² Some experts consider that there are five elements of the CHM principle; however, in this paper, the categorization of elements has been done in six different sets in order to elucidate the elements more distinctly and clearly to the readers. For more details about the essential elements of the CHM principle, see John E. Noyes, *The Common Heritage of Mankind: Past, Present, and Future*, 40 *DENV. J. Int’l L. & Pol’y*, 447, 450 (2012); see also DAVID KENNETH LEARY, *INTERNATIONAL LAW AND THE GENETIC RESOURCES OF THE DEEP SEA* 96 (2007).

³³ See Noyes, *supra* note 32, at 450–51.

³⁴ *Id.* at 451.

³⁵ *Id.*

resources.³⁶ The second element of the CHM principle specifies further that the area regarded as CHM must be utilized for peaceful purposes only.³⁷ On the other hand, the third element mandates that the conservation of the natural environment in ABNJ must be ensured during the extraction of resources.³⁸ The fourth element demands that the benefits from the common resources in ABNJ be shared by states in an equitable manner.³⁹ This equitable distribution must also allocate an equivalent share for developing and poor states.⁴⁰ The fifth element recommends the establishment of a common regime for managing and distributing the common resources in ABNJ for the collective benefits of humankind.⁴¹ The third, fourth, and fifth elements can be combined in one category: the utilization of common resources.⁴² The last element suggests the establishment of a joint management of the common resources in the area.⁴³

It can be asserted that the CHM principle has been established to protect resources in ABNJ from unjust exploitation.⁴⁴ Whenever the resources in ABNJ face risk of exploitation by an entity or activity, the principle becomes relevant to be applied in the area to prohibit unilateral exploitation.⁴⁵ However, for successful application of the CHM principle, there is a need to establish a global entity, an organization, or an arrangement that could monitor the utilization of common resources and prohibit the unjust exploitation in ABNJ.⁴⁶ This role has been assigned to the International Seabed Authority (ISA), which has special responsibility to take care of common heritage resources in ABNJ.⁴⁷

The CHM principle also supports the establishment of a legal regime in ABNJ for the common resources located there.⁴⁸ As far as the areas governed by such a legal regime are concerned, such areas notably include the entire seabed, including the oceanic floor in ABNJ; space, including the moon; and Antarctica.⁴⁹

³⁶ *Id.*

³⁷ *Id.* at 450; TRONCHETTI, *supra* note 17, at 89; Ellen Hey, *Conceptualizing Global Natural Resources: Global Public Goods Theory and International Legal Concepts*, in COEXISTENCE, COOPERATION AND SOLIDARITY: LIBER AMICORUM RÜDIGER WOLFRUM 889 (Holger P. Hestermeyer et al. eds., 2011).

³⁸ See Noyes, *supra* note 32, at 450–51.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.* at 450.

⁴² See *id.* at 451.

⁴³ Noyes, *supra* note 32, at 451.

⁴⁴ See DEFINITIONS FOR THE LAW OF THE SEA, *supra* note 2.

⁴⁵ *Id.*; see also MAGSIG, *supra* note 21, at 127.

⁴⁶ See Kerstin Stendahl, *Verification in the “global commons”: existing regimes*, in THE NEW CHEMICAL WEAPONS CONVENTION: IMPLEMENTATION AND PROSPECTS 62 (Michael Bothe et al. eds., 1998).

⁴⁷ Stendahl, *supra* note 46.

⁴⁸ *Id.*

⁴⁹ See MALCOLM SHAW, INTERNATIONAL LAW 385 (7th ed. 2014).

D. The Concept of Equity and the CHM Principle

The concept of equity has been used in international law to define a justified utilization of common resources.⁵⁰ In relation to the CHM principle, the concept of equity can be used to denote equitable allocation and sharing of the common resources of mankind in ABNJ.⁵¹ The concept of equity in the CHM regime promotes the idea of fairness to be implemented in the process of sharing the common resources in ABNJ.⁵² All states may take equal benefits from the acquired resources after all the resources have been equitably divided among them, with each state gaining an equitable share.⁵³ Hence, the application of the principle of equity in ABNJ can ensure a reasonable allocation of resources for poor and developing states.⁵⁴ That is, developed states may have to renounce some of their interests in the common resources in ABNJ to equitably allocate and share the common resources among all stakeholders. To ensure an equitable utilization of the common resources, the ISA has created arrangements for consultation among stakeholders in ABNJ.⁵⁵

Owing to the impartiality associated with the concept of equity, it has gained significant attention from the international community, particularly in transboundary issues between states.⁵⁶ The concept also demands that every state must acknowledge and fulfill its state responsibility, which essentially requires that its actions or interests must not cause any harm to other states or to the natural environment, particularly in the transboundary area.⁵⁷ Here, we can consider that the transboundary area is an ABNJ where the resources are regarded as CHM and, therefore, a state cannot harm the right of other states to equitably utilize such resources in ABNJ.⁵⁸

⁵⁰ See Marie Bourrel et al., *The Common Heritage of Mankind as a Means to Assess and Advance Equity in Deep Sea Mining*, 95 MARINE POL'Y 311, 313–14 (2018).

⁵¹ *Id.* at 313.

⁵² *Id.* at 314.

⁵³ *See id.* at 315.

⁵⁴ *See id.* at 313.

⁵⁵ *See* Bourrel et al., *supra* note 50, at 313. For more details, see also INT'L SEABED AUTH., DEVELOPING A REGULATORY FRAMEWORK FOR MINERAL EXPLOITATION IN THE AREA 3 (2014), <http://www.isa.org.jm/sites/default/files/isa-ssurvey.pdf> [hereinafter ISA].

⁵⁶ *See* Bourrel et al., *supra* note 50, at 314.

⁵⁷ *Id.*

⁵⁸ Bourrel et al., *supra* note 50.

The concept of equity brings justice and impartiality in the application of the CHM principle.⁵⁹ Therefore, for the proper implementation of this concept alongside the application of the CHM principle, an appropriate institutional mechanism must become active along with the implementation of relevant policies.⁶⁰ This can be done in light of the last element of the CHM principle, which recommends the establishment of joint bodies to manage and utilize the common resources in ABNJ.⁶¹ The ISA also needs to step up and consult with all state parties to devise an institutional mechanism and relevant policies for better implementation of the CHM principle according to the principles of equity to fill the gaps that prevent the successful implementation of the CHM principle and in the efficient functioning of the ISA.

III. THE LEGAL STATUS OF THE CHM PRINCIPLE

The legal status of the CHM principle is highly debated by scholars.⁶² Some consider this principle a part of customary international law,⁶³ whereas others regard it as a *jus cogens* obligation.⁶⁴ On the other hand, this principle has also been included in some treaties, for example the Moon Treaty and the Outer Space Treaty, which imply that the CHM principle should be considered a part of treaty law.⁶⁵ Nonetheless, it is also questioned whether this principle has universal legal status. To answer this query, the statement given by the International Law Association in the 1986 Seoul Declaration can be quoted: “[t]he concept of the common heritage of mankind as a general legal principle has entered into the corpus of public international law.”⁶⁶ Thus, this statement substantiates the assertion that the CHM principle is a part of international law.⁶⁷ Within the sphere of international law,

⁵⁹ See *id.* at 313–14.

⁶⁰ See *id.* at 314.

⁶¹ See Noyes, *supra* note 32, at 451.

⁶² See, e.g., IKECHI MGBEOJI, *GLOBAL BIOPIRACY: PATENTS, PLANTS, AND INDIGENOUS KNOWLEDGE* 100 (2014); see also PRUE TAYLOR, *AN ECOLOGICAL APPROACH TO INTERNATIONAL LAW: RESPONDING TO THE CHALLENGES OF CLIMATE CHANGE* 259 (2008) [hereinafter TAYLOR, *ECOLOGICAL APPROACH*].

⁶³ See MOSSOP, *supra* note 6, at 90.

⁶⁴ See, e.g., KISHOR UPRETY, *THE TRANSIT REGIME FOR LANDLOCKED STATES: INTERNATIONAL LAW AND DEVELOPMENT PERSPECTIVES* 87 (2006); see also Maria Fernanda Millicay, *The Concept of Common Heritage of Mankind: 21st Century Challenges of a Revolutionary Concept*, in *LAW OF THE SEA, FROM GROTIUS TO THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA: LIBER AMICORUM JUDGE HUGO CAMINOS* 285 (Lilian del Castillo ed., 2015).

⁶⁵ See TAYLOR, *ECOLOGICAL APPROACH*, *supra* note 62, at 259.

⁶⁶ See Noyes, *supra* note 32, at 455.

⁶⁷ See TAYLOR, *ECOLOGICAL APPROACH*, *supra* note 62, at 259 (noting that the CHM principle has existed for many years and that it has been accepted by the United Nations).

what particular kind of legal attribution the CHM principle has is debated by legal experts.⁶⁸

A. Jus Cogens

Those who consider the CHM principle as *jus cogens* regard it as an obligation that cannot be derogated from.⁶⁹ They refer to Paragraph 6 of Article 311 of UNCLOS,⁷⁰ which proclaims that “States Parties agree that there shall be no amendments to the basic principle relating to the common heritage of mankind set forth in Article 136 and that they shall not be party to any agreement in derogation thereof.”⁷¹ Article 136 of UNCLOS affirms that “[t]he Area and its resources are the common heritage of mankind,”⁷² and Article 311 states that this recognition cannot be derogated from.⁷³ As a result, the recognition of ABNJ as the CHM becomes an obligation on all state parties to UNCLOS.⁷⁴ Consequently, the CHM principle, in this context, can be regarded as *jus cogens* for UNCLOS member states.⁷⁵

Furthermore, the CHM principle is an element of international law and has universal applicability, because it follows the principle of equity in terms of the utilization of the common resources for the whole of mankind.⁷⁶ The principle of equity is regarded as the essential norm of international law.⁷⁷ Thus, this principle becomes an obligation on all states owing to its notional consonance with the principles of equity, fairness, and justice in international law.⁷⁸ Further, owing to the fact that this principle levies duties as well as restrictions on all states regarding the utilization of resources in the common area, the principle has its legitimacy and

⁶⁸ *Id.* (“[d]espite the incorporation into the above-mentioned treaties, there is continuing debate over whether CHM has achieved the status of a rule of customary international law.”).

⁶⁹ *See* Noyes, *supra* note 32, at 454–55.

⁷⁰ *Id.* at 455 n.34.

⁷¹ *See* U.N. Div. for Ocean Affairs and the Law of the Sea, *Convention on the Law of the Sea*, art. 311, ¶ 6 (Dec. 10, 1982) [hereinafter UNCLOS].

⁷² *See id.* art. 36.

⁷³ *See id.* art. 311, ¶ 6; *see also* Noyes, *supra* note 32, at 455.

⁷⁴ *See* Franckx, *supra* note 29, at 545–46.

⁷⁵ *See* Millicay, *supra* note 64.

⁷⁶ *See* Bourrel et al., *supra* note 50.

⁷⁷ *Id.*

⁷⁸ *Id.*

legal regime established in all states.⁷⁹ Within this context, the CHM principle can be perceived as a *jus cogens* principle, which has to be respected by every state to get their actions to be approved as legitimate in ABNJ.⁸⁰

B. Treaty Law

We can relate the incorporation of the CHM principle in the Moon Treaty 1979 as an illustration of the CHM principle as part of treaty law.⁸¹ The Moon Treaty has the core objective to establish a regime concerning the activities performed by different states in space, including on the moon.⁸² The treaty suggests that the moon and its resources are the property of the whole of mankind and therefore cannot be owned or captured by one or a group of states.⁸³ Plus, another treaty, the Outer Space Treaty, imposes the same obligation regarding the resources of all other celestial objects.⁸⁴ Both treaties require that celestial resources only be used for peaceful purposes and that their utilization not harm the natural environment there.⁸⁵ Moreover, their utilization should produce benefits for the whole of mankind.⁸⁶

An important recommendation provided by the Moon Treaty is that it endorses the formation of an administrative mechanism to regulate and monitor the activities of states in space, particularly on celestial objects, and on the moon.⁸⁷ Thus, the Treaty provides recommendations analogous to those implied by the CHM principle, specifically the formation of a legal regime related to regulating the activities of states to utilize common resources for the benefit of mankind.⁸⁸ This

⁷⁹ See PEOPLE IN SPACE: POLICY PERSPECTIVES FOR A “STAR WARS” CENTURY 143 (James Everett Katz ed., 1985).

⁸⁰ See Millicay, *supra* note 64.

⁸¹ See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

⁸² See Lotta Vikari, *Natural Resources of the Moon and Legal Regulation*, in MOON: PROSPECTIVE ENERGY AND MATERIAL RESOURCES 537 (Viorel Badescu ed., 2012); see also M. J. PETERSON, INTERNATIONAL REGIMES FOR THE FINAL FRONTIER 161 (2005).

⁸³ See Vikari, *supra* note 82, at 537; see also TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

⁸⁴ See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

⁸⁵ See SPACE RESOURCE UTILIZATION: A VIEW FROM AN EMERGING SPACE FARING NATION 64 (Annette Froehlich ed. 2018) [hereinafter Froehlich].

⁸⁶ See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

⁸⁷ See Froehlich, *supra* note 85, at 64.

⁸⁸ Nathan C. Goldman, *The Moon Treaty: Reflections on the Proposed Moon Treaty, Space Law, and the Future*, in PEOPLE IN SPACE: POLICY PERSPECTIVES FOR A “STAR WARS” CENTURY 143 (James Everett Katz ed., 1985).

also indicates that the Moon Treaty incorporates the CHM principle,⁸⁹ which further illustrates that the CHM principle is also a part of treaty law.⁹⁰

The 1994 Implementation Agreement for Part XI of UNCLOS also incorporates the CHM principle by affirming that the deep seabed and its resources are the common heritage of mankind.⁹¹ Hence, the inclusion of the CHM principle in the Moon Treaty, the Outer Space Treaty, and the 1994 Implementation Agreement for UNCLOS further affirms the idea that the CHM principle is a part of treaty law.⁹²

C. The 1982 Convention on the Law of the Sea and the CHM Principle

The 1982 Convention on the Law of the Sea provides substantial basis for the legalized establishment of the CHM principle.⁹³ The Convention, in particular its Part XI, provides certain rubrics for utilizing the seabed and its resources for the mutual benefit of mankind.⁹⁴ For instance, Articles 137, 140, 141, 143, 148, 150, 152, 153, 160, and 238 include instructions relevant to the implementation of the CHM principle.⁹⁵

Article 137 of UNCLOS relates to ascertaining the sovereignty in the area of CHM.⁹⁶ It explains that no state has the right to claim sovereignty in such an area and no individual, corporation, or state can take control of such an area.⁹⁷ Furthermore, it clearly mentions that all the ownership rights in the area are possessed by the whole of humanity, and no one can act in the area except on behalf of humanity.⁹⁸ Regarding the resources discovered in the area, Article 137 affirms that no one individual, corporation, or state can claim exclusive ownership of such resources.⁹⁹ It further explains that the resources discovered should be divided

⁸⁹ See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

⁹⁰ See *id.*

⁹¹ See DEFINITIONS FOR THE LAW OF THE SEA, *supra* note 2, at 137.

⁹² See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

⁹³ See Andre Tahindro, *The Concept of Regional Common Heritage: Its Possible Application in the South China Sea*, in UN CONVENTION ON THE LAW OF THE SEA AND THE SOUTH CHINA SEA 105 (Shicun Wu et al. eds., 2016).

⁹⁴ *Id.* at 106.

⁹⁵ See generally UNCLOS, Part XI.

⁹⁶ See UNCLOS, art. 137.

⁹⁷ See *id.* ¶ 1; see also Taylor, *Concept*, *supra* note 5.

⁹⁸ See UNCLOS, art. 37, ¶ 2.

⁹⁹ See *id.* ¶ 3.

among all states.¹⁰⁰ In this regard, states must act according to the rules set out in UNCLOS, which underscore the need to maintain peace and security as well as to establish mutual cooperation and understanding among states to share the common resources of the area.¹⁰¹ On a similar note, Article 140 elaborates the division of resources by recommending that resources be shared equitably among states and utilized for the benefit of the whole of mankind.¹⁰² These rubrics form the fundamental basis of the CHM principle, which further highlights the key role that has been played by UNCLOS in laying out the CHM principle.¹⁰³

Article 141 of UNCLOS further recommends that the area be used only for peaceful purposes.¹⁰⁴ Likewise, Article 143 allows states to conduct scientific research projects in the area, on condition that the research must be meant only for peaceful purposes and ultimately for the benefit of the whole of mankind.¹⁰⁵ It further recommends that such research projects be carried out under the supervision of the ISA.¹⁰⁶ The ISA also has the role of ensuring the equitable allocation of benefits from resources in ABNJ among all state parties.¹⁰⁷

Article 145 of UNCLOS mandates that the protection of the area must be guaranteed by all states.¹⁰⁸ For this purpose, it recommends that state parties adopt all possible necessary measures and the ISA must set up rules and regulations for collectively ensuring environmental protection in the area.¹⁰⁹ In this regard, the text of Article 145 particularly recommends that the ISA create and implement such policies to protect the environment from pollution and also ensure the preservation of natural habitats and fauna and flora in the area.¹¹⁰

The participation of developing states in the beneficial utilization of common resources in ABNJ is another requirement of the CHM principle, as mentioned in Article 148 of UNCLOS.¹¹¹ In this regard, Article 148 particularly mentions that states that have certain disadvantages in benefitting from the area owing to their landlocked geographical location should also be given special access to the common resources in the area according to their needs.¹¹²

Article 150 of UNCLOS is interesting in its context as it stresses that states should follow and implement policies in the area to produce favorable outcomes for

¹⁰⁰ See *id.* ¶ 2.

¹⁰¹ See UNCLOS, art. 138.

¹⁰² See UNCLOS, art. 140, ¶¶ 1–2.

¹⁰³ See Tahindro, *supra* note 93.

¹⁰⁴ See UNCLOS, art. 141; see also Taylor, *Concept*, *supra* note 5.

¹⁰⁵ See UNCLOS, art. 143, ¶ 1.

¹⁰⁶ See *id.* ¶ 2.

¹⁰⁷ See also Taylor, *Concept*, *supra* note 5.

¹⁰⁸ See UNCLOS, art. 145.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*; see Taylor, *Concept*, *supra* note 5.

¹¹¹ See UNCLOS, art. 148.

¹¹² *Id.*

the global economy and trade, and to promote global cooperation, particularly among developing states.¹¹³ Article 151 sets the roles and responsibilities of the ISA in implementing the policies and goals suggested in Article 150.¹¹⁴ Similarly, Article 152 further recommends that the ISA avoid discrimination in the implementation of its policies and the fulfillment of its responsibilities.¹¹⁵ It further recommends that the ISA specially assist geographically and financially disadvantaged developing states so that they may not remain behind in incurring benefits from the common resources in the area.¹¹⁶

As the resources in the common area are the property of the whole of mankind, any activity performed by the ISA over such resources in the area must be for the whole of mankind.¹¹⁷ This is mentioned in Article 153, which further recommends that the ISA should control, manage, and carry out any activity for the whole of mankind.¹¹⁸ The same rule applies to any activity performed in the area by any corporation, individual, or state after such an activity has been approved in writing by the ISA.¹¹⁹ In this regard, the ISA has the essential responsibility to verify legal compliance of all such activities that are to be carried out in the area.¹²⁰

UNCLOS imposes a prohibition on the unilateral exploitation of resources whether such exploitation is carried out through deep-seabed mining or any other activity.¹²¹ On the other hand, if deep-sea mining activity is carried out after gaining approval from the ISA, then the profits received from such an activity must be provided equitably to all states, especially to developing states, and preferably to the geographically disadvantaged, poor states in consideration of their interests.¹²²

It can be inferred from the aforementioned provisions of UNCLOS that no unilateral activity of the exploitation of benefits, including deep-seabed mining, may extract minerals in a manner that harms either the natural environment of the area or the interests of developing states. UNCLOS rejects any unilateral claims by a state or by an individual for exclusively controlling or owning the resources of the area.¹²³ Furthermore, it also necessitates that such resources be utilized only for peaceful purposes and for the benefit of mankind.¹²⁴ Moreover, the utilization of the common resources must also ensure the protection of the natural environment

¹¹³ See *id.* ¶ 150.

¹¹⁴ See *id.*

¹¹⁵ See *id.* ¶ 1.

¹¹⁶ See UNCLOS, art. 152, ¶ 2.

¹¹⁷ UNCLOS, art. 153, ¶ 1.

¹¹⁸ *Id.*

¹¹⁹ See UNCLOS, art. 153, ¶ 2–3.

¹²⁰ See *id.* ¶ 4.

¹²¹ See Stendahl, *supra* note 46.

¹²² See UNCLOS, art. 82, ¶ 4; see also Wolfrum, *supra* note 21, at 321.

¹²³ See Taylor, *Concept*, *supra* note 5.

¹²⁴ See UNCLOS, art. 143, ¶ 1.

in the area.¹²⁵ More importantly, the benefits incurred from the common resources in the area must be shared by all states equitably.¹²⁶ These rubrics in UNCLOS form the basis of the CHM principle.¹²⁷

D. International Customary Law

According to some legal experts, the CHM principle is a concept that should be regarded as part of international customary law.¹²⁸ This is because this principle provides generalized legal obligations to states in relation to their activities carried out in ABNJ.¹²⁹ On the other hand, some experts consider it too early to regard the CHM principle part of international customary law because this principle has a very indeterminate nature (this concept will be discussed later).¹³⁰

There are certain conditions that the CHM principle has to fulfill to be necessarily considered part of international customary law.¹³¹ The first is that the CHM principle must have a distinct content and it must be brought into state practice as a legal custom,¹³² that is, that states follow the CHM principle as a norm.¹³³ Thus, reliance upon the provisions of UNCLOS is not enough to ratify the CHM principle as part of international customary law.¹³⁴ On the other hand, an inquiry is raised here whether the CHM principle can really be adopted as a custom by the states. To answer this question, we need to first have a look at the actual content of the CHM principle. As stated above, to practically apply or implement the CHM principle, it is essential that an international administration be operational in the areas of common heritage of mankind.¹³⁵ Without such an administrative entity, the application of the CHM principle, followed by the adoption of the CHM principle as a custom by state parties, appears to be an awkward and unrealistic idea.¹³⁶ Thus, unless an administration comes into action in ABNJ, the CHM principle cannot be adopted either as a custom or as part of international customary law.

¹²⁵ See Taylor, *Concept*, *supra* note 5.

¹²⁶ See UNCLOS, art. 140, ¶¶ 1–2.

¹²⁷ See Tahindro, *supra* note 93; see HELMUT TUERK, REFLECTIONS ON THE CONTEMPORARY LAW OF THE SEA 44 (2012).

¹²⁸ See Noyes, *supra* note 32, at 455; see also GBENGA ODUNTAN, SOVEREIGNTY AND JURISDICTION IN AIRSPACE AND OUTER SPACE: LEGAL CRITERIA FOR SPATIAL DELIMITATION 193 (2011).

¹²⁹ See ODUNTAN, *supra* note 128, at 193; see also Noyes, *supra* note 32, at 455.

¹³⁰ See Noyes, *supra* note 32, at 455.

¹³¹ See Wolfrum, *supra* note 21, at 312–13.

¹³² *Id.* at 314.

¹³³ *Id.* at 334.

¹³⁴ *Id.*

¹³⁵ *Id.* at 322.

¹³⁶ Wolfrum, *supra* note 21, at 337.

To further explain the requirements for the inclusion of the CHM principle in international customary law, we will first look into its incorporation in treaty law. In the same manner that the moon and celestial objects in space are the areas of the common ownership of states,¹³⁷ the deep-seabed on Earth is the common property of the whole of mankind.¹³⁸ Thus, we can infer that resources found in the deep-seabed are also the common property of mankind and that states can benefit from such resources through deep-seabed mining,¹³⁹ and thus equitably share those benefits.¹⁴⁰ In this regard, if the equitable share is acquired by all stakeholders regularly and such utilization of resources comes into adoption as a norm by all states under the supervision of an administrative body, i.e., the ISA, then such a situation would appear to fulfill the requirement for the CHM principle to be categorized as part of international customary law.¹⁴¹ That is, the CHM principle through regulated deep-seabed mining would be adopted by states as a norm and consequently it would be rightly considered an element of international customary law.

On the other hand, some experts consider that it is uncertain whether deep-seabed mining is a part of the CHM regime.¹⁴² However, deep-seabed mining is neither prohibited nor recommended by the CHM principle.¹⁴³ Nevertheless, it is generally considered that deep-seabed mining activity should be included in the regime established under the CHM principle owing to the fact that deep-seabed mining activity entails financial benefits for all stakeholders.¹⁴⁴

In this context, the regime to regulate deep-seabed mining in ABNJ according to the CHM principle is not ready to accrue benefits in an equitable manner.¹⁴⁵ Thus, it is arguable whether the present nature of the CHM principle is really part of international customary law.¹⁴⁶ Some argue that it is not a part of customary law,¹⁴⁷ whereas others argue that it is, owing to the generalized normative nature of this principle.¹⁴⁸ Furthermore, the present inclusion of the CHM principle in international customary law is contentious to some experts as many of them consider it an emerging international customary principle rather than an

¹³⁷ See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62, at 259.

¹³⁸ See Taylor, *Concept*, *supra* note 5.

¹³⁹ See Stendahl, *supra* note 46.

¹⁴⁰ See DEJO OLOWU, INTERNATIONAL LAW: A TEXTBOOK FOR THE SOUTH PACIFIC 166 (2010).

¹⁴¹ *Id.*

¹⁴² See Wolfrum, *supra* note 21, at 333–35.

¹⁴³ *Id.* at 336.

¹⁴⁴ *Id.* at 336–37; see also ODUNTAN, *supra* note 128.

¹⁴⁵ See Aline Jaeckel et al., *Sharing Benefits of the Common Heritage of Mankind – Is the Deep Seabed Mining Regime Ready?* 70 MARINE POL'Y 198, 200 (2016).

¹⁴⁶ See TAYLOR, ECOLOGICAL APPROACH, *supra* note 62.

¹⁴⁷ See Noyes, *supra* note 32, at 455.

¹⁴⁸ See ODUNTAN, *supra* note 128.

established part of international customary law.¹⁴⁹ Nonetheless, as mentioned earlier, to include this principle in international customary law, certain conditions must be fulfilled.¹⁵⁰ These conditions are: the establishment of an administrative body in ABNJ, the equitable utilization of the benefits, no harm done to the environment, the peaceful utilization of the area and its resources, and, above all, the adoption of these steps by all states as a custom that would ultimately become a norm.¹⁵¹ Furthermore, to fulfill these conditions, cooperation among all states is also essential to avoid a clash between the individual interests of states and the legal regime established by the CHM principle.¹⁵²

However, the universal jurisdiction of the Law of the Sea Convention of 1982, as well as that of the 1994 Implementation Agreement, added force to the idea that the CHM principle is to be regarded as part of international customary law.¹⁵³ Both the Law of the Sea Convention of 1982 and its Implementation Agreement of 1994 endorse the CHM principle and include a number of provisions that are considered the fundamental basis of the CHM principle.¹⁵⁴ States have already started implementing these provisions as custom, since unilateral deep-seabed mining activities in areas of CHM are not being pursued by states.¹⁵⁵ Hence, the indeterminacy of the CHM principle, which was considered a reason for not including the CHM principle as part of international customary law,¹⁵⁶ becomes null and void, owing to the fact that UNCLOS and the 1994 Implementation Agreement have finally added some determinacy to the concept of the CHM principle.¹⁵⁷ Therefore, the CHM principle can be categorized as part of international customary law.

IV. THE INTERNATIONAL SEABEAD AUTHORITY AND THE CHM PRINCIPLE

The ISA has been assigned the key role under UNCLOS to administer areas of CHM as well as to ensure the effective implementation of the CHM principle in such areas.¹⁵⁸ However, it is also facing several challenges in implementing the CHM principle in ABNJ.¹⁵⁹

¹⁴⁹ See Noyes, *supra* note 32, at 455.

¹⁵⁰ See, e.g., Wolfrum, *supra* note 21, at 313.

¹⁵¹ *Id.* at 332.

¹⁵² *Id.* at 317.

¹⁵³ See Noyes, *supra* note 32, at 456.

¹⁵⁴ See DEFINITIONS FOR THE LAW OF THE SEA, *supra* note 2.

¹⁵⁵ See Noyes, *supra* note 32, at 465.

¹⁵⁶ See *id.* at 464.

¹⁵⁷ See *id.* at 454.

¹⁵⁸ See Bourrel et al., *supra* note 50, at 313.

¹⁵⁹ *Id.*

A. Responsibilities of the ISA in Relation to Implementation of the CHM Principle

The ISA has the responsibilities to govern the areas of CHM, to equitably allocate common resources among state parties, and to ensure compliance with the rules of UNCLOS in the activities pursued by states to utilize the resources in the area.¹⁶⁰ The ISA is the entity through which states that are parties to UNCLOS legitimize their activities of taking the benefits from ABNJ.¹⁶¹ These activities also include deep-seabed mining, which is carried out to procure valuable minerals from the area.¹⁶² Thus, the ISA also regulates the activities of state parties in the area.¹⁶³

In performing its duties, the ISA acts for the whole of humanity in the area of CHM.¹⁶⁴ It monitors the extraction of benefits derived from exploration, including deep-seabed mining, and other activities performed in the area of CHM.¹⁶⁵ Furthermore, it also has a responsibility to conduct and promote scientific research in the area and then to share the results of the research with all state parties.¹⁶⁶ It also has the added responsibility to perform measures to promote technology considered useful for conducting scientific research and other beneficial activities in the area.¹⁶⁷ In this regard, the ISA must promote cooperation among states in transferring technology to developing states to conduct resource-utilization activities in the area.¹⁶⁸

It is also an essential responsibility of the ISA to perform certain measures that could ensure the protection of the marine environment in the area from all kinds of perils, e.g., pollution, drilling, excavation, and installations of cables and pipelines, and from adverse effects of all kinds of activities in marine ABNJ.¹⁶⁹ Besides the protection of the environment, the ISA must also make certain policies to safeguard human life in the area.¹⁷⁰ For this purpose, the ISA can consider the relevant rules of international law in drafting its policies.¹⁷¹

¹⁶⁰ *Id.*

¹⁶¹ *Id.* For details about how contractors or states legitimize their activities in the area, see ISA, *supra* note 55, at 8–12.

¹⁶² See Bourrel et al., *supra* note 50, at 313.

¹⁶³ *Id.*

¹⁶⁴ See UNCLOS, art. 137, ¶ 2.

¹⁶⁵ See Bourrel et al., *supra* note 50, at 313.

¹⁶⁶ See UNCLOS, art. 140, ¶ 2.

¹⁶⁷ See UNCLOS, art. 144, ¶ 1.

¹⁶⁸ See *id.* ¶ 2.

¹⁶⁹ See UNCLOS, art. 45.

¹⁷⁰ See UNCLOS, art. 146.

¹⁷¹ *Id.*

To augment the financial benefits derived from the minerals in the area, UNCLOS directs the ISA to perform relevant measures to promote the functioning of the markets of such commodities in the area.¹⁷² For this purpose, the ISA can hold conferences and market arrangements as well as participate as a party in such conferences and arrangements.¹⁷³ Plus, the ISA also has the authority to regulate the production of minerals mined in the area.¹⁷⁴ For this purpose, it can also limit the maximum production of minerals in an area.¹⁷⁵

To further understand the authorities and roles of the ISA, we first need to understand the structure of the ISA, because the internal bodies of the ISA set up the mechanisms for its functioning.¹⁷⁶ The organizational structure of the ISA comprises three principal units: a Secretariat, a Council, and an Assembly.¹⁷⁷ The Assembly comprises all members of the ISA and is regarded as the chief principal unit of the ISA.¹⁷⁸ The other two principal units, the Secretariat and the Council, are answerable to the Assembly.¹⁷⁹ The Assembly makes the ISA a democratic organization in which members vote to decide on the matters discussed in the Assembly.¹⁸⁰ All members of the Assembly participate in the voting process.¹⁸¹ Voting also takes place in another principal unit, the Council,¹⁸² which is regarded as the executive unit of the ISA; however, not all members of the ISA are the members of the Council.¹⁸³ The Council's members are elected by the members of the Assembly, which makes the total number of members of the Council smaller than the Assembly's.¹⁸⁴

Since all state parties of UNCLOS are members of the Assembly of the ISA, it makes the ISA an international democratic regulatory organization working in ABNJ for the benefit of the whole of mankind.¹⁸⁵ Furthermore, since the Assembly is the supreme body in the ISA, its declarations cannot be denied by

¹⁷² See UNCLOS, art. 151, ¶ 1.

¹⁷³ See *id.* ¶ 2.

¹⁷⁴ See UNCLOS, art. 151, ¶¶ 3–10 (noting that Article 151 of UNCLOS includes a very detailed elaboration of authorities owned by the ISA in relation to the activities of production of minerals performed in the area).

¹⁷⁵ See UNCLOS, art. 151, ¶ 9.

¹⁷⁶ See generally ISA, *supra* note 55.

¹⁷⁷ *Id.*; see also Franckx, *supra* note 29, at 548.

¹⁷⁸ See Franckx, *supra* note 29, at 549.

¹⁷⁹ *Id.* at 548–49.

¹⁸⁰ *Id.* at 549.

¹⁸¹ *Id.*

¹⁸² Franckx, *supra* note 29, at 549.

¹⁸³ See *id.* at 549.

¹⁸⁴ See *id.* at 548–49 (noting that the Assembly consists of all the members of the ISA and is said to be considered “‘the supreme organ,’ to which the other two principal organs are accountable.”).

¹⁸⁵ See *id.*

member states, as no declaration can come from it without the approval of the majority of its state members.¹⁸⁶

The ISA also includes another essential entity, named by UNCLOS, the “Enterprise.”¹⁸⁷ To date, the Enterprise has not been established formally and thus, has not started functioning yet.¹⁸⁸ Therefore, the duties and roles assigned to it by UNCLOS are now performed by the ISA Secretariat.¹⁸⁹ The Secretariat also performs a number of other duties, as it is mainly the administrative unit of the ISA.¹⁹⁰ Besides these principal units, the ISA also has two special units: the Finance Committee and the Legal and Technical Commission.¹⁹¹ Both special units work within their respective domains, financial matters and legal aspects.¹⁹²

B. Hurdles Faced by the ISA in the Implementation of the CHM Principle

There are some challenges faced by the ISA in its implementation of the CHM principle.¹⁹³ The foremost challenge relates to the distribution of benefits acquired from resources in ABNJ.¹⁹⁴ UNCLOS only mentions that the resources should be shared equitably, and fails to provide any quantitative tools or distributive mechanisms through which that equitable amount for each resource can be measured and distributed to stakeholders.¹⁹⁵ Hence, the ISA faces the issue of an absence of a proper mechanism to equitably distribute the benefits among all stakeholders.¹⁹⁶

Developing states can benefit from the voting process adopted by the Assembly and the Council, as they can make coalitions with each other and vote for favorable outcomes of the issue under discussion,¹⁹⁷ and thus utilize higher benefits from the resources in the area, whether or not they have the necessary technology to perform mining, drilling, or similar activity to extract minerals or other resources.¹⁹⁸ Some relevant questions arise here as to whether the benefits should

¹⁸⁶ *Id.*

¹⁸⁷ See Bourrel et al., *supra* note 50, at 313; see also ALINE L. JAECKEL, THE INTERNATIONAL SEABED AUTHORITY AND THE PRECAUTIONARY PRINCIPLE: BALANCING DEEP SEABED MINERAL MINING AND MARINE ENVIRONMENTAL PROTECTION 99 (2017).

¹⁸⁸ See JAECKEL, *supra* note 187.

¹⁸⁹ See Bourrel et al., *supra* note 50, at 313.

¹⁹⁰ See Franckx, *supra* note 29, at 549.

¹⁹¹ See Bourrel et al., *supra* note 50, at 313.

¹⁹² See JAECKEL, *supra* note 187, at 96–99.

¹⁹³ See Bourrel et al., *supra* note 50, at 313.

¹⁹⁴ *Id.*

¹⁹⁵ Bourrel et al., *supra* note 50, at 313.

¹⁹⁶ *Id.*

¹⁹⁷ See Franckx, *supra* note 29, at 548–50.

¹⁹⁸ *Id.*

be shared in financial terms, with each state getting an equal amount, or whether the needs of developing states should be given preferential treatment according to Paragraph 4 of Article 82 of UNCLOS, which stresses satisfying the interests of poor, developing states.¹⁹⁹ So, developing states, which are greater in number than developed states, can demand a larger share of common resources according to Article 82 (4) of UNCLOS. This can create a challenging situation for the ISA, as the certainty of dividing shares equitably among states can turn into uncertainty if developing states demand a share greater than the equitable portion allocated to each state by the ISA.²⁰⁰

Another key issue relates to the requirement set by the CHM principle that the benefits acquired from the common resources be distributed to the whole of mankind. However, in the current setup under the ISA, the benefits can only be distributed to state parties.²⁰¹ This means that states, not individuals, would acquire the resources. Such a situation can deprive certain disadvantaged residents of the states, mainly owing to the absence of a defined mechanism that could be utilized by states to deliver to individuals the benefits derived from common resources.²⁰² Hence, if individuals do not get benefits from the common resources, then the main objective of the CHM principle, to provide benefits to the whole of mankind, would remain unrealized.²⁰³

In summary, the ISA is in the early stages of its establishment in the areas of common heritage of mankind, since the incurring of benefits according to the CHM principle from activities such as the deep-seabed mining and drilling in the area has not yet been realized,²⁰⁴ since there are hurdles in doing so.²⁰⁵ It can be asserted that if the ISA can allocate the financial benefits acquired from mining, drilling, etc., in the area to all stakeholders, i.e., to all state parties of UNCLOS, equitably, then this organization can safeguard the common resources of mankind from unilateral exploitation and can share the benefits among mankind as a whole. For the time being, to realize its objectives, the ISA has already started establishing international cooperation among states through promoting certain activities such as human resource development and scientific research in the areas of CHM.²⁰⁶

V. POTENTIAL EFFECTS OF THE APPLICATION OF THE CHM PRINCIPLE

¹⁹⁹ See UNCLOS, art. 82, ¶ 4; see also Bourrel et al., *supra* note 50, at 314.

²⁰⁰ See Bourrel et al., *supra* note 50, at 313.

²⁰¹ *Id.*

²⁰² *Id.* at 314.

²⁰³ *Id.*

²⁰⁴ See Franckx, *supra* note 29, at 551.

²⁰⁵ See Bourrel et al., *supra* note 50, at 313 (discussing challenges faced by the ISA).

²⁰⁶ See Franckx, *supra* note 29, at 551.

The CHM principle can be applied throughout the entire seabed in ABNJ as well as in the area between 200 and 350 nautical miles of states' continental shelves and in the exclusive economic zones' seabed areas.²⁰⁷

A. Application of the CHM Principle in the Continental Shelf and Exclusive Economic Zones

After the application of the CHM principle in the continental shelf, the financial benefits incurred from resources in the continental shelf must be dispersed by the ISA in an equitable manner among the states that are parties to the Law of the Sea Convention.²⁰⁸ On the other hand, for resources acquired in exclusive economic zones (EEZs), UNCLOS directs states to provide adequate assistance to secure benefits from the EEZ, especially to developing states.²⁰⁹ In using the resources in the EEZ, states must adhere to environmental protective measures so no harm is caused to living resources in the EEZ.²¹⁰

B. Application in Deep-Seabed Mining

About 60% of the seabed on Earth comes under the regime of the CHM.²¹¹ Pertinently, deep-seabed mining appears the most prominent way of utilizing the resources of the seabed.²¹² The CHM principle recommends that deep-seabed mining must be carried out only to accrue benefits for the whole of mankind.²¹³ It prohibits state parties from conducting deep-seabed mining privately in the areas of CHM to exploit the resources unilaterally.²¹⁴

Furthermore, if the resources of the seabed are to be used according to the CHM principle, i.e., for the benefit of the whole of mankind, then there must be certain mechanisms in operation to monitor, regulate, and control such usage in a fair manner.²¹⁵ Though the ISA has been provided with authority to gather and disseminate data and to control and regulate deep-seabed mining and drilling

²⁰⁷ See Bourrel et al., *supra* note 50, at 314.

²⁰⁸ See UNCLOS, art. 82, ¶ 4.

²⁰⁹ See Bourrel et al., *supra* note 50, at 314.

²¹⁰ *Id.*

²¹¹ *Id.*

²¹² See ELIZABETH RIDDELL-DIXON, CANADA AND THE INTERNATIONAL SEABED: DOMESTIC INTERESTS AND EXTERNAL CONSTRAINTS 35 (1989).

²¹³ YUWEN LI, TRANSFER OF TECHNOLOGY FOR DEEP SEA-BED MINING: THE 1982 LAW OF THE SEA CONVENTION AND BEYOND 58 (1994).

²¹⁴ See TIM HILLIER, SOURCEBOOK ON PUBLIC INTERNATIONAL LAW 391 (1998).

²¹⁵ See Andrew Pullar, *Fisheries, Forests and the common heritage of Mankind*, 1 PUB. INT. J. N.Z. 2, 2 (2013).

activities in the area to explore the resources, no specific guidelines or mechanisms have been suggested by UNCLOS for doing so.²¹⁶ Therefore, it is necessary to invite state agencies, private corporations, civil society members, scientists, and mining experts to hold conferences and meetings in collaboration with the ISA to devise proper mechanisms to monitor and control the use of resources through deep-seabed mining in ABNJ according to the CHM principle for the benefit of the whole of mankind. This will also promote cooperation among state parties, which is also suggested by the CHM principle, which further recommends cooperation among states through transferring technology, conducting scientific research and exploratory activities, etc., to utilize resources in the area.²¹⁷

Currently, the contracts and codes generated by the ISA for deep-seabed mining in the area include the protection of the environment as a fundamental obligation.²¹⁸ Moreover, the CHM regime, under UNCLOS and the 1994 Implementation Agreement, is specifically in effect in areas of CHM as no state is pursuing any other regime for its deep-seabed mining activities in the area.²¹⁹ The state parties, or the firms working on their behalf, enter into contracts with the ISA to perform deep-seabed mining and similar activities in the area.²²⁰ The CHM principle also directs that the seabed has to be utilized only for beneficial purposes for mankind.²²¹ Moreover, the natural environment in the seabed must not be harmed by deep-seabed mining, drilling, or any exploratory activity performed in the area.²²² The CHM principle mandates that the seabed in ABNJ cannot be brought under the sovereign control of a particular state.²²³ As a result, no state, so far, has made claims of sovereignty over the areas of CHM.²²⁴

C. Application of the CHM Principle on the Utilization of Living Resources in ABNJ

The application of the CHM principle over the species living in ABNJ as well as in EEZ is debatable.²²⁵ The Ad Hoc Informal Working Group has also raised objections to the direct application of the CHM principle to living

²¹⁶ See Bourrel et al., *supra* note 50, at 313.

²¹⁷ See UNCLOS, art. 144, ¶ 2.

²¹⁸ See Noyes, *supra* note 32, at 465.

²¹⁹ *Id.*

²²⁰ *Id.*

²²¹ See Taylor, *Concept*, *supra* note 5, at 313.

²²² See UNCLOS, art. 145.

²²³ See Taylor, *Concept*, *supra* note 5, at 313.

²²⁴ *Id.*

²²⁵ See Bourrel et al., *supra* note 50, at 314.

resources.²²⁶ Furthermore, the adoption of Resolution 69/292 by the UNGA has given birth to a legally binding instrument requiring that living species must be utilized only in a sustainable manner.²²⁷ Furthermore, this instrument also makes it mandatory to preserve living species in marine ABNJ.²²⁸

The Ad Hoc Informal Working Group has also endorsed that the application of the CHM principle must be limited in ABNJ to conserve biodiversity beyond national jurisdiction (BBNJ).²²⁹ Hence, the CHM principle cannot be directly applied to living resources unless the precondition to sustainably use living resources according to UNGA Resolution 69/292 is satisfied.²³⁰ Therefore, some experts consider that there is a need to formulate new arrangements in a way similar to how the 1994 Implementation Agreement was presented to modify the CHM principle.²³¹ The new modifications must adhere to the requirements of sustainably utilizing and preserving living resources in ABNJ.²³² Future discussions must consider this aspect related to the sustainable utilization of living resources in the area, because it is essential that the resources of the seabed must be utilized in a sustainable manner for the preservation of living resources for future generations of mankind.²³³ In this regard, the adherence to the principles of equity, justice, and fairness must be considered in drafting the new arrangements for the CHM principle.²³⁴

VI. CONTROVERSIES AND ISSUES RELATED TO THE IMPLEMENTATION OF THE CHM PRINCIPLE

²²⁶ *Id.*

²²⁷ *Id.*; see also Tullio Scovazzi & Ilaria Tani, *Problems Posed by Marine Protected Areas Having a Transboundary Character*, in MARINE TRANSBOUNDARY CONSERVATION AND PROTECTED AREAS 32 (Peter Mackelworth ed., 2016).

²²⁸ See Scovazzi & Tani, *supra* note 227.

²²⁹ See Bourrel et al., *supra* note 50, at 314.

²³⁰ *Id.*

²³¹ See, e.g., *id.* at 313.

²³² See *id.* at 314.

²³³ *Id.*

²³⁴ See Bourrel et al., *supra* note 50, at 314.

Owing to indeterminate aspects in the CHM principle, a number of controversies and objections have arisen in relation to the implementation of this principle in ABNJ.²³⁵

A. Jurisdiction

One major controversy relates to jurisdictional aspects.²³⁶ The CHM principle considers that ABNJ and their resources are the common property of the whole of mankind and therefore cannot be exploited unilaterally by any state.²³⁷ In fact, no state can exercise jurisdiction over the resources in the area.²³⁸ Hence, the CHM principle disregards a traditional concept of international law, the concept of acquisition of territory, according to which a state can acquire territory through cession, conquest, or controlling newly discovered lands.²³⁹ Historically, several states have spread their territorial limits like this.²⁴⁰ However, the CHM principle rejects such methods of controlling ABNJ and considers that ABNJ is the property of the whole of mankind, and therefore no one state can acquire ownership of the area.²⁴¹

B. Equitable Distribution

Another issue related to the CHM principle is that, though it recommends that the resources of the common area be shared equitably among states, it provides no quantitative framework for determining or distributing the equitable share of a resource.²⁴² This creates uncertainty related to the distribution of resources among the stakeholders in the area.²⁴³ For instance, the sharing of benefits derived from the fauna, flora, and forests could be challenging if the benefits are to be shared among states.²⁴⁴ More particularly, the sharing of benefits may become contentious if corporate entities also demand compensation for the technological or other

²³⁵ See Taylor, *Concept*, *supra* note 5.

²³⁶ See Noyes, *supra* note 32, at 450.

²³⁷ See PRESCOTT & TRIGGS, *supra* note 1.

²³⁸ See Taylor, *Concept*, *supra* note 5, at 313.

²³⁹ See Prue Taylor, *The Common Heritage Of Mankind: A Bold Doctrine Kept Within Strict Boundaries*, *The Wealth of the Commons*, <http://wealthofthecommons.org/essay/common-heritage-mankind-bold-doctrine-kept-within-strict-boundaries> (last visited Oct. 17, 2018) [hereinafter Taylor, *Common Heritage*].

²⁴⁰ BONA UDEZE, *WHY AFRICA?: A CONTINENT IN A DILEMMA OF UNANSWERED QUESTIONS* 78 (2009).

²⁴¹ See Taylor, *Concept*, *supra* note 5.

²⁴² See Bourrel et al., *supra* note 50, at 313.

²⁴³ *Id.*

²⁴⁴ See Taylor, *Common Heritage*, *supra* note 239.

services they offer in the area.²⁴⁵ For instance, a mining firm can demand a fee for its machinery or services offered in the area.²⁴⁶ There, it is not certain how the costs would be divided among the stakeholders. Would poor, developing states be able to contribute as well? These inquiries remain unanswered by the CHM principle.

Furthermore, as the benefits retrieved from the resources in the common area would be distributed equitably among all states, developed states hesitate to invest in the area,²⁴⁷ and this can hinder progress.²⁴⁸ Further, most developed states prefer that investment in the area be carried out by private corporations because this saves the state the additional costs of investment, but the CHM principle does not allow this.²⁴⁹ It is pertinent to mention here that the 1994 Implementation Agreement of Part XI of UNCLOS included provisions in support of private investment in the area.²⁵⁰ It endorsed the idea that private firms should be provided with licenses to invest in the area and, in return, should also be allowed to reap benefits as independent stakeholders in the area.²⁵¹ However, the implementation of such provisions implies the rejection of the CHM principle.²⁵²

C. Peaceful Utilization of the Area

Critics of the CHM principle have argued that it does not specifically mention the peaceful utilization of the area.²⁵³ To substantiate this assertion, the 1986 Seoul Declaration, made by the International Law Association, is regarded as a reference for the idea that the area is not specified to be used only for peaceful purposes.²⁵⁴ The Declaration was subject to the CHM principle and it did not mention that the area and its resources were necessarily to be used for peaceful purposes only.²⁵⁵ Some critics infer from this that the peaceful utilization concept does not exist in the CHM principle.²⁵⁶ However, others argue that the area is specified to be used for peaceful purposes only, because non-peaceful utilization would imply no benefit for mankind.²⁵⁷ The debate remains contentious.

²⁴⁵ *See id.*

²⁴⁶ *See id.*

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *See Taylor, Common Heritage, supra* note 239.

²⁵⁰ *See id.*

²⁵¹ *See id.* (“[t]hey favor, for example, exploitation by private enterprise conducted under licensing arrangements.”).

²⁵² *Id.*

²⁵³ *See Noyes, supra* note 32, at 452.

²⁵⁴ *Id.*

²⁵⁵ *Id.*

²⁵⁶ *Id.*

²⁵⁷ *See Noyes, supra* note 32, at 451.

D. Environmental Protection

Another element of the CHM principle related to ensuring protection of the natural environment of the area is highly contested among legal experts.²⁵⁸ Some experts consider that the CHM principle has no underlying concept endorsing environmental protection in the area.²⁵⁹ This is because, to protect the natural environment, the environment must be kept in its original condition, while the activities of benefitting from the area can alter and, most probably, harm the natural environment.²⁶⁰ For instance, deep-seabed mining and drilling activities can harm the natural environment.²⁶¹ These activities are required for incurring benefits from the resources in the area, but such extraction of resources, if not carried out with caution, can result in threatening the natural environment and habitats of living species.²⁶² Hence, environmental protection is not guaranteed through the implementation of the CHM principle.²⁶³ This is the most contentious aspect of the CHM principle, which remains unaddressed and unresolved.²⁶⁴

E. Changes Brought into the Original CHM Principle

The 1994 Implementation Agreement of Part XI of UNCLOS brought some changes to UNCLOS to make it acceptable to developed states.²⁶⁵ The changes were made because developed states, including the United States, raised objections to UNCLOS owing to its deep-seabed mining-related provisions.²⁶⁶ However, after accepting the concerns of developed states, the provisions endorsing market-oriented features were added to Part XI of UNCLOS, which were later endorsed by developed states.²⁶⁷

Although the changes were made in Part XI of UNCLOS through the 1994 Implementation Agreement to convince developed states to accept UNCLOS, the

²⁵⁸ See, e.g., *id.* at 452.

²⁵⁹ *Id.*

²⁶⁰ *Id.*

²⁶¹ See JAECKEL, *supra* note 187, at 123; see also ROBIN WARNER, PROTECTING THE OCEANS BEYOND NATIONAL JURISDICTION: STRENGTHENING THE INTERNATIONAL LAW FRAMEWORK 45 (David Freestone ed., 2009).

²⁶² See JOHN F. MONGILLO & LINDA ZIERDT-WARSHAW, ENCYCLOPEDIA OF ENVIRONMENTAL SCIENCE 227 (2000).

²⁶³ See Noyes, *supra* note 32, at 452.

²⁶⁴ *Id.*

²⁶⁵ See ONUMA YASUAKI, INTERNATIONAL LAW IN A TRANSCIVILIZATIONAL WORLD 325 (2017); see also CHARLES LAWSON, REGULATING GENETIC RESOURCES: ACCESS AND BENEFIT SHARING IN INTERNATIONAL LAW 111 (2012).

²⁶⁶ See Stendahl, *supra* note 46.

²⁶⁷ See LAWSON, *supra* note 265.

resulting version of the CHM regime became different from what was originally proposed in the speech by former Maltese Ambassador, Arvid Pardo, in 1967.²⁶⁸ Though the central theme of the CHM principle remained the same, some experts consider the new version of the principle contentious.²⁶⁹

F. Other Issues

Another issue related to the CHM principle is that it leaves a number of questions unanswered in relation to the wording used in the text of this principle.²⁷⁰ For instance, it does not explain what exactly is meant by the word “mankind” as a whole.²⁷¹ It does not explain whether mankind includes future generations or only the current world population.²⁷² This question in particular needs to be answered because certain policies related to investing in the area depend on it.²⁷³ For instance, if a resource has to be utilized for the current world population and mining is required for utilizing that resource, then mining should start immediately. On the other hand, if such a resource has to be preserved for future generations, then the mining may not be carried out soon to keep that resource safe and preserved to be used by future generations.²⁷⁴ If both future generations and the current population are included in the term “mankind,” then the resource can be used only in a manner that it is not exploited to its fullest potential and the remaining production capacity of this resource is kept preserved for future generations.

Furthermore, it is also unclear how the benefits would be distributed among mankind.²⁷⁵ That is, the question remains whether the benefits, according to the CHM principle, are to be provided to states or to the general public in those states and whether they are to be provided in financial terms or in raw material form.²⁷⁶ If the benefits are to be provided to the general public, then what could be the mechanism for distribution of such benefits? These inquiries remain unaddressed in the CHM principle.²⁷⁷

²⁶⁸ See LAWSON, *supra* note 265; see also Noyes, *supra* note 32, at 464.

²⁶⁹ See Noyes, *supra* note 32, at 464.

²⁷⁰ See Bourrel et al., *supra* note 50, at 313–14; see also Noyes, *supra* note 32, at 454.

²⁷¹ See Bourrel et al., *supra* note 50, at 313; see also Noyes, *supra* note 32, at 454.

²⁷² See Noyes, *supra* note 32, at 454.

²⁷³ See *id.*

²⁷⁴ See *id.*

²⁷⁵ See Bourrel et al., *supra* note 50, at 313–14.

²⁷⁶ *Id.* at 313.

²⁷⁷ Bourrel et al., *supra* note 50, at 313.

VII. CONCLUSION

The CHM principle has been designed to protect the areas and resources that are considered the common property of the whole of mankind.²⁷⁸ These areas include the seabed, EEZs, and regions that are beyond the national jurisdictions of all states.²⁷⁹ This principle originates from Roman legal theory, but in modern times was presented by Pardo in a UNGA session in which he expressed his fear that developed states might exploit the resources of ABNJ by using their technological machineries, which would give no chance to poor states to benefit from such resources owing to their not having the technological infrastructure necessary to benefit from the resources discovered in the area.²⁸⁰ As a result, it was requested to designate all of the resources in ABNJ as CHM, which could not be exploited unilaterally by any state and private entity.²⁸¹ All developing states endorsed this demand and, consequently, UNCLOS included several provisions in its Part XI that formed the basis of the CHM principle.²⁸²

The main features of the CHM principle are that areas of CHM cannot be brought under the sovereign control of any one state or corporation.²⁸³ Furthermore, such areas and their resources are to be utilized only for peaceful purposes and for the benefit of the whole of mankind.²⁸⁴ Moreover, environmental protection in such areas should also be ensured during the extracting of resources in such areas.²⁸⁵ The principle permits deep-seabed mining, drilling, scientific exploration, and other activities that are carried out to extract resources in such areas for the benefit of mankind.²⁸⁶ However, it strictly instructs that activities of deep-seabed mining, drilling, etc., are permissible only if they are licensed by the ISA, and the benefits acquired from the ISA are to be distributed to all states in an equitable manner, including poor states, even if the states do not contribute in the mining or drilling processes owing to a lack of financial resources.²⁸⁷ Hence, the CHM principle

²⁷⁸ See Kilaparti Ramakrishna, *North-South Issues, the Common Heritage of Mankind and Global Environmental Change*, in *GLOBAL ENVIRONMENTAL CHANGE AND INTERNATIONAL RELATIONS* 436 (Ian Rowlands & Malory Greene eds., 2016 ed.); see also another perspective discussed by Laura Westra, *Future Generations' Rights: Linking Intergenerational and Intragenerational Rights in Ecojustice*, in *CLIMATE CHANGE AND ENVIRONMENTAL ETHICS* 194 (Ved P. Nanda ed., 2012).

²⁷⁹ See Bourrel et al., *supra* note 50, at 314.

²⁸⁰ See TAYO O. AKINTOBA, *AFRICAN STATES AND CONTEMPORARY INTERNATIONAL LAW: A CASE STUDY OF THE 1982 LAW OF THE SEA CONVENTION AND THE EXCLUSIVE ECONOMIC ZONE 4–5* (1996); Egede, *supra* note 14.

²⁸¹ Egede, *supra* note 14.

²⁸² See MAGNÚSSON, *supra* note 20.

²⁸³ See Taylor, *Concept*, *supra* note 5.

²⁸⁴ *Id.*

²⁸⁵ *Id.*

²⁸⁶ *Id.*

²⁸⁷ See JAECKEL, *supra* note 187, at 259; see also Taylor, *Concept*, *supra* note 5.

favors developing states and provides them with benefits that are incurred from the resources found in the areas of common heritage of mankind.²⁸⁸

In essence, the CHM principle establishes a regime that comprises ABNJ, and particularly includes the seabed, the continental shelf between 200 and 350 nautical miles of states, and the EEZs.²⁸⁹ It applies not only to the mineral resources located in these areas but also to the living species including fish stocks and forests located in these areas.²⁹⁰ However, the utilization of these resources becomes contentious if not carried out sustainably.²⁹¹ Unfortunately, the CHM principle does not give guidance on sustainably using and preserving the resources.²⁹² Therefore, this aspect needs to be addressed by the international community to make the CHM principle more favorable to living resources and biodiversity in ABNJ.²⁹³

Besides devising an environmentally friendly mechanism to implement the CHM principle, there are several other recommendations that can be implemented to apply the principle better in the area. For instance, the procedure for sharing benefits among states should be clearly defined and transparently implemented, and all stakeholders should be confident in that procedure.²⁹⁴ Furthermore, the guidelines for protecting the natural environment and utilizing resources should also be provided, in particular to protect the environment from the adverse effects of drilling and deep-sea mining activities.²⁹⁵ Further, the needs of poor, developing states should also be taken care of; for this purpose, the benefits should be allocated to them on an equitable basis.²⁹⁶

On the other hand, owing to the objections raised to the CHM principle, the ISA finds it challenging to implement this principle in its full capacity in ABNJ.²⁹⁷ For instance, certain states, e.g., the United States, have raised objections to this principle owing to several issues identified above.²⁹⁸ One major issue relates to the vague interpretation of this principle and the absence of a particular mechanism for the sharing of benefits among states.²⁹⁹ Moreover, some developed states have objected that this principle largely favors developing states, and provides them with an equitable share of the resources of the area, whether or not

²⁸⁸ See Rudiger Wolfrum, *Law of the Sea: An Example of the Progressive Development of International Law*, in THE UNITED NATIONS AT AGE FIFTY: A LEGAL PERSPECTIVE 324 (Christian Tomuschat ed., 1995).

²⁸⁹ See Bourrel et al., *supra* note 50, at 314.

²⁹⁰ See *id.*

²⁹¹ *Id.*

²⁹² See *id.*

²⁹³ *Id.*

²⁹⁴ See Bourrel et al., *supra* note 50, at 314–15.

²⁹⁵ *Id.*

²⁹⁶ *Id.*

²⁹⁷ *Id.* at 313.

²⁹⁸ See Stendahl, *supra* note 46; see also LAWSON, *supra* note 265.

²⁹⁹ See Noyes, *supra* note 32, at 454; see also Bourrel et al., *supra* note 50, at 313.

they contribute in the efforts to retrieve the resources.³⁰⁰ Therefore, the implementation of this principle in recent years has not proven sufficiently successful and simple.³⁰¹



³⁰⁰ See LAWSON, *supra* note 265; see also YASUAKI, *supra* note 265, at 324–25.

³⁰¹ For instance, some developed states, including the United States, have not yet accepted the common heritage of mankind principle. See *id.*