



Governing Shared Natural Resources of the International Seabed Area

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About the Author

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I. Executive Summary

This research attempts to establish a strategy to distribute the potential outcomes from exploiting the natural resources existing in common and global property areas, namely, the International Seabed Area (the Area), which is located beyond the limits of national jurisdictions and is rich in valuable mineral deposits such as nickel, copper, cobalt, iron, and manganese. The huge deposits found beneath the oceans are commercially sound and estimated to satisfy the energy needs of the world for centuries.

Although most nations accepted the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which preserved the Area and its resources as a common heritage of mankind, the United States did not ratify this convention due to objections to its eleventh part, which regulates the exploitation activities in the Area. Even after several revisions to that part of the convention by the Implementation Agreement in 1994, the U.S. still refused to join UNCLOS. The U.S. refusal to ratify the convention threatens its intended role as the Constitution of the Seas. This refusal may also affect other countries' commitments to be bound by the convention provisions. In the worst scenario, the exploitation system of the Area, which took years to build, could eventually collapse if the U.S. continues to refuse to join.

This research stresses the importance of a proper strategy that depends on a combination of free market policies and royalty system to divide outcomes resulting from the exploitation of the oceans' resources to make the convention appealing to all countries regardless of their economic growth or technological development. This proposal therefore seeks to advance the Law of the Seas for the wellbeing of all mankind by assuring that all

powerful states will join the convention and negotiate their objections with the international community.

In order to do so, I will provide an evaluation of the current system of the international body established by the Convention to oversee the activities in this region, which is called the International Seabed Authority. Then, I will recommend an ideal socio-legal system to govern the common property resources of the International Seabed Area by introducing a strategy that guarantees a distributive justice and applying this strategy to the exploitation system of UNCLOS. This strategy will be put into action by using the major theories of distributive justice (also known as socio-economic justice or social justice) and literature of common property governance system. This body of literature will help identify the factors that effectively support common governance and the factors that get in the way of effective common governance. This important because people or countries are willing to cooperate when they agree on their understanding of distributive justice. If an agreement could be reached regarding what the general principle of the government regime would be so that regime can be called fair, entities with different interests would cooperate. If they could not reach an agreement regarding that principle, they would not cooperate. For this reason, rules and policies for the governance of common-pool resources require that the cooperating parties overcome barriers to negotiations, agree on how to make the gain bigger and agree on a fair division of the gains from cooperation as well as the risks. This research will conclude by justifying the choice of the presented system and describing how this system avoids the failures of the system in part XI of UNCLOS.

II. Thesis's Questions and Objectives

This study has the following questions:

1. What are the elements that constitute the best governance system to approach the problems of the common property resource at the international level? Alternatively, under which circumstances a governance system for globally shared resources would be successful?
2. What is the most appropriate economic, political or social principle on which an international distributive justice system should rely?
3. Is it possible to resolve the problems of the international common property resource by using the same proposals and methods to resolve the problems of the local common property resource such as rivers or forests located, entirely, within the borders of one country?
4. What are the unique challenges or problems an international common property resource system, such as the exploitation system of the resources of the International Seabed Area, confront and that require special consideration?

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This study has the following objectives:

1. To highlight the problems of the common resources property systems on the international level, particularly, the problem of sharing the resources of the International Seabed Area.
2. To stress the importance of having a theoretical background and a methodological approach to solve such a problem.

3. To reevaluate the existing exploitation system for the International Seabed Area resources, and to suggest an ideal legal system with a new institutional framework to govern these common resources in a way that is just for all countries of the world without harming efficiency.
4. To demonstrate that problem-solving methods at the national level might be useful to solve similar problems on the international level.
5. To address how the system in this thesis would overcome those challenges and become acceptable to all countries and in particular, to the U.S.

III. Statement of the Facts/Case

In recent decades, many economists, politicians, sociologists, legislators, and policy makers have undertaken the empirical work to provide better solutions to the common pole resources property problems. Common pool resource problems arise when a resource can be harvested by more than one individual or organization. Because no person can preclude other owners from harvesting the resource, each person has the incentive to take and sell the resources quickly because the first person who harvests the resource first receives the value of the resource. Examples of these problems include the overfishing and pollution.

Several factors are involved in addressing such problems, including social, economic, political, and environmental factors. If there is a ban on harvesting the resource, the resources cannot be used for the good of humanity. On the other hand, if no controls are put on the harvesting of the resources, the common pool will be extinguished as those with a right to harvest the resource will continue to harvest beyond the sustainable rate. Some way must be found for those with a right to harvest the resource to cooperate, and this requires

that the costs and benefits of harvesting the resource be fairly distributed, which raises difficult issues of distributive justice.

At the international level, exploitation of the common material resources of the deep seabed in areas beyond national jurisdictions could result in a global and highly complex economic problem of overexploitation if there are not clear rules to govern the production process in these un-owned areas of the seas. In the same way, the exploitation of the seabed resources may cause environmental problems if the rules of a marine environment protection are violated or if they are not hermetically crafted. Furthermore, political problems may emerge if a state does not fulfill its international obligations regarding exploitation of the International Seabed Area. Moreover, exploitation may lead to social problems if the decision-making process or the distributive rules are not well implemented or if they are defective, weak, unclear, or unfair. Therefore, to resolve the common property problems effectively, particularly at the international level, these problems must be examined by taking many factors into account. In other words, complex institutional frameworks are needed to deal with the different social, economic, environmental aspects and to get the best possible outcomes.¹

This thesis demonstrates how a social basis could be essential to govern the international common resources property, which is also known as “the global commons” or “common heritage of mankind.” For the purpose of this study, I will focus on the Seabed International Area of part XI (The Area) of the United Nations Convention of the Law of the Sea (UNCLOS) 1982. I choose this system because it is of a complex nature that can be

¹ Elinor Ostrom, *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*, 100 THE AM. ECON. REV. 641,665(2010).

addressed only through economic, political, environmental, social, and legal systems. It also presents an almost complete developed model for an international common property resource system and addresses many questions regarding distributive justice and the best mechanism to achieve it. In addition, I think if I could reach an ideal socio-economic legal system for seabed resources, this system would be applicable for other international common resource property problems such as outer space resources, resources in Antarctica, and for any other international common resources that may emerge in the future as a new problem like the hydrocarbons of the Arctic region.

The purpose of this thesis is to provide an ideal legal system framework to govern the property rights over natural resources of the International Seabed Area. This ideal legal system must ensure that the resources of the Area are exploited efficiently and in a sustainable way. At the same time, this system must ensure that all of mankind benefits from the exploitation, that all countries agree to this system, and that the system is flexible enough to respond to changing circumstances now and in the future.

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A. A survey of the literature

The goal of this proposal is to develop an idea of how owners of a common resource can set up an institution to govern the resource. The common heritage of mankind was intended to mean that no one country owns the deep seabed. Rather, it is owned in common. Therefore, it would be beneficial to recommend a governance system that is fair and efficient for sharing the seabed resources. In order to develop the ideal governance system, I draw on several bodies of literature that address questions of the dynamics of cooperation and international cooperation. In that connection, Elinor Ostrom and her followers have studied

what it is that makes cooperation in governance possible and what creates barriers to governance in the common pool resources property institutions. This body of literature will help identify the factors that effectively support common governance and the factors that get in the way of effective common governance. Ostrom's literature on the governance of common-pool resources will be used as a basis to generalize from what we know about how that kind of governance should be approached to what we should take into account when common governance is undertaken by countries in the international or global level rather than by individuals, national companies or governmental agencies in the local level. Ostrom and her followers have made it clear that cooperative solutions to the problems of common pool resources depend on an equitable sharing of the costs and benefits of harvesting the resource.

As a result, to develop the proposal presented in this dissertation, it is necessary also to show how the concepts of distributive justice (also known as socio-economic justice or social justice) have been used in the theoretical and policy literature.

Ostrom identifies the characteristics that are important to make people able to cooperate over common-pool resources in her "Design Principle."² However, she does not

² *Id.* at 641,653. This list describes the design principles:

“IA. User Boundaries: Clear and locally understood boundaries between legitimate users and nonusers are present.

IB. Resource Boundaries: Clear boundaries that separate a specific common-pool resource from a larger social-ecological system are present.

2A. Congruence with Local Conditions: Appropriation and provision rules are congruent with local social and environmental conditions.

2B. Appropriation and Provision: Appropriation rules are congruent with provision rules; the distribution of costs is proportional to the distribution of benefits.

3. Collective Choice Arrangements: Most individuals affected by a resource regime are authorized to participate in making and modifying its rules.

4A. Monitoring Users: Individuals who are accountable to or are the users monitor the appropriation and provision levels of the users.

4B. Monitoring the Resource: Individuals who are accountable to or are the users monitor the condition of the resource.

link these principles, reasons or motives for cooperation to the question of distributive justice. To illustrate, the cooperation over the common pool resources consists of two stages. Stage one is to secure the appropriate conditions to make the cooperation possible. Ostrom's work emphasizes this first stage of cooperation. She and her allies identified the characteristics that are important to overcome the barriers, challenges, and problems that might inhibit cooperation over common-pool resources. The second stage of cooperation is to reach an agreement on the fair division of the gains from cooperation. In other words, the second stage of cooperation is to determine whether the distribution of gains from cooperation must be fairly divided, and also to determine the rules for distribution. This study aims to find the themes or general principles in Ostrom's work and in some other theories of cooperation to link together the question of when people cooperate and the question of how they should understand the distributive justice or how the distributive justice should be achieved.

Ostrom and her colleagues, when identifying the design principles of the common property systems were primarily concerned with avoiding the major problems of previously failed projects and institutions. They were trying to understand when common property institutions are most effective and where they are weak and under which conditions the institutions are successful and not successful. However, the most important question to

5. Graduated Sanctions: Sanctions for rule violations start very low but become stronger if a user repeatedly violates a rule.

6. Conflict Resolution Mechanisms: Rapid, low cost, local arenas exist for resolving conflicts among users or with officials.

7. Minimal Recognition of Rights: The rights of local users to make their own rules are recognized by the government.

8. Nested Enterprises: When a common-pool resource is closely connected to a larger social-ecological system, governance activities are organized in multiple nested layers.”

consider in improving a distributive policy is: Does having the identified conditions for success guarantee that a common property institution or project will be successful, or does it also require additional agreements between the specific parties involved in the cooperation? In some cases, one of the parties involved will put forth more effort in the development of a project or institution and desire assurance that they will be compensated more than others for their additional work. Ostrom's design principles identify means of success for common property systems but they are just a general means that may fit or may not fit into a particular system. In trying to resolve the distribution problem, agreement regarding the goals of a project is essential to a successful cooperative relationship. Common property policy cannot be completed without discussing this second stage of cooperation, at least at the international level. Ostrom herself in her book *Understanding Institutional Diversity* (2005) mentioned that every governance system is unique in nature and faces unique challenges. Therefore, any individual set of design principles may not be suitable for all governance systems. "The design principles are not blueprints, however!"³ Ostrom said.

Many scholars have studied how to achieve an ideal system that presents the most acceptable amount of fairness for the largest segment of the supposed beneficiaries. One of these is John Rawls whose theory of justice is called "the difference principle." Rawls's difference principle theory emphasizes that equality should be the basis for distributing opportunities, but should not be the basis for distributing outcomes. In other words, inequality or the preference treatment is acceptable if it is to enhance the right of

³ ELINOR OSTROM, UNDERSTANDING INSTITUTIONAL DIVERSITY 257 (2005). "Republished with permission of Princeton University Press (the Press), from *Understanding Institutional Diversity*, Elinor Ostrom, 2005; permission conveyed through Copyright Clearance Center, Inc."

development for those who are worst-off.⁴ On contrary, some scholars like Friedrich Hayek rejected Rawls's idea regarding social justice and argued that inequality should not be acceptable under any circumstances. Hayek and Rawls agree that social institutions must aim to help the most needy persons in society. However, Hayek says that this goal should not be reached by violating the idea of "free market" by giving the low social class preferential treatment because such a preference is against the individual's right to freedom and to equal opportunities. Hayek and Rawls's agree that social justice should achieve the welfare of the whole but they disagree on how that goal should be achieved.⁵ Below I will show how my proposals draw on the free market and Rawlsian theories of justice to bring about the fair distribution of the common pool resource.

Similar socio-economic distributive justice hypotheses emerged at the international level to define the best policy that should be undertaken to govern the global commons. Most of these hypotheses were inspired by the Rawlsian justice as fairness- the difference principle-theory. In this regard, Marta Soniewicka said: "many philosophers concentrated their research on the question, whether to globalize or not to globalize Rawls."⁶ According to the nationalism approach or the statist scope thesis, some or all principles of distributive justice may not apply globally and must apply only at the state level. The most important justifications for this approach are presented by the philosophers Freeman and Blake. Freeman argued that principles of distributive justice like equality do not apply at the global

⁴ JOHN RAWLS, *A THEORY OF JUSTICE* (Harvard Univ. Press rev. ed. 1971).

⁵ Matt Zwolinski, *What's Right about Social Justice?*, INST. FOR HUM. STUDIES AT GEO. MASON. UNIV. (Dec.14, 2012), <http://www.learnliberty.org/videos/whats-right-about-social-justice/>

⁶ Marta Soniewicka, *The problem of global distributive justice in Rawls's The Law of Peoples*, *DIAMETROS J. PHIL.* 45 (2008), http://www.academia.edu/275477/The_Problem_of_Global_Distributive_Justice_In_Rawls_The_Law_of_Peoples (last visited Apr. 6, 2015).

level because the state is the fundamental political actor at the global level and political cooperation came later to enhance international relations. In the same way, Blake argued that only some principles of distributive justice may apply at the global level. He justifies his position by stating that the global order is not coercive, unlike the state that is a coercive actor.⁷ In contrast to nationalism, a number of political philosophers such as Brian Barry, Charles Beitz, and Thomas Pogge argue for globalizing Rawls by advocating the global theory of justice or the cosmopolitanism approach. This approach means, substantially, that distributive principles should be operated by a global institution or international body. Although there are different forms of cosmopolitanism, they are all bound to the idea of “moral personality.” Which considers people’s entitlements as independent of culture, race, or nationality. The cosmopolitanism approach has been adopted by several global property systems such as the United Nations Convention on the Law of the Sea (UNCLOS) 1982, the Moon Treaty, and the Antarctic Treaty. However, universal acceptance was not received for this approach in any of those regimes. Thus, this approach is still subject to debate.⁸

Although many cosmopolitans’ theories of justice have been influenced by Rawls- Rawls himself in his book *The Law of Peoples* (1999a) rejects such an approach and argues that the difference principle of justice applies only within the context of the domestic state.⁹ In addition, Rawls proposed a set of principles of international justice in *The Law of Peoples* (1999a). According to Rawls, the most important principle of distributive justice at the

⁷ Simon Caney, *Global Distributive Justice and the State*, 56(3) POLITICAL STUDIES 487, 518 (2008)

⁸ Graham Nicholson, *The Common Heritage of Mankind and Mining: An Analysis of the Law as to the High Seas, Outer Space, the Antarctic and World Heritage*, in 6 N.Z. J. ENVTL. L 177-182 (2002).

⁹ Simon Caney, *International distributive justice*. 49(5) POLITICAL STUDIES 974, 997 (2001). See also, Michael Blake & Patrick Taylor Smith, *International Distributive Justice*, in THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2013 ed. 2013), <http://plato.stanford.edu/archives/win2013/entries/international-justice/>

international level is a duty of assistance. Which means liberal, hierarchical, decent, or well-ordered societies have a duty to assist burdened societies to develop internally just political institutions. Such a duty of assistance, however, is aimed only to help the burdened societies to become just and decent. This duty does not aim to reduce social and economic inequalities between the societies by making the burdened societies wealthier. According to Rawls, any inequalities remaining between these societies regarding the distribution of the natural resources is a reflection of social choices they have separately made.¹⁰

Simon Caney made an interesting point when he argued “cosmopolitan thinkers like Beitz and Pogge have often held that people occupy two roles. They can be citizens of a state/polis and citizens of the world.” Caney continues by suggesting that the state “may have normative significance as an instrument of cosmopolitan justice, as a source of duties and as an object of loyalty, pride or shame.”¹¹ Caney did not deny the moral importance of the state in regulating the principles of justice. At the same time, he emphasizes that there is no reason to apply these principles only within the state and not at the international level. Thus, Caney developed a way of thinking that complies with both the nationalism and cosmopolitanism approaches. Also, Caney’s way is consistent with Rawls’s international principle of distributive justice- the duty of assistance.

After reviewing the major theories of distributive justice, it can be seen that much of the analysis that exists to justify these theories rests on economic, political, or sociological norms such as the values of efficiency, equity, equality, need,¹² and responsibility. According

¹⁰ Caney, *supra* note 9, at 984. See, Soniewicka, *supra* note 6, at 46. See also, Chris Brown, *John Rawls, “The Law of Peoples,” and International Political Theory*, 14(1) ETHICS & INT’L AFF. 125, 130 (2000)

¹¹ Caney, *supra* note 7, at 514.

¹² Morton Deutsch, *Equity, Equality, and Need: What Determines Which Value Will be used as the Basis of Distributive Justice?*, 31(3) J. Soc. issues 974-997 (1975)

to previous theories, those values are the main rules that influence distributive justice at both the local and international level.

This raises many questions; for instance, what is the most appropriate norm among efficiency, equity, equality, need, and responsibility on which an international distributive justice system should rely? Is it convincing to rely on social norms or values to be the basis for distributive justice at the global level? If yes, why and what is the gain for the world's countries? If no, what are the other options for a fair system for distributive justice? And an important question raised by Ostrom in her book *Understanding Institutional Diversity*, is it possible to use the same tools of local problem-solving to solve problems at the international level?¹³

This thesis will attempt to address all of these questions during the course of its development. Also, previous theories of socio-economic justice will be used to construct an ideal distributive justice system that serves the legal framework for the proposed governance system of the seabed resources. The goal of this thesis is to develop a new, sustainable, efficient, and flexible framework that will fit perfectly into UNCLOS and will work effectively next to the design principles presented by Ostrom as a success factors for common property resource systems, after revising those principles to make them suitable for the global level.

¹³ OSTROM, *supra* note 3, at 6.

B. The historical development of the common property resource system within the international law of the sea

The international law of the sea is over three centuries old, but has been transformed in the decades since World War II. After World War II, many developed countries wanted to exploit the seabed's natural resources in the zones beyond their territorial waters. According to President Truman's proclamation in 1945, the United States claimed sovereignty rights over the resources --oil, gas, minerals, etc. -- of the continental shelf near its territorial sea.¹⁴ Nevertheless, the high seas legal system --freedom of the high seas -- for the resources in the waters above that continental shelf were not changed.¹⁵

As a result, many countries claimed their own economic rights over natural resources on the continental shelf and high seas. Such as Argentina, Chile, Saudi Arabia, Ecuador, Egypt, Ethiopia, Libya, Venezuela, Indonesia, Philippines, and Canada.¹⁶

The United Nations was skeptical of these proclamations. There were fears that such proclamations might encourage countries' attempts to annex large areas from the sea to their territories. Thus, the United Nations invited the international community to the first Law of the Sea conference in Geneva in 1958. The conference concluded with the adoption of four conventions and an optional protocol on dispute settlement; these conventions were (i) the Convention on the Territorial Sea and the Contiguous Zone; (ii) the Convention on the High Seas; (iii) the Convention on Fishing and Conservation of the Living Resources of the

¹⁴ THE DIV. FOR OCEAN AFF. & THE LAW OF THE SEA, OFF. LEGAL AFF., UNITED NATIONS: THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA (A HISTORICAL PERSPECTIVE), http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm#Historical_Perspective. (Last visited Oct. 12, 2015)

¹⁵ Linda A. Malone, *International Law*, in EMANUEL LAW OUTLINES, at 168 (The Emanuel Law Outlines Series, 2nd ed., 2011).

¹⁶ THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA (A HISTORICAL PERSPECTIVE), *supra* note 14.

High Seas; (iv) the Convention on the Continental Shelf; and, (v) an Optional Protocol of Signature concerning the Compulsory Settlement of Disputes. These conventions divided the sea into two main divisions; one of these divisions is part of the coastal country's territory, while the other division is not. Within the territory, both the seabed and surface are governed by the coastal country. However, the surface of the high seas has a unique legal system (the freedom of the high seas). Nevertheless, the 1958 conventions never organized the seabed areas as part of the high seas. Therefore, these areas remain without any legal system or legal rules controlling the exploitation of their resources.¹⁷

Over time, countries increased their interest in the seabed areas outside of their territorial waters particularly with regard to exploiting minerals, oil, and natural gas.¹⁸ This interest came after the exploration of the wealth of the deep seabed and the important resources in these areas. Which are greater than those existing on land. The sea also has significant political and military importance. In addition, the technological development of advanced industrial countries in the twentieth century made it possible to reach the great depths of the seas to extract their hydrocarbons resources and exploit them commercially.¹⁹ Furthermore, the world population has increased dramatically and resources from land are no longer sufficient to supply the demand for food, fuel, and other needs.²⁰

The year 1967 was a turning point in the history of the international law of the sea because in that year Arvid Pardo, the Maltese permanent representative to the United Nations, claimed in a speech to the U.N. General Assembly that the seabed and ocean floor

¹⁷ VALERIE EPPS & LORIE GRAHAM, INTERNATIONAL LAW: EXAMPLES AND EXPLANATIONS 359 (2011)

¹⁸ YOSHIFUMI TANAKA, THE INTERNATIONAL LAW OF THE SEA 132 (2012).

¹⁹ *Id.*

²⁰ U.N. DEP'T. OF PUB. INFO., BASIC FACTS ABOUT THE UNITED NATIONS 2014 156-157 (2014).

beyond the limits of national jurisdiction is a common heritage of mankind. Thus, any exploitation of the resources of these areas should be for the benefit of all the countries in the world regardless of geographic location or coastal contact.²¹ As a result, the U.N. General Assembly made many decisions ensuring that the exploitation of the seabed and ocean floor should benefit all countries. And that this part of the sea should only be used in peaceful pursuits and not be subject to national appropriation. Accordingly, the seabed resources are considered to be common property resources to be enjoyed for the benefit of all humankind.²² Most significantly, the U.N. established the International Seabed Authority (ISA) to oversee the activities in the regions outside of national territories and to guarantee the rights and interests of all countries.

In 1982, the United Nations Convention on the Law of the Sea (UNCLOS) adopted many principles to govern the resources of the International Seabed Area as part XI with annexes (articles 133- 191). It took ten years before the convention entered into force because many countries --especially the western developed countries-- were against some of the convention articles particularly part XI of the convention which deals with the legal system that governs the common property resources of the deep seabed area.²³

In 1994, the U.N. Secretary-General adopted an agreement relating to the implementation of Part XI of UNCLOS 1982. This agreement dealt mainly with procedural aspects such as signature, entry into force and provisional applications. It also dealt with the various issues that were identified as problem areas during the informal consultations.

²¹ EDWIN EGEDE & PETER SUTCH, *THE POLITICS OF INTERNATIONAL LAW AND INTERNATIONAL JUSTICE* 310 (2013).

²² Catherine Redgwell, *Property Law Sources and Analogies in International Law*, in *PROP. AND THE LAW IN ENERGY AND NAT. RESOURCES* 100, 111 (Aileen Mcharg et al. eds., 2010).

²³ SARAH DROMGOOLE, *UNDERWATER CULTURAL HERITAGE AND INTERNATIONAL LAW* 11 (2013).

These include costs to States Parties and institutional arrangements, decision-making mechanisms for the Authority, and future amendments of the Convention.²⁴

Even before the Convention entered into force, the International Court of Justice (ICJ) was given an obligatory power for some articles from the U.N. convention on the law of the sea 1982; For instance, the ICJ enforced UNCLOS' provisions in a case concerning the continental shelf between Libyan Arab Jamahiriya and Malta in 1985.²⁵

The convention entered into force on 16 November 1994. As of November 2015, 167 countries and one entity, the European community, had agreed to the convention.²⁶ Now, the United States is the only powerful state that has failed to ratify UNCLOS.²⁷

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In November 1997, the U.N. General Assembly authorized the agreement between the United Nations and the International Seabed Authority (ISA) which governs the business relations between these two parties.²⁸ In August 1998, the ISA's meeting in Kingston, Jamaica reached an agreement on the exploration plans from 7 of the 14 major investors. For the first time, there was a prospecting process in the depths of the seas in accordance with the Convention.²⁹ This process took the form of exploration contracts for fifteen years between

²⁴ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, G.A. Res. 48/263, U.N. Doc. A/RES/48/263 (Aug. 17, 1994).

²⁵ Case Concerning the Continental Shelf (Libyan Arab Jamahiriya/Malta), Vol. 1 I.C.J. Pleadings (July. 26, 1982).

²⁶ UNCTC., United Nations Convention on the Law of the Sea, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en (Nov. 9, 2015)

²⁷ EGEDE & SUTCH, *supra* note 21, at 311.

²⁸ Agreement concerning the Relationship between the United Nations and the International Seabed Authority, G.A. Res. 52/27, U.N. Doc. A/RES/52/27 (Jan. 26, 1997). *See also*, MARGARET L. TOMLISON, RECENT DEVELOPMENTS IN THE INTERNATIONAL LAW OF THE SEA INTERNATIONAL LAWYER 559-604 (1998)

²⁹ TOMLISON, *supra* note 28, at 603.

the contractors and the ISA. The contractors were governments and individuals from India, France, Japan, the Russian Federation, China, and Cuba.³⁰

In conclusion, under UNCLOS, the properties of the sea are governed by two property systems. First is common property or ownership that is governed by the principle of sovereignty. This system of ownership governs the resources of sea zones from the internal waters to the continental shelf in accordance to the coastal state's local laws. Second is common property or ownership that governs the resources beyond national jurisdiction. In this sense, both the high seas and Seabed International Area are global commons. In spite of this similarity, the property system for the high seas and the Seabed International Area is not the same. The principle which creates property rights in the high seas is different than the principle which creates property rights in the Area. This principle in the high seas is freedom of high seas, which means everyone can claim property rights over the resources of the high seas. While the corresponding principle in the International Seabed Area is Common Heritage of Mankind (CHM), which means no one can claim property rights over the seabed resources.

Although the high seas and International Seabed Area are both global commons, a common legal system for both is impossible because the problem of sharing the resources of the high seas does not need a complex framework to explain it; to illustrate, any activity regarding the resources of the high seas is governed by the national law of the vessel's flag.

³⁰ ISA. Rep. of the Secretary-General, Plans of Work For Exploration of the Government of India, Institute Francais de Recherché pour L'exploitation de la mer (Ifremer) / Association Francaise pour L'etude et la Recherché des Nodules (Afernod) (France), Deep Ocean Resources Development Co. Ltd. (Dord) (Japan), YUZHMOERGELOGIYA (Russian Federation), China Ocean Mineral Resources Research and Development Association (Comra)(China), Interoceanmetal Joint Organization (Iom) (Bulgaria), Cuba, Czech Republic, Poland Russian Federation and Slovakia) and the Government of the Republic of Korea, 4th Sess., UN. Doc. ISBA/4/A/1/Rev.2 (Sep. 2, 1998). See, TOMLISON, *supra* note 28, at 604.

Consequently, any resources obtained from high seas are the property of the entity that obtained such resources. In addition, there is universal acceptance for the high seas legal system of UNCLOS 1982. On the other hand, the situation is more complicated when it comes to exploitation of the seabed resources. To exploit the resources of the deep seabed more time, efforts, money, arrangements, and more advanced technology will be needed. As a consequence, a more complex framework is needed too. In addition, unlike the situation with the high seas, there is no universal agreement regarding the property rights of the seabed area resources. This is why the same rules cannot be applied to govern the resources of the high seas as well as the resources of the deep seabed in the Area.

In this sense, even though UNCLOS 1982 organized the Law of the Sea's different aspects, the eleventh part of the convention (Part XI), which discussed the principles and the legal system for the exploitation activities in the deep seabed (The Area), is the only part of the convention that concerns this thesis. The exploitation of the seabed resources in the part of the sea under the national jurisdiction are not part of this thesis, nor the regulation of resources of the high seas.

Finally, article 1(1)(1) of UNCLOS distinguished the boundaries of the "Area" as "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction."³¹ The limits of the Area are the seaward limit of the continental shelf. Namely, the limits of the Area consist in at the maximum the 200 nautical miles from the baseline or the limit of the continental margin where it extends beyond 200 nautical miles.³²

³¹ United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, 399.

³² TANAKA, *supra* note 18, at 170.

Article 76 (8) of part VI of UNCLOS provides that “:

Information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf set up under Annex II on the basis of equitable geographical representation. The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf. The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding.”

United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, 429.

In article 134(4) it is stated that “ Nothing in this article affects the establishment of the outer limits of the continental shelf in accordance with Part VI or the validity of agreements relating to delimitation between States with opposite or adjacent coasts.”³³ Therefore, even the International Seabed Authority is not entitled to alter the establishment of the outer limits of the continental shelf by the coastal states and the Authority has the right only to receive from the coastal states the charts or lists that show the outer limit lines of the continental shelf by virtue of article 84(2) of the UNCLOS.³⁴ However, the Commission on the Limits of the Continental Shelf is still working to this day. As a result, the borders of the International Seabed Area are currently still not finally determined.

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C. Methodology

This thesis attempts to prove that the problem of common-property resources- (or the common-owned resources) is not just an economic or political problem-; it is also a social problem. In fact, developing a social theory for the governance of common property resources is a current need of the system, especially after the revolution in the international

³³ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 446.

³⁴ TANAKA, *supra* note 18, at 171.

law that started with the emergence of the “common heritage of mankind” principle as a dominant principle for many international treaties. Thus, this study attempts to present the distributive problem of the common resources from a social view by using a socio-legal approach.³⁵ This approach is useful to implement the integration of social and economic principles in the distributive system of UNCLOS which this study tries to construct. This framework must be acceptable by all countries economically and politically as well as socially. In other words, it should provide balance between economic, political, and social values, interests, and goals of different countries. Some of the economic interests which the ideal system should present are cost-effectiveness, efficiency, production-policy, process of profit-sharing, and finances. The social interests and goals which the ideal system should consider include matters related to health, education, labour, human rights, environmental protection, and rights to development (sharing technology). Obviously, this study will be theoretical and practical at the same time.

This project introduces the problem of governing the common property resources on the global level by presenting the legal texts and written rules of the United Nations Convention on the Law of the Sea 1982 and the Implementation Agreement to that convention which was adopted in 1994. This text will also analyze the moral subtexts of legal texts by presenting different theories and legal arguments which explain the legal texts from a philosophical view. In addition, the legal texts will be analyzed and conceptualized by

³⁵ Amanda Perry-Kessaris, *What Does it Mean to Take a Socio- Legal Approach to International Economic Law*, in *SOCIO-LEGAL APPROACHES TO INTERNATIONAL ECONOMIC LAW: TEXT, CONTEXT, SUBTEXT* 3, 3-17 (Amanda Perry-Kessaris ed., 2013).

addressing the different notions of the distributive justice concept and explaining how the relationships between these notions influenced the orientations of the distributive justice.

Further, this study will use the empirical approach, relying on the historical facts and actual patterns collected from interviews, archival research, blogs, or video recorded conferences. These facts and methods may be used to confirm the real-life existence or absence of concepts and relationships. Again, this study aims to highlight the importance of the social context of legal texts and to link law with reality by emphasizing that law is not a self-contained discourse, but a powerful social institution. These social institutions or frameworks are important to determine in which way the legal texts are formed, used, and destroyed.³⁶

After this introduction this study contains an evaluation of the present framework of the International Seabed Authority (ISA); recommendation of an ideal socio-legal system to govern the natural resources of the Area in accordance to the terms of the common property theory and the social justice theory; and conclusion.

IV. The present framework of the International Seabed Authority

The International Seabed Authority is a social institution established by UNCLOS in 1982 to control and organize the exploitation activities in the Area. It is the method provided by UNCLOS to link the convention's text to reality. However, The Authority simultaneously attempts to exploit the deep seabed resources as the common heritage of mankind and to make itself a universal institution that accommodates the interests of developing and

³⁶ *Id.*

developed countries. Thus, it must solve the free riders problem which requires the Authority to bring all countries into the organization while maintaining the principle of the common heritage of mankind. As a result, the Authority cannot compromise too much to get the United States to join UNCLOS but it must accommodate the interests of the United States. To this end, the original 1982 agreement was amended in 1994, and still further adjustments must be made to bring all countries into the Authority. The major institutional issues preventing countries from joining seem to be those related to the following matters: cost to states' parties, competition between the Enterprise and private companies, decision-making processes, review process for procedures, transfer of technology, production control policies, economic assistance, financial terms of contracts, non-member free riders, and the distribution of wealth.

In other words, there is tension between getting everyone to join and maintaining the principle of the common heritage of mankind. This chapter illustrates where that tension is seen in the institutional structure of the Authority, how the 1994 Implementation Agreement attempted to resolve the tension and whether there are better solutions. This chapter will also address areas where that tension remains unresolved and why. Through this approach, I identified the problematic parts of the system that my recommendations will address in the following chapters.

For the purposes of this chapter, I will start with a general description of the functions of the Authority. Then I will describe its organs and their functions. Then, I will provide an evaluation of the system.

A. Functions and Organs of the Authority

By looking at several widespread articles among the convention, particularly, the articles in section 2 of part XI, which is concerned with the principles governing the Area, we can recognize the Authority's competence or objectives. The Authority has all the following responsibilities in order to facilitate the rational management of deep seabed resources:

- Developing effective monitoring, compliance, and compensation systems.
- Developing programs to encourage participation and cooperation in marine scientific research in the Area.
- Organizing the relationship between the coastal states and the Authority regarding the extended continental shelf.
- Developing a system for protection of the marine environment.
- Developing a system for the protection of human life.
- Developing a system for the transfer of technology
- Developing a system of access to and exit from the Area.
- Developing a system for participation in the activities in the Area.
- Developing a system to ensure the equitable sharing of benefits.

According to article 158 of UNCLOS 1982, The Authority has four principal organs. These organs are the Assembly, the Council, the Secretariat, and the Enterprise.³⁷ The 1994 Agreement adds a fifth organ to the Authority. This organ is The Finance Committee (FC).³⁸

1. The Assembly

According to article 160(1), the Assembly is the supreme organ of the Authority that Consists of all the members of the Authority.³⁹

Article 159 (7) and (8) dictate that voting process for procedural matters is decided by a majority of the Assembly members present and voting, and the voting process for substance is decided by a two-third majority of the Assembly members present and voting.⁴⁰

According to article 160(1), the Assembly shall have the power to establish general policies to implement the provisions of the convention.⁴¹ However, the powers of the Assembly have been reduced by the 1994 Agreement, which states in the Annex, section 3, paragraph 1 that “[t]he general policies of the Authority shall be established by the Assembly in collaboration with the Council.”⁴² Furthermore, Paragraph 4, Annex, section 3 of the 1994 Agreement states that

[d]ecisions of the Assembly on any matter for which the Council also has competence or on any administrative, budgetary or financial matter shall be based on the recommendations of the Council. If the Assembly does not accept the recommendation of the Council on any matter, it shall return the matter to

³⁷ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 458.

³⁸ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 20.

³⁹ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 461.

⁴⁰ *Id.* at 397, 459.

⁴¹ *Id.* at 397, 461.

⁴² Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 14.

the Council for further consideration. The Council shall reconsider the matter in the light of the views expressed by the Assembly.

Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, G.A. Res. 48/263, U.N. Doc. A/RES/48/263 (Aug. 17, 1994).

Obviously, the purpose of such procedure is to cut off the Assembly powers in favor of the Council, which is a limited-membership organ of the Authority.⁴³

2. The Council

In accordance with article 161 of the Convention and the 1994 Agreement, the Council shall consist of 36 members elected by the Assembly and divided into five groups in accordance with the following criteria⁴⁴:

Group (a): 4 members, elected from among the States Parties which are the major economies, with consumption or imports of more than 2 percent commodities produced from minerals derived from the Area. In accordance to paragraph 15(a), Annex, section 3 of the 1994 Agreement “the four members shall include one State from the Eastern European region having the largest economy in that region in terms of gross domestic product and the State, on the date of entry into force of the Convention, having the largest economy in terms of gross domestic product, if such States wish to be represented in this group.” The two states referred to here were the Russian Federation and the United States of America.⁴⁵

⁴³ Jean-Pierre Lévy, *International Seabed Authority: 20 years*, 4 (2014), <http://www.isa.org.jm/sites/default/files/files/documents/isba-202.pdf>

⁴⁴ *Id.* at 5.

⁴⁵ *Id.*

Group (b): 4 members, from among the eight States Parties which are the major investors in the Area. Either these states parties invest in the Area through a government contract or through their nationals.

Group (c): 4 members, from among States Parties which are major producers or exporters of the same minerals that are expected to be derived from the Area, “including at least two developing States whose exports of such minerals have a substantial bearing upon their economies.”

Group (d) 6 members, elected from among developing States Parties, representing special interests. For example, States with large populations; States which are land-locked or geographically disadvantaged; major importers of the categories of minerals to be derived from the Area; States which are potential producers of such minerals; and the least developed States. Paragraph 15(d), Annex, section 3 of the 1994 Agreement includes “island States” as an additional category for a special interests.⁴⁶

Group (e): 18 members, elected according to the principle of ensuring an equitable geographical distribution of seats in the Council as a whole. Each geographical region must be represented at least by one member.

In each group, some States should be elected for two years, while others should be elected for four years. The purpose of establishing such a system is to rotate the seats of the Council among a larger number of States.⁴⁷ Furthermore, paragraph 9 of article 161 allows for a member of the Authority not represented on the Council to send a representative to

⁴⁶ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 16.

⁴⁷ Lévy, *supra* note 43, at 5.

attend a meeting of the Council in case a request made by such a member or a matter particularly affecting that member is under consideration. However, that representative shall be entitled to participate in the deliberations but not to vote.⁴⁸

Decision-making on questions of substance in the Council is to be taken by consensus. When a consensus is impossible, those decisions are taken by a two-thirds majority of members present and voting, provided that such decisions are not opposed by a majority in any of the chambers representing the categories of States, as mentioned in article 161 of the Convention.⁴⁹

Under the regime established by UNCLOS to promote and regulate exploration for and exploitation of the Area minerals, no such activity may legally take place until contracts have been signed between each interested entity and the Authority. The Council's job is to draw up the terms of each of those contracts. The specific functions of the Council include the following⁵⁰:

- It approves 15 year plans of work in the form of contracts in which the interested entities must spell out the mining activities they intend to conduct.
- It supervises and coordinates implementation of contracts and the provisions of UNCLOS.
- It establishes environmental and other standards. For example, the Council can issue emergency orders to suspend or adjust operations to prevent harm in cases where an environmental threat arises from seabed activities.

⁴⁸ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 463.

⁴⁹ Lévy, *supra* note 43, at 6.

⁵⁰ ISA., Structure and Mandate of the Council, <http://www.isa.org.jm/authority/council-structure-mandate> (Last visited Oct. 19, 2015)

- It adopts and applies the rules, regulations, and procedures that enable the Authority to control prospecting exploration and exploitation in the Area.⁵¹

- It plays a role in various administrative and financing aspects of the regular functioning of the Authority. For example, the Council can propose candidates for Secretary-General, review and recommend the Authority's budget for approval by the Assembly, and make recommendations to the Assembly on any policy matter.⁵²

Article 163 of UNCLOS 1982 provides for the Council to create two organs: the Economic Planning Commission and the Legal and Technical Commission (LTC).⁵³ The Economic Planning Commission has never existed, but was initially set up to “propose to the Council ... a system of compensation or other measures of economic adjustment assistance for developing States which suffer adverse effects caused by activities in the Area.”⁵⁴ According to the 1994 Agreement, the LTC currently performs its functions.⁵⁵

The LTC responsibilities or functions include the following⁵⁶:

- Examining the applications for plans of work.
- Supervision of exploration or mining activities.
- Assessment of the environmental impact of such activities.

⁵¹ *Id.* “Its initial set of regulations, adopted by consensus in 2000 and covering prospecting and exploration for polymetallic nodules, is intended as the first part of a mining code that will eventually deal also with exploitation and with other deep-sea mineral resources. The Council has begun work on a second set of regulations, concerning cobalt crusts and metal-bearing sulphides.”

⁵² *Id.*

⁵³ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 466.

⁵⁴ *Id.* at 397, 467.

⁵⁵ Lévy, *supra* note 43, at 9-10.

⁵⁶ ISA, The Legal and Technical Commission, <http://www.isa.org.jm/authority/legal-and-technical-commission> (Last visited Dec. 22, 2015). *See also*, Lévy, *supra* note 43, at 10.

- Drafting rules and regulations on the exploration and exploitation of resources, to be submitted to the Council for consideration.⁵⁷

- Providing advice to the Assembly and Council on all matters relating to exploration and exploitation activities in the Area.⁵⁸

3. The Secretariat

The Secretariat consists of: the Office of the Secretary-General, the Office of Legal Affairs, the Office of Resources and Environmental Monitoring, and the Office of Administration and Management. They are the staff of the Authority who carry out the daily tasks assigned by the Assembly and Council. Some of the technical activities of the Secretariat include organizing annual workshops on scientific and resource-related topics and the compilation of a Central Data Repository in which information from contractors and other sources relating to seabed resources and the environment are collated and disseminated through the Authority's website (www.isa.org.jm).⁵⁹

4. The Finance Committee (the FC)

Paragraph 2(y), article 162 of UNCLOS 1982 which concerns the Council's powers and functions states that the Council shall "establish a subsidiary organ for the elaboration of draft financial rules, regulations and procedures...,"⁶⁰ However, the convention does not provide any specifics regarding the establishment of such a body. The 1994 Agreement

⁵⁷ *Id.* "The Commission has, since its inception developed the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and the Regulations on Prospecting and Exploration for Polymetallic Sulphides and Cobalt-Rich Ferromanganese Crusts in the Area."

⁵⁸ *Id.*

⁵⁹ ISA, The Secretariat, <https://www.isa.org.jm/secretariat> (Last visited Dec. 22, 2015).

⁶⁰ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 466.

elaborated the details of the Finance Committee such as its composition, structure, mandate, and functioning.⁶¹

The Committee's responsibility is to oversee all the financing and financial matters of the Authority including the budget and contributions by States. The Council and the Assembly have to take into account recommendations by the FC before making any decisions regarding financial matters.⁶²

The Committee consists of 15 members elected by the Assembly for a period of 5 years taking into account equitable geographical distribution, representation of special interests, and representatives from each of the five major contributors to the budget as long as the budget of the Authority is financed by the States.⁶³

5. The Enterprise

In UNCLOS 1982, The Enterprise was considered the operational arm of the Authority. It was meant to be an independent industrial and commercial international corporation controlled by the Authority that would itself exploit the minerals in the deep seabed in competition with private companies authorized by the Authority to mine the minerals. Furthermore, the Enterprise was supposed to get an economic advantage over States and private companies. To illustrate, these States and companies had to provide the Enterprise with the funds necessary for the exploration and exploitation of one mine site and

⁶¹ Lévy, *supra* note 43, at 9.

⁶² *Id.*

⁶³ "...the initial budgets of the Authority were financed by the United Nations budget, and not by contributions of its members, as stipulated in article 171 of the Convention. To a certain extent, this was done to counterbalance the possibility for certain States, which had not yet ratified the Convention – such as the United States of America or Canada – to become provisional members of the Authority while gathering the support from the group of developing countries." "The budget for 1998 was the first one for which financing would be covered by States' contributions." *Id.* at 9-12.

to transfer their technology, i.e. to assist a competitor. However, this system was unacceptable to industrialized States. Consequently, the Enterprise's independence and financing were suppressed by the 1994 Agreement. For example, the Enterprise now has to conduct its operations through joint ventures with other entities and not on its own. Furthermore, a decision by the Council will determine whether or not the joint venture operation is in conformity with sound commercial principles. Moreover, the functions of the Enterprise are to be carried out by the Secretariat until seabed mining becomes a commercial reality.⁶⁴

B. Evaluation of the existing system of the Authority

To conclude this section's explanation of the legal system of the International Seabed Authority (ISA), I think it will be useful to make a comparison between the original 1982 system and the 1994 system by highlighting the major modified points. By doing so, we will be able to decide whether the 1994 Agreement overcomes all the objections to part XI of the convention which were raised by a number of states during the negotiations of the Third United Nations Conference on the Law of the Sea (UNCLOS III).⁶⁵ We can also discover the strong and the weak points of the system after the 1994 Agreement. Then we can use this evaluation to create an ideal format for the existing system that meets the ambition of regulating the exploitation activities of the Area.

1. Cost-effectiveness

⁶⁴*Id.* at 10-11. See also, ISA., *The International Seabed Authority Structure and Functioning: Fact Sheet*, <http://www.isa.org.jm/sites/default/files/files/documents/isastructfunct.pdf> (Last visited Dec.22, 2015).

⁶⁵ See, ROBERT L. FRIEDHEIM, *NEGOTIATING THE NEW OCEAN REGIME* (1993).

Minimizing costs to States Parties is an important principle for the system in the 1994 Agreement. For example: the Secretariat performs the functions of the Enterprise until it begins to work independently (Section 2(1) of the Agreement).⁶⁶ Upon the approval of a plan of work for exploitation by an entity other than the Enterprise, the Council shall take up the issue of the functioning of the Enterprise independently of the Secretariat (Section 2(2) of the Agreement).⁶⁷ Further, States Parties are not responsible for funding a mine site of the Enterprise as provided in annex IV, article 11(3) of UNCLOS 1982.⁶⁸ Also, they are not required to finance any of the operations in any mine site of the Enterprise or under the arrangement of its joint-venture (Section 2(3) of the Agreement).⁶⁹ The obligations of the contractors shall apply to the Enterprise as well (Section 2(4) of the Agreement).⁷⁰

Moreover, the Agreement made some institutional arrangements such to postpone formatting the Economic Planning Commission of the Council as long as the LTC can perform its functions.⁷¹ In addition, the Agreement established the Finance Committee to oversee all the financial matters of the Authority (Section 9(1)).⁷²

2. Access-system

The exploitation activities of the Area can be undertaken by either the Enterprise or by a public or private entity as long as those entities enter into agreements with the Authority. If

⁶⁶ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 13.

⁶⁷ *Id.*

⁶⁸ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 552.

⁶⁹ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 13. *See also*, TANAKA, *supra* note 18, at 179.

⁷⁰ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 14.

⁷¹ Lévy, *supra* note 43, at 9-10.

⁷² Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 20. *See also*, TANAKA, *supra* note 18, at 180.

a public or private entity wants to apply to work in the Area, that entity is required to submit applications to work at two equally viable sites. The Enterprise will award one of these sites to the applicant and keep the other site for itself or for other qualified applicants from developing countries. This is called the parallel-access system. That system remains the same in the Agreement. However, the 1994 Agreement alters some of the controversial issues associated with the parallel-access system. Particularly, it addresses issues concerning the competitive advantage given to the Enterprise over the other competitors, the transfer of technology requirements, and limitations on production. In other words, the 1994 Agreement demonstrates a tendency to follow free-market policies.⁷³

3. Fair competition⁷⁴

A number of the developed states objected to the parallel system in UNCLOS 1982 because they thought that the system gave a competitive advantage to the Enterprise at the cost of the applicants.⁷⁵ Despite the fact that the parallel system remains unchanged and the exploitation and exploration of natural resources in the Area still should be undertaken through the Enterprise, the 1994 Agreement restricted the powers of the Enterprise in order to ensure an adequate degree of competition among the Enterprise and other entities who are interested in participating in the activities of the seabed Area. For example, article 170 of UNCLOS 1982 allowed for the Enterprise to conduct seabed activities independently, but after the 1994 Agreement the Enterprise is not entitled to conduct operations on its own.

⁷³ EPPS & GRAHAM, *supra* note 17, at 359-360. *See*, FRIEDHEIM, *supra* note 65, at 238. *See also*, TANAKA, *supra* note 18, at 180.

⁷⁴ Seong Wook Park, *Key Issues on the Commercial Development of Deep Seabed Mineral Resources: Securing the Ocean for the Next Generation*, 11 (THE LAW OF THE SEA INST., UC BERKELEY–KOR. INST. OF OCEAN SCI. AND TECH. Conf. Paper, May 2012) (Harry N. Scheiber et al. eds.)

⁷⁵ EPPS & GRAHAM, *supra* note 17, at 360.

The operations should be undertaken by the Enterprise through joint-ventures with an operator. Furthermore, the Council will decide whether or not the joint-venture operation is in conformity with sound commercial principles.⁷⁶

4. Transfer of technology

Annex III, article 5 of UNCLOS 1982 requires the applicant to provide to the Enterprise and the developing states any valuable information and technology used in the operation. Such information and technology shall be provided under fair and reasonable commercial terms and conditions.⁷⁷ This obligation was unacceptable to the developed states because it is against intellectual property rights.⁷⁸ Thus, section 5(a) of the Implementation Agreement provided that the transfer of technology to the Enterprise and the developing states must be done under fair commercial conditions, but according to the open market policies or through joint-venture arrangements.⁷⁹ Furthermore, section 5(b) provided for the protection of the intellectual property rights.⁸⁰

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5. Production policies

Article 151 of UNCLOS 1982 provided for production control policies such as a maximum production ceiling.⁸¹ The purpose of these policies is to limit the impact of the production from the Area on the economies of developing states who are land producers of the same minerals of the Area. However, the limitation of production received disagreement, in large

⁷⁶ Lévy, *supra* note 43, at 11. *See also*, Malone, *supra* note 15, at 172.

⁷⁷ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 530.

⁷⁸ TANAKA, *supra* note 18, at 180.

⁷⁹ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 17.

⁸⁰ *Id.*

⁸¹ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 453.

from the developed states.⁸² Thus, section 6(7) of 1994 Agreement dismissed these production control policies. Instead, the Agreement emphasized that the exploitation system in the Area shall be based on free-market principles.⁸³

6. Financial terms of contracts

Annex, section 8 of the 1994 Agreement replaced article 13 of Annex 3 of UNCLOS 1982, which concerns the financial matters of contracts with general principles. This article establishes a simple payment system with no differentiation between the Enterprise and the contractors.⁸⁴

7. Economic support or assistance

Article 151(10) of UNCLOS 1982 required that the Assembly must establish a system of compensation or take other measures to assist developing countries to overcome serious and adverse effects on their economies caused by activities in the Area. This include effects on the developing countries' export earnings, reduction in the price of an affected mineral or in the volume of exports of that mineral. Accordingly, Annex, section 7(1) (a) of 1994 Agreement requested the Authority to "establish an economic assistance fund from a portion of the funds of the Authority which exceeds those necessary to cover the administrative expenses of the Authority..." to assist the affected developing countries.⁸⁵

8. Decision-making

The 1994 Agreement modified the decision-making system in the Assembly and the Council in favor of the limited-membership organ which is the Council. Article 160 of

⁸² FRIEDHEIM, *supra* note 65, at 248.

⁸³ EPPS & GRAHAM, *supra* note 17, at 361.

⁸⁴ Park, *supra* note 74, at 12.

⁸⁵ TANAKA, *supra* note 18, at 181.

UNCLOS stated that the Assembly is the supreme organ of the Authority consisting of all the members of the Authority and shall have the power to establish the general policies to implement the provisions of the convention.⁸⁶ The 1994 Agreement in Annex, section 3, paragraph 1 stated that “[t]he general policies of the Authority shall be established by the Assembly in collaboration with the Council.”⁸⁷ Also, paragraph 4, Annex, section 3, stated that “[d]ecisions of the Assembly on any matter for which the Council also has competence or on any administrative, budgetary or financial matter shall be based on the recommendations of the Council.”⁸⁸ In case the Assembly has objection to the recommendation of the Council on any matter, it must return the matter to the Council for reconsideration. The Council reconsideration must be done in the light of the views expressed by the Assembly.⁸⁹

9. Review conference

According to article 155 of UNCLOS, a conference to review the provisions of the exploitation system of the resources of the Area shall take place after a period of time has passed since the start of the operations.⁹⁰ Several industrial states were skeptical regard the importance of such a procedure including the U.S. Thus, Annex, Section 4 of the 1994 Agreement provided that article 155 of the Convention shall not apply.⁹¹

In conclusion, in terms of commercial and economic development, the present system of the Area which was agreed to in 1994 made major changes to the original system of 1982.

⁸⁶ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 459.

⁸⁷ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 14.

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 456.

⁹¹ TANAKA, *supra* note 18, at 182.

These major changes include issues that were subject to the developed industrial countries' objections during the negotiations of UNCLOS III leading up to UNCLOS 1982. Those issues related to cost-effectiveness; access-system; fair competition; transfer of technology; production policies; decision-making; economic assistance; financial terms of contracts; and the review conference. The present system tried to resolve these objections by adopting free-market policies. Also, it altered the decision-making process in some of the Authority's organs, namely, the Assembly and the Council.

Yet, neither UNCLOS 1982 nor the 1994 Agreement answered the question of what was meant by the "common heritage of mankind" in article 136 of the convention. This question was one of the debated matters of UNCLOS III and during the negotiations, a majority, which was the group of developing countries known as "the 77 Group." expressed that the common heritage of mankind meant to them a "common ownership of the resources of the deep seabed with the benefits distributed primarily to developing and geographically disadvantaged states."⁹² The question of whether the common heritage of mankind justifies unfair distribution of the wealth in favor of developing and geographically disadvantaged states is still unanswered and subject to debate. In fact, the emergence of answering that question increased after the adoption of the free market principles in the 1994 Agreement because under the current system there is another question must be answered as well: whether the free market approach justifies an unfair division of profits in favor of the most developed and advanced states. If the answer to the latter question is yes, UNCLOS fails

⁹² FRIEDHEIM, *supra* note 65, at 231- 234.

because it cannot fulfill its priorities, specifically, the fundamental principle of the Area exploitation system that is the implementation of the common heritage of mankind idea.

Another weakness of the present exploitation system is the potential free rider problem of non-members. The non-members can enjoy a free ride when they stand in a position where they can benefit from the services or the regulations of an institution without burdening themselves with the obligations of the institution.⁹³ The existing system allows for non-members to become free riders on the convention, particularly, on the services and the regulations of the Authority as well as on the efforts of its members. Some examples include the following:

1. Members of the Authority should not exploit the seabed resources of the Area unless they obtain a license to do so by the Authority through specific procedures. The non-member is not obligated to obtain such a license. Therefore, the non-member can exploit the Area's resources without being liable for anything. Members must wait for their' application to be accepted, they must pay more, and work harder to do so. On the other hand, the non-member can take advantage of the members' obligation to work under the supervision of the Authority and can simply decide to start production. The race to exploit the seabed resources of the Area between members and non-members may become a problem in the future if the present system remains the same.

2. The Authority is an institution that is just a part of a larger system under the Law of the Sea convention. When the Authority conducts the activities of the Area, it shall be aware that its activities comply with the other parts of the convention. For example, it shall make sure

⁹³ *Id.* at 308-309.

that the activities do not harm the marine environment and are not in a location that is under national jurisdiction for any state. Protecting the marine environment or respecting sovereignty rights are services that are provided by the Authority in order to ensure greater effectiveness in governing the resources of the Area. However, the impact of these services or regulations may indirectly benefit the non-members as well.

3. Non-members of the Authority have the privilege of double-acting. They can accept the competence of the International Tribunal of the Law of the Sea (ITLOS) regarding the parts of UNCLOS that they agree with. On the other hand, they can refuse the competence of the tribunal regarding the parts they do not agree with. For example, the United States has the right to refuse the competence of the Seabed Disputes Chamber of the Tribunal regarding any issues related to the exploitation activities in the Area. Conversely, it can accept the tribunal competence regarding any disputes concerning the interpretation or application of the other parts of UNCLOS other than part XI (The Area). Furthermore, it can accept the tribunal jurisdiction and request its advisory opinion regarding any disputes concerning the interpretation or application of an international agreement related to the purposes of the convention.⁹⁴

4. The Authority conducts scientific activities and studies, training programs, and provides maps and important data in order to facilitate development. Non-members can benefit from these services and information by being observers in the Authority (Article 156(3) UNCLOS).⁹⁵

⁹⁴ ITLOS, Competence, <https://www.itlos.org/jurisdiction/competence/> (Last visited Dec. 23, 2015).

⁹⁵ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 457.

Free riding from outsiders could strongly harm the institution since the free riders are free of obligations. Their uncontrolled practice may destroy or overexploit a resource and lead to overconsumption of the resource causing the costs of exploitation for others for the same resource to become higher.⁹⁶ Therefore, membership will become less attractive because free exploitation could be more profitable and less risky.

In order to resolve the problem of potential non-member free riders and to ensure the commercial development of the Area resources, it is necessary to develop a system that encourages all powerful states to join the convention and negotiate their objections inside the institution. Such a system cannot be accomplished unless we could craft one that is appealing for the exploiters and makes all states willing to become members of the Authority and cooperate with the international community. The distributive system for profits that we are recommending in this thesis shall allow for the states parties and their national companies (the exploiters) to make the huge profits that they are looking for from exploitation. Therefore, this system should provide the necessary protection and support that they need in their work. At the same time, the system should be fair enough for all the states parties. This system should stick to the idea that the Area and its resources are a common heritage of mankind and that all the states must benefit from the exploitation of the Area somehow. Describing a system with all the characteristics that I just described will be the task of the next section.

⁹⁶ Alan O. Sykes & Eric Posner, *Economic Foundations of the Law of the Sea* (John M. Olin Program in Law & Econ., Working Paper No. 504, 2009), available at http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1186&context=law_and_economics

V. Recommending an Ideal Socio-Legal System to Govern the Natural Resources of the Area in Accordance to “the Common Property Theory-the Design Principles” and “Social Justice Theory”

In this chapter, I will rely on the findings of the previous Chapter to recommend changes to the existing rules or to propose new rules. I will do this by comparing and contrasting the current rules of the system with the rules of the “Design Principles” identified by Elinor Ostrom that were surveyed earlier. Of note, the design principles do not discuss the focal points, problems, and challenges of a given common property system. Instead, they work as a general checklist that represents the minimum necessary requirements that must be available for any common property system to be established safely. Then, each system must deal with its own unique problems and challenges that result from its individual circumstances by creating special rules and appropriate methods to ensure the system’s safe implementation.⁹⁷

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This study deals with an international common property system. Therefore, a debate regarding the allocation of benefits from exploitation activities in the Area is expected to emerge in the future among the States Parties. Particularly, debates will focus on clarifying the meaning of the common heritage of mankind principle. Thus, besides Ostrom’s survey, I will also use the Social Justice theories and literature that were demonstrated in the first chapter. This will allow me to recommend an effective way to solve the problem of sharing benefits without harming efficiency, threatening the sustainability of the system or undermining the equal sharing principle.

⁹⁷ OSTROM, *supra* note 3, at 270-271.

A. Applying “the Common Property Theory-the Design Principle” to the Area System

In this section, I will conclude how the Area system and the design principles are similar or different. Further, we will be able to determine in what way they can benefit or support each other. Then, we can find a comprehensive way to share the Area benefits that does not interfere with the Area system as a whole.

In light of the previous examination for the Area framework, an international version of the design principles to govern the global commons, namely the Area, must be as follows:

1. The resource itself and the users of the resources are clearly defined, and the international institution --The Authority-- is able to effectively defend the resource from outsiders according to Chapter VII of U.N. Charter.

2A. Congruence with International Conditions: Provision rules are congruent with international social and environmental obligations.

2B. This is the one principle that will need further elaboration which I will work on it in the coming section.

3. Collective Choice Arrangements: All States' Parties of the international institution are authorized to participate in making and modifying its rules. The participation of those involved in making key decisions about the system must be enhanced.

4. A monitoring system should be established within the international institution. Appropriate incentives should be offered for the monitoring body to help with overcoming

the monitoring challenges. An effective monitoring system should monitor the provision levels of the users and the condition of the resource.

5. Graduated Sanctions: Sanctions for rule violations start very low but become stronger if a user repeatedly violates a rule.

6. Conflict Resolution Mechanisms: Rapid; low cost; local arenas within the international institution, as well as independent arenas higher than those of the international institution exist for resolving conflicts among members or with the institution.

7. Minimal Recognition of Rights: The rights of the international institution members to make their own rules are recognized by the international institution.

8. Nested Enterprises: When a common-pool resource is closely connected to a larger social-ecological system, governance activities are organized in multiple nested layers.

In examining the common ground between the design principles and the Area system, we find that principles 5 and 8 have never changed. These design principles are perfectly absorbed by the Area system regarding their respective subjects. However, all the rest of the design principles needed some reforms to fit into Area system. Regarding the principle 2B, we will need to develop a totally new vision or understanding for the common heritage of mankind principle that governs the Area. The 2B design principle says that “appropriation rules are congruent with provision rules; the distribution of costs is proportional to the distribution of benefits.”⁹⁸ Obviously, Ostrom established a linkage between the appropriation rules, the provision rules, and the costs and benefits distribution rules. On

⁹⁸ Ostrom, *supra* note 1, at 653.

other words, she assumes that the distribution of the costs and benefits must be a reflection for the contributions and the contributions are, certainly, entitled to the entity who has the appropriation rights. As a result, appropriation rules should be congruent with provision rules. That maybe true and easy to apply at the national level, but the situation is different at the international level where the common property systems do not recognize appropriation rights. Furthermore, all mankind must benefit from the international resources of the common areas while the actual economic, technological, and political abilities to exploit these resources are available only to a few countries. So, the assumption that costs and benefits must be a reflection for the contributions of the same entity who has the appropriation rights is not a basis for outcome distribution under the Area system.

Therefore, the second part of the second design principles needs major reforms to present a rational explanation for the relationship between the costs and benefits under the Area system and distinguish a proper norm to govern the distribution process. Such reforms must take into consideration, when shaping a distribution system for the Area, that appropriation rules do not exist for the common property systems at the international level and the costs may burden a small number of the potential beneficiaries while the benefits are appointed not only to those who pay the greater amount of the bill but also to all mankind. In this regard, the Area system provides for equitable sharing but does not provide an explanation of what exactly that means and how equitable sharing must be approached. Article 140(2) of UNCLOS just says that equitable sharing of the benefits derived from the Area must be done through any appropriate mechanism on a non-discriminatory basis.⁹⁹ The

⁹⁹ United Nations Convention on the Law of the Sea, *supra* note 31, at 397, 447.

1994 Agreement also did not provide an explanation. Nevertheless, paragraph C of section 8 of the Agreement concerning the financial terms of contracts contains what might become a useful tip toward developing an effective profit-sharing system. That tip can be found in paragraph C, which says “[c]onsideration should be given to the adoption of a royalty system or a combination of a royalty and profit-sharing system.”¹⁰⁰ Therefore, the task of the coming section will try to reach an understanding of the existing norm that is the basis for the equitable sharing within the Area system, determine whether it is the best norm to share and distribute the outcome of the exploitation in the Area, and define the best norm for constructing a fair distribution system for the Area that does not challenge the implementation of the CHM principle. I will recommend a new statement for the second part of the second principle of the design principles that fits the Area distribution system.

B. Sharing benefits in accordance to the socio-economic or distributive justice theories

Drawing from all the findings, theories, and facts that we have studied, we will present our understanding of how the CHM principle must be implemented and distributive justice must be approached within the Area system. We will use the previously presented information as a tool that helps us to produce an innovative way of sharing the benefits of exploitation between the Authority and the contractors.

The Authority needs a mechanism for deciding which potential contractor should have the right to exploit the resources in a particular area. A bidding system is the best way

¹⁰⁰ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, *supra* note 24, at 1, 20.

of making that decision. The Authority should define the scope of the resource to be exploited and should request contractors to submit bids that reflect their willingness to pay for the privilege of exploiting the resource. That is, each bidding contractor would determine what rate of royalty it would be willing to pay for the privilege of extracting and selling the resource. Therefore, the royalty would be one of the criteria for choosing one company or another to work in the Area; the Authority would award the resource for the company who promises highest royalty to be paid to the Authority. The royalty can be fixed, periodic payments or based on a percentage of the gross receipts the contractor made from exploiting the resource. For instance, the royalty might be 10 percent of sales. In some cases, the royalty can be negotiated to meet the unique needs of a particular arrangement.¹⁰¹

The royalty becomes a cost of doing business for the contractor. The contractor agrees to make the investment and to pay a royalty as part of its cost of doing business; in return, the contractor is allowed to set a price for the resource that guarantees it a fair rate of return.

A fair return is determined by the return that each of the investors could earn on their next most profitable investment –the opportunity cost of investing elsewhere.¹⁰² The opportunity cost is the benefits a company could earn if the company worked on another project or projects instead of investing in the Area.¹⁰³ In other words, the opportunity cost means the risk of making fewer profits that the company takes when it choose to work in the

¹⁰¹ INVESTOPEDIA, Royalty, <http://www.investopedia.com/terms/r/royalty.asp> (Last visited Apr. 8, 2016)

¹⁰² David Appel & Phillip S. Borba, Milliman, Inc., *Task Order# 20692 Rate of Return Update-2008: Reasonable Rate of Return Section 3.1 4-8* (2009) (Report prepared for RMA, U.S.D.A.), <http://www.rma.usda.gov/pubs/2009/millimanreasonabletrate.pdf>

¹⁰³ INVESTOPEDIA, Opportunity Cost, <http://www.investopedia.com/terms/o/opportunitycost.asp> (Last visited Apr. 8, 2016)

Area where the end outcome cannot be determined easily from the beginning instead of working on another project where the end outcome of it is foreseeable.¹⁰⁴ Therefore, the difference in return between the passed opportunity and the chosen project is the opportunity cost.¹⁰⁵

Then, the fair return must be allocated to the investors in proportion to their investment.

Assume that three contractors work together on a project in the Area; call them X, Y, and Z. And, assume that their respective contributions were 50 million, 25 million, and 25 million. These contributions include a fair return on their investment. Then, the total of their contributions equals 100 million. If they can make an income equaling 110 million, an amount of 100 million will automatically be returned to X, Y, and Z to cover the exploitation's basic out-of-pocket costs. In that respect, X will receive 50 million while Y and Z each will consume 25 million. The contractor income less the expenses will be equal to the gross income or profit; in this case, an income of 110 million minus 100 million in expenses leaves a profit of 10 million. Then, a proportional amount must be deducted from the gross income as a royalty payment. That amount must be paid to the Authority. The amount of the royalty might be agreed on between the contractors and the Authority from the beginning of an exploitation plan. The royalty might be calculated as a percentage of the market price or in accordance with the expected costs of drilling. The contractors and the Authority's agreement regarding the royalty should also bear the risk that exploration costs or market prices might experience changes in values than expected initially. However, in this example we will assume that the royalty amount is 10% and that 10% represents a fair percentage.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

Therefore, gross income - royalty (10%) = net income or profit. In this case the profit is 9 million. This 9 million should be divided between the contractors X, Y, and Z depending on their contributions: X = 4,500,000, Y = 2,250,000, Z = 2,250,000, and the Authority = 1 million as a royalty.¹⁰⁶

The royalty amount and the rate of return would be fair, if both the Authority and the investors could, accurately, assess the costs of drilling, the market price, and the competition. If one or more of these conditions change, then the investor or the Authority would feel that the deal was unfair. This means that there must be a way of adjusting the royalty to take into account the actual risks. To explain, a problem may occur if after exploitation had started, the investors discovered that the cost of drilling is higher than what they expected. Accordingly, their rate of return is unfair. For example, if they set a goal to recover 1 percent yearly of their contributions but they only could recover 1 percent every two years while they pay a huge amount to the Authority to exploit in the Area as royalty. In this case, the Authority and the investors can agree to lower the royalty amount so that the investors can recover their basic operations expenses plus a fair rate of return.

This methodology provides an incentive-based exploitation system that would attract any country in the world to work in the Area under the supervision of the International Seabed Authority. In fact, no company would be licensed by the Authority to exploit the Area unless its home country did join the Authority. Under our proposed system, countries will have an incentive to join the international institution and contractors will be willing to invest more effort in the Area and its resources. This method creates greater income for both the

¹⁰⁶ This part was highly influenced by my thesis advisor Professor/ Peter Gerhart.

Authority, through the royalty plus any additional profits earned by the contractors that exceed their fair rate of return, and the contractors who will keep the fair rate of return for themselves in addition to the exploitation expenses. This way also for dividing the wealth that depends on paying a royalty to the Authority to exploit the resources in the Area is a very reasonable solution for all States Parties since the Authority represents the interests of all mankind and acts on their behalf as the assumed legal owner of the Area and the contractors awarded the right to invest in the Area in accordance to a decision of the Authority. On the other hand, the contractors are free to gain more if they wish to work more as long as their gain does not exceed the permissible rate of return. Both the Authority (Mankind) and the contractors have interests regarding the development of the Area resources. Most significantly, their interests are working together in the same way. They all hope to reach the same end because it is simply a happy end for them all.

I think this distribution system will be successful for the Area and its resources because it is flexible and reasonable in many aspects. Examples include the following:

- a. This methodology is difficult to apply in the real world. For example, determining the expenses will be a problematic and challenging task. Nevertheless, in theory, this way presents a simple, economic, and easy mathematical methodology to calculate each contractor's share. Our system can absorb and deal with the multiple and complex factors that may surround the exploitation and production of the Area resources. Some of these factors are factors related to the characteristics of the potential participants and beneficiaries, for example, their number and their status as governments or private companies and the unique agenda, interests, and goals of

each. Another group of factors are factors related to the resource itself. These resources are of various types.¹⁰⁷ As a result, the cost-production and the needed extraction technology for each of them will vary too. Other factors that may affect the production related to the resources include the depths and the seabed's topography where those resources might exist or the methods needed to protect the marine environment from the possible harmful effects that the activities in the Area may cause. However, the recommended way to divide the wealth does not depend on the resource type or the depths at which it exists to determine each State Parties' share of the profits. Instead, it avoids all these complicated discussions by applying mathematics.

- b. No other types or categories of incentive are provided by our method other than money. To explain, no more power or control in the decision-making process is given for the most powerful countries as incentive to participate in the Area activities or as a return for their contribution in the activities. Simply, the party that works more makes more money. The limited incentives will make the application of the system easier and close the possible debate that may arise regarding the types of incentive that each state must receive. Also, this way helps the Authority to use its share to meet the particular needs of each organization of the UN and, eventually, to meet the particular needs of each State Party. These needs may include improvements in the educational, health, and political systems.

¹⁰⁷ ISA., *Deep Sea Mining: Environmental, Legal and Technical Challenges for Developing Countries: Briefing Paper -Sensitization Seminar 7* (2013), <https://www.isa.org.jm/sites/default/files/files/documents/orem-bp1-2014.pdf>

- c. The initial income for the contractors and maybe for the Authority is inconstant in relation to the value. This income may increase if the company was successful or even decrease when the activities ongoing in the Area fail to achieve their initial goals due to different circumstances that contractors might go through like wars or economic, political, and natural crisis. Therefore, the contractors and the Authority (mankind) are partners in sharing both the profits and losses. Most significantly, the income is inconstant in value for each contractor due to their contribution in the exploitation activities in the Area. Again, who works more gains more. However, in any event, the investors should be able to recover their basic expenses of the exploitation plus a fair rate of return. Therefore, minimizing the risk of the exploitation for the investors.
- d. This method to distribute the benefits does not interfere with the cost-effectiveness policy. There is no need to create a special organ to exercise it effectively; the Finance Committee of the Authority (the FC) can do the job. To explain, the FC calculates the contractors' fair rate of return and the Authority's royalty.
- e. This system provides incentives to not become an outsider or free-rider. It makes membership in the Authority more appealing for the contractors than working independently in the Area. Under this system, the contractor will not be in the same position as others who do not participate effectively in the activities. Each contractor will get paid according to its contribution in the work. Besides that, the contractor will enjoy membership privileges and work under the protection of the International Seabed Authority which means that the whole international community will contribute to make the contractor's project successful.

The core of this way to share the benefits of the exploitation activities in the Area depends on combining the free market approaches and policies with the royalty system for distributing the wealth in a fair mathematical methodology that represents a new way to approach distributive justice in the international common property systems, particularly, the International Seabed Area.

VI. Conclusion

In the last section, we explained an effective way to distribute the Area resources in accordance with distributive justice theories. This way explained how free market policies and a royalty system may work together to solve the debate regarding sharing the benefits of the exploitation activities in the Area. This way is consistent with Rawls's international principle of distributive justice-the duty of assistance. Rawls's duty of assistance principle reflected on the Authority duty to assist the affected economies of the developing countries because of the exploitation activities in the Area. Also, this way is consistent with Hayek's proposal of social justice that adhere to the idea of "free market" by giving all people, whatever their social class, freedom to compete and equal opportunities. Hayek's proposal reflected on the ideas of royalty, the fair rate of return, and opportunity cost. This way also reflects Caney's view when he argued nationalism and cosmopolitanism thinkers that their approaches can work together to advance the distributive justice principles at the international level. All the States Parties and the Authority -the international institution-- are necessary actors in the recommended distributive justice system of the Area resources. The States Parties, the contractors, and the Authority all have freedom and equal opportunities to compete, make profits, and participate in the advancement of the Area and

its resources. In short, we reached rational understanding of what is meant by the CHM principle to govern the natural resources of the seas beyond the national jurisdictions.

Afterward, to make principle B2 of the design principles work within the Area system, it must be converted to “[c]ombination of a royalty and free-market systems should be the basis for a distribution system of the costs and benefits,” so that the CHM’s goals and purposes can be accomplished.

In conclusion, an ideal, successful, robust, and sustainable governing framework for the international common properties must implement the integration of social and economic values. Most significantly, this must occur when sharing the costs and benefits of the exploitation.

In the end, I hope I was successful arguing for the importance of constructing a robust, sustainable, fair, flexible, and effective governing system for a global commons, particularly in regards to governing an exploitation system for the resources of the International Seabed Area and a distribution system for the outcomes of exploiting those resources. I hope that the views contained in this thesis encourage the United States to join UNCLOS and further the advancement of the Law of the Sea.