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The Tragedy of the Global Commons

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INTRODUCTION

Global commons. Say it out loud a few times. It has a nice ring, doesn't it? Admittedly, it paints an appealing scene. Picture forests of happy little trees¹ surrounded by a multicultural ring-around-the-rosey.² People of all nations join hands in a collaborative appreciation of the beauty of nature. One can almost imagine a shared space, equivalent to the kindergarten sandbox, where everyone plays nicely with their neighbor.

Unfortunately, reality is not as picturesque. Global commons are not, as their name would logically imply, equally shared resources. Moreover, areas labeled as global commons are not any more protected than areas subject to sovereign utilization. Their inherent value is not natural, but financial. Consequently, these global commons are labeled as such not in the hopes of maintaining pristine treasures, but for extracting the most profit over the longest period. Ultimately, as long as treaties concerning these areas focus on exploitation instead of preservation, there will be no more rosey to ring around.

This note will address the impending degradation of the global commons and how treaties incorporating these areas offer ineffective protection. I will define the theories of sustainable development and the common heritage of mankind (CHM) and outline their incorporation into international environmental agreements. Specifically, I will focus on the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention on Biological Diversity (Convention). In analyzing these international agreements, I will discuss how their development and text portray global commons as resources to be exploited

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1. The phrase "happy little trees" was coined by the late artist, Bob Ross, who always encouraged viewers to paint whatever they wanted in their little worlds.

2. Ring-around-the-rosey was originally derived from the bubonic plague, indicating that an individual was infected. However, the author is utilizing it in a more current interpretation, as a children's game.

for the profit of select parties. Finally, I will address how the principles of sustainable development and CHM, as incorporated into international environmental agreements, undermine attempts to preserve our global commons.

I. PRESERVATION AND GLOBAL COMMONS

In his comment, Phillip E. Wilson, Jr. postulates saving the rainforests by declaring them global commons.³ He proffers that the rainforests belong to the world as a whole, thus negating any sovereign right the indigenous nation has to the exploitation of their rich natural resources.⁴ Exploitation is a guarantee under Principle 21 of the Stockholm Declaration and each state has the undeniable sovereignty to utilize its own natural resources as it reasonably sees fit.⁵

Wilson reasons that declaring these quickly vanishing ecosystems commons would in turn save them from the developing nations in which they are located.⁶ These nations, he argues, because of their suffering economies, can only see short term gains and not long term sustainability.⁷ Global commons are the property of all nations⁸ and would therefore have a built-in safeguard. Since more than one interest would be at stake, the focus would be more on conservation and effective utilization and not unilateral exploitation.⁹ The benefits of the rainforests would be equally shared by competing interests.

3. Phillip E. Wilson, Jr., *Barking Up the Right Tree: Proposals For Enhancing the Effectiveness of the International Tropical Timber Agreement*, 10 TEMP. INT'L & COMP. L.J. 229, 244 (1996).

4. *Id.* at 295.

5. See *Report of the U.N. Conference on the Human Environment*, U.N. Doc. A/CONF.48/14, at 2-65 (1972), reprinted in Louis Sohn, *The Stockholm Declaration on the Human Environment*, 14 HARV. INT'L L.J. 423, 485-505 (1973) [hereinafter Stockholm Declaration]. The full text of Principle 21 reads as follows:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Id.

6. See Wilson, *supra* note 3, at 295.

7. See *id.* at 238.

8. See *id.* at 245.

9. See *id.* See also Christopher C. Joyner, *Freedom For the Seas In the 21st Century: Ocean Governance and Environmental Harmony*, 5 COLO. J. INT'L. ENVTL. L. & POL'Y 421, 428-29, 431 (1994)(book review).

These interests would necessarily balance the demand and supply and ultimately conserve these global commons.¹⁰

The question remains, though, does a mere label effectively preserve a vanishing niche? I would argue that the answer is a definitive no. In fact, there is no evidence that areas internationally acknowledged as "global commons" are any better off than ecosystems under sovereign control. The reason is simple: making an area a common property does not promote its conservation per se. The label simply divides the same amount of resources among an increasing number of people. Unless individual users are somehow compelled to conserve, it is in their immediate best interest not to.¹¹ Moreover, if the focus behind making the area a commons promotes maximum exploitation, the incentive for overuse is further increased. Accordingly, regardless of the number of competing interests involved, as long as there remains a motivation to exploit and not preserve, the situation will likely remain the same.

II. GLOBAL COMMONS

Global commons are defined as "areas outside the jurisdiction of any nation or group of nations."¹² This definition has been applied to a plethora of environments including: the high seas, outer space, the atmosphere, deep sea beds, and parts of Antarctica.¹³ The basic premise of commons lies in the term *res communes*: the idea that these areas are for the benefit of all nations and, as such, every nation shares a common interest in them.¹⁴

10. See Wilson, *supra* note 3, at 294.

11. This theory is the premise of the "Tragedy of the Commons" and will be discussed in detail later.

12. Wilson, *supra* note 3, at 232 (citing Jeffrey L. Dunoff, *Reconciling International Trade with Preservation of the Global Commons: Can We Prosper and Protect?*, 49 WASH. & LEE L. REV. 1407, 1408 (1992)).

13. See Wilson, *supra* note 3, at 232. See also Joan Eltman, *A Peace Zone on the High Seas: Managing the Commons For Equitable Use*, 5 INT'L LEGAL PERSP. 47, 64 (1993). The focus of this note will be deep seabeds and the high seas. Therefore, both the atmosphere and outer space as labeled "global commons" are beyond the scope of this note.

14. Eltman, *supra* note 13, at 64. *Res communes* is defined as: "things common to all; that is, those things which are used and enjoyed by everyone . . . but can never be exclusively acquired as a whole . . ." BLACK'S LAW DICTIONARY 1304-05 (6th ed. 1990).

The inherent problem in this communal property is the idea put forth by Garrett Hardin in his 1968 article entitled *The Tragedy of the Commons*.¹⁵ Hardin theorized that in communal property systems, each individual enjoys the benefit of exploiting the resource to its maximum, while the cost of this increased utilization is spread out over all users.¹⁶ Consequently, there is incentive for individual over exploitation.¹⁷ Applying this theory to global expanses shows that “the disadvantage inherent in this doctrine is that nations are free to make maximum use of resources because no outside mechanism exists to force their acceptance of external costs, either the cost of resource degradation or the cost of resource depletion.”¹⁸ Much like the herding commons depicted in Hardin’s essay, global commons are susceptible to overuse.¹⁹

This problem is indeed a serious one. Global commons become, in effect, a target for over exploitation. Moreover, critics have addressed the problems of free riders and the Prisoner’s Dilemma in dealing with commons.²⁰ The end

15. Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968), reprinted in Fred P. Bosselman, *Replaying the Tragedy of the Commons*, 13 *YALE J. ON REG.* 391 (1996)(book review).

16. Bosselman, *supra* note 15, at 391-92. Hardin analyzed the Tragedy as such:

Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. . . . Explicitly or implicitly, more or less consciously, he asks, “What is the utility to me of adding one more animal to my herd?” This utility has one negative and one positive component. . . .

The positive component is the benefit to the individual peasant from grazing one additional animal. The negative component is the reduction in grass available to feed his other animals. But since “the effects of overgrazing are shared by all the herdsmen,” the negative component as measured by any given herdsman is overshadowed by the positive benefit to him of grazing an additional animal. Therein lies the tragedy. Each man is locked into a system that compels him to increase his herd without limit—in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.

Id. (quoting Hardin.)

17. *See id.*

18. Eltman, *supra* note 13, at 64.

19. Just as the tragedy can affect cattle pastures, it can also affect migrating fish populations in the high seas, or the estimated amount of finite resources in the deep seabed.

20. Free rider problems can arise in various situations dealing with commons. One pertinent example occurs when non-parties to an agreement continue to exploit resources that agreeing parties have implemented actions to conserve. These free riders benefit from increased yield and decreased competition at the expense of conserving parties. The environmental thrust of the agreement fails because resources are still being exploited. *See* Taunya L. McLarty, *WTO and NAFO Coalescence: A Pareto Improvement for Both Free Trade and Fish Conservation*, 15 *VA. ENVTL. L.J.* 469, 513 n.289 (1996). The Prisoner’s Dilemma focuses on rational users and self-interest. This theory predicts that as long as benefits outweigh costs, rational users will ignore the possibility of future gains and continue to exploit resources. Accordingly, conservation benefits are never reached. *See* James C. Wood, *Intergenerational Equity and Climate Change*, 8 *GEO. INT’L ENVTL. L. REV.*

result is the same, however. These global commons fall victim to the predatory interest of individual exploiting nations.

Many theories have been postulated to diminish or eradicate the tragedy of the commons. It has even been argued that the Tragedy of the Commons itself is not as dramatic as once thought.²¹ However, two methodologies in particular have emerged as the great contenders in the battle against the Tragedy of the Commons: CHM and sustainable development. CHM has been accepted and incorporated into UNCLOS,²² while the idea of sustainable development has been incorporated into the Convention and other international environmental agreements.²³ In reality, these theories sufficiently address the concerns of utility. They promote development, economic growth, and profit sharing. However, in incorporation and application, these theories encourage overuse and profit hoarding, and effectively stunt the economic growth of developing nations. More importantly, each theory fundamentally fails to protect that which is to be utilized: the commons themselves.

III. COMMON HERITAGE OF MANKIND

The CHM, as applied to global commons, incorporates five principles.²⁴ First, the areas are not owned by anyone. Therefore, they cannot be appropriated nor fall under any sovereign control. Instead, the commons are to be managed by the international community as a whole.²⁵ Second, as management is controlled by everyone, "universal popular interests" not

293, 310 (1996).

21. See ELINOR OSTROM ET AL., *RULES, GAMES, AND COMMON-POOL RESOURCES* (1994), reprinted in Bosselman, *supra* note 15, at 392-93.

22. *Third United Nations Conference on the Law of the Sea*, United Nations Convention on the Law of the Sea, opened for signature Dec. 10, 1982, art. 136, 21 I.L.M. 1261 (1982), reprinted in ANTHONY D'AMATO & KIRSTEN ENGEL, *INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY*, app. 103, 118 (1996) [hereinafter UNCLOS].

23. *United Nations Conference on Environment and Development*, Convention on Biological Diversity, opened for signature, June 5, 1992, art. 6, 31 I.L.M. 818 (1992), reprinted in D'AMATO ET AL., *supra* note 22, at app. 73 [hereinafter Convention].

24. See Christopher C. Joyner, *Legal Implications of the Concept of Common Heritage of Mankind*, 35 INT'L & COMP. L.Q. 190, 190-99 (1986), reprinted in D'AMATO ET AL., *supra* note 22, at 31.

25. See *id.*

national interests, “assume priority.”²⁶ Third, all benefits derived from economic exploitation of these global commons are shared among all parties.²⁷ Fourth, use of the commons is limited to peaceful activity.²⁸ Finally, all scientific research conducted in these areas would be readily available to interested parties.²⁹

These principles appear, on the surface, to be motivated by a desire to preserve global commons. However, the premise of CHM lies in exploitation of these areas. “CHM involves inclusive enjoyment and sharing the products of the common heritage, and its thrust remains redistribution not conservation.”³⁰ Therefore, it appears that the focus of CHM is not on how states can work together to protect these areas, but how states can divide the profits of exploitation. CHM is designed to capitalize on exploitation with an entitlement given to all parties involved.³¹ Obviously, the more the resources are exploited, the more each party gets. The incentive therefore is not to conserve, but to “maximiz[e] resource exploitation and economic returns.”³²

Picture a homemade apple pie. A pie can be eaten in one of two ways: it can be sliced into several pieces and served to many, or a single eater can devour it whole. CHM simply puts the pie on the buffet table. CHM methods seems much more polite, but the end result is the same. Either way, all that is left are a few crumbs and an empty pie plate. Now, equate the pie with a finite natural resource like oil. If the oil’s source is declared a global common, we serve it up buffet style. Granted, it seems more fair than a single nation’s sovereign gluttony, but the oil is gone none the less. There are simply more satisfied customers.

26. *Id.*

27. *See id.*

28. *See id.*

29. *See id.* at 31-32.

30. Lakshman Guruswamy, *International Environmental Law: Boundaries, Landmarks, and Realities*, 10 NAT. RESOURCES & ENV'T 43, 48 (1995).

31. *See id.*

32. *Id.*

IV. SUSTAINABLE DEVELOPMENT

Sustainable development is equally fixated with the utilization of resources and distribution of economic gains. Inherent in the term "development" is the concept of growth. This growth is fueled by the consumption of natural resources. The term "sustainable" pertains to the distribution of that growth.³³ Ultimately, sustainable development seeks to promote economic growth so that current needs can be sated, without jeopardizing the needs of future generations.³⁴ Arguably, conservation is an integral part of this theory. Clearly, future generations cannot prosper if there are no resources to exploit. The goal then becomes to accurately assess the highest level of exploitation of resources possible while maintaining a large enough resource base for future support. This calculation is what is known scientifically as "maximum sustainable yield."³⁵

In theory, sustainable development sounds like a promising idea. Economic needs are met and growth is encouraged. More importantly, global resources are conserved.³⁶ However, in reality, the implementation of this theory is not as promising. In order to keep a sustainable base of resources, one must have an accurate calculation of maximum yield. This necessitates precise scientific data that is not always plausible, especially when considering vast and complex

33. See D'AMATO ET AL., *supra* note 22, at 24 (citing WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *OUR COMMON FUTURE* 37-46 (1987)).

34. See *id.* at 26.

35. UNCLOS, *supra* note 22, art. 119. The text of this article outlines the plethora of factors that an individual state must observe in its calculation of "maximum sustainable yield." It reads in part:

[S]tates shall:

(a) take measures which are designed . . . to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional, or global; (b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

Id.

36. I find it important to note that these resources are spared not for their intrinsic value of existence, but for their promise of future revenue.

environmental factors³⁷ and dealing with estimated amounts of resources.³⁸ When the precise amount of a resource is unknown, it is not possible to calculate how much exploitation it can withstand and still be able to provide for future generations. On its face, sustainable development has a promising mix of economic soundness and environmental concern. However, in application, the theory is fraught with the dangers of over exploitation and unprofitability.

V. UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

UNCLOS was signed on December 10, 1982 and entered in force on November 16, 1994.³⁹ The agreement itself has tremendous scope⁴⁰ and its drafting incorporates an obvious focus on dispute resolution.⁴¹ The thrust of UNCLOS, as summarized in its preamble, is a desire to establish “a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.”⁴² UNCLOS makes it clear, however, that state sovereignty will be duly regarded in the creation of this order.⁴³

37. Clearly, UNCLOS obligates the states to consider many intricate factors. See UNCLOS, *supra* note 22. Unfortunately, when taking into account all those contributing considerations, it is impractical, if not impossible, to obtain accurate results.

38. One example is the estimated amount of fossil fuel buried below Antarctica's continental shelf.

39. See UNCLOS, *supra* note 22.

40. “The Convention includes within it's [sic] 320 articles, 9 annexes, and 2 resolutions, the entire range of activities related to the world's oceanic uses.” Captain Edward Dangler, *United Nations Convention on the Law of the Sea*, 3 MAR. L. PRAC. 1159 (1996).

41. See UNCLOS, *supra* note 22. In the agreement's preamble the focus on dispute resolution is clear. A pertinent part reads:

Prompted by a desire to settle, in a spirit of mutual understanding and co-operation, all issues relating to the law of the sea and aware of the historic significance of this Convention as an important contribution to the maintenance of peace, justice and progress for all peoples of the world, . . .

Id.

42. *Id.*

43. See *id.*

Included in the agreement are the duties and rights of each nation with regard to natural resources within the limits of their sovereignty as well as beyond national jurisdiction.⁴⁴ It creates new territorial boundaries in sovereign waters as well as on the high seas.⁴⁵ In its focus on dispute resolution, UNCLOS also establishes central administrative, legislative, and judicial bodies designed to enforce the principles of the Convention.⁴⁶

UNCLOS appears, on its face, to be a tremendous, environmentally conscious step for the nations of the globe. However, in application, the focus is clearly on exploitation of natural resources, especially those within the global commons. As I will analyze in detail, the treaty, its amendments, and its provisions do little to preserve these common areas. Moreover, I will depict how the application of these new provisions serve to contradict CHM, the very theory that the treaty embraces. Ultimately, UNCLOS becomes a tool for over exploitation, with the potential for profit enjoyed solely by select states.

VI. JURISDICTIONAL ENCROACHMENT

UNCLOS sets out detailed and complex guidelines to determine territories and each state's rights and duties regarding them. The first level of jurisdiction is the Territorial Sea.⁴⁷ This area stretches twelve nautical miles from the coast and is under the exclusive sovereign control of the coastal state.⁴⁸ The exercise of sovereignty over these areas is subject to UNCLOS itself and other rules of international law.⁴⁹ This idea is not novel nor surprising. Exploitation by rights of sovereignty has long been embraced by principles of international environmental law.⁵⁰ However, UNCLOS also created a Contiguous Zone⁵¹ and an Exclusive Economic Zone (EEZ)⁵² which effectively serve as jurisdictional encroachment into the commons known as the high seas. The Contiguous Zone stretches twenty-four nautical miles from the baseline by which the breadth of

44. See Dangler, *supra* note 40, at 1159-60.

45. *Id.*

46. *Id.* at 1159.

47. See UNCLOS, *supra* note 22, at arts. 2-3.

48. See *id.*

49. See *id.* at art. 2. For example, these contiguous zones must allow for the innocent passage of foreign vessels. See *id.* at art. 17.

50. See, e.g., Stockholm Declaration, *supra* note 5.

51. See UNCLOS, *supra* note 22, at arts. 2-3.

52. See *id.* at art. 55.

the territorial sea is measured, while the EEZ stretches 200 nautical miles.⁵³ Neither of these areas grant absolute sovereignty of exploitation to the coastal state, but both delineate specific rights enjoyed under sovereignty.⁵⁴

The EEZ is a particular danger to the global commons in two ways. It grants sovereign rights to the coastal state for exploitation of living and non-living natural resources therein, and it makes the promotion of optimum utilization a mandatory obligation.⁵⁵ The focus on maximum exploitation is clearly a danger to the resources in this area. Once again, the states must rely on scientific estimates regarding maximum sustainable yields which, when combined with the mandatory obligation of maximum exploitation, invite overestimation and threaten the common resources. Moreover, this exploitation is primarily for the benefit of the sovereign state. The delineation of the EEZ, in effect, encroaches on areas which were once open to the use of all states,⁵⁶ and reserves the profits of the indigenous resources for a single sovereign.

VII. THE COMMON HERITAGE OF MANKIND AND UNCLOS

UNCLOS labels the sea bed, the ocean floor, and its subsoil beyond the limits of national jurisdiction as the "Area."⁵⁷ This Area is governed by the principle of CHM, and the rights to the resources therein are vested to all mankind.⁵⁸ Traditional uses include: scientific research, military maneuvers, and telecommunications. These uses have not been affected by the establishment of the Area.⁵⁹ However, UNCLOS specifically mandates that open use of the Area be for peaceful purposes only,⁶⁰ and activities must be conducted in a manner that promotes the development of a world economy

53. *See id.* at arts. 3, 57.

54. *See* Dangler, *supra* note 40. These rights include exploitation of natural resources, navigation, scientific research, and other activities that do not endanger the territories of other States nor areas beyond national jurisdiction. *See* UNCLOS, *supra* note 22, at arts. 2, 56.

55. *See* UNCLOS, *supra* note 22, at arts. 60, 62 (mandating maximum utilization, and obligating states that cannot reach optimum exploitation to allow other states to enter the EEZ and harvest the surplus).

56. *See id.* at art. 87 (outlining how the high seas are open to all states for navigation, overflight, telecommunication, fishing, and scientific research).

57. *Id.* at art. 1.

58. *See id.* at arts. 133, 136. "Resources" as defined by Article 133 means "all solid, liquid, or gaseous mineral resources, including polymetallic nodules." *Id.* at art. 133.

59. *See* Dangler, *supra* note 40, at 1160.

60. *See* UNCLOS, *supra* note 22, at art. 138.

(particularly in developing nations), fosters international trade, and encourages global cooperation.⁶¹

Clearly the focus in the Area is not on preservation, but exploitation. The agreement not only encourages growth, but makes it obligatory. Growth requires fuel, which is provided by the abuse of the commons' natural resources. However, this is not the only problem with the agreement. Amendments to the specific provisions of the international convention repudiate the five principles of CHM as applied to global commons. More importantly, UNCLOS establishes a route by which select states can reap the benefits of the commons, while others (usually developing nations) are effectively shut out.

VIII. STACKING THE UNCLOS DECK: PART XI AMENDMENTS

It is important to note that UNCLOS itself was not entered into force until nearly twelve years after it was signed in Montego Bay.⁶² This was due, in large part, to the dissatisfaction of several industrialized nations with Part XI of UNCLOS.⁶³ This section deals exclusively with the rights, duties, enforcement mechanisms, and administrative management of the Area.⁶⁴ Had it not been for several critical amendments in this section, the agreement would not likely have entered into force.⁶⁵ As I will discuss in detail, these changes, negotiated by the industrialized nations, serve not only to endanger the conservation of the global commons, but to undermine the very premise of CHM.

The theory of CHM has been explicitly incorporated into UNCLOS in the provisions relating to the Area.⁶⁶ Therefore, the application of UNCLOS should uphold the five principles of CHM discussed earlier. However, this is not the case. First, the resources found in this defined area are acknowledged as belonging to all nations. Logically, it follows that every nation should have an

61. *See id.* at art. 150.

62. *See Dangler, supra* note 40, at 1159.

63. *See id.* *See also* William J. Clinton, Message From the President of the United States and Commentary Accompanying the United Nations Convention on the Law of the Sea and the Agreement Relating To the Implementation of Part XI Upon Their Transmittal to the United States Senate for its Advice and Consent, S. Treaty Doc. No. 103-39, (2d Sess. 1994) [hereinafter Message], reprinted in 7 *Geo. Int'l Envtl. L. Rev.* 77, 82-83 (1994); Joyner, *supra* note 9, at 424-25.

64. *See* UNCLOS, *supra* note 22, at arts. 133-91. Section 4 of Part XI establishes "The Authority", which is a centralized agency in charge of the administration and adjudication of the Area. *See id.* at part XI, § 4.

65. *See* Message, *supra* note 63, at 151.

66. *See* UNCLOS, *supra* note 22, at art. 136.

equal share in the profits of resource utilization.⁶⁷ However, the industrialized nations were not content with this concept, voicing several objections to Part XI.⁶⁸ These included objections to: the establishment of a seabed mining regime that did not adequately address the interests of the industrialized nations, the lack of free market philosophy governing resource exploitation in the Area, and the lack of access the industrialized nations had to the natural resources of the deep seabeds.⁶⁹ These objections prompted the United Nations to reconsider the Part XI provisions and implement reform.⁷⁰ Ultimately, these amendments succeeded in appeasing the concerns of the industrialized nations, but only to the detriment of developing states and CHM.

Born out of this reformation was the modern Part XI and the UNCLOS that was eventually entered into force. Some of the most notable amendments effectively undermine the principle of CHM and serve solely to protect the financial interests of industrialized nations. These include: allowing free market principles to control deep seabed mining, guaranteeing U.S. firms access to deep seabed minerals, eliminating mandatory transfer of technology and production controls, recognizing established seabed mining claims, guaranteeing a seat for the United States on the executive body, and allowing states to apply the agreement provisionally in accordance with their domestic laws and regulations.⁷¹

Perhaps the most critical theme running through these amendments is that expressed in the Message From the President of the United States which reads, "The provisions of the Agreement overhaul the decision-making procedures of Part XI to accord the United States, and others with major economic interests at stake, adequate influence over future decisions on possible deep seabed mining."⁷² Obviously, this statement is at odds with CHM. Under common heritage, all nations share equally in profits.⁷³ Yet equal profit sharing cannot be reconciled with allowing free market principles to control deep seabed mining. In a free market, there are no safeguards to ensure that all share equally in financial gain. Only those that have put the resources on the market stand to profit. Developing nations lack the money and the technology to keep

67. This is set out in the third principle of CHM. Joyner, *supra* note 24, at 31.

68. See Dangler, *supra* note 40, at 1162. See also Message, *supra* note 63, at 151.

69. See Message, *supra* note 63, at 151.

70. See *id.*

71. See *id.* at 82-83.

72. *Id.*

73. Joyner, *supra* note 24, at 31.

up with their industrialized counterparts. Accordingly, the developed nations hold both the mining claims and the technology to benefit from them. Consequently, if previous mining claims are recognized and industrialized nations are allowed to hoard technology,⁷⁴ developing nations are effectively shut out of ever participating in the free market.

The amendments to Part XI necessarily effectuate control over the sea by wealthy states. Resource domination by financially and technologically empowered states is at direct odds with the CHM. Under CHM, there is no allocation of resources; instead, common areas are managed by collaborative effort.⁷⁵ Accordingly, "popular universal interests," not national interests, "assume priority."⁷⁶ The amendments assure that those nations with major economic interests will have adequate influence.⁷⁷ Ultimately, the renovated Part XI successfully contradicts the CHM principle that it purportedly promotes.

IX. THE CONVENTION ON BIOLOGICAL DIVERSITY

The Convention was signed on June 5, 1992 and entered into force on December 29, 1993.⁷⁸ The basic premise of this agreement is the acknowledgment that conservation and the sustainable use of biological diversity are crucial to meeting the needs of present and future generations.⁷⁹ The Convention places particular importance on eliminating poverty, while promoting economic and social development.⁸⁰ As a means to that end, the Convention advocates fair and equitable sharing of benefits derived from resource use, fair access to genetic resources, and transfer of technology.⁸¹ Although the Convention's provisions are subject to states' sovereign rights,

74. This concept contradicts the theory of CHM as applied to global commons. Principle 5 states that research conducted in those areas would be readily available to interested parties.
Id. at 31-32.

75. *Id.* at 31.

76. *Id.*

77. See Message, *supra* note 63, at 82-83.

78. See Convention, *supra* note 23, at 73.

79. See *id.*

80. See *id.*

81. See *id.*

they apply both within states territories and beyond the limits of national jurisdiction.⁸²

There are clearly several similarities in the motivations of UNCLOS and the Convention; however, there is a critical difference in methodology. While UNCLOS embraces the theory of CHM, the Convention views biodiversity as a natural resource.⁸³ Under the Convention's methodology, therefore, resources can be allocated and unilaterally exploited.⁸⁴ Accordingly, for global commons areas like the high seas, states are entitled to exploit the resources; however, this right is coupled with a duty not to cause environmental harm.⁸⁵ Once again, a theory is proffered that appears to be an environmental shield: promoting development while conserving nature. However, in application, the Convention's focus on exploitation and its ultimate lack of enforcement mechanisms forsake global commons for individual gains.

As previously stated, the theory of sustainable development is a dangerous one. On the surface it makes conservation an economic incentive. However, its reliance on accurate scientific data, free transfer of technology and information, and effective enforcement procedures makes it a method for over exploitation. Since the imperative is maximum utilization, there is an incredible incentive for free-riders. Moreover, because global commons, like the high seas, are shared by all nations the costs of overuse are shared by all as well. This common pooling of resources is what leads to the Tragedy of the Global Commons.

It has been argued that common property is not necessarily subject to Hardin's theory of the Tragedy.⁸⁶ However, in order to have optimal management of commons, certain essential elements must be met.⁸⁷ These include a strict limitation on the number of people allowed to use the resource and open communication among users to promote monitoring and enforcement.⁸⁸ Moreover, there are certain characteristics of common property that can make them most manageable: resources that are stationary and resources that can be

82. *See id.* Since this note deals with global commons, I will only be addressing the Convention as it applies to the areas beyond the limits of national jurisdiction.

83. *See* Christopher C. Joyner, *Biodiversity in the Marine Environment: Resource Implications for the Law of the Sea*, 28 VAND. J. TRANSNAT'L L. 635, 648 (1995).

84. *See id.*

85. *See* Stockholm Declaration, *supra* note 5.

86. *See* Bosselman, *supra* note 15, at 395-96.

87. *See id.*

88. *See id.*

stored.⁸⁹ Both of these characteristics aid in the allocation of the rights to a common resource.⁹⁰ In applying these principles to global commons, like the high seas, the inherent flaws become patent.

First, global resources are anything but restricted in number of users. The very premise of global commons is that they are open to all nations. Second, open interaction between international users to allow for accurate monitoring and enforcement is often impractical if not impossible.⁹¹ Communication between international parties depends on a plethora of factors including: international relations, availability of technology to all parties, and availability of resources to allow for communication. The resources included in the global commons do not even lend themselves to being optimally managed in the commons. Migratory fish and mammals are by no means stationary nor easily stored. Accordingly, it appears that the likelihood of the Tragedy of the Commons occurring is not lessened when dealing on a global scale.

The provisions of the Convention itself make Hardin's theory even more likely. Most importantly, there is a lack of effective enforcement mechanisms designed to limit exploitation. The Convention focuses on self regulation.⁹² In application to areas beyond national jurisdiction, the agreement merely directs Contracting Parties to "as far as possible and as appropriate, cooperate with other Contracting Parties. . . ."⁹³ This language is not only weak, but ambiguous. Clearly, with no definite mechanisms to limit exploitation, no individual user has an incentive to practice self-restraint.⁹⁴ Consequently, the expanse of the common areas combined with the nature of the resources therein, make global commons a prime target for the Tragedy of the Commons. Providing all states effectively unpoliced access to deceptively finite resources is like letting kids loose in a fully stocked candy store. Regardless of best intentions, eventually, when someone reaches for a cookie, the jar will be empty. Unfortunately, the Convention does more to advance this possibility than prevent it.

89. *See id.* at 396.

90. *See id.* at 396-97.

91. Note the reluctance of developed nations to share technology under UNCLOS.

92. *See* Convention, *supra* note 23, at arts. 6-7.

93. *Id.* at art. 5.

94. *See* Bosselman, *supra* note 15, at 391-92 (stating that "Hardin drew the conclusion that we must 'explicitly exorcize' the 'invisible hand' when dealing with problems involving commons. Conscience would not be enough; coercive measures would be required.").

X. THE INTRINSIC PROBLEM OF GLOBAL COMMONS

Even considering the problems discussed regarding the exploitation and regulation of shared global resources, there exists a more fundamental problem. It lies within the very classification of commons as “global.” As Hardin proffered, resources are subject to overuse even within areas as relatively small as communal grazing pastures.⁹⁵ When vast and complex ecosystems like the high seas are involved, there is much more opportunity for the Tragedy to occur. The reasons are simple, there are many more users, and there is much less incentive for self regulation.

Common pool resources are those which are shared in “indefinite proportions” with others.⁹⁶ Common pool problems arise when there are no defined property rights to an exhaustible resource.⁹⁷ In the case of global commons, you have an incalculable amount of people utilizing a limited reserve. Only the situation is even more precarious. The global resources are, as their name implies, global supplies. Unlike Hardin’s example, we are not dealing with a localized pasture. Contained extirpation is unfortunate, but not necessarily irreversible. Annihilation of a global resource is final. Once a human society effectively wipes it out, the global resource is gone forever.

There are conditions under which common pool problems can be solved.⁹⁸ They include limited resource access to a close-knit group, enforcement of this limited access, and relatively equal access to the resource among the users.⁹⁹ First, the benefit of a close-knit group utilizing a resource is in the structure of the group. Such communities allow for open communication and shared detriment to over exploitation as well as more efficient policing. Accordingly, these groups can create norms and enforcement mechanisms which curb the overuse incentive.¹⁰⁰ Second, regulation of common pool resources is prone to attacks of opportunists.¹⁰¹ “[W]ealthy, powerful, high-status, or simply violent members of the group [are able to] push through rules that favor them at the

95. See Hardin, *supra* note 15.

96. Richard A. Epstein, *Why Restrain Alienation?*, 85 COLUM. L. REV. 970, 978 (1985).

97. See Susan Block-Lieb, *Fishing in Muddy Waters: Clarifying the Common Pool Analogy as Applied to the Standard for Commencement of a Bankruptcy Case*, 42 AM. U.L. REV. 337, 373 (1993).

98. See Eric A. Posner, *Law, Economics, and Inefficient Norms*, 144 U. PA. L. REV. 1697, 1740 (1996).

99. See *id.*

100. See *id.*

101. See *id.* at 1741.

expense of the group and of the pool.”¹⁰² Without equal access and effective enforcement, there is no incentive for individuals to comply. The members of the group who are not benefitting from biased and ineffective rules would be unlikely to practice altruistic self-regulation.

These conditions for common pool success are patently lacking in the case of global commons. First, there is no limited and akin group allowed sole access to a resource. Global commons are beyond the reach of any sovereign jurisdiction, and therefore are open as global reserves. Considering world politics and international relations as they exist today, it is unlikely that the global community would neatly fit into the classification of a “close-knit group.” Second, as previously discussed, opportunism by empowered entities is an undeniable presence in the regulation of global commons. Since states with financial prowess can dictate how global resources will be utilized to their benefit, there is little incentive for the less powerful states to take part in the negotiation process. Accordingly, this leads to less participation in preservation treaties and therefore less effective efforts to protect the global commons.

XI. CONCLUSION

If global commons can be epitomized as a kindergarten sandbox, then International Environmental Law is the teeter-totter of the legal world. It seeks to find a balance of competing interests. On one side sit economic concerns, enveloping growth, development, and wealth maximization. On the other side sit environmental concerns, encompassing preservation, conservation, and the interests of future generations. Perched precariously in the middle is the fate of our natural resources. As long as both sides stay balanced, there remains an even playing field. However, as soon as one side is given more weight, the fate of resources topples and an entire assemblage of valid concerns is left up in the air, feet dangling.

Truly, in order to have international environmental agreements that are effective, there must be compliance. Realistically, there is no greater catalyst than money in a globe that is run by, for, and with it. Aesthetics, altruism, and the intrinsic value of life are noble causes, but subjective. Science is more objective, but often misunderstood and mistrusted. However, everyone

102. *Id.*

comprehends the concept of profit and the power it holds. So while few people understand the organic chemistry involved in making a space-age polymer, most everyone recognizes that you can sell the end product as a \$1.99 Super Ball for a nice profit.

International environmental law undoubtedly has to reflect such economic concerns. The explanation is a simple one. While few people could comprehend what it would be like to have no ecosystem capable of supporting human life, almost everyone can imagine what it would be like to have no money. I find this an inherent irony considering it is quite possible to survive without the latter, but not the former. However, most people fail to make the connection. Society sees currency as the source of sustenance. Few look deeper to see that the environment is the actual, seminal source of life support.

The trick to international environmental agreements is recognizing these economic concerns and priorities, but tempering them with the realities of the environment and basic human nature. For example, no resource can withstand persistent exploitation, but most individuals are driven to over exploit in pursuit of their own best interests. Resource consumption is a necessary and inherent part of species survival and prosperity. It would be inane to fashion a protocol that ignores this. However, society must recognize that "species survival and prosperity" does not exclusively mean human survival and prosperity. For without the multitude of species currently surviving, humans would cease to prosper. Knowing this, international environmental law should be designed to allow for effective, qualified resource exploitation. Protocols of conservation and self regulation should contain the promises of financial gain, but also effective enforcement mechanisms. The temptation of profit encourages initial participation in the treaties, while enforcement encourages continuing compliance. If either aspect is omitted or sufficiently weak, noncompliance and over exploitation will result.¹⁰³

At their core, both CHM and sustainable development are theories worthy of merit. Both recognize economic goals and environmental concerns. The same holds true for the UNCLOS and the Convention on Biodiversity. However, in their incorporation and application, they lack proper enforcement mechanisms and balance of competing interests. In short, the teeter-totter is

103. See Hardin, *supra* note 15. Hardin fully realized the lack of self restraint individuals have when it comes to personal gain. He also recognized the need for limits on exploitation to avoid drastic results. Hardin stated: "Freedom in a common brings ruin to all." *Id.* at 1244.

askew. Future international environmental agreements must keep both sides on an even level in order to properly protect our global commons from tragedy.

