The Use of Courts to Protect the Environmental Commons

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The Use of Courts to Protect the
Environmental Commons

By
Lakshman Guruswamy, Ph.D.

I. INTRODUCTION
This Article will begin by defining the environmental commons. There is no canonical definition of the environmental commons but based on etymological use, and jurisprudential lineage, this Article will offer a functional definition of environmental commons. The environmental commons consists of bio-physical phenomena like air, water, land, sea, atmosphere, and ecosystems which support life on earth. This Article will then provide examples of environmental commons that could benefit from judicial protection.

Part III of this Article deals with the legal architecture of judicial protection of the environmental commons which consists of primary rules of law and secondary rules of state responsibility. This is followed by examining how judicial intervention has been used to protect the oceanic commons. The
analysis uses the lens of three cases involving the environmental commons including the Nuclear Test Cases \(^1\) and the South China Sea Arbitration.\(^2\)

Part IV of this Article addresses numerous challenges confronting judicial protection of the environmental commons. The Article concludes by reviewing the promise of judicial protection and the principal weaknesses in international adjudication. The promise offered by primary rules of law pertaining to the oceanic commons is countered by secondary rules of state responsibility dealing with attribution, and the enforcement of judgments. Part V of this Article makes limited suggestions for overcoming some of these weaknesses.

II. DEFINING THE ENVIRONMENTAL COMMONS

We are dealing with the conjunction of two terms: “environment” and “commons.” Etymologically, “environment” is derived from the French words *environ* or *environner* which means around, roundabout, to surround, to encompass.\(^3\) In turn, *environ* is derived from the Old French *virer* or *viron* which means a circle, around, the country around, or circuit.\(^4\) Even this blushing etymological encounter with the word environment suggests that it relates in some way to the totality, and everything that encompasses each and every human and human society. Moreover, it is possible to infer an interaction or symbiosis between humans and the environment. The environment is a living identity, not an inert phenomenon, that responds to human activity that might affect it.\(^5\)

The idea of the commons traces its legal lineage to the Roman Law concept of *res communis*, succinctly codified in the Institutes of Justinian.\(^6\) According to the Institutes some “things” are defined by the law of nature as common to mankind. They include “the air, running water, the sea, and consequently the shores of the sea.”\(^7\) But to many unfamiliar with Justinian, the term “commons” is perceived as originating from the traditional English legal term for common land (commons) popularized as a shared resource by

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7. *Id.*
Garrett Hardin in his famous 1968 article, *The Tragedy of the Commons.*8 As Frank van Laerhoven and Elinor Ostrom have observed: “Prior to the publication of Hardin’s article on the tragedy of the commons (1968), titles containing the words ‘the commons,’ ‘common pool resources,’ or ‘common property’ were very rare in the academic literature.”9

It is possible to weave the meanings of environment with commons, to arrive at a functional definition that does not encompass the intellectual or cultural environment. Accordingly, the environmental commons could be defined as consisting of bio-physical phenomena like air, water, land, sea, atmosphere, and ecosystems which support life on earth.

### A. Examples of the Environmental Commons

Using the suggested functional definition of environmental commons, it is possible to offer examples of environmental commons that could benefit from judicial protection. Here are the most prominent among them:

1. The atmosphere which mediates climate and life on earth is a leading example of an environmental commons. If the accumulation of greenhouse gases like carbon dioxide in the atmosphere is leading to apocalyptic changes, then the atmosphere is an environmental commons calling for remedial management or regulation.

2. Population growth leading to overpopulation. This was one of the primary concerns of Hardin, and remains a problem of the commons.10

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10 Hardin, writing in 1968, cited Thomas Malthus, *An Essay on the Principle of Population* (1798), in which Malthus discussed the problem of food production and population growth. Malthus argued that people reproduce faster than food can be produced, and inevitably a population will run out of food if it continues to grow at a steady rate. According to Hardin, if population continues to grow at the present alarming rates, the earth’s resources, which are finite, will quickly be exhausted, and become unable to support the earth’s population. However, Malthus and Hardin, underestimated the role of technology, and the world has not run out of food. In fact, the world produces more than enough food to feed the total world population today. The real problem is one of distribution. The surplus food produced in rich developed countries is not distributed to the poor needy countries. The result is that the world faces three interwoven and intractable issues. First, the reality of poverty and famine especially in poor less developed countries across the globe. Second, increasing population in these countries which Unfortunately, are unable to properly feed, house or clothe their increasing population. Third, the absence of a treaty ordering re-distribution of food, embodying primary rules of the kind described below, which could be upheld through compulsory adjudication. In the absence of a treaty and compulsory adjudication, there is
3. Air pollution caused by chemicals other than carbon dioxide. These can consist of toxic heavy metals like mercury or cadmium, or harmful ubiquitous pollutants like nitrogen oxides or sulfur dioxides, that can harm human health, damage ecosystems, and interfere with amenities.

4. Water pollution and exhaustion of ground water by over irrigation is another example of the possible tragedy of the commons.

5. Oceanic pollution remains a concern and the damage to the oceans could lead to another tragedy of the commons.

6. The destruction of rain forests, coral reefs, and mangrove swamps that contain the highest remaining concentrations of biological diversity in the form of fauna and or flora, can irrevocably damage the ecology of life that supports human societies. This may take the form of:
   a. Logging of rain forests and slash and burn methods of forest clearance;
   b. Destruction of coral reefs by chemical pollution, dynamiting for fish, and industrial harvesting of coral reefs of the kind referred to in the South China Sea Arbitration discussed below; and
   c. “Reclaiming” of the ocean by harvesting for coral and other biota for the purpose of building on rock and other formations in the sea, of the kind referred to in the South China Sea Arbitration. This is different from the development of coastal areas covered by mangrove swamps for purposes of coastal zone development, that leads to the disappearance of such swamps.

7. Overfishing can destroy fish stocks that provide up to 20% of the world’s protein.\textsuperscript{11}

III. \textbf{JUDICIAL PROTECTION OF THE ENVIRONMENTAL COMMONS}

There are three pre-conditions for judicial intervention to protect the environmental commons. The first consists of primary rules of obligation creating or protecting the environmental commons. The second consists of the existence of secondary rules of state responsibility, that govern the breach of these primary rules. The third consists of a regime of compulsory adjudication over disputes pertaining to the breach of the relevant environmental obligations.\textsuperscript{12}


\textsuperscript{12} \textit{JAMES CRAWFORD, STATE RESPONSIBILITY} 1–110 (2013).
Primary rules establishing or creating an environmental commons may be formulated or generated by a treaty or customary law. The violation of these primary rules amount to international wrongs that give rise to the secondary rules of state responsibility. However, the existence of primary rules cannot invoke judicial protection, unless a treaty mandates compulsory adjudication of disputes concerning the violation of these primary rules, or where parties agree to judicial settlement. Consequently, judicial protection can only be invoked where the wrongs caused by the alleged breach of these primary rules are subject to adjudication by a court or tribunal.

If these three factors are present, courts could offer judicial protection of the environmental commons in any of the seven areas described above. I will deal with the protection of the oceanic commons through the United Nations Convention on the Law of the Sea ("UNCLOS")\(^\text{13}\) because this treaty satisfies the three conditions of primary rules of obligation, secondary rules of state responsibility,\(^\text{14}\) and a regime of compulsory judicial settlement. My analysis will employ the lens of three important cases.

**A. Oceanic Environmental Commons**

According to the United Nations:

Oceans cover three quarters of the Earth’s surface, contain 97 percent of the Earth’s water, and represent 99 percent of the living space on the planet by volume. Over three billion people depend on marine and coastal biodiversity for their livelihoods.

... 

Oceans serve as the world’s largest source of protein, with more than 3 billion people depending on the oceans as their primary source of protein[...]. Marine fisheries directly or indirectly employ over 200 million people.

... 


Coastal waters are deteriorating due to pollution and eutrophication. Without concerted efforts, coastal eutrophication is expected to increase in 20 percent of large marine ecosystems by 2050.\textsuperscript{15}

The primary legal instrument governing the oceans is UNCLOS.\textsuperscript{16} Politically, the global importance of oceans was recognized by Sustainable Development Goal 14 that deals with the conservation and sustainable use of the oceans.\textsuperscript{17}

\textbf{B. Cases Invoking the Environmental Commons}

\textbf{1. Nuclear Test Cases}

The Nuclear Test Cases were instituted and decided prior to UNCLOS, or the Draft Articles on State Responsibility.\textsuperscript{18} In these cases both Australia and New Zealand brought separate, but similar, actions against France in the International Court of Justice ("ICJ"), complaining of France's imminent atmospheric tests on the Moruroa Atoll in the South Pacific.\textsuperscript{19} From 1967 to 1972 France had conducted atmospheric tests within its own territory, and appeared about to begin another series of tests in 1973.\textsuperscript{20} Both Australia and New Zealand made similar arguments as to why French nuclear testing violated international law. One claim or cause of action was based on the violation of national sovereignty. Australia argued that:

The deposit of radio-active fall-out on the territory of Australia and its dispersion in Australia's airspace without Australia's consent:

\begin{enumerate}
\item[(a)] violates Australian sovereignty over its territory; and
\item[(b)] impairs Australia's independent right to determine what acts shall take place within its territory and in particular whether Australia and its people shall be exposed to radiation from artificial sources.]\textsuperscript{21}
\end{enumerate}
The second cause of action is more relevant to our discussion because it concerned the protection of the collective interests of the international community, and what we may call the environmental commons. New Zealand articulated this argument very clearly by claiming that France’s action violated “the rights of all members of the international community, including New Zealand, that no nuclear tests that give rise to radio-active fall-out be conducted” and also violated “the rights of all members of the international community, including New Zealand, to the preservation from unjustified artificial radio-active contamination of the terrestrial, maritime and aerial environment and, in particular, of the environment of the region in which the tests are conducted[.]”

It is to be noted that both New Zealand and Australia effectively took the position that the high seas were res communis, and that every state had an interest in protecting the freedom of the seas even in the absence of a material interest or injury in fact. In so doing they anticipated the concept of the high seas as the common heritage of mankind as subsequently expressed in Article 136 and explicated further by Articles 137 to 148 of UNCLOS. Furthermore, the two claims of Australia and New Zealand relating to state responsibility could now be justified under Articles 42 and 48 of the Draft Articles of State Responsibility. Article 42 of the Draft Articles of State Responsibility deals with injury in fact, while Article 48 addresses the environmental commons. A plain reading of Article 48 makes this abundantly clear. According to Article 48:

Any State other than an injured State is entitled to invoke the responsibility of another State in accordance with paragraph 2 if:

(a) the obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group; or

(b) the obligation breached is owed to the international community as a whole.


23 Id.

24 See id. ¶ 7.

25 UNCLOS, supra note 13, at arts. 136 to 148.

26 Draft Articles on Responsibility, supra note 14, at art. 42.

27 Id. at art. 48.

28 Id. (emphasis added).
The two petitioners requested interim measures, and the ICJ granted these requests in 1973, stating that “no action of any kind [should be] taken which might aggravate or extend the dispute... and, in particular, the French Government should avoid nuclear tests causing the deposit of radio-active fall-out”\(^\text{29}\) on the respective territories of Australia and New Zealand.\(^\text{30}\) While the ICJ did not base its interim measures on the second cause of action relating to the international community, they found that the petitioners had established a prima facie case. It is reasonable to not dismember the “case” but to treat it as the whole case which includes the second cause of action. Moreover, the Joint Dissenting Opinion clearly stated that the court should be open to consider actions brought to enforce the kind of obligations erga omnes referred to in the *Barcelona Traction case*.\(^\text{31}\) Unfortunately, France ignored the decision and actually conducted two more nuclear tests.\(^\text{32}\) The actions of France flew in the face of Article 59 of the ICJ’s governing statute that clearly states that any decision rendered by the ICJ is binding on the parties to the case.\(^\text{33}\) However, the ICJ appeared incapable of doing anything about this flagrant violation of its decision.

### 2. South China Sea Arbitration

A recent decision of the Permanent Court of Arbitration (“PCA”) perhaps offers the best doctrinal example of judicial protection of the environmental commons.\(^\text{34}\) The PCA’s jurisdiction is derived from UNCLOS—all State parties to UNCLOS agree to compulsory dispute settlement procedures under Part XV, Section 2 of the treaty.\(^\text{35}\) The arbitration revolved around whether China’s claim to sovereignty over much of the South China Sea based on its nine-dash-line around the great wall of sand was compatible with

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\(^\text{32}\) LAKSHMAN D. GURUSWAMY & MARIAH ZEBROWSKI LEACH, INTERNATIONAL ENVIRONMENTAL LAW 674 (5th ed. 2017) [hereinafter INTERNATIONAL ENVIRONMENTAL LAW].

\(^\text{33}\) Statute of the International Court of Justice, art. 59.


\(^\text{35}\) UNCLOS, *supra* note 13, at Part XV, § 2.
UNCLOS. China objected to the PCA’s jurisdiction on the basis that it had submitted a declaration at the time it ratified UNCLOS, exempting disputes over sea boundaries and land territory from compulsory arbitration. On this ground, China did not participate in the arbitration.

The PCA held first, that they were not dealing with boundary delimitation, and that the claims presented by the Philippines did not concern sea boundary delimitation and were not, therefore, subject to the exception to the dispute settlement provisions of UNCLOS. The PCA also emphasized that the Philippines had not asked it to delimit any boundary. China’s non-participation did not deprive it of jurisdiction under Annex VII, Article 9 of UNCLOS. It then went on to decide the case on the merits, and in doing so further decided that any historic rights China previously had in the South China Sea, insofar as they were incompatible with the Exclusive Economic Zones (“EEZ”) of other states, were relinquished when China ratified UNCLOS. Therefore, Chinese navigation and fishing in the South China Sea were simply exercises of high seas freedoms rather than of any historic rights. The PCA further explained that the underlying rationale of UNCLOS was to give resources in EEZs to coastal states. Correspondingly, states with only a presence on small features would not have the same entitlements as coastal States.

The most important aspect of the case, relating to this discussion on judicial protection of the global commons, is worth noting. This aspect of the case concerned the PCA’s holding that China’s land reclamation and construction of artificial islands in the Spratly Islands, and its failure to prevent Chinese fishermen from harvesting endangered sea life, constituted a breach of its obligations under Articles 192 and 194(5) of UNCLOS to

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37 Phil. v. China, PCA Case No. 2013-19, ¶¶ 6, 13. China ratified UNCLOS on June 7, 1996. When doing so, it declared in writing, as it was permitted to do under Article 298 of UNCLOS that it did not accept the compulsory judicial jurisdiction under Section 2 relating to boundary delimitation and disputes concerning military activities. UNCLOS, supra note 13, at art. 298.
39 Id. ¶ 28.
40 Id. ¶ 12.
41 Id. ¶¶ 252, 261–63.
42 Id. ¶ 270.
43 Id. ¶ 519.
44 Id. ¶¶ 517–19.
preserve and protect the marine environment. The Philippines had argued that the obligation to protect and preserve the marine environment is not dependent on deciding which Party, if any, has sovereignty or sovereign rights or jurisdiction over Scarborough Shoal or Second Thomas Shoal or Mischief Reef. What controlled instead, was the duty placed on China to control the harmful fishing practices, the land creation, and the construction activities which threaten the marine environment at those locations and elsewhere in the South China Sea.

The unanimous decision of the PCA on this question is categorical and unequivocal. It held that the obligations in Part XII, dealing with the protection and preservation of the marine environment, apply “to all States with respect to the marine environment in all maritime areas, both inside the national jurisdiction of States and beyond it. Accordingly, questions of sovereignty are irrelevant to the application of Part XII of [UNCLOS].” The applicability of these duties “have no bearing upon, and are not in any way dependent upon, which State is sovereign over features in the South China Sea.” In effect they are obligations owed to the international community as a whole. It further wrote:

This “general obligation” extends both to “protection” of the marine environment from future damage and “preservation” in the sense of maintaining or improving its present condition.

The content of the general obligation in Article 192 is further detailed in the subsequent provisions of Part XII, including Article 194, as well as by reference to specific obligations set out in other international agreements, as envisaged in Article 237 of the Convention.

According to the PCA, “Articles 192 and 194 set forth obligations not only in relation to activities directly taken by States and their organs, but also in relation to ensuring activities within their jurisdiction and control do not harm the marine environment.” It then examined Article 194(2), which states: “States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment . . . .” It relied on the
Fisheries Advisory Opinion of the International Tribunal for the Law of the Sea, which had drawn on decisions of the ICJ in *Pulp Mills on the River Uruguay* and the Seabed Disputes Chamber advisory opinion, to conclude “that the obligation to ‘ensure’ is an obligation of conduct.” It imposes an obligation on “a flag State to ensure its fishing vessels not be involved in activities which will undermine a flag State’s responsibilities under [UNCLOS] in respect of the conservation of living resources and the obligation to protect and preserve the marine environment.”

The PCA then dealt with the argument that China had destroyed fragile and critical ecosystems prohibited by Article 194(5) of UNCLOS that protects and preserves rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life. It concluded that there was:

> [N]o doubt from the scientific evidence before it that the marine environments where the allegedly harmful activities took place in the present dispute constitute “rare or fragile ecosystems.” They are also the habitats of “depleted, threatened or endangered species,” including the giant clam, the hawksbill turtle and certain species of coral and fish.

China’s actions had, therefore, violated Article 194(5).

Furthermore, the PCA held that China also violated a cluster of other obligations. One set of those obligations are found in Article 197 read with Article 123. These Articles deal with cooperation, especially in dealing with enclosed and semi enclosed seas like to South China Seas. They “require[] States to cooperate on a global or regional basis, ‘directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with [UNCLOS], for the protection and preservation of the marine environment[.]’” China had not done so.

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54 *Id.*

55 *Id.* ¶ 945.

56 *Id.*

57 *Id.* ¶ 946; UNCLOS, supra note 13, at art. 123, 197.

58 Phil. v. China, PCA Case No. 2013-19, ¶ 946.

59 *Id.* (quoting UNCLOS, supra note 13, at art. 197).
Other obligations allegedly violated by China include those found in Articles 204, 205, and 206. Article 204 requires states to “endeavour [sic], as far as practicable, directly or through the competent international organizations, to observe, measure, evaluate and analyse [sic], by recognized scientific methods, the risks or effects of pollution on the marine environment.” It also requires states to “keep under surveillance the effects of any activities which they permit or in which they engage in order to determine whether these activities are likely to pollute the marine environment.” Article 205 requires states to publish reports of the results from such monitoring to the competent international organizations, which should make them available to all states. Finally, Article 206 relates to environmental impact assessments.

What is evident from South China Sea Arbitration is that the obligations contained in Part XII of UNCLOS satisfied the three preconditions for invoking state responsibility. First, it created primary rules protecting and preserving the marine environment as an international commons, that are owed to the international community as a whole. Second, these rules could give rise to state responsibility under Article 48 of the Draft Articles on State Responsibility. Third, UNCLOS required compulsory judicial settlement of alleged violations of its provisions. As we have noted this is found in Part XV of UNCLOS.

In the result, South China Sea Arbitration is perhaps the best example of how international courts have sought to protect the global commons. However, South China Sea Arbitration further illustrates the problem encountered in the Nuclear Test cases, namely the inability of international courts to enforce or implement their order in the face of resistance or rejection by the offending state.

3. Seabed Disputes Chamber of The International Tribunal for The Law Of The Sea, Responsibilities And Obligations Of States Sponsoring Persons and Entities with Respect To Activities In The Area, Advisory Opinion of February 1, 2011

The Seabed Disputes Chamber (the “Chamber”) is a separate judicial body within the International Tribunal for the Law of the Sea ("ITLOS"). It is entrusted, through its advisory and contentious jurisdiction, with the

60 See id. ¶¶ 947–48.
61 UNCLOS, supra note 13, at art. 204.
62 Id. at art. 204.
63 Id. at art. 205.
64 Id. at art. 206.
65 See id. at Part XV.
exclusive function of interpreting Part XI of UNCLOS dealing with the Area, and the relevant annexes and regulations that are the legal basis for the organization and management of activities in the Area. The Chamber's advisory opinion, Responsibilities and Obligations of States Sponsoring Persons and Entities With Respect to Activities in the Area, concerned the duties of various parties engaged in deep sea bed mining. The Chamber characterized the nature of the environmental obligations relating to compensation, writing:

Each State Party may also be entitled to claim compensation in light of the *erga omnes* character of the obligations relating to preservation of the environment of the high seas and in the Area. In support of this view, reference may be made to article 48 of the ILC Articles on State Responsibility. 67

The reference to obligations *erga omnes*, and Article 48 of the *Draft Articles on State Responsibility*, relating to obligations owed to the international community should be situated within the characterization of the Area as the common heritage of mankind by Article 136 of UNCLOS. When these provisions are read in conjunction, the contextualized area and environmental commons can invoke judicial supervision.

IV. PROBLEMS CONFRONTING JUDICIAL PROTECTION OF THE ENVIRONMENTAL COMMONS UNDER RULES OF STATE RESPONSIBILITY.

While states may invoke court intervention to protect the environmental commons, based on the *Draft Articles on State Responsibility*, they face a number of legal and practical difficulties. These challenges traverse the geopolitics of international relations, the nature of the international adjudication, the actors causing harm to the environmental commons, the existence and ambit of primary rules of obligation, the doctrine of state responsibility, and the implementation of a court order.

First, the geopolitics of international relations and the international adjudication. International law functions within a complex vortex of a global community consisting of 193 sovereign independent states. 68 International law, is a body of law created by these states to promote interaction and govern

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67 Responsibilities and Obligations of States, supra note 66, ¶ 189 (quoting Draft Articles on State Responsibility, supra note 14, at art. 48).

problems that arise between themselves.69 International environmental law ("IEL"), a branch of international law, is situated and expressed primarily in treaties, which consist of written agreements between two or more states creating or re-stating legal rights and duties. Where states that have agreed to and incorporated primary rules protecting the global commons in treaties, it is open to them to seek the protection of these environmental commons. It is a related geopolitical fact, however, that states aspire to have friendly relations with other states, and comity does not favor adversarial litigation.70 The foreign offices and chancelleries across the world, much prefer to settle their differences by diplomatic means and not resort to litigation. Litigation is expensive, distracting, time consuming, and may attenuate goodwill among nations. Furthermore, where they decide to litigate, states usually do so to vindicate their individual self-interest, not promote community objectives. Accordingly, litigation is not ordinarily pursued in the absence of self-promoting or self-serving circumstances. This may constrain judicial protection because it may be difficult to find a champion of the environmental commons, that undertakes costly litigation, based on altruism not self-interest.

A second difficulty concerns the actors. International law is an interstate system that only binds states. Consequently, non-state actors like multinational corporations, non-governmental organizations ("NGOs"), or private parties, do not directly fall under the jurisdiction of courts set up by treaties that protect the global commons. Quite often, those most concerned about damage to the commons are private persons or non-governmental environmental organizations, not states. They claim to act as watchdogs over the environment. These environmental watchdogs cannot directly bring an action in an international tribunal based on the violation of a treaty. Instead, NGOs will need to convince their national governments to espouse the cause of the environmental commons and institute a case against the offending state.

The Trail Smelter case, a well-known public international law case dealing with transboundary pollution, is illustrative of how state responsibility works.71 In Trail Smelter, sulfur dioxide fumes from a Canadian smelter were causing damage in the state of Washington.72 Farmers who suffered

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69 In this Article, "international law" refers to public international law created by states, and not to transnational laws involving non-state players like corporations or non-governmental organizations.

70 See generally Joel R. Paul, *Comity in International Law*, 32 HARV. INT’L L. J. 1 (1991) (using comity, an elusive and canonically undefined concept, as one expressing goodwill and respect towards other nations).


72 *Id.* at 1907, 1912, 1917.
damage were prevented from bringing an action in U.S. courts because they would have encountered jurisdictional difficulties. The first of these jurisdictional problems arose from the fact that the company owning the smelters had its place of business and was registered in Canada. A second jurisdictional problem arose from the *locus delicti*, or the fact that the act that initiated the damage, and therefore the tort, occurred in Canada.

Even if the plaintiffs had been able to overcome this difficulty and persuade a U.S. court to assume jurisdiction on the basis that the harm inflicted or damage suffered was in the U.S., they still faced other difficulties. Another problem was the proper law to be applied by the court. Should it be Canadian or U.S. law? If the applicable law were Canadian, to what extent did Canadian law permit recovery of damages in cases where the harm suffered was in a jurisdiction different from that in which it originated? The doctrine of *forum non conveniens*, or the appropriate forum for an action, raised another question. Were the U.S. courts an appropriate forum for deciding a case such as this?

These were among the reasons for the U.S. to espouse and advocate the claims of the Washington farmers and negotiate a treaty with Canada: *Convention for Settlement of Difficulties Arising from Operations of Smelter at Trail, B.C. (1935) ("Convention for Settlement")*. In this treaty, Canada accepted state responsibility for provable damage caused by the Trail smelter. An arbitral tribunal was created under that treaty to find a solution that was just to all parties. The arbitral tribunal concluded that the Dominion of Canada was responsible in international law for the conduct of the Trail Smelter, apart from the undertakings in the Convention for Settlement. It held, therefore, that it was the duty of the Government of the Dominion of Canada to ensure that its conduct conform with the obligation of the Dominion under international law, not to allow its territory to be used in a manner that caused transboundary damage to another state. *Trail Smelter* demonstrates the working of an inter-state or international system of law. The injured Washington farmers obtained relief only because they persuaded their state, the United States, to espouse and advocate their claims against Canada, the state where the Trail Smelter was located. Moreover, they able to appear before the tribunal, and seek damages, only because the treaty allowed them to do so.

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73 *Id.* at 1918.
75 *Id.* at art. 1.
76 *Id.* at art. 2.
77 *See Trail Smelter, 3 R.I.A.A. at 1934–37.*
The third and fourth impediments deal with those created by primary rules of obligation, and secondary rules of state responsibility. When one nation brings another to court, it relies on state responsibility, a form of international tort law. The International Law Commission (“ILC”), codified the law dealing with state responsibility in 1955. The first of their three volumes of work, the Draft Articles on State Responsibility was finalized in 2001, and “it laid the conceptual foundations and provided an authoritative re-statement of state responsibility.” The authority of the Draft Articles on State Responsibility was confirmed by the ICJ in Application of the Convention on the Prevention and Punishment of the Crime of Genocide. The ICJ found that Articles 4 and 8 of the Draft Articles on State Responsibility were a codification of customary international law.

The foundational principle of state responsibility, as of tort law, is the concept of an internationally “wrongful” act. A state commits an internationally wrongful act when it violates or acts in breach of an existing international obligation, found in treaty or customary law. As such, an act’s classification as “wrongful” depends not on its being morally unacceptable per se, but instead on the wrongfulness of breaching international law. In theory, all obligations, whether general or specific, contained in treaties as well as in customary law, have the potential to give rise to state responsibility. According to the Draft Articles on State Responsibility, “[e]very internationally wrongful act of a State entails the international responsibility of that State” and “[t]here is an internationally wrongful act of a State when conduct consisting of an action or omission: (a) is attributable to the State under international law; and (b) constitutes a breach of an international obligation of the State.”

What this entails is that there must be pre-existing primary rules of law establishing that it is wrong to damage the environmental commons, and next there is a need to attribute the conduct damaging the environment to a state.

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78 See generally Draft Articles on State Responsibility, supra note 14. “This final draft was submitted to the U.N. General Assembly, which commended it on numerous occasions, and decided in 2007 to consider the question of a convention on the basis of the [Draft Articles].” Lakshman Guruswamy, State Responsibility in Promoting Environmental Corporate Accountability, 21 FORDHAM ENVTL. L. REV. 209, 211 n.5 (2010). This has not happened yet.
79 Guruswamy, supra note 78, at 211.
81 Id. at 283–84, 287.
82 See generally Guruswamy, supra note 78, at 210–12.
83 Draft Articles on State Responsibility, supra note 14, at art. 1.
84 Id. at art. 2.
Attribution may present problems. Entities responsible for damaging the global commons by pollution or resource extraction almost invariably are non-state entities. They include multinational corporations or private actors as distinct from states themselves or agencies belonging to the state. Take the hypothetical case of a private corporation, registered in state A causing damage to the oceanic environmental commons, shared by states A, B, and C, by harvesting deep sea bed nodules. The actions of such NGOs must be attributable to a state under the Draft Articles on State Responsibility. As a private corporation, their conduct is not that of an organ of the state under Article 4, or conduct of persons or entities exercising elements of governmental authority under Article 5.

It is arguable, however, that their actions are directed and controlled, and therefore attributable to the state under Article 8:

Proving attribution under Article 8 is very difficult because it involves proving a direct agency relationship. It must also be shown that the state gave specific directions, or exercised explicit control over a corporation’s actions. In their commentaries to the [Draft Articles on State Responsibility], the ILC concluded that, as a general rule, the conduct of private persons and corporations is not attributable to the State under public international law. In dealing with Article 8, the ILC considered the example of a State-owned and controlled enterprise. They concluded that prima facie the conduct of even such an enterprise is not attributable to the State. Given the opinion of the ILC, it is going to be substantially more difficult to attribute the conduct of a private corporation to a state. In sum, this means that the actions of a private corporation can only be attributed to a state under Article 8 in very exceptional circumstances. Such circumstances should demonstrate explicit control and direction exercised by the State over the impugned actions of [a corporation].

The ICJ confirmed this strict interpretation of Article 8 in the Bosnia case:

In that case, Serbia and Montenegro alleged that the former Yugoslavia (now Bosnia and Herzegovina) was responsible for committing genocide. The [ICJ] discussed the question of whether, although not organs of Serbia in general, the perpetrators were acting under Serbian “direction and control” “in carrying out the conduct” under Article 8. The decision of the ICJ followed the reasoning

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85 Polymetallic nodules, also called manganese nodules, are rock concretions on the sea bottom formed of concentric layers of iron and manganese hydroxides around a core. As nodules can be found in vast quantities, and contain valuable metals, deposits have been identified as having economic interest. See generally John Merlo, The Mineral Resources of the Sea (1965).

86 See Guruswamy, supra note 78, at 213–14.
and “effective control” test it used in the earlier case of Military and Paramilitary Activities.87

Applying the “effective control” test from the Nicaragua case in the Bosnia case, the ICJ concluded that:

[T]he state will be responsible for non-state actors to the extent that “they act in accordance with that state’s instructions or under its effective control.” This responsibility requires direction or control by Serbia over specific, identifiable events of the genocide. General control over the direction of operations is inadequate; there must have been specific control over the international wrongful act. The [ICJ] explained that, “it must however be shown that this ‘effective control’ was exercised, or that the State’s instructions were given, in respect of each operation in which the alleged violations occurred, not generally in respect of the overall actions taken by the persons or groups of persons having committed the violations.”88

In South China Sea Arbitration, we have seen how the PCA held China responsible for violations of various provisions of UNCLOS dealing with the pollution and protection of the marine environment. The question of attribution was not specifically addressed in this case apparently because China did not contest that their island-building and fishing projects in the South China Sea were attributable to China. Moreover, China’s statements do not identify other actors responsible for the island-building or fishing projects.89 In the course of the dispute, as the order of PCA points out, China issued several statements affirming the Chinese government’s purpose for building artificial islands.90 A spokesperson for China’s Ministry of Foreign Affairs stated that China is, in fact, building artificial islands in the Spratly Islands area to “meet various civilian demands and better perform China’s international obligations and responsibilities[.]”91 Furthermore, Chinese spokespersons claimed that the Chinese government has taken into account ecological preservation and fishery management in conducting its construction project.92 The Chinese government also claimed to have enacted ecological measures pursuant to its international obligations. In the result, it may have emerged that attribution was conceded by China, and that the PCA did not need to address this aspect of state responsibility.

87 Guruswamy, supra note 78, at 213–14 (citing Military and Paramilitary Activities (Nicar. v. U.S.), 1986 I.C.J. 14, 110 (June 27)).
88 Id. at 214–15.
90 Id., ¶¶ 919–20.
91 Id., ¶ 919.
92 Id., ¶¶ 917, 920.
It is surprising, however, that attribution, which is an essential and indispensable element of the rules of state responsibility, was not specifically raised, analyzed or addressed by the PCA. It was incumbent on the PCA to do so even if they considered that Articles 193 and 194 of UNCLOS embodied obligations of conduct that obviated the need for attribution. It was necessary for the PCA to have articulated why their interpretation of those articles dispensed with the need for attribution. The clear need to address attribution was further underlined by the fact that China neither accepted nor participated in the proceedings, and was not represented at the hearings. In these circumstances the PCA acknowledged that the situation of a non-participating party imposes a special responsibility on it. Referring to Article 9 of Annex 7 of UNCLOS, the PCA stressed the importance, before making its award, to satisfy itself “not only that it has jurisdiction over the dispute but also that the claim is well founded in fact and law.”

Given this self-admonition it behooved the PCA to have raised the crucial issue of attribution, even if the facts overwhelmingly proved that the illegal actions were attributable to China, rendering them res ipsa loquitur, or that China had conceded attribution, or that the primary rules did not require attribution. Whatever the PCA’s basis for dispensing with attribution, the PCA should have referenced the facts and articulated its reasons for so doing. The absence of any treatment of attribution creates a lacuna in the award. As we have seen, attribution must be shown before state responsibility can be proved, and the South China Sea Arbitration cannot be interpreted as dispensing with attribution. Moreover, the seeming admission made by China in South China Sea Arbitration may not be forthcoming in other cases involving the environmental commons, and attribution will continue to present challenges when dealing with the actions of non-state actors.

Fifth, causation could be another obstacle. Typically, more than one state may be responsible for causing damage to the environmental commons by way of pollution or extraction of natural resources. Consider the example of damage to coral reefs within an environmental commons, caused by pollution

93 Id. ¶ 6, 12–13.
94 Id. ¶ 12.
95 Id.
from numerous nations discharging pesticides,\textsuperscript{97} dioxins,\textsuperscript{98} and various petrochemicals.\textsuperscript{99} Because of the nature of the substances involved, the harm caused to coral reefs due to exposure, typically are not discovered until long after the exposure occurred. It becomes very difficult to demonstrate which state or states are responsible for the resulting damage.

Typically, hazardous waste disposal by states involves many participants, who have been categorized as generators, transporters, and disposal site operators.\textsuperscript{100} To complicate the identification issue further, the substances disposed of in the environmental commons may have come from several different generators in different countries, analogous to a waste dump site in the United States.\textsuperscript{101} Records by generators, transporters and site owners are

\textsuperscript{97} Most pesticides are produced by the petrochemical industry, but their importance as a source of pollution arising from individual and agricultural use calls for separate treatment. There are many different types of pesticide products in use, including: insecticides (insects), herbicides (plants), fungicides (molds and mildew), rodenticides (rats and mice), acaricides (mites and ticks), bactericides (bacteria), avicides (birds), and nematicides (roundworms). According to the most recent Environmental Protection Agency (“EPA”) report, nearly 6 billion pounds of pesticides were used worldwide in 2011 and 2012. DONALD ATWOOD & CLAIRE PAISLEY-JONES, EPA, PESTICIDES INDUSTRY SALES AND USAGE: 2008–2012 MARKET ESTIMATES 9 (2017), available at https://www.epa.gov/sites/production/files/2017-01/documents/pesticides-industry-sales-usage-2016_0.pdf.

\textsuperscript{98} Dioxin can refer to any of a number of chlorinated hydrocarbon compounds that are produced as toxic side products in a range of industrial processes. See generally Dioxins and Their Effects on Human Health, WORLD HEALTH ORG. (Oct. 4, 2016), https://www.who.int/news-room/fact-sheets/detail/dioxins-and-their-effects-on-human-health. These compounds are highly carcinogenic, persist for long periods in the environment, and can accumulate up the food chain. Id.

\textsuperscript{99} We use and find petrochemicals in goods as varied as food, medicine, cosmetics, lumber, household appliances, fuels, plastics, papers, and innumerable other manufactured products. Petrochemicals are divided into two groups: organic and inorganic. Organic compounds are based on carbon atoms usually in combination with hydrogen, and the better known include ethylene, methylene chloride, formaldehyde, benzene, dichlorodiphenyltrichloroethane (DDT), and polychlorinated biphenyls (PCBs). Inorganic compounds are not based on carbon, and examples of such substances include sulfuric acid, aluminum, and chromium. Petrochemical products enter the environment in a number of ways. The principal among these are intentional use as in the case of pesticides, incidental and operational releases of liquid discharges and gaseous emissions during their manufacturing process, accidental spills, and waste disposal. INTERNATIONAL ENVIRONMENTAL LAW, supra note 32, at 361.

\textsuperscript{100} See Note, Strict Liability for Generators, Transporters, and Disposers of Hazardous Wastes, 64 MINN. L. REV. 949, 950 n.5 (1980) (noting that “[i]n many cases, the party responsible for the improper disposal either cannot be identified or is insolvent”); see generally Stephen M. Sobel, Proposal for the Administrative Compensation of Victims of Toxic Substance Pollution: A Model Act, 14 HARV. J. ON LEGIS. 683 (1977).

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rarely kept. Consequently, it may not be possible to isolate a culpable state or states responsible for the damage to the coral reefs.

Moreover, ascertaining the particular substance that caused the injury is very difficult and often impossible for a number of reasons. First, substances that escaped into the air or water may have combined with other substances forming a new compound. Second, a substance may manifest itself in different ways depending upon the characteristics of the ecosystem it damages. Third, the latency period between exposure and injury may also vary with each individual. As a result, identifying any responsible state party, much less identifying all responsible parties, can be a daunting task.

A final challenge confronting judicial intervention to protect the environmental commons relates to enforcement of the judicial order. As we have seen from the Nuclear Test cases and South China Sea Arbitration, the orders of the ICJ and the PCA were not enforced. The absence of an executive agency or machinery for enforcement of the orders and decisions of international tribunal raises important questions as to the utility and/or effectiveness of adjudication to protect the global commons.

V. CONCLUSIONS

The South China Sea Arbitration offers the strongest evidence of how primary rules of law such as those found in Part XII of UNCLOS can be used to protect environmental commons. Part VII of the South China Sea Arbitration, dealing with environmental damage in the South China sea, is worthy of, and deserves, much greater consideration than the scant attention given to it by scholars and publicists. The PCA held that the rules contained in Articles 193, 194 and other provisions of UNCLOS establish primary rules protecting the environmental commons that gives rise to secondary rules of state responsibility. Admittedly, the award was flawed to the extent that attribution was not articulated or explicitly addressed, but that deficiency is severable from the rest of the award. It is clear that the rest of the award holding that some of the primary rules embodied in Part XII of UNCLOS protected the global commons, regardless of state jurisdiction, is of singular importance.

102 Id. at 891 n.131.
103 Id. at 897.
104 See Ginsburg & Weiss, supra note 101, at 922; Soble, supra note 100, at 686, 699.
105 See Ginsburg & Weiss, supra note 101, at 920–23; Soble, supra note 100, at 686.
107 See id. ¶ 940.
With regard to the secondary rules of state responsibility, the *South China Sea Arbitration* did not consider attribution. This is an omission even though China appeared to concede attribution by admitting it specifically directed the fishing and building operations in issue. Where, as in most cases, attribution is not conceded, it remains to be proved, and as we have noted, may present formidable difficulties. Environmental harm to the commons, in the great majority of cases, is caused by corporations or private entities not organs of the state. Article 8 of the *Draft Rules of State Responsibility*, as applied and interpreted by the case law, has been narrowly construed and appears to preclude attribution to private corporations. Given that the ILC commentaries on Article 8 affirmed the narrow scope of the article, the ILC should revisit this subject and rewrite Article 8 or expand the meaning of it in their commentaries to include the actions of private corporations.

The inability to enforce international judicial decisions remains a fundamental problem and will require collective measures by the entire community of nations. Based on the materials offered in this article, it may be contended that the difficulty only arises in enforcing judicial remedies against powerful countries as distinguished from smaller less developed countries. In the cases cited, France in the *Nuclear Test cases* and China in the *South China Sea Arbitration* repudiated judicial decisions that they were legally obligated to accept and implement. This ought not to be the case, and justice irrefutably requires rich and powerful nations to comply with the law. The primary difficulty in enforcing international judicial decisions is that there is no agency empowered to do so. It becomes necessary, therefore, to search for ways of inducing compliance.

It may be possible to vest the UN Security Council ("SC") with powers to enforce judicial decisions but this is impracticable for at least two reasons. First, it will require amendments to the UN Charter and this does not appear politically feasible. Second, even if the UN Charter were amended, allowing it to take measures to enforce international decisions under selected globally accepted treaties including UNCLOS, any decision to enforce the judgments in the *Nuclear Test cases* and *South China Sea Arbitration* would have been vetoed, because both France and China are permanent members of the SC, and along with the other members (the United Kingdom, United States, and Russia) can exercise veto power in the SC.

A more feasible and practical measure might take the form of a UN General Assembly Resolution demanding that the order in the *South China Sea Arbitration* be accepted and complied with by China. This will bring public pressure on China. While shaming China in the UN may not persuade it to honor the Philippines decision, the naming, shaming, and embarrassment

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triggered by GA Resolutions may deter other nations from following the same path. The obvious state to propose such a GA Resolution is the United States. Unfortunately, the United States is not a party to UNCLOS, and did not participate in the *South China Sea Arbitration*. It will lack credibility in moving for the enforcement of awards under UNCLOS. It is past time that the United States ratified UNCLOS.109

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109 On June 14, 2012, the U.S. Senate Committee on Foreign Relations held a "24 Star" hearing that featured six four-star generals and admirals representing every branch of the U.S. Armed Forces. See Press Release, U.S. Senate Comm. on Foreign Relations, "24 Star" Military Witnesses Voice Strong Support for Law of the Sea Treaty (June 14, 2012), available at https://www.foreign.senate.gov/press/chair/release/24-star-military-witnesses-voice-strong-support-for-law-of-the-sea-treaty. All of the witnesses—which included the Vice Chairman of the Joint Chiefs of Staff, the Chief of Naval Operations, the Commandant of the Coast Guard, and Commander of the U.S. Pacific Command—testified in favor of ratifying UNCLOS. Id.