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Waging War Against the World: The Need to Move from War Crimes to Environmental Crimes

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Mark A. Drumbl

Abstract

The international community has been more hesitant in accounting for the environmental consequences of war. All that the international community has been able to negotiate is scattered collateral references in a variety of treaties and conventions. One immediate task will be to consolidate these references into a single document or treaty. A more daunting task, of which this essay shall provide a brief overview, is to develop a mechanism to ensure compliance with these standards, to deter deviation therefrom, and to allocate responsibility for wrongdoing. More specifically, this essay considers the ability of the International Criminal Court to perform such a task. When all is said and done, the International Criminal Court may not be particularly well-suited to sanction environmentally destructive behavior. This proposition runs counter to the thinking that international humanitarian law may offer the possibility of an effective response to wartime environmental destruction.

ESSAY

WAGING WAR AGAINST THE WORLD: THE NEED TO MOVE FROM WAR CRIMES TO ENVIRONMENTAL CRIMES

*Mark A. Drumbl**

When two elephants fight, it's always the grass that gets hurt.¹

INTRODUCTION

Over the past century, the international community has shown considerable concern for the humanitarian consequences of war. Examples of this concern include the adoption of the four Geneva Conventions on the Laws of War,² public sanction of the use of land-mines,³ and the creation of non-partisan international criminal courts enforcing the 1948 Genocide Convention⁴ in the former Yugoslavia and Rwanda.⁵ Negotiations that

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1. African proverb cited in BEN JACKSON, *POVERTY AND THE PLANET* 150 (1990).

2. See DOCUMENTS ON THE LAW OF WAR 377-85 (Adam Roberts & Richard Guelff eds., 2d ed. 1989), for the 1949 Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field of August 12, 1949; the 1949 Geneva Convention II for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of the Armed Forces at Sea; the 1949 Geneva Convention III Relative to the Treatment of Prisoners of War; and the 1949 Geneva Convention IV Relative to the Protection of Civilian Persons in Time of War. All Conventions are reprinted in consolidated form in DOCUMENTS ON THE LAW OF WAR. *Id.*

3. See, e.g., Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, *infra* note 47, specifically Protocols II and III thereof.

4. Convention on the Prevention and Punishment of Genocide, Jan. 12, 1951, 78 U.N.T.S. 277.

5. The International Criminal Tribunal for the Former Yugoslavia was created by virtue of United Nations Security Council Resolution 808 of February 22, 1993. S.C. Res. 808, U.N. SCOR, 48th Sess., 3175th mtg., U.N. Doc. S/RES/808 (1993). The International Criminal Tribunal for Rwanda was created by virtue of United Nations Security

have just concluded have established a permanent International Criminal Court, principally designed to adjudicate genocide and crimes against humanity.⁶

The international community has been more hesitant in accounting for the environmental consequences of war. This reluctance exists notwithstanding the severity of often intentionally inflicted military damage to the environment. In a sense, this reluctance is no surprise. Modification and desecration of the natural environment is seen by many as a strategic mechanism to safeguard state sovereignty. Roman soldiers salted the soil of Carthage, Agent Orange was used to defoliate the Vietnamese jungle, and oil was dumped into the Persian Gulf to contaminate Kuwait's water supply.⁷ In large part, such activity remains permissible because there is no definitive or readily enforceable code of conduct governing what warring parties can and cannot do to the environment. All that the international community has been able to negotiate is scattered collateral references in a variety of treaties and conventions.⁸ At most, these references provide some definitional parameters as to what constitutes unacceptable treatment of the environment in times of war. Notwithstanding the often limited and ambiguous scope of these definitions, they do provide a starting point for a more protracted discussion. One immediate task will be to consolidate these references into a single document or treaty. A more daunting task, of which this essay shall provide a brief overview, is to develop a mechanism to ensure compliance with these stan-

Council Resolution 955 of November 8, 1994. S.C. Res. 955, U.N. SCOR, 49th Sess., 3453rd mtg., U.N. Doc. S/RES/955 (1994).

6. UNITED NATIONS, DIPLOMATIC CONFERENCE OF PLENIPOTENTIARIES ON THE ESTABLISHMENT OF AN INT'L CRIMINAL COURT, ROME STATUTE ON THE INTERNATIONAL CRIMINAL COURT, U.N. DOC. A/CONF. 183/9 (1998) (adopted by United Nations on July 17, 1998) (visited Aug. 4, 1998) <<http://www.un.org/icc>> (on file with the *Fordham International Law Journal*) [hereinafter ROME STATUTE].

7. It is estimated that one-third of Vietnam is wasteland as a result of extensive defoliation practices. See Oscar Arias, *Responsibility of Nations to the Environment*, in PROC. OF THE FIRST INT'L CONF. ON ADDRESSING ENVTL. CONSEQUENCES OF WAR: LEGAL, ECON. AND SCI. PERSPECTIVES (JUNE 10-12, 1998). As regard the Kuwaiti situation, see Public Authority for Assessment of Compensation of Damages Resulting from Iraqi Aggression, *Oil and Environmental Claims Bulletin* (Aug. 1997) [hereinafter *Oil Bulletin*]. Independent of the damage to Kuwait and to the Persian Gulf waters, it is estimated that the oil well fires set by Iraqi soldiers expelled one to two million tons of carbon dioxide, which in 1991 represented one percent of total global carbon dioxide emissions. *Id.* at 8.

8. See *infra* notes 12-54 and accompanying text.

dards, to deter deviation therefrom, and to allocate responsibility for wrongdoing.⁹ More specifically, this essay considers the ability of the International Criminal Court to perform such a task. When all is said and done, the International Criminal Court may not be particularly well-suited to sanction environmentally destructive behavior. This proposition runs counter to the thinking that international humanitarian law may offer the possibility of an effective response to wartime environmental destruction.¹⁰

I. *THE ENVIRONMENT AND WAR: WHAT STANDARDS HAVE WE NEGOTIATED SO FAR?*

Environmental protection is heralded as a laudable goal by a broad variety of international agreements.¹¹ Only a small subset of these agreements demonstrates any consensus on what constitutes acceptable or unacceptable use of the environment as a tool of war. It is only very recently that the international community has made tentative inroads into contemplating the prosecution of those who engage in an unacceptable use of the environment during wartime. In this latter regard, the language of the Rome Statute of the International Criminal Court¹² ("Rome Statute") is important.

Under the language of the Rome Statute, intentional infliction of harm to the environment may constitute a "war crime."¹³

9. Many commentators opine that the development of adequate implementation should be a priority for future discussions. See, e.g., Antoine Bouvier, *Recent Studies on the Protection of the Environment in Time of Armed Conflict*, 291 *INTERNATIONAL REVIEW OF THE RED CROSS* 554-66 (Nov.-Dec. 1992). The International Committee of the Red Cross, together with other organizations, has advocated that the International Criminal Court be the forum to prohibit and to punish environmental war crimes. See First Int'l Conf. on Addressing Envtl. Consequences of War: Legal, Econ. and Sci. Perspectives, *Addressing Environmental Consequences of War, Background Paper*, 17 (June 10-12, 1998) [hereinafter *Background Paper*]. It is in response to this quest for an appropriate forum that the possibilities of the International Criminal Court to fulfill such a function ought to be reviewed.

10. See Neil A.F. Popovic, *Humanitarian Law, Protection of the Environment, and Human Rights*, 8 *GEO. INT'L ENVTL. L. REV.* 67, 67-68, 87-89 (1995) (stating that humanitarian law and human rights can, with some modification, be expanded to cover wartime environmental damage).

11. There are over 900 international agreements that purport to protect the environment. See Edith Brown Weiss, *Strengthening National Compliance with International Environmental Agreements*, 27 *ENVTL. POL'Y & L.* 297, 297 (1997).

12. *ROME STATUTE*, *supra* note 6.

13. Article 5(1)(c) vests the court with jurisdiction over "war crimes." *Id.* art.

Article 8, which defines “war crimes”, however, limits the jurisdiction of the International Criminal Court to “war crimes in particular when committed as a part of a plan or policy or as part of a large-scale commission of such crimes.”¹⁴ To this end, there is an immediate question whether isolated incidents will even fall within the purview of the Rome Statute. A more important limitation, however, is the fact that prohibiting harm to the natural environment is only explicitly mentioned once in the entire Rome Statute.¹⁵ In this regard, Article 8(2)(b)(iv) prohibits:

intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects *or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.*¹⁶

5(1)(c). The definition of “war crimes” is provided by Article 8, which at one point makes reference to “widespread, long-term and severe” harm to the environment. *Id.* art. 8. The scope of this provision is discussed below. Articles 5(1)(d) and 5(2) also create jurisdiction over “crimes of aggression.” *Id.* art. 5(1)(d), (2). The definition of this term, however, is not provided. In fact, the Rome Statute of the International Criminal Court (“Rome Statute”) leaves it to the parties to define this term in the future. Those concerned with environmental issues may view the open-ended nature of “crimes of aggression” as a potential device to expand the International Criminal Court’s jurisdiction over environmental matters.

14. *Id.* art. 8(1).

15. In other places, Article 8 prohibits as a “war crime” conduct that may be collaterally related to the well-being of the natural environment, or have some other ancillary connection. Examples include Article 8(2)(a)(iv), which sanctions “extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly.” *Id.* art. 8(2)(a)(iv). Article 8(2)(b) prohibits other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely:

- (ii) Intentionally directing attacks against civilian objects;
- (iii) Intentionally directing attacks against . . . installations, [or] material . . . involved in a humanitarian assistance or a peacekeeping mission;
- (v) Attacking or bombarding . . . dwellings or buildings which are undefended and which are not military objectives;
- (ix) Intentionally directing attacks against . . . [*inter alia*] historic monuments;
- (xiii) Destroying or seizing the enemy’s property unless such destruction or seizure be imperatively demanded by the necessities of war;
- (xvi) Pillaging a town or place; [and]
- (xxv) Intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival.

Id. art. 8(2)(b).

16. United Nations Conference on the Establishment of an International Criminal Court, (2 April 1998), section B(b) to the “War Crimes” section of Part 2 (emphasis

The negotiation history of Article 8(2)(b)(iv) merits a brief review. The draft version of the Rome Statute (“Draft Rome Statute”) which served as the basis for the final negotiations listed three other options along with the language which was eventually adopted in Article 8(2)(b)(iv). The three rejected options were:

1. Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which is not justified by military necessity; or
2. Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment; or
3. No paragraph [in other words, no prohibition on intentionally inflicting widespread, long-term and severe damage to the natural environment].

In the end, the provision that was adopted was a compromise and, from an environmental perspective, occupies a middle ground. As shall be discussed in Section I(C), however, it shares with the first option the important limitation that global environmental integrity is secondary to national security interests.

Article 8(2)(b)(iv) triggers numerous interpretive concerns. It is to a consideration of these that this essay now turns. By way of overview, there are three principal components to the language of Article 8(2)(b)(iv): (1) the actual physical act, or *actus reus*, which consists of inflicting “widespread, long-term and severe damage” to the natural environment; (2) the mental element, or *mens rea*, namely that the infliction of this harm must be done intentionally and with knowledge that the attack will create “widespread, long-term and severe damage” to the natural environment; and (3) even if both the physical and mental elements are found, military advantage can operate as a defense to criminal wrongdoing.

A. *The Physical Act: Widespread, Long-term and Severe Damage*

A successful prosecution under the Rome Statute will, first

added) <<http://www.un.org/icc/part2.htm>> (on file with the *Fordham International Law Journal*) [hereinafter Draft Rome Statute].

and foremost, have to show that the accused committed "widespread, long-term and severe" damage to the natural environment. Of great importance is that all three elements must conjunctively be proven. The language of "widespread, long-term and severe" has woven its way into other international agreements relating to the use of the environment in times of war, for example Article I of the 1977 United Nations Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques¹⁷ ("ENMOD Convention") and the 1977 Protocol I to the 1949 Geneva Convention ("Protocol I").¹⁸ To this end, the Rome Statute may not advance environmental concerns beyond the progress made in these prior documents. In fact, by providing that all three elements must be conjunctively shown to exist, this language regresses from the wording of the ENMOD Convention, which bases liability disjunctively on proof of only one of these three characteristics.

What exactly do "widespread," "long-term," and "severe" mean? The Rome Statute is silent on this point. Some interpre-

17. U.N. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, May 18, 1977, 31 U.S.T. 333 (entered into force Oct. 5, 1978), which prohibits engagement "in military . . . environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage, or injury to any other State Party." The U.N. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques ("ENMOD Convention") is of more limited scope than Protocol I on the Protection of Victims of International Armed Conflicts, *opened for signature* Dec. 12, 1977, 1125 U.N.T.S. 3 (entered into force Dec. 7, 1978) [hereinafter Protocol I]. It is limited to warfare among signatories, whereas Protocol I prescribes any method of warfare intended to cause environmental damage; additionally, the ENMOD Convention focuses on the use of the environment as a weapon. As a result, wanton destruction of the environment occurring as a byproduct of a military campaign might not fall within its parameters. Some of the activities prohibited by the ENMOD Convention amount to outrageous behavior not within the military capability of most nations: for example inducing earthquakes and tidal waves, or activating quiescent volcanoes. As a result, these activities may not be real threats, and the ENMOD Convention prohibitions may be more apparent than real.

18. Protocol I, *supra* note 17. Article 35(3) prohibits "methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment." *Id.* art. 35(3). Article 55 states that: "Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition on the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population. Attacks against the natural environment by way of reprisals are prohibited." *See* arts. 54, 56 (providing for protection of property, which has ancillary benefits for environment). The United States has not yet ratified Protocol I.

tive guidance can be provided by the work of the Geneva Conference of the Committee on Disarmament Understanding ("CCD Understanding") regarding the application of these terms in the ENMOD Convention.¹⁹ This additional work was necessary because the ENMOD Convention does not itself define these terms. The CCD Understanding provides as follows:

"widespread": encompassing an area on the scale of several hundred square kilometers;

"long-lasting": lasting for a period of months, or approximately a season;

"severe": involving serious or significant disruption or harm to human life, natural and economic resources or other assets.²⁰

Regrettably, the interpretive value of the CCD Understanding is curtailed by the fact that it stipulates that its use is limited to the ENMOD Convention and is not intended to prejudice the interpretation of similar terms if used in another international agreement.²¹ As it turns out, greater interpretive guidance may be obtained from commentaries on Protocol I, especially because the language of this protocol is, like the Rome Statute, conjunctive in nature. From an environmental perspective, the prohibitions in Protocol I are more circumscribed than those of the ENMOD Convention. For example, "long-term" has been interpreted as meaning "lasting for decades."²²

To this end, it will be important to develop a memorandum of understanding under the Rome Statute in which the scope of "widespread," "long-term," and "severe" is spelled out. In doing so, it will be important to go beyond the language of the ENMOD Convention. For starters, the "widespread" and "long-term" principles attempt to ascribe temporal and geographic limitations on environmental harm that, for the most part, does not know such boundaries. "As the planet constitutes one single ecosystem, environmental degradation of one part of the earth

19. Understanding I of the Conference of the Committee of Disarmament [hereinafter CCD Understanding], *reprinted in* DOCUMENTS ON THE LAW OF WAR, *supra* note 2.

20. *Id.*

21. *Id.*

22. Jozef Goldblat, *The Mitigation of Environmental Disruption by War: Legal Approaches*, in ENVIRONMENTAL HAZARDS OF WAR: RELEASING DANGEROUS FORCES IN AN INDUSTRIALIZED WORLD 48, 52 (Arthur Westing ed. 1990).

ultimately affects the entire planet.”²³ On another note, the “severe” requirement could mean that damage to an isolated section of the global commons whose natural resources have not yet been valued by global financial markets could escape punishment and this notwithstanding its biodiversity or species-importance. The anthropocentric limitation of “severe” damage to that which affects human life and human consumption of natural resources underscores a more general shortcoming with the existing framework of environmental protection during wartime, namely that this protection is not geared to protecting the environment *per se*, but, rather, humanity’s need to make use of it.²⁴ Our thinking in this regard may not have significantly progressed beyond the following words of the book of Deuteronomy:

When you are at war, and lay siege to a city for a long time in order to take it, do not destroy its trees by taking the axe to them, for they provide you with food; you shall not cut them down. The trees of the field are not men that you should besiege them. But you may destroy or cut down any trees that you know do not yield food, and use them in siege-works against the city that is at war with you, until it falls.²⁵

In the end, it may be preferable to reduce the threshold of responsibility not to “widespread, long-term and severe” harm, but instead to “harm” more generally. The amplitude of the harm would instead inform sentencing principles, as opposed to culpability. A paradigm shift would focus on the environment as the victim of the harm, not humanity. Given that conjunctive language has woven its way into the Rome Statute, it will be nec-

23. Lynn Berat, *Defending the Right to a Healthy Environment: Toward a Crime of Genocide in International Law*, 11 B.U. INT’L L.J. 327, 348 n.102 (1993).

24. For example, Article 8(2)(b)(xxv) of the Rome Statute, prohibits as a method of warfare the intentional use of starvation of civilians through the deprivation of objects indispensable to their survival. ROME STATUTE, *supra* note 6, art. 8(2)(b)(xxv). Although tactics such as “scorched earth” and “defoliation” have been used to starve civilians and thereby to dissuade their helping insurgency movements, the Rome Statute does not criminalize the destruction of the earth but, rather, the denial of a type of the earth’s resources to civilian populations. In other words, the destruction of land that does not provide food would not be cognizable within the Rome Statute unless the conditions of Article 8(2)(b)(iv) were met. *Id.* art. 8(2)(b)(iv). As shall be discussed below, there may even be a requirement that, in order for environmental harm to be “severe” (and hence be caught by Article 8(2)(b)(iv)), it must simultaneously affect humanity.

25. *Deuteronomy* 20: 19-20.

essary for environmental public interest groups to involve themselves in any litigation in order for the International Criminal Court to arrive at an informed and environmentally sensitive decision. This involvement would represent quite a turnaround given the limited presence of environmental public interest groups at the Rome Statute negotiations. The question, by now academic, that is left hanging is whether a greater presence of such groups at the negotiations could have resulted in the integration of stronger provisions safeguarding the environment.

B. The Mental Element: Strict Intentionality

Criminal behavior is evaluated not only on the actual physical act, but also on the mind-set of the criminal when the act was committed. In some cases, for example driving while intoxicated, governments have made a policy decision to mete out criminal sanctions simply through the physical element: if one is intoxicated, for example eighty milligrams of alcohol in 100 milliliters of blood, criminal liability attaches. It does not matter whether or not the accused knew that he or she was above the limit, or intended to be above the limit. In other situations, a similar physical act, for example homicide, will be treated differently depending on the mind-set of the accused and the circumstances surrounding the crime. Planning the death of an individual will trigger significantly more severe consequences than accidentally or negligently causing someone's death.

In the case of Article 8(2)(b)(iv), criminal sanction will only fall upon the most invidious offender: the individual who *knows* his or her behavior *will cause* "widespread, long-term and severe" damage to the environment and, notwithstanding proof of this knowledge, still commits the act with the full intention of causing the environmental damage. Proof that someone did not know that the act would commit "widespread, long-term and severe" damage would, under the present wording, be sufficient to absolve that individual from criminal sanction. To this end, the language of Article 8(2)(b)(iv) is very narrow. Because there is no liability for negligently or carelessly inflicting "widespread, long-term and severe" damage to the environment means that persons who are found to act negligently will not face any criminal or civil sanction at all.

Greater detail as to the intentions of the negotiating parties

emerges from footnotes in the Draft Rome Statute.²⁶ These footnotes reinforce the conclusion that a significant mental element is required to ground culpability. The negotiators “accept that it will be necessary to insert a provision . . . which sets out the elements of knowledge and intent which must be found to have existed for an accused to be convicted of a war crime.”²⁷ An accused’s actions are to be evaluated in light of the “relevant circumstances of, and information available to, the accused at the time.”²⁸ Given this defense, it will be important to educate military and political officials in both developing and developed nations as to the environmentally harmful effects of certain types of warfare and to disseminate the technologies to avoid reliance on such strategies in the first place. In this regard, the work of the International Committee of the Red Cross²⁹ (“ICRC”) can play a pivotal role. The ICRC has published a document entitled *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict*,³⁰ which sets forth guidelines (“*Environment Guidelines*”) that are:

[i]ntended as a tool to facilitate the instruction and training of armed forces in an often neglected area of international humanitarian law: the protection of the natural environment. The Guidelines['] . . . sole aim is to contribute in a practical and effective way to raising awareness [T]hey are an instrument for dissemination purposes.³¹

26. See Draft Rome Statute, *supra* note 16.

27. *Id.*

28. *Id.*

29. See International Committee of the Red Cross (visited Oct. 27, 1998) <<http://www.icrc.org/unicc/icrcnews.nsf/DocIndex/home>> (on file with the *Fordham International Law Journal*). The International Committee of the Red Cross coordinates international relief activities and promotes the strengthening of humanitarian law. *Id.*

30. See Follow to the International Conference for the Protection of War Victims (1993) (visited Apr. 4, 1998) <<http://www.icrc.org/unicc/icrcnews.nsf/8>> (on file with the *Fordham International Law Journal*) [hereinafter *Environment Guidelines*].

31. *Follow-up to the International Conference for the Protection of War Victims*, 311 INTERNATIONAL REVIEW OF THE RED CROSS 230-37 (Mar. 1, 1996); published as an annex to U.N. Doc. A/49/323 (1994) <<http://www.icrc.org/unicc/icrcnews.nsf/8>> (on file with the *Fordham International Law Journal*). The United Nations General Assembly invited all states to disseminate widely the *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict* and to give due consideration to the possibility of incorporating them into their military manuals. See *United Nations Decade of International Law*, G.A. Res. 49/50, 49th Sess., Agenda Item 136, art. 11, U.N. Doc. A/RES/49/50 (1995); see also SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA (Louise Doswald-Beck ed., 1995) [hereinafter *SAN REMO MANUAL*] (providing restatement of law applicable to armed conflicts at sea). Many of the

The *Environment Guidelines* provide in relevant part that "destruction of the environment not justified by military necessity violates international humanitarian law . . . under certain circumstances, such destruction is punishable as a grave breach of international humanitarian law."³² The *Environment Guidelines* state that its guidelines are drawn from existing international legal obligations and, as such, constitute a baseline of *jus commune* among nations.³³ Many detailed rules are provided in Article III(9) of the *Environment Guidelines*, which cover numerous issues ranging from barring incendiary weapons in forested regions to precluding the use of naval mines.³⁴ These rules translate often vague international norms into daily practice.

Ultimately, it is hoped that the *Environment Guidelines* could constitute the level of objective knowledge imputed to all military and civilian leaders and agents for purposes of culpability under international criminal legislation.³⁵ It is also hoped that they will be taken into account as new weaponry is developed. In this latter regard, Article IV(18) of the *Environment Guidelines* is particularly important:

In the study, development, acquisition or adoption of a new weapon, means or method of warfare, states are under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by applicable rules of international law, including those providing protection of the environment in times of armed conflict.³⁶

The international community ought to consider developing a permanent body to ensure that these investigations are undertaken, and that their results adhered to. It is important not to

principles in the SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA are encapsulated in the general provisions of the *Environment Guidelines*.

32. SAN REMO MANUAL, *supra* note 31, art. III(8). Article III(11) prohibits "methods of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment and thereby prejudice the health or survival of the population." *Id.* art. III(11).

33. *Id.* art. I(1).

34. *Environment Guidelines*, *supra* note 30, art. III(9).

35. Some militaries, for example Germany's and the U.S. Navy, have already incorporated some of these guidelines into rules of engagement, operational instructions, and targeting manuals. For a thorough discussion of the integration of these rules into the practices of the U.S. Navy, see Captain John P. Quinn et al., *Environmental Protection in Naval Operations*, in PROC. OF THE FIRST INT'L CONF. ON ADDRESSING ENVTL. CONSEQUENCES OF WAR: LEGAL, ECON. AND SCI. PERSPECTIVES (JUNE 10-12, 1998).

36. *Environment Guidelines*, *supra* note 30, art. IV(18).

take for granted that technologically sophisticated weaponry is necessarily less injurious to the environment. For example, some analysis of U.S. involvement in the Gulf War reveals that “surgical bombing” may be more a myth than reality.³⁷

In conclusion, unless some level of objective knowledge is read into the intentionality requirement, individuals who choose not to inform themselves that what they are doing might be deleterious for the environment might be able to claim ignorance as a full defense. A failure to incorporate an objective element into the Rome Statute’s environmental war crimes also represents a step backwards insofar as Protocol I had, as early as 1977, grounded responsibility not in intentional environmental harm, but simply when there was a reasonable expectation that environmental damage would occur.³⁸

C. *Avoiding Criminal Sanction Through Proof of Military Advantage*

Even if there is “intentional, widespread long-term,” and severe damage to the natural environment, liability is only found if this damage is “clearly excessive” in relation to the concrete and direct overall military advantage anticipated. This limitation on culpability is a somewhat diluted version of the doctrine of “military necessity,” a long-standing customary principle of the Law of War that has, in the past, been used to mitigate or to eliminate responsibility often for grievous breaches of humanitarian standards. In short, “military necessity” is:

[a] subjective doctrine which ‘authorizes’ military action when such action is necessary for the overall resolution of a conflict, particularly when the continued existence of the act-

37. See Francis Kelly, The Commission of Inquiry for the International War Crimes Tribunal, *War Crimes Committed Against the People of Iraq* (visited on June 30, 1998) <<http://deoxy.org/wc/wc-warc.htm>> (on file with the *Fordham International Law Journal*) (“President Bush popularized the myth of a clean war against Iraq In the end, 70 percent of the bombs dropped on Iraq missed their intended targets Witnesses to the destruction said that the . . . bombing leveled entire blocks of civilian homes.”); see also Paul Walker, The Commission of Inquiry for the International War Crimes Tribunal, *U.S. Bombing: The Myth of Surgical Bombing in the Gulf War* (visited on June 30, 1998) <<http://deoxy.org/wc/wc-warc.htm>> (on file with the *Fordham International Law Journal*) (“Despite all these public proclamations about limited casualties from so-called surgical and precision strikes there would appear to be much greater destruction and much higher numbers of dead and injured in Iraq and Kuwait”). Paul Walker documents the use of fuel air explosives and carpet bombing by the U.S. forces and suggests these military practices infringed international legal norms. *Id.*

38. *Background Paper*, *supra* note 9, at 5.

ing state would otherwise be in jeopardy.³⁹ When the existence . . . of a state stands in unavoidable conflict with such state's treaty obligations, the latter must give way, for the self-preservation and development . . . of the nation are the primary duties of every state.⁴⁰

"Military necessity" is a slippery-slope that has justified a broad array of environmentally destructive conduct. By way of example, the 1907 Hague Convention's environmental protection provisions have been largely eroded by the doctrine of military necessity. Florencio Yuzon relates the following example:

[I]n the Second World War, the German General Lothar Rendulic adopted a scorched earth policy in Norway in order to evade advancing Russian troops. General Rendulic ordered the evacuation of all inhabitants in the province of Finmark, and destroyed all villages and surrounding facilities. The Nuremberg Military Tribunal charged general Rendulic with wanton destruction of property, but later acquitted him on the basis that military necessity justified his actions in light of the military situation as he perceived it at the time.⁴¹

Although one step removed from a blanket exemption for "military necessity," Article 8(2)(b)(iv)'s use of "military advantage" shares many of these same drawbacks. More pointedly, however, there are also concerns as to the effectiveness of the specific language arrived at by the negotiating parties in Article 8(2)(b)(iv). Firstly, although a "proportionality test"—*i.e.*, the environmental damage must be "clearly excessive" in relation to the military advantage—is established, no guidelines, definitions, or examples of "clearly" or "excessive" are provided. To this end, initial decisions by the International Criminal Court will be important in setting the scope for "clearly excessive." From this judicial discretion there emerges a risk that a very high threshold will be required. The factual element of the "proportionality test" is also unclear: because proof of "clearly excessive"

39. Mark J.T. Caggiano, *The Legitimacy of Environmental Destruction in Modern Warfare: Customary Substance over Conventional Form*, 20 B.C. ENVTL. AFF. L. REV. 479, 496 (1993).

40. BURLEIGH CUSHING RODICK, *THE DOCTRINE OF NECESSITY IN INTERNATIONAL LAW* 44 (1928).

41. Ensign Florencio J. Yuzon, *Deliberate Environmental Modification Through the Use of Chemical and Biological Weapons: "Greening" the International Laws of Armed Conflict to Establish an Environmentally Protective Regime*, 11 AM. U. J. INT'L L. & POL'Y 793, 815 (1996).

is required in order to find someone guilty, and because the onus of proof rests with the prosecutor, what type of research and data will have to be marshaled? Secondly, other adjectival terms such as "concrete," "direct," and "overall" military advantage are vague and, for the most part, fairly novel in the international legal context. Once again, it is unclear what meaning will be ascribed to these qualifying terms. Thirdly, the military advantage needs simply to be "anticipated." It is unclear by whom and according to what standards the "anticipation" is to be judged. Does there have to be an objective element to the anticipation, or can the belief be unrealistic? As with the intentionality requirement, if the notion of military advantage remains subjective in the mind of the military or political leader under the circumstances in which the tactical decision was made, then the defense could be widely available. In order to curtail misuse of the defense, it will be important to establish some objective standards as to when the environment may be destroyed in order to salvage national sovereignty.

More profoundly, the time may have come to question whether humanity's recourse to physical aggression to settle national or local disputes ought ever to trump environmental integrity. Such an examination would involve a reinterpretation of the interaction between international environmental law and the Law of War. Certain practices, such as genocide and torture, have been sanctioned as illegal by the international community to the extent that they can never be undertaken even if essential to defend national sovereignty. Why should intentional environmental desecration not be similarly proscribed?

The international community's decision to criminalize the wilful infliction of "widespread, long-term, and severe damage to the natural environment" is cause for limited celebration, considerable disappointment, and some concern. The disappointment flows from the fact that such conduct is already "prohibited" by virtue of Protocol I and the ENMOD Convention. Nonetheless, the Rome Statute may well provide a more viable mechanism to sanction this illegal conduct. It is an important step for the international community to actually criminalize this conduct, which it has never done before. Nonetheless, as we have seen, it is unclear how difficult it will be to prove "widespread, long-term and severe" damage; proof will be rendered more problematic by the fact that the provision appears conjunc-

tive. In the end, these potential difficulties may denude the prohibition of much practical effect. Additionally, the environmental war crime could possibly be interpreted as requiring a very significant level of knowledge, intentionality, and harm. If direct knowledge is required, then behavior could no longer be sanctioned on an objective basis, and ignorance of the law could serve as a defense. This type of knowledge requirement would be less than desirable as environmental education and transparency of knowledge would be discouraged. Requiring direct knowledge of the environmental war crime may also create some tension with Article 28's evaluation of command responsibility along objective standards. If intention is required, then how could a commander be liable for the activities of subordinates not known to the commander at the time? The wording of Article 8(2)(b)(iv) appears to preclude a commander's liability for environmental desecration that the commander "ought to have known" about but did not, even if this ignorance is due to wanton disregard.

On another note, the environmental war crimes provisions of the Rome Statute do not apply to internecine, as opposed to inter-state conflicts.⁴² This limitation is major. Recent events in Rwanda and the former Yugoslavia underscore that the environment will suffer even in the event of a civil, as opposed to national war.⁴³ The development of international law applicable to

42. See ROME STATUTE, *supra* note 6, art. 8(2)(c), (e) (listing types of war crimes punishable within internal armed conflicts). Intentionally inflicting widespread, long-term, and severe harm to the environment is omitted from this list. It was explicitly included within the international armed conflict section in Article 8(2)(b). *Id.* art. 8(2)(b). Basic principles of treaty interpretation provide that this omission is deliberate and indicates a desire not to punish environmental desecration when committed in an internal conflict. Needless to say, further limitations on the application of the entire Rome Statute to internal conflicts are found in Article 8(2)(f), which provides:

Paragraph 2(e) applies to armed conflicts not of an international character and thus *does not apply to situations of internal disturbances and tensions, such as riots, isolated and sporadic acts of violence or other acts of a similar nature*. It *applies to armed conflicts that take place in the territory of a State when there is protracted armed conflict between governmental authorities and organized armed groups or between such groups*.

Id. art. 8(2)(f) (emphasis added).

In sum, nations appear less willing to support objective standards of criminal behavior in internal conflicts than in international conflicts. In the end, this reluctance gives rise to concerns that the protection of both humanity and the environment in internal conflicts may be inadequate.

43. Other examples of effect of civil war on the environment include El Salvador

internal conflicts should be a top priority for policy-makers given the current dearth of standards in this area.⁴⁴ The incipient development of a tribunal to investigate war crimes in Cambodia's internecine violence could present a renewed opportunity to develop and to implement environmental crimes to an internal conflict.

On the other hand, one of the major successes of the Draft Statute is that it creates an institution to punish the conduct that it prohibits. Nonetheless, from the environmental point of view, the extent to which these "environmental crimes" will receive the International Criminal Court's attention is uncertain given the broad array of other crimes to which it will have to direct its energies. The environmental "war crimes" constitutes one provision out of dozens in Part 2 of the Rome Statute. Environmental crimes are not raised as independent crimes; at most, they constitute an add-on in narrowly circumscribed areas. This provision limits the possibility for future growth and application within, and outside of, the context of military conflict.⁴⁵

Article 8 of the Draft Rome Statute of the International Criminal Court also criminalizes the use of certain weapons with destructive effects on both humanity as well as on the natural environment. Prohibited practices include:

- 8(2)(b)(xvii) Employing poison or poisoned weapons; and
- 8(2)(b)(xviii) Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices.⁴⁶

Many of these weapons are already prohibited by other international agreements.⁴⁷ Nonetheless, this codification within the International Criminal Court shall likely provide a more viable

and Columbia. Insurgency and counter-insurgency guerilla civil wars have a particularly devastating effect on local environments. Insurgents often use tropical forests as home bases and hiding grounds; counter-insurgency forces often respond by slashing and burning forests, together with polluting rivers, viewing both as legitimate theaters of operations.

44. *Background Paper*, *supra* note 9, at 5.

45. See the opening language to Article 5 of the Rome Statute, where the jurisdiction of the International Criminal Court is set out. Rome Statute, *supra* note 6, art. 5. The International Criminal Court is not given any jurisdiction to address environmental crimes standing alone.

46. See Draft Rome Statute, *supra* note 16.

47. See, e.g., U.N. Convention On Prohibitions Or Restrictions On The Use Of Certain Conventional Weapons Which May Be Deemed To Be Excessively Injurious Or To Have Indiscriminate Effects, U.N. GAOR, 35th Sess., U.N. Doc. A/CONF 95/15 (1980). Also see conventions in the area of biological and chemical weapons.

mechanism to enforce compliance than those presently contemplated in these other agreements.

The list of enumerated war crimes under 8(2)(b) does not appear to be exhaustive. After all, Article 8(2)(b) defines as a war crime "other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts"⁴⁸ of which it then lists many, including Article 8(2)(b)(iv). To this end, there may be some residual room within Article 8(2)(b) to accommodate serious violations of international laws and customs that are not listed, depending on whether "namely" is meant to imply exclusivity, which, at first blush, the term does not seem to suggest. The International Criminal Court may thus itself decide, based on these laws and customs, whether an unenumerated act in fact constitutes a war crime. The existence of this residual jurisdiction is supported by Article 21 of the Rome Statute.⁴⁹ Article 21(1) states that the International Criminal Court shall apply:

- (a) In the first place, this Statute, Elements of Crimes and its Rules of Procedure and Evidence;
- (b) *In the second place, where appropriate, applicable treaties and the principles and rules of international law, including the established principles of the international law of armed conflict.*⁵⁰

In the interplay between environmental integrity and military aggression in the "established principles of the international law of armed conflict," there are a number of relevant, pre-existing conventions. These conventions give rise to a *corpus* of principles.⁵¹ Some of these principles go beyond the categories

48. Draft Rome Statute, *supra* note 16, art. 8(2)(b).

49. ROME STATUTE, *supra* note 6, art. 21.

50. *Id.* art. 21(1)(b) (emphasis added).

51. This *corpus* is composed of both international agreements as well as international practices, which constitute customary international law. As to how principles become part of customary international law, Berat offers the following helpful summary:

A principle becomes part of customary international law if: 1) it is widely adhered to by a number of states and is acquiesced in by others; and 2) it is engaged in out of a sense of obligation. The Statute of the International Court of Justice (ICJ) requires the Court to apply "international custom, as evidence of a general practice accepted as law." If the practice is uniform, the period during which such practice is adhered to before it achieves the status of customary international law need not be very long.

Berat, *supra* note 23, at 329-30.

of conduct expressly prescribed by the Rome Statute, but could arguably form part of the International Criminal Court's residual jurisdiction. As a result, if and when environmentally-related litigation begins under the International Criminal Court, it will be important to draw the following international treaty provisions, in addition to Protocol I and the ENMOD Convention, into any environmental war crimes trial.⁵²

- The World Charter for Nature, Principle 5: Nature shall be secured against degradation caused by warfare or other hostile activities.⁵³
- The Rio Declaration, Principle 24: Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.⁵⁴
- The International Law Commission Draft Articles on State Responsibility⁵⁵ creates a limited basis for criminalizing intentional environmental harms. Article 19(3)(d) provides that an international crime may result from, *inter alia*, a serious breach of an international obligation of essential importance for the safe-guarding and preservation of the human environment, such as those prohibiting massive pollution of the atmosphere or of the seas.⁵⁶ This is one of the few international agreements prior to the Draft Statute of the International Criminal Court that demonstrated a willingness to criminalize environmental

52. Some of the listed treaties have not yet been universally ratified. This may constitute an impediment to full protection of the environment in times of armed conflict. In some cases, however, the number of signatories is sufficiently large to substantiate the argument that the contents of the agreements constitute customary international law. For example, 147 states are party to Protocol I to the 1949 Geneva Convention, and 139 states are party to Protocol II to the 1949 Geneva Convention. See *Five Years After Rio*, Written Statement at the United Nations General Assembly, Nineteenth Special Session, 23-27 June 1997 (visited on Sept. 18, 1998) <<http://www.icrc.org/unicc/icrcnews.nsf>> (on file with the *Fordham International Law Journal*).

53. Resolution Adopted by the General Assembly, G.A. Res. 37/7, U.N. GAOR, 37th Sess., Agenda Item 21, 48th plen. mtg., at (I)(5), U.N. Doc. A/RES/37/7 (1982).

54. *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/1 (1992).

55. INTERNATIONAL LAW COMMISSION'S DRAFT ARTICLES ON STATE RESPONSIBILITY (Shabtai Rosenne ed., 1991).

56. *Id.* art. 19(3)(d).

degradation.⁵⁷

- The International Law Commission Draft Code of Crimes Against the Peace and Security of Mankind:⁵⁸ in familiar language, Article 20 recognizes some environmental crimes as “war crimes”:
 - (i) extensive destruction . . . of property, not justified by military necessity and carried out unlawfully and wantonly;
 - (ii) employment of poisonous weapons or other weapons calculated to cause unnecessary suffering;
 - (iii) wanton destruction of cities, towns or villages, or devastation not justified by military necessity; and
 - (iv) in the case of armed conflict, using methods or means of warfare not justified by military necessity with the intent to cause widespread, long-term and severe damage to the natural environment and thereby gravely prejudice the health or survival of the population and such damage occurs.⁵⁹ As regards (iv) above, the Commentaries moderate the discussion by emphasizing that a violation of this standard is “not characterized as a grave breach entailing individual criminal responsibility.” As a result, there are readily accessible defenses to liability. First, “military necessity” constitutes a defense. Second, there is also an intentionality requirement, which requires the intent to cause “gravely prejudicial consequences to the population.” In other words, whether the consequences are gravely prejudicial to the environment does not really enter into

57. Other examples include the 1911 Convention for the Preservation of Fur Seals in the North Pacific, the 1940 Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, the 1954 International Convention for the Prevention of Pollution of the Sea by Oil, and the 1973 International Convention for Prevention of Pollution from Ships.

58. Resolutions And Decisions Adopted By The General Assembly During Its Thirty-Third Session, G.A. Res. 97, U.N. GAOR, 33d Sess., Supp. No. 45, at 220, U.N. Doc. A/33/45 (1978), *amended by* G.A. Res. 151, U.N. GAOR, 42nd Sess., Supp. No. 49, at 292, U.N. Doc. A/42/49 (1987). In the negotiations for the International Criminal Court, some negotiators suggested that the Draft Code of Crimes Against the Peace and Security of Mankind should be used in the creation of the International Criminal Court. In the end, this language was adopted. *See* United Nations Press Release GA/L/3015 (Nov. 5, 1996).

59. *Id.* art. 20.

consideration. Lastly, the damage must have actually occurred, which means that there can be no liability for planning or attempting to desecrate the environment for military purposes.

- The 1907 Hague Regulations,⁶⁰ Article 22, which states that it is prohibited “to destroy or seize the enemy’s property, unless such destruction or seizure be imperatively demanded by the necessities of war.”⁶¹ This is one of the earliest suggestions that there are limits on what a warring party can do to “property.” Although not explicitly mentioned, the natural environment can be considered to constitute “property,” although it is unclear whether the natural environment within the global commons would fall within the notion of “property” since it is neither privately nor nationally owned.
- The 1949 Geneva Convention IV,⁶² Article 53: Any destruction by the occupying power of real or personal property belonging individually or collectively to private persons, or to the State, or to other public authorities, . . . is prohibited, except when such destruction is rendered absolutely necessary by military operations.⁶³ As with the Hague Regulations, this provision is limited by the military necessity defense and is inapplicable to the global commons. Additionally, this provision requires the destruction to occur within a nation that is actually occupied by another. To this end, indiscriminate aerial bombing in which enemy forces are not occupying the other nation’s territory would fall outside the rubric of Article 53.
- Resolution 687 of the Security Council⁶⁴ was adopted in the aftermath of the Persian Gulf War and made Iraq accountable for “any direct loss, damage, including environmental damage and the depletion of natural resources . . .

60. Regulations Respecting the Laws and Customs of War on Land, annexed to the Convention Respecting the Laws and Customs of War on Land, Oct. 18, 1907, art. 22, 36 Stt. 2277, 1 Bevans 631.

61. *Id.*

62. Protocol Additional to the Geneva Conventions of August 12, 1949, and Relating to the Protection of Victims of International Armed Conflicts, Dec. 7, 1978, 16 I.L.M. 1391.

63. *Id.* art. 53.

64. Resolution 687(1991), S.C. Res. 687, U.N. SCOR, 2981st mtg., at 7, U.N. Doc. S/RES/687 (1991).

as a result of Iraq's unlawful invasion and occupation of Kuwait." This resolution is an important precedent upon which to ground civil liability for environmental desecration eventually. The creation of the United Nations Compensation Commission to value damages and assess liability is also an important step in implementing responsibility for environmental wrongdoing during war-time. It is estimated that the total environmental damage resulting from the Iraqi aggression approaches US\$40 billion, divided among damage to public health, groundwater resources, terrestrial resources, and marine and coastal resources, and from oil lakes.⁶⁵

In sum, these fragments, together with the express pronouncements in the Rome Statute, provide some definitional guidelines as to the permissible use of the environment during war-time. Unfortunately, they create a "current international legal framework [that] is vague and unenforceable in environmental matters."⁶⁶ The background to, and the language of, the Rome Statute reveal a stagnation in the drive to sanction the use of the environment as a tool of war. Consideration should be given to developing ways of going beyond this language.

II. CONSOLIDATING THE FRAGMENTS: TOWARDS THE CRIME OF ECOCIDE

Some commentators have suggested making it a crime to recklessly or intentionally harm the environment, both within, and outside of, the context of war.⁶⁷ This crime, named geocide or ecocide, literally a killing of the earth, is the environmental counterpart of genocide, and would be enshrined in a single international convention. The logic of ecocide is as follows: significantly harming the natural environment constitutes a breach of a duty of care, and this breach consists, in the least, in tortious or delictual conduct and, when undertaken with wilfulness, reck-

65. Oil Bulletin, *supra* note 7, at 14-16.

66. Jessica E. Seacor, *Environmental Terrorism: Lessons from the Oil Fires of Kuwait*, 10 AM. U. J. INT'L L. & POL'Y 481, 523 (1994).

67. See, e.g., Richard A. Falk, *Environmental Disruption by Military Means and International Law*, in ENVIRONMENTAL WARFARE: A TECHNICAL, LEGAL AND POLICY APPRAISAL 33-51 (1984); Seacor, *supra* note 66; Mark Allan Gray, *The International Crime of Ecocide*, 26 CAL. W. INT'L L.J. 215 (1996); Berat, *supra* note 23; Caggiano, *supra* note 39; Yuzon, *supra* note 41.

lessness, or negligence, ought to constitute a crime. The ability of the crime to encompass negligent or wilfully blind conduct is particularly important. Proof of intentionality, as we have seen, can be difficult to establish. In this regard, lessons can be learned from the domestic context. In North America, environmental wrongdoing is generally prosecuted as a public welfare offense and normally on a negligence standard. In the absence of legislative intervention to couch environmental desecration as a "civil offense," positioned between criminal and public welfare law, it would be difficult for the law to serve as a deterrent to individuals misusing the natural environment. Given these lessons from domestic law, we ought to reevaluate the merit of collapsing environmental wrongdoing within a criminal context geared to prosecute humanitarian pariahs on an intentionality basis. Pressing policy considerations of preserving the integrity of the environment for future generations militate in favor of attaching liability at a lower standard. As a result, it would be important for the effectiveness of the ecocide provision to capture not only the *mens rea* standard of criminal law, but also negligence, reasonable foreseeability, willful blindness, carelessness, and objective certainty standards, many of which animate tort law and civil liability. By way of example, were a willful blindness standard to operate, then the nonfeasance of the authorities who maintained the nuclear reactors involved in the Chernobyl disaster could be categorized as ecocide. Lynn Berat concludes that:

there is substantial evidence that although Soviet scientists and governmental officials were aware that the Soviet nuclear power plant design was flawed and had the potential for causing unmitigated disaster, they persisted in maintaining old plants and built new ones without design modification.⁶⁸

It is also important to ground the *actus reus* not in the existence of "widespread, long-term and severe" damage, but simply in the existence of damage *per se*. If consensus is obtained on this latter point, Florencio Yuzon points out that:

[in] an international crime of environmental destruction, the quantum of proof that is necessary, or the threshold of dam-

68. Berat, *supra* note 23, at 345. Chernobyl is an example of potential ecocidal conduct in peace-time. See Conclusion as to why this behavior ought to be equally sanctioned by the international community.

age that must occur, is relatively low compared to ENMOD and Protocol I where higher thresholds of damage must be met. . . . [A]ny damage, regardless of the degree . . . would automatically render the State and/or its military, criminally liable.⁶⁹

The extent of the damage, together with the pervasiveness of the mental element, would consequently only inform sentencing principles. If enforcement authorities are given sufficient discretion in terms of sentencing, then the broader liability provision can not only be effective, but also respect shared notions of fundamental justice.

The jurisdiction of an international tribunal would lie in the transboundary nature of environmental violence, together with the pernicious effects on the global commons. Any international tribunal, however, ought to be guided by the principles of complementarity in its relationships with national courts. In negotiating jurisdiction, it is important for an ecocide convention to apply equally to natural persons, legal persons, public authorities, and states.⁷⁰ State responsibility is particularly crucial in order for civil damages and restitution to be viable remedies.⁷¹

Unfortunately, some commentators have focused only on the definition of ecocide, concluding that "enforcement provisions and machinery . . . presently lie within the realm of theory."⁷² As a result, much of the existing literature is limited to discussion of definitional issues. Any right, however, is but theoretical without a remedy; there can be no crime without punishment. Thought must be given to how ecocide could be enforced, and to what organizations could be optimally suited to engage in this enforcement.⁷³ The goal of this essay is to provide some broad brush strokes in this area, so as to ground future debate and discussion.

Although there may be a nascent international consensus that state responsibility for destruction of the environment is a

69. Yuzon, *supra* note 41, at 841.

70. See, e.g., RICHARD FALK, REVITALIZING INTERNATIONAL LAW 189 (1989).

71. This will be discussed *infra*, at Section IV.

72. Gray, *supra* note 67, at 217.

73. There is some academic work in this area, though not as prevalent as in the definitional area. See, e.g., Amedeo Postiglione, *A More Efficient International Law on the Environment and Setting Up an International Court for the Environment Within the United Nations*, 20 ENVTL. L. 321 (1990).

jus cogens, it is unclear whether the international community would be prepared to criminalize such destructive behavior when undertaken in the context of armed conflict beyond the contours suggested by the Rome Statute. What is clear, however, is that by failing to try to do so, the international community is shirking responsibility for one of the principal factors threatening the integrity of the planet for future generations. Although the concept of ecocide may sound utopian within the context of the present framework of reference, this framework needs to be challenged. After all, the notion of what is politically realistic is, as it has always been, essentially elastic.

III. ENFORCEMENT AT A CROSSROADS: ECOCIDE WITHIN AN INTERNATIONAL ENVIRONMENTAL COURT OR WITHIN A PERMANENT INTERNATIONAL CRIMINAL COURT?

This essay posits that collapsing environmental crimes within the permanent International Criminal Court might not be the most effective way to sanction such crimes. One overarching problem is that the International Criminal Court is principally designed to punish and to deter genocide and crimes against humanity *per se*. As we have seen, environmental offenses are basically just an add-on and, as a result, might be lost in the shuffle. An example of this occurred in Rwanda, where the environmental desecration of the internecine conflict that has been ongoing since 1994 is significant. The Rwandan Civil War has seen two national parks, Parc National des Volcans and Parc National de l'Akagera, landmined;⁷⁴ endangered species, the mountain gorillas, poached; agricultural lands rendered barren in order to coerce the migration of persecuted peoples; and systemic resettlement exhausting moderate lands, specifically in Eastern Congo, of their agricultural capacities. The *ad hoc* International Criminal Tribunal for Rwanda has made no mention of these issues in its proceedings or in any of the mandates that it

74. It is here that a paradox emerges. There is an interesting correlation between the placing of landmines and increased biodiversity owing to the fact that mines limit human encroachment. See Jeffrey McNeely, *War and Biodiversity: An Assessment of Impacts*, in PROC. OF THE FIRST INT'L CONF. ON ADDRESSING ENVTL. CONSEQUENCES OF WAR: LEGAL, ECON. AND SCI. PERSPECTIVES (June 10-12, 1998). While warfare is unquestionably disastrous for most natural habitats, some impacts of war can actually be positive for biodiversity. McNeely reports that in the demilitarized zone in Korea, which is heavily landmined, biodiversity has grown. *Id.*

has authorized.⁷⁵ It may very well be that environmental concerns become similarly neglected within the context of an International Criminal Court. On another note, the domestic war crimes prosecutions that are occurring in Rwanda have also been very reticent in the area of environmental crimes.

Magistrates and judges on an International Criminal Court will likely not have expertise in the area of environmental law, policy, or science. This lack of expertise can heighten the transaction costs of proceeding judicially,⁷⁶ as well as produce ineffective jurisprudence. Were environmental crimes to be litigated in a separate courtroom that only addressed ecocide and related infractions, then there could be a greater guarantee of some level of scientific expertise.

Another critical limitation on the effectiveness of the Rome Statute is, of course, the fact that China, India, Russia, and the United States are not parties.⁷⁷ Clearly, there are many reasons

75. The International Criminal Tribunal for the Former Yugoslavia has been similarly inattentive to environmental concerns.

76. For example, in the recent International Court of Justice's decision in Case Concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia), the judges had to be educated in the environmental science aspects of the dispute. (September 25, 1997, No. 92 General List, <<http://www.icj-cij.org/idocket/ihs/ihsjudgement/ihsjudcontent.html>>) (on file with the *Fordham International Law Journal*). Although there is much to be gained from educating lay people on environmental issues, this can involve significant time as well as financial costs. A specialized tribunal could avoid some of these costs. Making mention of the International Court of Justice begs the question of whether it could serve as an adjudicator of ecocide disputes. In the past, the International Court of Justice has had limited experience with environmental matters, although it has taken some very important decisions, such as the Nuclear Tests Cases (Austl. v. Fr.), 1974 I.C.J. 253, and Military and Paramilitary Activities In and Against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 16. The International Court of Justice has also recently created an Environmental Chamber with a view to playing a more proactive role in resolving environmental disputes. The principal impediments to the effectiveness of the International Court of Justice to adjudicating ecocide are the requirements that (1) both litigants consent to the jurisdiction of the court, which is impractical in an ecocide context where it is inexorable that one litigant will unwillingly be dragged into court; and (2) there is no jurisdiction to hear disputes involving individuals.

77. The "opt-out" provision that allows countries to reject the International Criminal Court's jurisdiction over war crimes for the first seven years of the court's existence may also serve as a significant limitation on early adjudication under Article 8(2)(b)(iv). See Alessandra Stanley, *U.S. Dissents, but Accord Is Reached on War-crime Court* (visited on July 18, 1998) <<http://www.nytimes.com>> (on file with the *Fordham International Law Journal*). One of the major concerns of the United States was the scope of the jurisdiction given the International Criminal Court to prosecute war crimes and crimes against humanity automatically and independently. See *A Strong International Court*, N.Y. TIMES, June 18, 1998, at A34.

why these nations chose not to sign on. Some relate to concerns over Article 15's allocation to the prosecutor of a certain degree of independence, *proprio motu* powers;⁷⁸ for example, the United States wished the option to veto the prosecutor's decision to charge any American citizen.⁷⁹ More broadly, some dissenters wished the United Nations or Security Council to have control over the International Criminal Court's docket. Other concerns relate to fears that soldiers will be prosecuted for activities resulting out of "international policing" activities.⁸⁰ What is interesting to consider is whether these same issues would affect the negotiation of an ecocide convention and, if so, whether the effect would be notable. In any event, what is clear is that war crimes *writ* large is such a thorny area in which to obtain meaningful international consensus that segregating environmental war crimes from other types of war crimes may in fact facilitate consensus-building in the environmental arena. As a result, this essay suggests that multilateral negotiations be encouraged to develop an ecocide convention that would independently address environmental concerns. The Convention could be enforced by a permanent, or, at first, *ad hoc* international environmental court.⁸¹ In the past, many proponents of crimes against the environment have focused on domestic courts as enforcers. For ex-

78. ROME STATUTE, *supra* note 6, art. 15(1).

79. *Permanent War Crimes Court Approved* (visited on July 17, 1998) <<http://www.nytimes.com>> (on file with the *Fordham International Law Journal*). The 60-member "like minded group" that included countries such as Canada, Australia, all European democracies (except France), South Africa, Argentina, and South Korea opposed the U.S. position during the negotiations.

80. See Stanley, *supra* note 77; see also Paul Koring, *U.S. Qualms over World Court Called Groundless*, THE GLOBE & MAIL, July 24, 1998, at A8 (stating that Washington wants absolute guarantee that its servicemen could never be brought before new court).

81. The International Green Cross/Green Crescent should be linked with this international environmental court. Discussion of an international environmental court is not new. In fact, the United Nations Commission on Crime Prevention and Criminal Justice has heard suggestions that such a court should be created as a standing body of the United States. See Gerhard Loibi & Markus Reiterer, *Criminal Law and the Protection of the Environment*, 27 ENVTL. POL'Y & L. 400 (1997). This proposition, voiced by Costa Rica, was eventually adopted with the substitution of "appropriate machinery" instead of "international court." See *id.* There appeared to be a general consensus that, although preference may be had for domestic mechanisms to punish environmental crimes, international criminal law could be applied as an *ultima ratio*, for the most severe cases of environmental damage. *Id.* The fact that international legal machinery has been raised in the United Nations Commission on Crime Prevention and Criminal Justice might make it an interesting starting point for more protracted negotiation on criminalizing ecocide.

ample, Article I(2) of the *Environment Guidelines*⁸² emphasizes that “domestic legislation and other measures taken at the national level are essential means of ensuring that international law protecting the environment in times of armed conflict is indeed put into practice.”

Perhaps attention should be cast more broadly. An international tribunal could settle issues of extraterritoriality, as well as fulfill a policing role in the areas of the global commons. It could also ensure some level of environmental protection for the citizens of nations whose domestic courts fail to sanction ecocide and other environmental crimes. What is clear, however, is that any international environmental court will have to operate in conjunction with national tribunals. Principles of complementarity between national and international adjudicators that are now being developed in the area of genocide will also have to be implemented in the environmental context.⁸³

Recent scholarship in the area of international relations shows that conventions with strict liability and rigorous enforcement measures are difficult to negotiate and even more difficult to enforce, especially when no uniform consensus exists.⁸⁴ The trick lies in utilizing more effective and often gradual methods to stimulate agreement. As a result, discussions related to ecocide might be more effective if undertaken within the nexus of a framework negotiation, as had been the case in climate change, another urgent area of environmental concern. Instead of focusing on immediately creating unambiguous rules and strict liability, an attempt ought to be made to negotiate consensus around mutually acceptable standards that, through ongoing negotiations, can eventually be distilled into rules.⁸⁵ Such negotia-

82. See *Environment Guidelines*, *supra* note 30, art. I(2).

83. Environmental crimes are found within domestic criminal or public welfare legislation. See *Vice President Gore Addresses Issue of Environmental Crimes* (visited June 30, 1998) <<http://www.mapcruzin.com/scrutzri/docs/p1.htm>> (on file with the *Fordham International Law Journal*); *Committee of Criminal Expertness [sic] of Crimes Against the Environment* (visited on June 30, 1998) <<http://www.zeno.simplenet.com/toppage11.htm>> (on file with the *Fordham International Law Journal*).

84. ABRAM CHAYES & ANTONIA HANDLER CHAYES, *THE NEW SOVEREIGNTY* (1995).

85. In many ways, the failure of the Fifth Geneva Convention on the Protection of the Environment in Time of Armed Conflict can be attributed to its overly radical stance. See Hans-Peter Gasser, *For Better Protection of the Natural Environment in Armed Conflict: A Proposal for Action*, 89 AM. J. INT'L L. 637, 639 (1995). It may be that a desire to come up with a strong International Criminal Court immediately was a reason that important parties withheld their consent from the Rome Statute. More promising

tions should involve not only states, but also non-governmental organizations, transnational public interest advocates, trading organizations, and other similar groups. Thought should be given to establishing a managing secretariat, along with an adjudicative body. The managing secretariat is especially important because it can make decisions between official meetings of the parties, act in an administrative capacity, suggest policy alternatives, and engage in follow-up investigations.⁸⁶ As a result, the ecocide convention would be more than simply a criminal statute, but an organization designed to enhance awareness and to develop methods to maximize incentives not to engage in environmentally pernicious military initiatives in the first place. It can also, drawing from the United Nations Compensation Commission, be involved in valuing environmental damage and perfecting methods of assessment.

IV. WHAT PUNISHMENT?

Penalties are geared to deter misconduct, to restitute the aggrieved, to voice condemnation, and to offer some rehabilitation for the convicted. These essential sentencing principles ought to guide those accused of ecocide or any subset of environmental war crimes. Part 7 of the Rome Statute offers the most contemporary compilation of the international community's thinking on how international crimes ought to be punished.⁸⁷ The punishment provisions of the Rome Statute contain two limitations on the effectiveness of Article 8(2)(b)(iv).

Firstly, the jurisdiction of the International Criminal Court is limited to natural persons. This limitation makes it impossible to find any institutional or state liability should it be difficult to

framework approaches have had an inchoate development in the Conference of Experts on the Use of the Environment as a Tool of Conventional Warfare (Ottawa, July 1992) and previously at the International Council of Environmental Law (Munich, December 1991). It is hoped that this First Conference on Addressing Environmental Consequences of War can consolidate these beginnings and set an agenda for the international political community to establish framework negotiations.

86. See Simon Lyster, *Effectiveness of International Regimes Dealing with Biological Diversity from the Perspective of the North*, in GLOBAL ENVIRONMENTAL CHANGE AND INTERNATIONAL GOVERNANCE 188, 214-16 (Oran R. Young et al. eds., 1996) [hereinafter GLOBAL ENVIRONMENTAL CHANGE]; see also Patricia Birnie, *Regimes Dealing with the Oceans and All Kinds of Seas from the Perspective of the North*, in GLOBAL ENVIRONMENTAL CHANGE, *supra*, at 83-92. Both authors suggest that creation of a managing secretariat is an important factor contributing to the "effectiveness" of international environmental agreements.

87. ROME STATUTE, *supra* note 6, at Part 7.

prove that the actions of one or some individuals accounted for the environmental desecration. Secondly, and more importantly, sentencing is based on imprisonment, fines, and forfeiture of the proceeds of the crime.⁸⁸ There does not appear to be much room to compel restitution, remediation of blight, civil liability or, simply put, to clean up the environmental harm. Without the International Criminal Court being able to order such remedies, the curative nature of the punishment for causing "widespread, long-term and severe" damage to the natural environment is limited at best. Although there is discussion in Article 79 of the Rome Statute about transferring fines and assets collected to a trust fund for the benefit of victims of the crime,⁸⁹ Article 79 does not directly address a situation where it is the natural environment directly, and humanity only indirectly, that bears the loss of the crime. As a result, there is cause for concern not only that environmental crimes will be poorly cognizable under the International Criminal Court, but also that the punishments for wrongdoing will not address the unique nature of these crimes. This argument further supports an ecocide convention administered by its own secretariat and enforced by its own court. It is important for such a court to be empowered to decide on both criminal as well as civil matters.⁹⁰ In order for the decisions of this court to be implemented and executed, it would have to be given jurisdiction over natural and legal persons in all nation-states, together with governments themselves. It would also be important for this court to be given injunctive powers to stop violations from happening and to arrest future breaches. The International Criminal Court does not appear to have such a capacity. This absence of injunctive powers is another reason why it may not be well-suited to adjudicate environmental crimes.

More proactive and preemptory methods, however, also need to be developed. After all, any finding of ecocide operates only on an *ex post facto* basis; the environmental harm has already

88. *Id.* art. 77.

89. *Id.* art. 79.

90. It will be useful to develop principles of valuation and assessment so that any civil liability awards not only compensate the aggrieved parties, but also accurately recognize the full extent of the harm to the environment.

occurred.⁹¹ What is more important is to provide incentives not to act in environmentally threatening ways in the first place. Providing incentives will entail linkages beyond the legal context. Examples include the creation of economic disincentives to producing environmentally destructive weaponry, technology transfers to assist developing countries to pursue national security interests in a more environmentally friendly manner, and financial assistance mechanisms.⁹² Integration to the trade and investment context ought to create disincentives to peddle and to manufacture the more environmentally injurious military technology. One final linkage that is of considerable importance involves international peace-keeping or peace-enforcement forces. These efforts could be mandated to ensure environmental and humanitarian protection. Allotting these international forces a "green-keeping" mandate could help integrate international environmental norms into an internecine conflict. By way of example, were U.N. involvement in Somalia to have had a "green-keeping" mandate, then practices of deforestation and assaults on water purity that were commonplace in the conflict could have been addressed. Ultimately, the prevention of ecocide cannot be disaggregated from the fact that environmental scarcity and resource depletion are often the cause of military conflict.⁹³ As a result, equipping nations to engage in proper environmental management and sustainable development could have the collateral benefit of mitigating military aggression.

CONCLUSION: GOING BEYOND MILITARY CONFLICT

The concept of ecocide ought not to be restricted to actual

91. See M.A. Drumbl, *The General Agreement: From Tariffs and Trade to Sustainable Development*, 25 CAN. BUS. L.J. 357, 398 (1995).

92. One option that should be considered is the creation of an international insurance scheme to fund environmental clean-up as a stop-gap measure until liability can be conclusively determined. The financing of such a scheme could flow from international contributions or taxes. See, e.g., *Background Paper*, *supra* note 9, at 18.

93. See McNeely, *supra* note 74. By way of example, the Rwandan conflict was partly precipitated by demand for arable land. Over the past three decades, average farm size has declined from two hectares per family to 0.7 hectares. On the relationship between agricultural land-use and the Rwandan genocide, see Guenther Baechler, *Rwanda: The Roots of Tragedy, Battle for Elimination on an Ethno-political and Ecological Basis*, in ENVIRONMENTAL DEGRADATION AS A CAUSE OF WAR, Vol. II, 461-502 (1996); M.A. Drumbl, *Rule of Law Amid Lawlessness: Counseling the Accused in Rwanda's Genocide Trials*, (forthcoming 1998) COLUM. HUM. RTS. L. REV. (on file with the *Fordham International Law Journal*).

war. In fact, it could apply to the pre-deployment and post-deployment phases of armed forces activity. Drawing distinctions between these phases and overt military conflict is a somewhat artificial exercise. By way of example, capturing pre-deployment military activity could oblige a nation to face international ecocidal consequences for detonation and testing of nuclear devices, clearly an issue of topical importance.⁹⁴ Post-deployment liability would cover activities such as the decommissioning of weapons, for example Russian attempts to decommission its nuclear submarines in the Arctic that are currently being carried out with insufficient financial and human resources and, as a result, constitute a serious threat to the environment.

Ecocide could also apply in times of peace. Environmental crime, most notably trade in endangered species, hazardous wastes, and ozone-depleting substances, constitutes an underground market estimated at US\$20 billion annually.⁹⁵ Peacetime infractions of this nature ought also to be prosecuted within the rubric of an international environmental court. In the longer run, a prosecutor's office that could attach to the International Criminal Court could receive a mandate to investigate allegations of such transboundary environmental crimes.⁹⁶

On another note, the forces of international financial expansion may also wreak havoc on the environment.⁹⁷ Particularly troubling examples are the ongoing forest fires in the Amazon Basin and in Indonesia. In both cases, there is compelling evidence that these fires had been deliberately set by enterprises seeking to clear the forests for economic development.⁹⁸ The effects on the environment are clear: immediate destruction, an

94. Of course, capturing pre-deployment military activity could prove to be quite a barrier to obtaining international consensus.

95. *8 Countries Agree to Fight Environmental Crime*, N.Y. Times, Apr. 6, 1998, at A4. There appears, for instance, to be an active illegal trade in freon from Canada to the United States, with a view to supplying automobiles in the southern United States. Domestic efforts to crack down on this illegal activity have only met with partial success. An international environmental court may prove to be effective in this area.

96. Deputy Prime Minister John Prescott of Great Britain has suggested the creation of the "equivalent of an Interpol for environmental crime." *See id.*

97. McNeely contends that market forces may destroy more biodiversity than military forces. McNeely, *supra* note 74. International criminal sanctions could constitute a powerful device to mitigate the unsustainable and environmentally destructive effects of these market forces.

98. John Klotz, NAT'L L.J., Nov. 17, 1997, at A18. For the Indonesian context alone, see Randy Lee Loftis, *The Tropics Are on Fire*, TORONTO STAR, June 6, 1998, at C6

inability of ecosystem regeneration, and a contribution to global warming. Such conduct ought to fall within an ecocide convention and be sanctioned by an international environmental court. In the end, this destruction comes full circle and immediately affects humanity: through death and disability owing to the effects of asthma and smog-related illnesses, and, in the case of the Indonesian fires, creating smoke and haze that may have induced a plane crash in Sumatra that took the lives of 234 people.⁹⁹ It remains an open question whether such conduct ought to be conjunctively sanctioned by an international criminal court. If so, an *entente* of understanding will have to be developed between the two courts to avoid situations of double jeopardy and overlapping jurisdiction.

(stating that "evidence shows that settlers were being paid by large corporations to burn forests to convert land into corporate-owned palm or rice plantations").

99. Lofis, *supra* note 98.