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Protecting the Environment in Armed Conflict
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Protecting the environment in armed conflict: Evaluating the US perspective

W. Casey Biggerstaff[1,2] and Michael N. Schmitt[3,4]*
[1]Judge Advocate, US Army
[2]Military Professor, Stockton Center for International Law, US Naval War College, Newport, RI, United States
[3]Editorial Board, *International Review of the Red Cross*
[4]Professor of International Law, University of Reading, UK

Abstract

This article outlines and evaluates the US perspective on how treaty and customary international law protect the natural environment during international armed conflict. It surveys the relevant treaties to which the United States is a party and examines US views on their pertinent provisions. It then assesses claims that the environmental obligations residing in the 1977 Additional Protocol I to the 1949 Geneva Conventions have attained customary status, outlines the United States' rejection of those claims, and evaluates the reasonableness thereof. Finally, it highlights ambiguities in certain US environmental positions, the resolution of which would bring much-needed clarity to the law.

Keywords: international humanitarian law, protection of the environment, armed conflict.

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On 30 November 1961, in coordination with the government of South Vietnam, President Kennedy authorized US armed forces to prepare for the use of defoliants to support military operations against Viet Cong and North Vietnamese forces.[1] In the decade that followed, the US Air Force sprayed approximately 20 million gallons of the herbicide Agent Orange over the forests and fields of Vietnam, Cambodia and Laos.[2] In total, Operation Ranch Hand destroyed more than five million acres of forest and half a million acres of crops in an effort to deny the enemy sanctuary.[3] Additionally, tractors equipped with ploughs levelled nearly three quarters of a million acres of vegetation.[4]

The environmental devastation of the Vietnam War, which the United States maintains violated no international legal prohibitions,[5] ignited a global campaign to minimize the impact of armed conflict on the natural environment. Although international humanitarian law (IHL) has long provided general rules that result in indirect protection for the environment, this effort sought to establish *special* protections within that body of law through a progression of international instruments,[6] the relevant provisions of which some observers claim have crystallized into customary international law.[7]

Despite consistent involvement in armed conflicts in the decades that followed, the United States has largely distanced itself from this effort. Specifically, it has declined to embrace many of the purported rules or interpretations the movement has generated, thereby injecting doubt that they enjoy customary status today. US pronouncements on the subject have done little to clarify its views, further frustrating attempts to build international consensus on the state of the law.

1 William A. Buckingham Jr, *Operation Ranch Hand: The Air Force and Herbicides in Southeast Asia, 1961–1971*, Office of the Air Force History, United States Air Force, Washington, DC, 1982, p. 21.

2 Andrew Glass, "U.S. Launches Spraying of Agent Orange, Jan. 18, 1962", *Politico*, 18 January 2019, available at: www.politico.com/story/2019/01/18/us-launches-operation-ranch-hand-jan-18-1962-1102346 (all internet references were accessed in October 2023).

3 *Ibid.*

4 Michael N. Schmitt, "Green War: An Assessment of the Environmental Law of International Armed Conflict", *Yale Journal of International Law*, Vol. 22, 1997, p. 10.

5 See US District Court for the Eastern District of New York, *Vietnam Association for Victims of Agent Orange v. Dow Chemical Co. (in re Agent Orange Product Liability Litigation)*, MDL No. 381, 04-CV-400, Statement of Interest of the United States, 12 January 2005, pp. 4–13.

6 By "special", we refer to instruments or provisions that pertain to the natural environment itself as the protected entity, regardless of whether parts thereof constitute civilian objects, in contrast to those general protections that focus on, for example, protected persons or objects. With respect to the latter, protections may be direct, contingent upon the environmental component in question qualifying as a civilian object, or merely incidental.

7 See e.g. International Law Commission (ILC), *Principles on the Protection of the Environment in Armed Conflict*, 2022 (PERAC Principles), Principle 13. See also the earlier draft of the PERAC Principles: ILC, *Draft Principles on Protection of the Environment in Relation to Armed Conflicts, with Commentaries*, in *Yearbook of the International Law Commission*, Vol. 2, Part 2, 2022 (ILC Draft Principles). Note that the commentary to Principle 13(2) indicates that the phrase "subject to applicable international law" is meant to "recognize[] that there are still different views regarding the customary status of both the duty of care and the prohibition as enshrined in Additional Protocol I". See also Jean-Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law*, Vol. 1: *Rules*, Cambridge University Press, Cambridge, 2005 (ICRC Customary Law Study), Rule 45, as well as the associated practice collected by the ICRC at: https://ihl-databases.icrc.org/en/customary-ihl/v2.

This article outlines and evaluates the US perspective on how treaty and customary law protect the natural environment during international armed conflict. We begin by surveying the relevant treaties to which the United States is a party and examining its views on their pertinent provisions. Attention then turns to claims that certain environmental obligations, such as those special protections residing in the 1977 Additional Protocol I to the 1949 Geneva Conventions (AP I), have attained customary status. Our discussion outlines the United States' rejection of such claims and assesses the reasonableness thereof against international law's standards for the crystallization of customary international law. Finally, the article concludes by highlighting ambiguities in certain US environmental positions, the resolution of which, we believe, would bring much-needed clarity to the law. Against that framework, we note that environmental protections other than those which limit the conduct of parties to an international armed conflict,[8] including obligations under international and domestic environmental law, are beyond the scope of the article.

Before turning to the law, we must emphasize that our purpose is not to advocate for the adoption of more progressive legal interpretations by the United States – although, speaking in our personal capacities, we believe doing so would be beneficial. Instead, our objective is to succinctly map and objectively assess the applicable US positions. By increasing transparency, we hope to contribute to greater clarity as to how IHL protects the environment.

Environmental protections and US treaty obligations

The United States is party to several treaties that provide varying degrees of specific, general or incidental protections to the natural environment. Three of these treaties warrant examination in our analysis.[9]

The Hague and Geneva Conventions

Article 23(g) of the Regulations Annexed to the 1907 Hague Convention (IV) Respecting the Laws and Customs of War on Land (Hague Regulations) provides a foundational safeguard for the environment by forbidding parties "to destroy or seize the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war".[10] The rule, violation of which is a war crime

8 The fact that our analysis is limited to the environmental obligations pertaining to international armed conflicts does not imply that we believe certain protections addressed herein would not apply to non-international armed conflicts, which are simply beyond the scope of this article.

9 For a summary of other relevant treaties not addressed by this article, see, for example, Michael N. Schmitt, "Humanitarian Law and the Environment", *Denver Journal of International Law and Policy*, Vol. 28, No. 3, 2000.

10 Regulations Concerning the Laws and Customs of War on Land, Annexed to Convention (IV) Respecting the Laws and Customs of War on Land, 36 Stat. 2227, TS No. 539, 18 October 1907 (entered into force 26 January 1910), Art. 23(g).

under the Rome Statute of the International Criminal Court,[11] embodies the long-standing customary prohibition against wanton destruction expressed in earlier instruments such as the 1874 Brussels Declaration and, with particular relevance to US interpretation, the 1863 Lieber Code.[12] And as noted by the International Court of Justice (ICJ), the Hague Regulations reflect customary international law.[13]

A similar restriction, albeit of more limited applicability, is found in Article 53 of the 1949 Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War (GC IV), which provides:

> 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, or to social or cooperative organizations, is prohibited, except where such destruction is rendered absolutely necessary by military operations.[14]

In contrast to Article 23(g) of the Hague Regulations and its Rome Statute corollary, only "extensive" destruction in violation of Article 53 is a grave breach of GC IV and a war crime under the Rome Statute.[15] Further limiting its scope is the fact that, unlike the Hague Regulations, its protections are limited to the context of occupation.[16] Like the Hague Regulations, the Geneva Conventions are generally considered to reflect customary international law.[17]

As applied to the environment, these provisions beg the question of what is encompassed by the notion of "property". Neither treaty defines the term. This omission has minimal practical significance in the course of many military operations, but it is of pronounced concern in the environmental context. For their part, Article 53 of GC IV and the International Committee of the Red Cross's (ICRC) corresponding 1958 Commentary clarify that the term includes

11 Rome Statute of the International Criminal Court, UN Doc. A/CONF.183/9, 17 July 1998 (entered into force 1 July 2002) (Rome Statute), Art. 8(2)(b)(xiii).

12 Project of an International Declaration Concerning the Laws and Customs of War, Brussels, 27 August 1874 (Brussels Declaration), Art. 13(g); Francis Lieber, *Instructions for the Government of Armies of the United States in the Field*, General Order No. 100, US Department of War, 24 April 1863 (Lieber Code), Art. 44. Both instruments were non-binding as a matter of *international* law. See also US Department of Defense (DoD), *Law of War Manual*, Office of the General Counsel, July 2023 (US Law of War Manual), sec. 2.3.1 and accompanying footnotes; Program on Humanitarian Policy and Conflict Research at Harvard University, *Manual on International Law Applicable to Air and Missile Warfare*, 2009, Rule 88.

13 ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, *ICJ Reports 1996* (Nuclear Weapons Advisory Opinion), paras 79–82, citing *Trial of the Major War Criminals, 14 November 1945–1 October 1946*, Vol. 1, Nuremberg, 1947, p. 254, and *Report of the Secretary-General Pursuant to Paragraph 2 of Security Council Resolution 808 (1993)*, UN Doc. S/25704, 3 May 1993, introducing the Statute of the International Criminal Tribunal for the former Yugoslavia (ICTY), unanimously approved by the UN Security Council in UNSC Res. 827, 25 May 1993.

14 Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into force 21 October 1950) (GC IV), Art. 53.

15 *Ibid.*, Art. 147; Rome Statute, above note 11, Art. 8(2)(a)(iv). For an examination of how the ICTY has interpreted "extensive" in this context, see ICTY, *The Prosecutor v. Tihomir Blaškić*, Case No. IT-95-14-T, Judgment (Trial Chamber), 3 March 2000, para. 157.

16 Jean Pictet (ed.), *Commentary on the Geneva Conventions of 12 August 1949*, Vol. 4: *Geneva Convention relative to the Protection of Civilian Persons in Time of War*, ICRC, Geneva, 1958 (ICRC Commentary on GC IV), pp. 301, 601.

17 Nuclear Weapons Advisory Opinion, above note 13, paras 79–82.

"real or personal" property, regardless of whether it is owned by private persons or the State or other public authorities.[18] Neither clarifies, however, whether it includes aspects of the environment that are not traditionally associated with legal notions of real property, such as a State's national waters (territorial, archipelagic and internal) or airspace. From a textual standpoint, the extent to which these provisions protect *all* environmental components is, therefore, somewhat uncertain.

Subsequent interpretation of these provisions by the United States suggests that it believes their reach is substantial. For instance, it has asserted that

> the entirety of the natural environment would receive protection against wanton destruction or against destruction as an end in itself. Similarly, it seems clear that in certain cases, parts of the natural environment may be regarded as "enemy property" (i.e., natural property) that may not be seized or destroyed unless imperatively demanded by the necessities of war.[19]

Under this expansive restatement, the prohibition against wanton destruction protects the whole environment, including national waters and airspace. Such a broad interpretation is consistent with the categorical pronouncement in the US Army and Marine Corps' *Commander's Handbook on the Law of Land Warfare* that "[w]anton destruction of the environment is prohibited".[20] Still, it is unclear why the United States distinguishes between "the entirety" of the environment in the first sentence and only "parts" of the natural environment as constituting the enemy's natural property in the second. Indeed, both refer to the same rule, that prohibiting wanton destruction.

Regarding the first sentence, it may be that the United States considers there to be a customary prohibition that applies with greater breadth than its treaty corollaries, one that addresses wanton destruction wherever it occurs, including in the commons (high seas, international airspace, outer space, the

18 GC IV, Art. 53; ICRC Commentary on GC IV, above note 16, p. 301. For the ICRC's most recent position on the matter, see ICRC, *Guidelines on the Protection of the Natural Environment in Armed Conflict: Rules and Recommendations Relating to the Protection of the Natural Environment under International Humanitarian Law, with Commentary*, Geneva, 2020 (ICRC Guidelines), paras 175–179. See also US Law of War Manual, above note 12, sec. 5.17.1 ("All property located in enemy territory is regarded as enemy property regardless of its ownership"); Yoram Dinstein and Arne Willy Dahl (eds), *Oslo Manual on Select Topics of the Law of Armed Conflict: Rules and Commentary*, Springer, Cham, 2020 (Oslo Manual), commentary accompanying Rule 97, para. 4 ("The notion of property is not defined by applicable treaties. The notion of property must therefore be understood in light of its ordinary (dictionary) meaning. All tangible, movable or immovable items as well as real property fall within the notion of 'property'").

19 *Protection of the Environment in Relation to Armed Conflicts: Comments and Observations Received From Governments, International Organizations and Others*, UN Doc. A/CN.4/749, 17 January 2022 (State Comments to ILC Draft Principles), p. 77; see also John B. Bellinger III and William J. Haynes Jr, "A US Government Response to the International Committee of the Red Cross Study *Customary International Humanitarian Law*", *International Review of the Red Cross*, Vol. 89, No. 866, 2007, p. 455 (stating that "parts of the natural environment may not be destroyed unless required by military necessity").

20 US Department of the Army, *The Commander's Handbook on the Law of Land Warfare*, FM 6-27/MCTP 11-10C, August 2019 (US Land Handbook), para. 2-135.

moon and celestial bodies).[21] If so, such an interpretation would correspond to our view. The second sentence, although encompassing all components, may be intended to reflect the fact that the two treaty provisions are, by their terms, limited to the enemy's territory ("property", Hague Regulations, Article 23(g)) or to occupied territory (GC IV, Article 53).[22]

While we leave it to the United States to explain this expression of *opinio juris*, review of US practice-in-fact confirms that the United States interprets the notion of property broadly. A notable and persuasive example is the US response to Iraq's actions at the end of the First Gulf War. Prior to the Iraqi military's final withdrawal from Kuwait, its forces dumped between 7 and 9 million barrels of oil into the Persian Gulf and damaged or set fire to nearly 600 oil wells. The acts affected Kuwait's land, territorial waters and national airspace (as well as international waters and airspace). In a report to the US Congress following the war, the Department of Defense (DoD) contended that "Iraq's wanton acts of destruction" violated IHL, citing both Article 23(g) of Hague Regulations and GC IV's Articles 53 and 147 (on grave breaches).[23] Although Iraq was not a party to Hague Convention IV, the United States maintained that Article 23(g) reflects customary international law and that "its obligations are binding upon all nations".[24]

Moreover, the report further implied that the release of oil into the Persian Gulf wantonly destroyed *enemy property*:

> Review of Iraqi actions makes it clear the oil well destruction had no military purpose, but was simply punitive destruction at its worst. … As with the release of oil into the Persian Gulf, this aspect of Iraq's wanton destruction of Kuwaiti property had little effect on Coalition offensive combat operations.[25]

The fact that the United States included Kuwait's territorial seas within the contemplated scope of "property" demonstrates that there are few, if any, features of the environment that would evade the articles' proscriptions.

In sum, although a more fulsome exploration of the nuances of what constitutes property in the context of wanton destruction is beyond this article's scope, there is little

21 The Oslo Manual notes that due regard for the environment should be given when planning military operations, explaining that the rule extends to belligerent States; neutral States; international sea areas; and outer space, the Moon and other celestial bodies. Oslo Manual, above note 18, Rules 138–139. It further notes that the question of whether the environment encompasses outer space, the Moon and celestial bodies for IHL purposes is "controversial". *Ibid.*, commentary accompanying Rule 139, para. 3.

22 Accord FM 6-27, above note 20, para. 2-135 ("Wanton destruction of the environment is prohibited"); UNGA Res. 47/37, "Protection of the Environment in Times of Armed Conflict", 9 February 1993 ("Stressing that destruction of the environment, not justified by military necessity and carried out wantonly, is clearly contrary to existing international law").

23 DoD, *Conduct of the Persian Gulf War: Final Report to Congress*, Appendix O: "The Role of the Law of War", April 1992 (Final Report to Congress), p. 624. See also *ibid.*, p. 621; *Remarks by the United States of America before the Sixth Committee*, UN Doc. A/C.6/46/SR.18, 22 October 1991, para. 37.

24 Final Report to Congress, above note 23, p. 606. See also "Letter From the Permanent Missions of the Hashemite Kingdom of Jordan and of the United States of America Addressed to the Chairman of the Sixth Committee", UN Doc. A/C.6/47/3, 28 September 1992 (Letter from US and Jordan), p. 2.

25 Final Report to Congress, above note 23, p. 625.

doubt that the United States interprets Articles 23(g) and 53 as extending to all environmental components within an applicable State's territorial reach.

The ENMOD Convention

In contrast to the Hague Regulations and GC IV, which extend protection to the environment through generally applicable rules, the 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention) prohibits parties from converting the environment into a weapon. Its operative provision, Article 1, forbids "engag[ing] in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party", or assisting, encouraging or inducing others to do the same.[26] As this text indicates, the prohibition has several elements. There is general agreement between the United States and other States as to their interpretation, subject to one minor divergence discussed below.

First, the Convention only prohibits "military or any other hostile use" of environmental modification techniques as a "means of destruction, damage or injury to any other State Party".[27] It does not prohibit engaging in environmental modification for peaceful purposes, such as mitigating droughts, even if such actions might cause harm to neighbouring States. As noted in the DoD's *Law of War Manual*, the prohibition "reflects the idea that the environment itself should not be used as an instrument of war".[28]

Next, the effects must be "widespread, long-lasting or severe". Use of the disjunctive "or" establishes a low bar; satisfying any of the three conditions suffices to meet the standard. In line with a report prepared by the ENMOD Convention's drafting committee, the United States interprets the threshold for these effects, at least as used in the Convention, as "encompassing an area on the scale of several hundred square kilometers" (widespread), "lasting for a period of months, or approximately a season" (long-term), and "involving serious or significant disruption or harm to human life, natural and economic resources, or other assets" (severe).[29] As will be seen, AP I uses the same standards but requires their cumulative satisfaction.

Finally, the conduct in question must constitute an "environmental modification technique". As the Convention clarifies, this "refers to any technique for changing – through the deliberate manipulation of natural processes – the dynamics, composition or structure of the earth, including its biota, lithosphere,

26 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, 1108 UNTS 151, 18 May 1977 (entered into force 5 October 1978) (ENMOD Convention), Art. 1.

27 *Ibid*., Art. 1(1).

28 US Law of War Manual, above note 12, sec. 6.10.3.

29 *Ibid*., sec. 6.10.2; see also State Comments to ILC Draft Principles, above note 19, p. 104. A variation of the phrase also appears in Articles 35 and 55 of AP I: Protocol Additional (I) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 1125 UNTS 3, 8 June 1977 (entered into force 7 December 1978) (AP I), Arts 35(3), 55(1).

hydrosphere and atmosphere, or of outer space".[30] In their committee report, the drafters agreed that causing "earthquakes; tsunamis; an upset in the ecological balance of a region; changes in weather patterns (clouds, precipitation, cyclones of various types and tornadic storms); changes in climate patterns; changes in ocean currents; changes in the state of the ozone layer; and changes in the state of the ionosphere" qualified as environmental modification techniques.[31]

The report further provides, however, that these illustrative phenomena "would result, or could reasonably be expected to result, in" threshold effects.[32] Use of the word "would" suggests that causation of the phenomena for military reasons, without more, "would be prohibited".[33] In other words, resort to the phenomena would necessarily reach the requisite threshold.

The US explanation, on the other hand, is more nuanced. It recognizes that "earthquakes, tsunamis, and cyclones are environmental effects *likely to be* widespread, long-lasting, or severe that *could be* caused by the use of environmental modification techniques".[34] The prohibition would therefore only apply in circumstances in which causation of the enumerated phenomenon would reach the requisite severity. For the United States, causation of a minor earthquake to disrupt enemy operations in a relatively remote area, for example, would likely not breach the obligation.

Additional Protocol I

The United States is a prominent *non*-party to the first treaty to apply so-called "special protection" to the environment during armed conflict. While it is bound by the 1949 Geneva Conventions, the United States has not ratified AP I, which deals with international armed conflict. In addition to several articles that generally or incidentally protect the environment – such as, insofar as it applies to qualifying parts of the environment, the prohibition on attacking civilian objects[35] – the Protocol also contains three novel protections that specifically apply to the environment.[36]

- Article 35(3): "It is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment."

30 ENMOD Convention, above note 26, Art. 2. A well-known example of such a technique is the US cloud seeding programme employed in Vietnam to disrupt enemy supply lines and other operations: see M. N. Schmitt, above note 9, pp. 268–269, 278.

31 *Report of the Conference of the Committee on Disarmament*, Vol. 1: *Understanding Relating to Article II*, UN Doc. A/31/27, 1976, p. 92.

32 *Ibid.*

33 *Ibid.*; see M. N. Schmitt, above note 9, p. 279.

34 US Law of War Manual, above note 12, sec. 6.10.2 (emphasis added).

35 AP I, Art. 52. Or consider Article 54(2), according to which aspects of the environment would receive enhanced protection as "objects indispensable to the survival of the civilian population": *ibid.*, Art. 54 (2). Relevant components of the environment qualifying as such would include "agricultural areas for the production of foodstuffs, crops, [and] livestock", and bodies of water required for drinking water and irrigation.

36 *Ibid.*, Arts 35, 55.

- Article 55(1): "Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of 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."
- Article 55(2): "Attacks against the natural environment by way of reprisals are prohibited."

As the United States is not party to the instrument, these safeguards do not bind it.[37] Yet, some observers claim that Articles 35(3) and 55(1) reflect contemporary customary international law binding the United States and other non-parties.[38] This begs the question of the US view regarding customary IHL protection of the environment.

Environmental protections under customary international law

In its 2005 study on *Customary International Humanitarian Law* (ICRC Customary Law Study), the ICRC identified three rules pertaining to the environment that it asserts are customary in character. The foundational rule is Rule 43, "Application of General Principles on the Conduct of Hostilities to the Natural Environment".

> The general principles on the conduct of hostilities apply to the natural environment:
>
> A. No part of the natural environment may be attacked, unless it is a military objective.
> B. Destruction of any part of the natural environment is prohibited, unless required by imperative military necessity.
> C. Launching an attack against a military objective which may be expected to cause incidental damage to the environment which would be excessive in relation to the concrete and direct military advantage anticipated is prohibited.[39]

37 United States, "Statement on Ratification of the 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, Accepting Protocols I & II", 1861 UNTS 482, 24 March 1995, p. 483 ("The United States considers that the fourth paragraph of the preamble to the Convention, which refers to the substance of provisions of article 35 (3) and article 55 (1) of additional Protocol I to the Geneva Conventions for the Protection of War Victims of August 12, 1949, applies only to States which have accepted those provisions").

38 See ICRC Customary Law Study, above note 7, Rule 45; ILC Draft Principles, above note 7, Draft Principle 13. See also Waldemar A. Solf, "Protection of Civilians against the Effects of Hostilities under Customary International Law and under Protocol I", *American University International Law Review*, Vol. 1, No. 1, 1986, p. 134.

39 ICRC Customary Law Study, above note 7, Rule 43.

In great part, albeit not entirely, Rule 43 is consistent with US views on the customary law protection of the environment. The United States agrees that, in general, parts of the environment are protected by the customary law prohibition on attacking civilian objects (paragraph A), that wanton destruction of the environment not justified by imperative military necessity is prohibited (paragraph B), and that any attacks against military objectives must consider damage to those parts of the environment constituting civilian objects during their proportionality analyses (paragraph C).[40] From the US perspective, however, beyond those parameters, Rule 43 is overbroad to the extent that it applies to *all* parts of the environment.[41]

The ICRC's categorical approach is grounded in the definitions of "civilian object" and "military objective" found in Article 52 of AP I. According to paragraph 1 of that provision, "[c]ivilian objects are all objects which are not military objectives".[42] Paragraph 2 defines military objectives as "objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military of advantage".[43]

A plain text reading of these provisions suggests that the characterization of objects is binary: an object is either a military objective or a civilian object. In line with this interpretation, the ICRC's *Guidelines on the Protection of the Natural Environment in Armed Conflict* (ICRC Guidelines) observe that "all parts or elements of the natural environment are civilian objects, unless some become military objectives",[44] a position that the ICRC likewise included in its commentary to Rule 43.[45]

The ICRC asserts that this categorical, dualistic approach is "generally recognized today", a claim supported by the International Law Commission (ILC) in its 2022 Principles on Protection of the Environment in Relation to Armed Conflicts (PERAC Principles).[46] PERAC Principle 13 states: "No part of the

40 On wanton destruction, see text accompanying above notes 19–25. On proportionality, see US Law of War Manual, above note 12, sec. 5.12; Letter from US and Jordan, above note 24, p. 3.

41 To the extent that paragraphs A and C apply, their treaty equivalents are Articles 52 (attacking civilian objects, military objectives) and 57 (proportionality) of AP I.

42 AP I, Art. 52(1). This is a definitional approach that the United States generally supports: US Law of War Manual, above note 12, secs 5.6.1.1, 5.6.3.

43 AP I, Art. 52(2). The United States likewise generally supports this definition, although it interprets it in ways that do not always mirror those of other States. US Law of War Manual, above note 12, sec. 5.6.3; Michael J. Matheson, "Remarks on the United States Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Conventions at the Sixth Annual American Red Cross–Washington School of Law Conference on International Humanitarian Law, 22 January 1987", *American University Journal of International Law and Policy*, Vol. 2, 1987, p. 436. The most prominent example of a US interpretation of the rule that diverges from the mainstream is the treatment of so-called "war-sustaining" objects as military objectives. U.S. Law of War Manual, above note 12, sec. 5.6.8.5; and see, generally, Ryan Goodman, "The Obama Administration and Targeting 'War-Sustaining' Objects in Noninternational Armed Conflict", *American Journal of International Law*, Vol. 110, No. 4, October 2016.

44 ICRC Guidelines, above note 18, para. 18.

45 ICRC Customary Law Study, above note 7, pp. 143–144.

46 ICRC Guidelines, above note 18, paras 18, 95; PERAC Principles, above note 7, Principle 13.

environment may be attacked, unless it has become a military objective."[47] The ILC's commentary on the earlier draft of the PERAC Principles explains that the norm "underlines the inherently civilian nature of the environment".[48] By this approach, the environment is protected as such due to its intrinsic value, without regard to whether "damage to it would not necessarily harm humans in a reasonably foreseeable way for the purposes of international humanitarian law assessments".[49]

Although the United States generally supports AP I's definitional approaches to civilian objects and military objectives,[50] it follows an alternative interpretation according to which the natural environment only "receives the protection afforded civilian objects *insofar as it constitutes a civilian object*".[51] The key distinction is that the United States disagrees with the ICRC that if the target of an attack or other military operation is not a military objective, it *must* be, by definition, a civilian object:

> [T]he fact that the natural environment is not considered as intrinsically military in nature, does not necessarily mean that every element thereof should be treated as a civilian object under the law of armed conflict. Furthermore, … the natural environment should not be viewed in the abstract, but rather as a collection of elements, some of which are civilian in nature and protected as such.[52]

In support of its position, the United States has pointed out that States do not treat the *entire* environment as protected during combat operations:

> [P]arts of the natural environment not constituting military objectives are routinely adversely affected by lawful attacks against military objectives. This type of environmental damage (e.g., small craters in the earth formed from the use of artillery) is generally not considered as part of the implementation of the principle of proportionality.[53]

By the US approach, environmental features that are reasonably characterized as civilian objects, such as natural resources, would be protected from direct attack, thereby benefiting from such conduct-of-hostility rules as proportionality and precautions in attack.[54] However, those rules would not protect parts of the

47 PERAC Principles, above note 7, Principle 13(3).
48 ILC Draft Principles, above note 7, commentary accompanying Principle 13, para. 10; see also commentary accompanying Principle 14, para. 3.
49 ICRC Guidelines, above note 18, para. 19.
50 US Law of War Manual, above note 12, secs 5.6.1.1, 5.6.3.
51 State Comments to ILC Draft Principles, above note 19, p. 79 (emphasis added).
52 *Ibid.*, p. 82.
53 *Ibid.*, p. 79; see also J. B. Bellinger III and W. J. Haynes Jr, above note 19, p. 455 (noting that only "parts of the natural environment cannot be made the object of attack unless they constitute military objectives, as traditionally defined").
54 See DoD, *Report to Senate and House Appropriations Committees on International Policies and Procedures Regarding the Protection of Natural and Cultural Resources during Times of War*, 19 January 1993, reprinted as Appendix VIII in Patrick J. Boylan, *Review of the Convention for the Protection of Cultural Property in the Event of Armed Conflict*, UNESCO, 1993, p. 202.

environment that bear little or no nexus to the civilian population and therefore would not be considered objects at all.[55] In other words, the United States articulates what has been labelled the anthropocentric approach to the environment, zeroing in on its relationship to the civilian population and civilian activities.[56]

The next duty that the ICRC characterizes as customary in its Customary Law Study is set forth in Rule 44, "Due Regard for the Natural Environment in Military Operations". This rule provides, in part, that

> [m]ethods and means of warfare must be employed with due regard to the protection and preservation of the natural environment. In the conduct of military operations, all feasible precautions must be taken to avoid, and in any event to minimize, incidental damage to the environment.[57]

The Study's commentary explains that this obligation "stems not only from the application … of the rules protecting civilian objects, but also from a recognition of the need to provide particular protection to the environment as such".[58] Textually, the United States views the rule as reflecting customary law insofar as it applies to environmental features qualifying as civilian objects.[59] However, it disagrees with aspects of the ICRC's commentary to the rule.

With respect to the "due regard" standard in the first sentence, the ICRC Customary Law Study's commentary and the ICRC Guidelines, which reiterate the same duty,[60] refer to a general recognition that the environment should be provided distinct protection, particularly when employing means and methods of warfare.[61] Interestingly, the Guidelines assert that this due regard obligation is "operationalized" in, for example, the requirements to take "constant care" and feasible precautions to spare and minimize incidental damage to civilian objects,[62] an unambiguous reference to Article 57 of AP I.

As just noted, however, the United States does not view all parts of the environment as *per se* protected by IHL's customary conduct-of-hostility rules

55 Israel follows a similar "anthropocentric" approach: "[A]n element of the natural environment constitutes a civilian object only when it is used or relied upon by civilians for their health or survival. It follows that there are elements of the natural environment which will constitute neither civilian objects (where such elements are not used by civilians or relied upon by them for their health or survival) nor military objectives (where such elements do not qualify as such under the law of armed conflict)." State Comments to ILC Draft Principles, above note 19, p. 17; see also ICRC Guidelines, above note 18, para. 19.

56 See, generally, M. N. Schmitt, above note 4, p. 6.

57 ICRC Customary Law Study, above note 7, Rule 44.

58 *Ibid*., commentary accompanying Rule 44, p. 147.

59 See US Navy, US Marine Corps and US Coast Guard, *The Commander's Handbook on the Law of Naval Operations*, NWP 1-14M/MCWP 5-12/COMDTPUB P5800.7A, March 2022 (US Naval Handbook), sec. 8.4; Chairman of the Joint Chiefs of Staff, *Joint Targeting*, Joint Publication 3-60, 31 January 2013, Appendix A, para. 8(b).

60 ICRC Guidelines, above note 18, Rule 1.

61 ICRC Customary Law Study, above note 7, p. 147; ICRC Guidelines, above note 18, commentary accompanying Rule 1, para. 42. The ICRC's contention is contested, however: see e.g. Oslo Manual, above note 18, commentary accompanying Rule 138, para. 3.

62 ICRC Guidelines, above note 18, para. 44.

concerning civilian objects. Nor has it recognized the constant care obligation outlined in Article 57(1) of AP I as customary.[63] Instead, the United States has long considered the "principle that all practicable precautions, taking into account military and humanitarian considerations, be taken in the conduct of military operations to minimize incidental death, injury, and damage to civilians and civilian objects" to be customary in character.[64] In other words, it concurs with Rule 44's feasible precautions requirement only to the extent that it applies to *civilian objects*.

A third environment-specific rule in the ICRC Customary Law Study is Rule 45, "Causing Serious Damage to the Natural Environment", which states: "The use of methods or means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon."

The first half of this rule is plainly based on Articles 35 and 55 of AP I,[65] except for the latter's ban on reprisals. US objections to Article 55's prohibition on reprisals against the environment (or, for that matter, most other civilian objects) may partly explain the absence of any reference to reprisal.[66] As to the final sentence, the United States is of the view that the use of means and methods of warfare affecting the environment is "prohibited only if their use is clearly excessive in relation to the concrete and direct overall military advantage anticipated".[67] More to the point, the United States has long rejected characterization of Articles 35(3) or 55, or parts thereof, as customary.[68]

63 There is disagreement over whether the constant care requirement establishes a duty of care beyond the obligations to take feasible precautions in attack. See Michael N. Schmitt and Michael Shauss, "Uncertainty in the Law of Targeting: Towards a Cognitive Framework", *Harvard National Security Journal*, Vol. 10, 2019, pp. 178–181.

64 M. J. Matheson, above note 43, pp. 426–427; see also FM 6-27, above note 20, para. 2-137 ("Routine conventional military operations involving the employment of air, ground, and naval forces that may cause damage to the environment are not activities prohibited by [the law of armed conflict]").

65 AP I, Arts 35(3), 55(1)–(2); see also Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict*, 4th ed., Cambridge University Press, Cambridge, 2022, para. 816 ("Neither provision of AP/I offers a definition of the phrase 'natural environment'. The ICRC Commentary suggests that it 'should be understood in the widest sense to cover the biological environment in which a population is living' – i.e. the fauna and flora – as well as 'climatic elements'"). Yves Sandoz, Christophe Swinarski and Bruno Zimmermann (eds), *Commentary on the Additional Protocols*, ICRC Geneva, 1987 (ICRC Commentary on the APs), para. 2126.

66 See e.g. Mark Simonoff, "Remarks at the 70th UN General Assembly Sixth Committee on Agenda Item 83: Report of the International Law Commission on the Work of its 67th Session, 11 November 2015", in Office of the Legal Advisor, US Department of State, *Digest of United States Practice in International Law*, 2015, p. 287 ("Relatedly, we are troubled by the presence among the principles of rules extracted from certain treaties that we do not believe reflect customary law. For example, draft principle II-4 repeats a prohibition in Additional Protocol I … on attacks against the natural environment by way of reprisals that we do not believe exists as a matter of customary international law. To the extent the rule is offered to encourage normative development, we remain in disagreement with it, consistent with the objections we have stated on other occasions").

67 US Law of War Manual, above note 12, sec. 6.10.3.1; FM 6-27, above note 20, para. 2-143.

68 M. J. Matheson, above note 43, p. 424; see also Oslo Manual, above note 18, commentary accompanying Rule 139, para. 4; Program on Humanitarian Policy and Conflict Research at Harvard University, *Commentary on the HPCR Manual on International Law Applicable to Air and Missile Warfare*, 2010 (AMW Manual Commentary), commentary accompanying Section M, para. 5.

Before the United States signed AP I in 1977, the Joint Chiefs of Staff concluded that its environmental provisions were "not expected to have any significant military impact and [were] consistent with overall US security interests".[69] Although acknowledging the provisions' novelty, the Joint Chiefs pointed to the fact that the United States had already discontinued using Agent Orange, the only means or method of warfare that Article 35 could have arguably prohibited – a view they reiterated five years later when providing additional recommendations in support of deliberations on US ratification.[70]

Concerns arose later during the Reagan administration. In a 1985 review, the Joint Chiefs began to express hesitancy regarding the two articles, albeit in a narrow set of circumstances:

> It is not clear what type of weapons or methods of warfare would be prohibited by paragraph 3, Article 35. … This Article could have considerable impact on naval warfare. Attacks against oil tankers and ships carrying hazardous chemical cargoes might be expected to have long-term, widespread, and severe effects on the sea environment.[71]

Even then, however, the articles were deemed "militarily acceptable", subject to certain conditions.[72]

The fact that the United States military was generally comfortable with the two articles at the time should not be construed as signalling that it understood them to reflect customary international law. After all, AP I both codified existing law, such as the principle of distinction, and progressively developed IHL. Indeed, it was widely understood that the environmental provisions incorporated into the Protocol were novel within IHL. Nor should the Joint Chiefs' recommendations be misunderstood to imply that, to the extent that the United States has observed environmental limitations on its means and methods of warfare (e.g., by discontinuing use of Agent Orange), it has done so out of a sense of legal obligation. As will be explained, absent that condition, customary international law does not form from practice alone.

69 Herbert J. Hansell, "Circular 175: Request for Authorization to Sign Two Protocols to the Geneva Conventions of 1949 for the Protection of Victims of War", Memorandum to the Secretary of State, 11 October 1977, Tab E, p. I-35-4. The Joint Chiefs incorporated these comments by reference into their advice respecting Article 55: *ibid.*, p. I-55-2.

70 *Ibid.*, p. I-35-4; James E. Dalton, "JCS Review of the 1977 Protocols Additional to the 1949 Geneva Conventions", Memorandum to the Secretary of Defense, 1 October 1982, Appendix A (citing no relevant proposed understandings or reservations with respect to Articles 35 or 55).

71 John W. Vessey Jr, "Review of the 1977 First Additional Protocol to the Geneva Conventions of 1949", Memorandum to the Secretary of Defense, 3 May 1985, Appendix, pp. 24–25. The review recommended reserving the words "or may be expected" from Article 35 "[i]n light of the uncertainty surrounding the meaning of paragraph 3", which "would eliminate the problem of collateral ecological damage from conventional weapons and methods of warfare, including herbicides and riot control agents, and would limit the obligations imposed to essentially those already established by the ENMOD Convention". *Ibid.*, Appendix, p. 25.

72 *Ibid.*, Appendix, p. 57; see also *ibid.*, Appendix, p. 25.

In any event, by 1987, the Executive Branch decided not to pursue ratification of AP I, characterizing it as "fundamentally and irreconcilably flawed."[73] Deputy State Department legal adviser Michael Matheson laid out specific objections at an American University event that year.[74] Concerning special protection for the environment, he labelled Articles 35 and 55 "too broad and ambiguous" and stated that they were "not part of customary international law".[75]

Faced with such opposition, the ICRC Customary Law Study acknowledges the US position by stating that it appears the United States is a "persistent objector".[76] But as that status does not preclude crystallization of the customary rule, it is unsurprising that the United States pushed back aggressively on Rule 45 once the Study was published. In a joint letter, DoD general counsel William Haynes and Department of State legal adviser John Bellinger used the environmental provisions to illustrate numerous objections to the study's approach and conclusions, which the United States continues to maintain today:

> [T]he Study fails to demonstrate that Rule 45, as stated, constitutes customary international law in international or non-international armed conflicts …. First, the Study fails to assess accurately the practice of specially affected States, which clearly have expressed their view that any obligations akin to those contained in Rule 45 flow from treaty commitments, not from customary international law. …
>
> … The Study recognizes that the practice of specially affected States should weigh more heavily when assessing the density of State practice, but fails to assess that practice carefully. France and the United States repeatedly have declared that Articles 35(3) and 55 of AP I, from which the Study derives the first sentence of Rule 45, do not reflect customary international law.[77]

Evaluating the US position

Since the United States is not a party to AP I, its position must be assessed against the requirements for the formation of a customary international law rule. As the ICJ has repeatedly observed, it is "axiomatic that the material of customary international law is to be looked for primarily in the actual practice and *opinio*

73 Ronald Reagan, "Message to the Senate Transmitting a Protocol to the 1949 Geneva Conventions", 29 January 1987, available at: www.reaganlibrary.gov/archives/speech/message-senate-transmitting-protocol-1949-geneva-conventions.

74 His presentation remains the touchstone for the United States' views on AP I.

75 M. J. Matheson, above note 43, p. 424; see also US Land Handbook, above note 20, para. 2-143 ("The United States has not accepted these provisions and repeatedly expressed the view that they are overly broad and ambiguous and do not constitute customary international law").

76 ICRC Customary Law Study, above note 7, commentary accompanying Rule 45, p. 151. On persistent objectors, see the below section entitled "Persistent Objector Status".

77 J. B. Bellinger III and W. J. Haynes Jr, above note 19, p. 455.

juris of States".[78] Both elements must be established; if they are not, a customary rule does not exist.[79]

State Practice

With respect to the first element, the practice in question must be sufficiently dense before it leads to the crystallization of a customary rule. In its *North Sea Continental Shelf* judgment, the ICJ observed that "very widespread and representative" practice is required, from which a discernable pattern of behaviour can emerge.[80] Consequently, State practice contrary to a purported customary rule augers against its existence.

Since there have been very few, if any, intentional operations causing Rule 45's level of environmental harm, it cannot be said that *affirmative* actual practice precludes such a rule. But in some circumstances, State *inaction* qualifies as practice bearing on the existence of a customary rule.[81] Relying on this observation, the ICRC suggests that Rule 45 "is supported, in part, by the abstention from operations causing the threshold damage".[82]

In our opinion, this is a flawed assertion because inaction is only relevant when *deliberate*. A State must consciously decide to refrain from conducting an operation likely to cause widespread, long-lasting or severe damage in order to provide the requisite State practice[83] – and the ICRC, in fact, acknowledges the need for conscious abstention elsewhere in its Customary Law

78 ICJ, *Continental Shelf (Libyan Arab Jamahiriya/Malta)*, Judgment, *ICJ Reports 1985*, para. 27. See also Statute of the International Court of Justice, 59 Stat. 1055, 26 June 1945, Art. 38(1)(2); ICJ, *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Merits, Judgment, *ICJ Reports 1986*, para. 183.

79 ILC, *Draft Conclusions on Identification of Customary International Law, with Commentaries*, 2018 (ILC Draft Conclusions), commentary accompanying Conclusion 2, para. 2. It should be noted that in many cases a singular act may constitute evidence of both; for instance, an official statement concerning a rule or purported rule would likely constitute both verbal practice and an expression of *opinio juris*. *Ibid.*, commentary accompanying Conclusion 3, para. 8; J. B. Bellinger III and W. J. Haynes Jr, above note 19, p. 446; Jean-Marie Henckaerts, "Study on Customary International Humanitarian Law: A Contribution to the Understanding and Respect for the Rule of Law in Armed Conflict", *International Review of the Red Cross*, Vol. 87, No. 857, 2005, p. 182.

80 ICJ, *North Sea Continental Shelf*, Judgment, *ICJ Reports 1969*, para. 73. Note that, in addition to being "very widespread and representative", the Court also characterized the requisite standard for State practice as being "extensive and virtually uniform": *ibid.*, para. 74. These two phrases arguably articulate different thresholds for State practice to qualify as "general". See *Identification of Customary International Law: Comments and Observations Received from Governments*, UN Doc. A/CN.4/716, 14 February 2018 (State Comments to ILC Draft Conclusions), pp. 32, 34. In our assessment, the evidence of State practice under review does not satisfy either standard; thus, determining which is correct as a matter of law is immaterial to our analysis and, accordingly, beyond the scope of this article.

81 ILC Draft Conclusions, above note 79, Conclusion 6(1).

82 Jean-Marie Henckaerts, "Customary International Humanitarian Law: A Response to U.S. Comments", *International Review of the Red Cross*, Vol. 89, No. 866, 2007, p. 482.

83 Permanent Court of International Justice, *The Case of the S. S. "Lotus" (France v. Turkey)*, Judgment, 1927, p. 28; ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 6, para. 3; State Comments to ILC Draft Conclusions, above note 80, p. 28.

Study.[84] It is, of course, difficult to assess whether States, including the United States, have deliberately abstained from conducting operations generating such damage to the natural environment.[85] Indeed, when Article 35(3) of AP I was drafted, there was "a widely shared assumption that battlefield damage incidental to conventional warfare would not normally be proscribed by the provision".[86] Accordingly, it cannot be said with any reasonable degree of confidence that States, at least those not party to the Protocol, have deliberately (*vice* incidentally) abstained from causing widespread, long-lasting and severe environmental damage.

Given these standards, it is reasonable for the United States to conclude that State practice in support of special protection for the environment is insufficiently dense to satisfy customary international law's high crystallization threshold. While a comprehensive treatment of the evidence cited in the ICRC Customary Law Study is beyond the scope of this article, suffice it to say that we are not convinced that the collective body of practice is "widespread and representative".

Some States, for instance, have repeatedly maintained that Rule 43, which proscribes damage to the environment regardless of whether it constitutes a civilian object, needs to be narrowed before accurately reflecting the general practice of States.[87] Recall that the United States points to the absence of general practice in support of its position. As it concerns the proportionality component of Rule 43, Israel has likewise stated that it

> is unaware of any State which, upon attacking a military base in a remote area, would consider expected damage to surrounding bushes, rocks or soil as damage to civilian objects that ought to be incorporated in the proportionality assessment relating to the attack.[88]

Our experience with US armed forces and other States with which they operate, such as their NATO allies, is identical. This negative practice contravening the purported rule's stated breadth indicates that it has not attained customary status.

We are, of course, cognizant that *some* inconsistency may not be fatal to a determination that a general practice exists. As the ICJ later clarified in its *Paramilitary Activities* judgment:

84 ICRC Customary Law Study, above note 7, pp. xxxix–xl ("If the practice largely consists of abstention combined with silence, there will need to be some indication that the abstention is based on a legitimate expectation to that effect from the international community").

85 See Nuclear Weapons Advisory Opinion, above note 13, para. 66 (contrasting the policy of deterrence with legal obligations).

86 *Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva, 1974–1977*, Vol. 15, CDDH/215/Rev.1, Federal Political Department, Bern, 1978, para. 27.

87 See e.g. State Comments to ILC Draft Principles, above note 19, pp. 71 (Israel) ("It is the position of Israel that under customary international law, the 'natural environment' in the abstract is not the subject of protection under the law of armed conflict, and treating it as such will be incorrect both legally and practically. As several members of the Commission have also pointed out, it is specific elements of the environment that may be the subject of protection. The protection afforded to these elements depends on the applicable rule concerned"), 79 (United States) ("[T]he natural environment is not always a "civilian object" but receives the protection afforded civilian objects insofar as it constitutes a civilian object").

88 *Ibid.*, p. 17.

> It is not to be expected that in the practice of States the application of the rules in question should have been perfect …. The Court does not consider that, for a rule to be established as customary, the corresponding practice must be in absolutely rigorous conformity with the rule. In order to deduce the existence of customary rules, the Court deems it sufficient that the conduct of States should, in general, be consistent with such rules, and that instances of State conduct inconsistent with a given rule should generally have been treated as breaches of that rule, not as indications of the recognition of a new rule.[89]

This does not, however, affect our conclusion that the US position is reasonable in light of the totality of State practice. The reality is that there is little evidence of States refraining from operations *that they would otherwise have conducted* because of the risk of causing widespread, long-lasting and severe environmental damage. Similarly, we are aware of no actual, in contrast to verbal, practice of States treating every aspect of the environment as a civilian object, damage to which an attacker must consider in proportionality and precautions in attack analyses. Nor have States relied on any exceptions or other justifications for their behaviour from which one could reasonably infer that an applicable rule has crystallized. And public denials that such rules exist amount to verbal practice (and *opinio juris*) standing in the way of the crystallization of the purported customary rules.

Moreover, the notion of specially affected States further counsels against a finding that the rules are customary in character. Such a status was first raised by the ICJ in its *North Sea Continental Shelf* judgment, where it implied that the views and actions of specially affected States are of heightened importance in determining the content of customary international law. Thus, when assessing whether a practice is sufficiently dense,

> an indispensable factor to be taken into account is the extent to which those States that are particularly involved in the relevant activity or are most likely to be concerned with the alleged rule ("specially affected States") have participated in the practice.[90]

This is because these States often have a "greater quantity and quality of practice" due to their "depth of experience" with certain rules.[91] Provided that the assessment of the evidence supporting a purported rule is contextual, searching, and reflective of careful consideration of its credibility,[92] specially affected States should receive some degree of deference when identifying customary rules.

Against this backdrop, the ICRC acknowledges that "if 'specially affected States' do not accept [a] practice, it cannot mature into a rule of customary

89 ICJ, *Nicaragua*, above note 78, para. 186. Complete or perfect consistency, therefore, may not be required, so long as the practice is, as the ILC's commentary to its 2018 *Draft Conclusions on Identification of Customary International Law* suggests, "virtually or substantially uniform". ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 8, para. 7.

90 ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 8, para. 4; J. B. Bellinger III and W. J. Haynes Jr, above note 19, p. 445 and fn. 4.

91 J.-M. Henckaerts, above note 82, p. 481.

92 ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 3, para. 2.

international law …. Who is 'specially affected"' will vary according to circumstances."[93] It further notes that, "[w]ith respect to any rule of international humanitarian law, countries that participated in an armed conflict are 'specially affected' when their practice examined for a certain rule was relevant to that armed conflict".[94]

Along the same lines, the United States maintains that "the practice of States that have relatively little history of participation in armed conflict and the practice of States that have had a greater extent and depth of experience or that have otherwise had significant opportunities to develop a carefully considered military doctrine" are neither similarly situated nor equivalent in terms of crystallizing customary international law.[95] A State is only specially affected to the extent that it engages in armed conflict; speculation as to how rules *might* be applied by a State that does not carries far less weight.

Although not essential to our conclusion, considering the frequency with which they find themselves in armed conflict, we believe that Israel and the United States are specially affected States. Therefore, their actual and verbal practice are afforded significant weight in the customary law assessment. While the precise extent to which the practice of specially affected States *must* be considered is unsettled,[96] it is reasonable to infer that, at a minimum, the practice and imprimatur of these and other specially affected States is especially persuasive when assessing whether a rule is customary.[97]

But even assuming solely for the sake of analysis that there are no specially affected States with respect to the impact of warfare on the environment, it would be difficult to find that Rules 43–45, as articulated, reflect the general practice of States. Moreover, should general practice exist, it has not been "accepted as law" by States, at least not to the level necessary to crystallize a customary rule of IHL.

Opinio juris

The "subjective" element of customary international law is that the relevant State practice must reflect State *opinio juris*.[98] It is well established that

> [n]ot only must the acts concerned amount to a settled practice, but they must also be such, or be carried out in such a way, as to be evidence of a belief that this

93 ICRC Customary Law Study, above note 7, pp. xliv–xlv.

94 *Ibid.*, p. xlv. Yet, the ICRC would presumably assert that, as regards the environment, it can be said that all States nonetheless have an interest in environmental protection: *ibid.*, p. xlv ("Notwithstanding the fact that there are specially affected States in certain areas of international humanitarian law, it is also true that all States have a legal interest in requiring respect for international humanitarian law by other States, even if they are not a party to the conflict"). As further support, it would likely cite the "transnational importance" of the environment that is highlighted in the commentary to Article 35 of AP I: see ICRC Commentary on the APs, above note 65, paras 1441, 1462.

95 J. B. Bellinger III and W. J. Haynes Jr, above note 19, pp. 445–446.

96 ICJ, *North Sea Continental Shelf*, above note 80, paras 73–74.

97 See Yoram Dinstein, "The ICRC Customary International Humanitarian Law Study", *International Law Studies*, Vol. 82, 2006, p. 109 ("If several 'States whose interests are specially affected' object to the formation of a custom, no custom can emerge").

98 ILC Draft Conclusions, above note 79, Conclusions 2, 9.

> practice is rendered obligatory by the existence of a rule of law requiring it. … The States concerned must therefore feel that they are conforming to what amounts to a legal obligation.[99]

Accordingly, acting out of a sense of legal obligation must be distinguished from other motivations for State behaviour, including political policy, practical expediency or equitable (in contrast to legal) principles of comity.[100]

Again, in light of this standard, we find that US objections to the evidence relied upon by the ICRC are objectively reasonable. One need look no further, for example, than the relative abundance of States that have expressly declared that the relevant environmental provisions of AP I, upon which Rule 45 is based, do not accurately reflect customary international law.[101] Those and similar denials with respect to the expansive scope of Rules 43 and 44, especially those of specially affected States, are an insurmountable obstacle to a determination that the rules are customary in nature. Such *opinio juris* denying the customary status of the purported rules contrasts with the relative paucity of that supporting them.

A more searching examination reveals additional support for our view. In furtherance of Rule 44, for instance, the ICRC asserts that "some military manuals, official statements and reported practice" evidence a "general need to protect the environment during armed conflict"[102] – but to the extent that this is true, there is little evidence that they do so out of a sense of *opinio juris* rather than for reasons of political or military expediency or convenience.[103] As the United States has repeatedly emphasized in statements to the ICRC and to the Sixth Committee throughout the proceedings that led to the ILC's eventual adoption of the PERAC Principles, "protection of the environment during armed conflict is desirable *as a matter of policy* for a broad range of reasons, including for military, civilian health, and economic welfare-related reasons, in addition to

99 ICJ, *North Sea Continental Shelf*, above note 80, para. 77; see also ICJ, *Nicaragua*, above note 78, para. 184.

100 See ICJ, *Asylum Case (Colombia v. Peru)*, Judgment, *ICJ Reports 1950*, p. 286; ICJ, *North Sea Continental Shelf*, above note 80, para. 77; ICJ, *S. S. "Lotus"*, above note 83, p. 28. See also ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 9, para. 3. For instance, concerning the use of nuclear weapons, a general practice of refraining from the use of such weapons, even over the course of several decades, would not indicate that the practice is accepted as law if done so simply "because the circumstances that might justify their use have fortunately not arisen". Nuclear Weapons Advisory Opinion, above note 13, para. 66.

101 See e.g. J. B. Bellinger III and W. J. Haynes Jr, above note 19, pp. 455–456; State Comments to ILC Draft Principles, above note 19, pp. 68 (Canada), 70 (France), 71 (Israel), 77 (United States); M. J. Matheson, above note 43, p. 424.

102 ICRC Customary Law Study, above note 7, p. 148.

103 For example, the study cites as support the US *Commander's Handbook on the Law of Naval Operations*, which provides that "[a] commander has an affirmative obligation to avoid unnecessary damage to the environment to the extent that it is practicable to do so consistent with mission accomplishment. To that end, and as far as military requirements permit, methods or means of warfare should be employed with due regard to the protection and preservation of the natural environment." US Naval Handbook, above note 59, sec. 8.4. That the ICRC could construe such language broadly is self-evident, but that passage, and similar provisions in other US manuals, must be interpreted within the context of and in deference to clear expressions of US *opinio juris* which unequivocally state that parts of the environment are only protected insofar as they constitute civilian objects. Moreover, that the exhortation reflects policy or military expediency is indicated by usage of the generally hortatory term "should", rather than the binding terms "must" or "shall".

environmental ones as such".[104] The United States has consistently reiterated that many of the principles inappropriately indicate they are binding in nature, rather than simply reflecting sound policy or a best practice.[105]

Moreover, it is critical to emphasize that even if a practice is motivated by a sense of legal obligation, it is only relevant to the formation of customary international law if it pertains to acceptance of law that is both *customary* and *international* in nature.[106] *Opinio juris* must therefore be further distinguished from obligations that, albeit legal in character, are motivated solely by adherence to treaty requirements or domestic law.[107]

This is not to say that treaties are irrelevant to customary international law; on the contrary, treaties may, under certain circumstances, be pertinent evidence of the existence or emergence of customary rules, as when a treaty provision is adopted to codify customary law.[108] Still, to be relevant to the existence of a customary rule, the *opinio juris* in question must unambiguously and conclusively show that a rule is considered customary in nature and exists independently from a corresponding treaty or domestic law obligation.

Therein lies another flaw in the ICRC's reasoning. With respect to Rule 45, for example, the ICRC Customary Law Study relies in large part on the fact that AP I is widely, albeit not universally, ratified. The problem with that assertion is that non-party States like Israel and the United States object to the characterization of Articles 35(3) and 55 as being reflective of customary international law. More to the point, even some parties to the Protocol, such as Canada and France, have expressly stated

104 Mark Simonoff, "Remarks at a UN General Assembly Sixth Committee Session on Agenda Item 81: Report of the International Law Commission on the Work of its 63rd and 65th Sessions, 4 November 2013", in Office of the Legal Advisor, US Department of State, *Digest of United States Practice in International Law*, 2013, p. 234; J. B. Bellinger III and W. J. Haynes Jr, above note 19, p. 455; see also Stephen Townley, "Remarks at the 69th General Assembly Sixth Committee on the Work of the International Law Commission During its 66th Session, 5 November 2014", in Office of the Legal Advisor, US Department of State, *Digest of United States Practice in International Law*, 2014, p. 299.

105 State Comments to ILC Draft Principles, above note 19, pp. 28–29. In another example, the Civilian Harm Mitigation and Response Action Plan recently promulgated by the US DoD states that "[h]ard-earned tactical and operational successes may ultimately end in strategic failure if care is not taken to protect the civilian environment as much as the situation allows – including the civilian population and the personnel, organizations, resources, infrastructure, essential services, and systems on which civilian life depends". DoD, *Civilian Harm Mitigation and Response Action Plan (CHMR-AP)*, 25 August 2022, p. 1, available at: https://media.defense.gov/2022/Aug/25/2003064740/-1/-1/1/CIVILIAN-HARM-MITIGATION-AND-RESPONSE-ACTION-PLAN.PDF. There is little doubt that the "civilian environment" referred to includes certain parts of the natural environment, but that policy does not alter the United States' long-standing position with respect to the protections afforded to the environment as a matter of law. As it makes clear, "[n]othing in [the] plan is intended to suggest that existing DoD policies or practices are legally deficient or that the actions to be implemented pursuant to this plan are legally required, including under the law of war. The U.S. military routinely implements heightened policy standards and processes that are more protective of civilians than, and supplementary to, law of war requirements, without such standards and processes modifying or creating new legal requirements." *Ibid.*, p. 3 fn. 1.

106 ICJ, *North Sea Continental Shelf*, above note 80, paras 77–78.

107 Nuclear Weapons Advisory Opinion, above note 13, para. 31; ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 9, para. 4.

108 ILC Draft Conclusions, above note 79, Conclusion 11; State Comments to ILC Draft Conclusions, above note 80, p. 45 (concurring in the Conclusion's text).

that they are *not*.[109] In light of these positions, all that can be said is that the articles bind States Parties as a matter of treaty law.

Thus, considering the high threshold required for customary international law, we believe that the US positions relative to the ICRC Customary Law Study's environment-specific rules are reasonable. But we further observe that even had the purported customary rules crystallized, they would not bind the United States, which would be exempt from their obligations as a "persistent objector".[110]

Persistent objector status

By their nature, rules of customary international law are binding on all States, including those that do not recognize them as such. Nevertheless, it is well recognized that "[w]hen a State has persistently objected to an *emerging* rule of customary international law, and maintains its objection after the rule has crystallized, that rule is not opposable to it".[111] The objection must be clearly and persistently communicated to other States to fall within the exception. Further, the exception has a timeliness requirement; failure to object to the rule while it is emerging is a permanent bar to claiming its benefits.

Within that context, it is critical to distinguish the notion of specially affected States from that of persistent objectors. Whereas the former prevents a norm from *becoming* a customary rule, the latter prevents an emerging rule from prospectively *binding* a State once it crystallizes. The existence of a customary rule is, therefore, a necessary condition precedent to a State qualifying as a persistent objector.

We acknowledge that the applicability of persistent objector status vis-à-vis IHL is not universally accepted. For example, Conclusion 15 of the ILC's *Draft Conclusions on Identification of Customary International Law* (ILC Draft Conclusions) implies that the status may not apply to peremptory norms of general international law (*jus cogens*).[112] The ICRC has queried whether the status applies within the context of humanitarian law, taking no position on the matter.[113]

While we agree that certain IHL rules, such as the prohibition on directly attacking civilians, are peremptory in character, it is overbroad to suggest that every rule in this body of law has achieved that status. To be sure, the

109 State Comments to ILC Draft Principles, above note 19, pp. 68 (Canada), 70 (France), 71 (Israel), 77 (United States).

110 While we see no reason to doubt the US position that the relevant rules do not qualify as customary law, our analysis that follows assumes they do solely for the purpose of illustration.

111 ILC Draft Conclusions, above note 79, commentary accompanying Conclusion 15, para. 1 (emphasis in original); see Y. Dinstein, above note 96, p. 109.

112 See ILC Draft Conclusions, above note 79, Conclusion 15(3) and accompanying commentary, para. 10. A peremptory norm is "a norm accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character". Vienna Convention on the Law of Treaties, 1155 UNTS 331, 23 May 1969 (entered into force 27 January 1980), Art. 53.

113 ICRC Customary Law Study, above note 7, p. xlv.

environmental rules at stake can hardly be deemed peremptory given the absence of State consensus in support of that notion.

Seeing no reason to doubt that the persistent objector doctrine applies to the environmental rules (assuming solely for the sake of analysis that they are customary), the United States would qualify as a persistent objector. There is no debate over whether the proscriptions in Articles 35(3) and 55 of AP I were novel when that treaty was ratified; thus, they could only have emerged as a customary rule after the Protocol went into force. Although the United States had few concerns with the articles when it was considering ratifying the Protocol, once it determined that it would not, it unambiguously and persistently maintained its objection to the provisions. The ICRC concedes as much in its commentary to Rule 45.[114] And with respect to Rules 43 and 44, the United States has similarly repudiated claims that the customary rules upon which they are based should be applied so expansively in the environmental context.[115] Thus, to the extent that they are distinct from the conduct-of-hostility rules pertaining to protected objects, there is little doubt that the United States would qualify as a persistent objector to any new or emerging environmental protections identified in the ICRC Customary Law Study. They would not bind the United States, even assuming they reflected customary international law.

Current ambiguities in the US position

Although we conclude that the US position relative to the environmental aspects of IHL is reasonable, we also believe it is not without its faults. As the preceding analysis implies, several ambiguities within the US position hinder attempts to understand and anticipate how the United States may apply IHL to the natural environment. Because it is a highly influential and specially affected State, clarifying these areas would likely cultivate a greater appreciation of U.S. approaches to the subject and contribute to the progressive development of the law.

One such ambiguity is how the United States conceptually and substantively defines the "environment" within the context of IHL. While it has described the environment as a "collection of individual elements" rather than a "single concept or object",[116] it is still not clear *which* elements are included. For instance, there is little doubt that, by the US understanding of certain prohibitions, components of the environment include the crop fields of Vietnam and the coastal waters of the Persian Gulf. But do they also encompass

114 ICRC Customary Law Study, above note 7, commentary accompanying Rule 45, p. 151.

115 See e.g. State Comments to ILC Draft Principles, above note 19; J. B. Bellinger III and W. J. Haynes Jr, above note 19, p. 455 (noting that only "parts of the natural environment cannot be made the object of attack unless they constitute military objectives, as traditionally defined"); M. Simonoff, above note 66, p. 2 ("We also recommend that principle II-3 be eliminated or revised – perhaps with the addition of a caveat such as 'where appropriate – in that environmental considerations will not in all cases be relevant in applying 'the principle of proportionality and the rules on military necessity' in the context of *jus in bello*'").

116 M. Simonoff, above note 66, p. 18.

interconnected elements such as the wildlife living within those parts or the air surrounding them? And does the answer depend on the particular rule or the factual context in question?

The challenges that this lack of clarity presents are hardly purely academic, for they result in a body of law that may be difficult to apply on the battlefield. How, for instance, is proportionality to be calculated if there is uncertainty as to which elements of the environment are to be considered civilian objects? Or when, as a matter of law, does the incidental impact on the environment of an attack on a military objective trigger the obligation to take precautions in attack because it qualifies as damage to a civilian object? On the one hand, uncertainty could lead to a legally unnecessary decision to refrain from an attack that would yield a military advantage. On the other, uncertainty may also result in attacks contrary to those environmental protections which the United States believes *do* apply in armed conflict.

Unfortunately the United States is not alone in this regard, for none of the instruments referenced in this article define the term "environment" with adequate precision.[117] Similarly, there is no consensus regarding the term's scope vis-à-vis customary international law.[118] Nevertheless, as a specially affected State that has engaged in a significant number and variety of armed conflicts since the environmental aspects of IHL first emerged, clarifying how the United States interprets the concept could potentially avoid haphazard interpretation or application of the law. At the very least, it would likely prove influential in shepherding agreement regarding the precise contours of the term's scope as it pertains to customary international law.

A related ambiguity is how the United States calculates harm that might befall the environment during military operations in armed conflict. For instance, to the extent that the environment enjoys the protections afforded to civilian objects, should collateral damage be assessed like other objects? Or does the nature of the environment distinguish it in kind from manufactured objects, such as buildings, equipment or critical infrastructure? Should harm to the environment be evaluated based on its impact on the civilian population (the anthropocentric approach), or does the environment have intrinsic value forming the basis for calculating such rules as proportionality? Must attackers inquire into the fragility of applicable parts of the environment, such as an ecosystem on the brink of collapse, when making these calculations? Considering the extent to which parts of the environment are interrelated and how irreversible environmental impacts may be, these questions loom larger in the environmental context than in others.

Similar obscurities no doubt remain, and there is little question that the United States acknowledges them – yet, instead of working to clarify these areas, it has largely leveraged the law's opacity for political flexibility. As an example, when responding to the ICRC Customary Law Study, the United States primarily

117 See AMW Manual Commentary, above note 68, commentary accompanying Section M, para. 5.
118 See *ibid.*, commentary accompanying Rule 88, para. 1.

attacked the evidence underlying the ICRC's purported rules, but it did not provide alternative conclusions as to the law's content. In short, one could describe the United States' approach to the post-Vietnam environmental conversation as somewhat defensive and reactive; it has not assumed a proactive, descriptive posture that could lend some coherence to the law, especially given its leadership potential in the field.

Concluding thoughts

The extent to which IHL protects the environment is, unfortunately, ill-settled. This is due in part to the United States' unwillingness to ratify AP I and its resistance to legal interpretations expressed in the ICRC Customary Law Study. Beyond broad agreement that the prohibition against wanton destruction and the conduct-of-hostility rules, in their varying treaty and customary expressions, offer non-specific environmental protections, there is little consensus as to precisely how IHL's current framework applies to the environment and its constituent parts.

Yet, within that context, we find the US position reasonable. In light of the constitutive elements of customary international law, there is little support for the contention that the relevant provisions in AP I or the entirety of the purported rules pertaining to the environment in the ICRC Customary Law Study have crystallized into customary international law. They neither reflect the general practice of States, nor is there sufficient evidence of their acceptance as customary law. Simply put, they do not satisfy the high bar for customary law status that is well established in international law.

Even if we were to find the US position legally unsupportable, however, we would not consequently conclude that the assertion of an incorrect characterization by the United States has had, or would have, any meaningful or practical significance with respect to protecting the environment during armed conflict. After all, it is difficult to imagine a scenario in which the United States has caused or would cause, for example, widespread, long-term and severe environmental damage using the conventional means and methods of war that the US military currently employs.

Moreover, even though the United States rejects the assertion that the natural environment is intrinsically civilian in nature, we are unpersuaded that including *all* elements of the environment when assessing the incidental effects from attacks on nearby military objectives – assuming they are not intimately associated with and incorporated into those objectives in the first place – would be of any consequence to modern military operations. There are very few instances, in our professional experience, in which incidental damage to a part of the environment not considered by the United States to be a civilian object would ever be excessive in relation to the anticipated military advantage. In cases where incidental damage to pertinent parts of the environment might be high enough to be considered excessive, the United States would, in all likelihood, *already* consider those parts to be civilian objects. In our view, any friction between US

and competing interpretations is, therefore, of minimal practical significance to actual military operations.

Accordingly, clarifying current ambiguities in the US position would exert greater influence on the law's development and offer greater protection for the environment than adopting broader interpretations of the law. Absent clarification of what the "environment" consists of or how damage to its components is calculated, the United States risks having obscurity cloud its interpretation and application of the law on the battlefield.