

## International humanitarian law and environment protection

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### Abstract

In spite of the legal provisions the result is that there is yet no homogeneous body or law that protects the ecosystem in time of armed conflict. Apart from a few rules specifically addressing environmental warfare, indirect protection derives from provisions that were conceived for other purposes and from the underlying principles of customary international law that traditionally regulate the conduct of military hostilities. This raises the problem of the adequacy of the existing rules to protect the natural environment from warfare. This paper is an attempt to examine the rules available in the laws of war and will distinguish those specifically addressing the natural environment from other rules that might however apply and provide some protection.

**Keywords:** humanitarian law, environment, ecosystem

### 1. Introduction

The first recorded use of environmental warfare dates back to 512 BC, when the Scythians practised a scorched earth policy on their own territory in order to hinder the Persian advance. Since then, military hostilities have always constituted a threat to the natural environment, which has been both directly targeted and incidentally damaged as a collateral consequence of an attack against a military objective<sup>[1]</sup>.

To recall some famous cases, high explosive munitions, color-coded anti-plant agents and Rome ploughs were used by the United States for defoliation and deforestation purposes in the Second Indochina War. The 1980-1988 Iran-Iraq War caused large destruction of oil installations and oil spills into the Persian Gulf<sup>[2]</sup>.

The conflict in Sudan saw the deliberate destruction of natural resources (trees, crops, pastures) by militias. Finally, in the July-August 2006 conflict in Lebanon, Israel targeted the *Jiyeh* power plant south of Beirut, causing some 10,000-15,000 tons of heavy fuel oil spilling into the Mediterranean, the equivalent of a tanker sinking. The spill affected 150 kilometers of the Lebanese coast and also reached Syria. Serious and long-term damage was eventually avoided thanks to the international emergency response efforts<sup>[3]</sup>.

### 2. The laws of war

#### 2.1 Rules Specifically Addressing the Natural Environment

##### The 1977 Protocol I Additional to the 1949 Geneva Conventions

There is no mention of the natural environment as such in the four 1949 Geneva Conventions on the protection of the victims of war. On the contrary, the 1977 Additional Protocol I, adopted in the aftermath of the Second Indochina War, contains two provisions specifically aimed to protect the natural environment. Article 35(3) provides that 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, while art 55 reads as follows: 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<sup>[4]</sup>.

The Protocol's widespread, long-term and severe damage' language also appears in the preamble of the 1980 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, in art 8(2) (b) (iv) of the 1998 Rome Statute establishing the International Criminal Court (ICC), in s 6.1(b)(iv) of the 2000 UN Transitional Administration in East Timor (UNTAET) Regulation No 2000115 establishing the East Timor Special Panels and in art 13(b)(5) of the 2003 Statute of the Iraqi High Tribunal. Section 6.3 of the 1999 UN Secretary-General's Bulletin on the Observance by UN Forces of International Humanitarian Law also provides that United Nations forces are prohibited 'from employing methods of warfare [...] which are intended, or may be expected to cause, widespread, long-term and severe damage to the natural environment<sup>[5]</sup>.

##### The 1977 En-Mod Convention

The Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (En-Mod) adopted by the UN General Assembly in 1976 and opened for signature in 1977, was negotiated in response to the American attempt to modify the regime of precipitations during the Second Indochina War<sup>[6]</sup>.

Strictly speaking, the purpose of the En-Mod Convention is not to protect the environment from hostilities, but rather to prohibit the use of the environment as a weapon so to cause destruction, damage or injury to other States Parties. Under art I(1), the parties agree 'not to engage in

military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as a means of destruction, damage or injury to any other State Party. The techniques referred to in art I are defined in art II as those ‘for changing-through the deliberate manipulation of natural processes—the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space’. Examples of such techniques are—according to the second understanding submitted by the UN Conference of the Committee on Disarmament to the General Assembly together with the Convention—‘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 ozone layer; and changes in the state of the ionosphere’<sup>[7]</sup>.

At first sight, the Convention seems thus to address possible future developments of military technology more than present military capabilities. Nonetheless Canada has stated that all environmental techniques were covered by the Convention, regardless of the level of technology applied. Israel’s Manual on the Laws of War (1998) argues that Iraq flagrantly violated the Convention on the prohibition against modifying the environment during the military occupation of Kuwait’ by flooding the Persian Gulf with oil and setting ablaze more than 700 oil wells<sup>[8]</sup>.

### **Protocol III Additional to the 1980 Convention on Certain Conventional Weapons**

The only other laws of war instrument that specifically addresses the natural environment in the context of military hostilities is Protocol III annexed to the 1980 Conventional Weapons Convention, negotiated in response to the international concern about incendiary weapons caused by the use of napalm bombs by the United States in Vietnam. art 2(4) of the Protocol prohibits ‘to make forests or other kinds of plant cover the object of attack by incendiary weapons except when such natural elements are used to cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives’. This provision is however rather limited scope: it applies only to a specific element of the natural environment (forests or other kinds of plant cover) as long as it is not used for military purposes, and only to a particular means of warfare (incendiary weapons)<sup>[9]</sup>.

It does not seem that art 2(4) reflects Customary International Law. However, a 2001 amendment to art I of the Convention on Conventional Weapons extended the application of the Convention and of its annexed Protocols to situations referred to in art 3 common to the four Geneva Conventions of 1949, i.e., armed conflicts not of an international character<sup>[10]</sup>.

### **2.2 Rules Indirectly Protecting the Natural Environment**

The rules mentioned in the previous sections have however a limited practical relevance for the protection of the environment in time of armed conflict, either because of the high threshold for their application or because they deal only with a specific type of weapon. A more effective role can thus be played by other provisions that do not expressly and exclusively address the natural environment but which might nevertheless also cover environmental warfare<sup>[11]</sup>.

It is uncontroversial that ‘[t]he rights of belligerents to adopt means of injuring the enemy is not unlimited’. According to the 1994 ICRC Guidelines, ‘the general principles of international law applicable in armed conflict such as the principle of distinction and the principle of proportionality – provide protection to the environment’. Under the principle of distinction, only military objectives can be the object of an attack. Article 52(2) of Additional Protocol I provides that military objectives are ‘those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite military advantage’. This definition, which according to the ICRC Study and the ICTY Final Report reflects customary international law, also appears in several military manuals<sup>[12]</sup>.

Apart from the principles of distinction and proportionality, Roberts recalls the role played by the principles of necessity and humanity in protecting the natural environment from the consequences of armed hostilities and concludes that, each of the four principles points strongly to the conclusion that actions resulting in massive environmental destructions, especially where they do not serve a clear and important military purpose, would be questionable on many grounds, even in the absence of specific rules of war addressing environmental matters in detail. Falk goes further and also refers to the principles of neutrality and of intergenerational equity<sup>[13]</sup>.

Although fascinating, the latter principle suffers from the impossibility to assess damage done to unborn generations. As to neutrality, Bothe argues that ‘[t]he measure of permissible impact on neutral territory is [...] the normal peacetime rules relating to trans-frontier pollution’<sup>[14]</sup>.

With regard to non-international armed conflicts, in the absence of a specific provision, the only protection for the natural environment comes indirectly from art 14 (which protects the objects indispensable to the survival of the civilian population) and from art 15 (prohibition to attack works and installations containing dangerous forces) of the 1977 Additional Protocol II. Of course, the principles of distinction and proportionality would also play an important role. Furthermore, as the ICTY pointed

out, 'the gradual [customary] extension to internal armed conflict of rules and principles concerning international wars has also occurred as regards means and methods of warfare', covering areas such as, *inter alia*, the protection of civilian objects and the prohibition of weapons proscribed in international conflicts <sup>[15]</sup>.

Finally, the law of peace, namely environmental law treaties, would continue to apply to civil strife, unless the party withdraws from the treaty or there is a conventional clause providing for treaty suspension in the event of national emergencies and this clause is invoked <sup>[16]</sup>.

### 2.3 Is Ecocide a War Crime?

Apart from generating State responsibility does the violation of the rules specifically protecting the natural environment in warfare also entail individual criminal responsibility? Nothing in Additional Protocol I seems to suggest that the violation of arts 35(3) or 55 amounts to a grave breach. However, as Schmitt notes, the mere fact that an offense is not a grave breach [...] does not preclude prosecution; it only means that the heightened enforcement regime set forth for grave breaches does not apply. The question, however is whether or not the violation of arts 35(3) and 55 entails individual criminal responsibility at all. The ICTY, in its 1995 *Tadić* Appeals Decision (Jurisdiction), referred to the Nuremberg International Military Tribunal argue that a finding of individual criminal responsibility is not barred by the absence of treaty provisions on punishment of breaches <sup>[17]</sup>.

Apart from individual criminal responsibility directly arising from the violation of arts 35(3) and 55 of Additional Protocol I some grave breaches of the Geneva Conventions and of Additional Protocol I could also cover environmental damage in warfare, namely the extensive destruction and appropriation of property not justified by military necessity and carried out unlawfully and wantonly, the launching of indiscriminate attacks affecting civilian objects in the knowledge that such attack will cause excessive damage to them, and launching an attack against works and installations containing dangerous forces <sup>[18]</sup>.

In the ICC Statute, apart from art 8(2) (b) (iv), other war crimes that might also apply to environmental warfare are the extensive destruction of property not justified by military necessity and carried out unlawfully and wantonly, the intentional attacks against civilian objects, and the intentional launch of an attack in the knowledge that it will cause damage to civilian objects clearly excessive in relation to the concrete and direct overall military advantage anticipated. As to war crimes committed in a non-international armed conflict, in the absence of a provision expressly criminalising damage to the natural environment, the only one that could be relevant is the destruction of property of an adversary not imperatively demanded by the necessities of the conflict [art 8(2) (e) (xii)] <sup>[19]</sup>.

### 3. The Law of Peace

It is a truism that International Environmental Law has enormously developed since the late 1960s. The increased environmental awareness of the civil society and the global problems faced by the planet have caused a significant rise in the number of general and particularised rules aimed to tackle environmental pollution and habitat conservation, which is not possible to comprehensively analyse here. If numerous environmental treaties are now in force, only a few general customary principles have gradually evolved. To our purposes, the most relevant one is that recalled by the ICJ in the *Nuclear Weapons* Advisory Opinion: the existence of the general obligation on states to ensure that activities within their jurisdiction and control respect the environment of other states, or of areas beyond national control, is now of the corpus of international law relating to the environment <sup>[20]</sup>.

#### 3.1 The Applicability of International Environmental Law 'Treaties in Time of Armed Conflict

It is unclear whether international environmental law treaties continue to apply in time of armed conflict. In the *Nuclear Weapons Advisory Opinion*, the ICJ itself avoided giving a clear answer to the problem. According to France and the United States, multilateral environment law treaties are not applicable in war, while the opposite argument was made by the Solomon Islands. The US position seems however to be ambiguous, as the 2007 US Operational Law Handbook provides that the principles of international law derived from established principles of humanity, and from the dictates of public conscience' include 'protections established by treaties and customary law that protect the environment during periods of peace (if not abrogated by a condition of armed conflict) <sup>[21]</sup>.

The treaty relations between belligerents *inter se* and between belligerents and neutral States must be dealt with separately. With regard to the latter, treaty obligations remain generally unaffected by hostilities. According to the 1994 ICRC Guidelines, obligations relating to the protection of the environment towards States not party to an armed conflict (eg. neighboring States) and in relation to areas beyond the limits of national jurisdiction [...] are not affected by the existence of the armed conflict to the extent that they are not inconsistent with the applicable law of armed conflict. As a general rule, thus, the relations between belligerent and neutral States continue to be governed by the laws applicable in peacetime and by the law of neutrality <sup>[22]</sup>.

#### 4. Soft Law

Finally several non-binding instruments also deal with the protection of the environment in time of armed conflict. Principle 26 of the 1972 Stockholm Declaration on the Human Environment provides that man and his environment must be spared the effects of nuclear weapons and all other means of mass destruction. The

1982 World Charter for Nature states that '[n]ature shall be secured against degradation caused by warfare or other hostile activities and that 'military activities damaging to nature shall be avoided' (paras 5 and 20). The 1992 Rio Declaration on Environment and Development points out that '[w]arfare is inherently destructive of sustainable development' and that '[s]tates shall therefore respect international law providing protection for the environment in time of armed conflict and co-operate in its further development, as necessary' (Principle 24) [23]. According to the Agenda 21 adopted at the 1992 Rio Conference, '[m]easures in accordance with international law should be considered to address, in times of armed conflict, large-scale destruction of the environment that cannot be justified under international law'. The practical importance of the above mentioned documents is limited by their non-binding character and their vagueness. As observed by the ICJ in the *Nuclear Weapons* Advisory Opinion, however, at least General Assembly resolutions 'can, in certain circumstances, provide evidence important for establishing the existence of a rule or the emergence of an *opinion juris* [24].

### 5. Conclusion

It is a fact that armed conflicts often cause environmental destruction and that the depletion of the natural environment caused by war is likely to cause further wars. Law might play a role in breaking this vicious circle. However, the existing rules are clearly not adequate to protect the ecosystem from the negative effects of modern warfare. The few provisions specifically addressing the natural environment have a limited practical relevance, as they prohibit only a very high degree of damage or they concern exclusively certain types of weapons. It is clear that the current law needs to be amended [25].

### 6. Reference

1. Research Scholar, Department of Laws, Guru Nanak Dev University, Amritsar.  
The Commentary to Art. 55 of the Additional Protocol I defines 'natural environment' as 'the biological environment in which a population is living' and 'includes forests and other vegetation mentioned in the Convention of 10 October 1980 on Prohibitions or Restrictions on the Use of Certain Conventional Weapons, as well as fauna, flora, and other biological or climatic elements'. Claude Pilloud and Jean Pictet, 'Article 55,' in Commentary on the Additional Protocols of to the Geneva Conventions of 12 August 1949, Yves Sandoz, Christophe Swinarski, and Bruno Zimmermann (eds), Geneva: ICRC/Martinus Nijhoff Publishers, 1977-1987, 662.
2. Adam Roberts, 'Failures in Protecting the Environment in the Gulf War,' in *The Gulf War 1990-91 in International English Law*, Peter Rowe (ed), London and New York: Routledge; London: Sweet and Maxwell, 1990-1993, 91-114.
3. UNER Lebanon-Post-Conflict Environmental Assessment, 2007, 10:42-49, 136-137.
4. The distinction between direct and indirect impacts is contained in UNEP, *Sudan-Post-Conflict Environmental Assessment*, op cit (note 13), 88.
5. Adam Roberts and Richard Guelff, *Documents on the Laws of War*, Oxford; Oxford University Press. 2000, 727.
6. Michael N Schmitt, 'Green War: An Assessment of the Environmental Law of International Armed Conflict,' *Yale Journal of International Law*, 1997; 22:1-109, 10-11.
7. Roberts and Guelff, *Documents on the Laws of War*, op cit (note 21), 408.
8. According to the 2007 US Operational Law Handbook. [t]he application of the ENMOD Convention is limited, as it only bans efforts to manipulate the environment with extremely advanced technology. *Operational Law Handbook*, John Rawcliffe, ed. JA. 2007, 231,422,
9. Incendiary weapons' are defined in art 1(1) of the Protocol and include 'any weapon or ammunition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or a combination thereof, produced by a chemical reaction of a substance delivered on the target'. Accordingly, the definition, although broad, does not encompass munitions that have only incidental incendiary effects, such as illuminants, and munitions designed to combine penetration, blast or fragmentation effects with an additional incendiary effect where the incendiary effect is not designed to cause injury to persons but to be used against military objectives, art 1(1) (b).
10. ICRC Study p Dinstein, *The Conduct of Hostilities Under the Law of International Armed Conflict*, op cit (note 29), 1, 187-288.
11. Article 22 of the Hague Regulations Respecting the Laws and Customs of War on Land, annexed to the 1907 Hague Convention IV.
12. ICRC Study, 2(1), 183-184.
13. Richard Falk, 'The Environmental Law of War: An Introduction,' in *Environmental Protection and the Law of War: A 'Fifth Geneva' Convention on the Protection of the Environment in Time of Armed Conflict*, Glen Plant (ed), London and New York: Belhaven Press, 1992, 79.
14. Bothe, *The Protection of the Environment in Times of Armed Conflict*, op cit (note 18), 60.
15. *Prosecutor v Tadić*, IT-94-1, Appeals Chamber, & With regard to weapons, in particular, the ICTY argued that 'elementary considerations of humanity and common sense make it preposterous that the use by States of weapons prohibited in armed conflicts between themselves be allowed when States try to put down rebellion by their own nationals on their own territory. What is inhumane, and consequently proscribed, in international wars, cannot but be inhumane and inadmissible in civil strife' para, 1995; 119-127.
16. Wil D Verwey, 'Protection of the Environment in Times of Armed Conflict: In Search of New Legal

- Perspective,' Leiden Journal of International Law. 1995; 8:7-40, 29.
17. Ibid
  18. Article 85(3) of Additional Protocol I.
  19. Article 8(2) (a) (iv), 8(2) (b) (ii) and 8(2) (b) (iv).
  20. Paragraph 29. The point was reaffirmed in the Gabeikovo-Nagymaros case (*Hungry v Slovakia*) of ICJ Reports, para, 1997, 53.
  21. Operational Law Handbook, Rawcliffe, (ed), op cit (note 47), 233.
  22. According to Schmitt, for example, 'a presumption of survivability attaches to peacetime environmental treaties, absent either de facto incompatibility with a state of conflict or express treaty provisions providing for termination'. Schmitt, *Green War: An Assessment of the Environmental Law of International Armed Conflict*, op cit (note 46), p 41. However, the author concludes that 'despite some useful provisions (and even if consensus could be reached on its applicability), peacetime environmental law contributes little to wartime environmental protection'. Ibid, 50.
  23. Ibid, 17-23.
  24. ICJ Reports, para 1996; 70.
  25. Verwey, Protection of the Environment in Times of Armed Conflict, op cit (note 85), p 21.