

## Chapter XXXVI

# Comment: Protection of the Environment in Times of Armed Conflict—Do We Need Additional Rules?

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**T**he purpose of this paper<sup>†</sup> is to present and evaluate the major arguments for and against the views of those who hold, with, *e.g.*, the U.S. Government and the International Committee of the Red Cross (ICRC),<sup>1</sup> that there is no need to provide for supplementary rules ensuring (a more effective) protection of the environment when weapons speak in the chorus of politics, and to explore ways and means for reinforcing and supplementing existing rules should the conclusion be reached that the protection currently provided by these rules is not adequate.<sup>2</sup>

Accordingly, attention will successively be focused on the following main aspects of this currently “hot issue:”

- (1) the relevant rules pertaining to international armed conflict, including those governing relations between belligerents<sup>3</sup> and those governing relations between belligerents and third (neutral) States;
- (2) the relevant rules pertaining to non-international armed conflict; and
- (3) conclusions on the protective adequacy of existing law and the possible need of additional rules.

### I. International Armed Conflict

#### A. Relations Between Belligerents

##### 1. Treaty rules explicitly related to environment protection.

The most prominent provisions dealing explicitly with environment protection in times of international armed conflict can be found in Protocol I Additional to the 1949 Geneva Conventions.<sup>4</sup> Article 35, paragraph 3, stipulates:

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<sup>†</sup> This paper is composed of core sections, relevant to this Symposium, of a more extended study appearing in the *Leiden Journal of International Law*, vol. I, no. 1 (1995).

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[i]t is prohibited to employ methods of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.

The following observations on this provision may be pertinent.

a. The terms “widespread, long-term and severe” have not been defined. At the conference where the Protocol was drafted, agreement was merely reached on the clarification of the term “long-term,” which is to be understood as referring to “a period of at least ten years.”<sup>5</sup> Since the meaning of the two other terms has not been clarified at all, no authoritative answer can be given to the question of when and where any specific damage inflicted upon the natural environment should be deemed to violate the terms of this provision.

b. The triple standard put forward in this position is a cumulative one, which results from the use of the word “and:” damage has to be widespread *and* long-term *and* severe in order to be prohibited. Thus, even the most widespread and long-term damage which, for some reason, would not be considered to be also severe, would not be forbidden.

c. According to Bothe, Article 35, paragraph 3, is not meant to lower, but to supplement the traditional standard of protection provided under general rules of the law of warfare. Thus, this provision would:

prohibit causing [widespread, long-term and severe] damage to the environment even where the environment constitutes a military objective or where the damage to the environment may be considered as not being excessive in relation to the military advantage anticipated.<sup>6</sup>

However, this is not at all certain. By reference to the general principle of law, which also applies to the law of warfare, that *lex specialis* prevails over *lex generalis*,<sup>7</sup> the provision may, in practice, very well result in lowering traditional standards of protection, *i.e.*, the cumulative triple standard may now render permissible what before would have been forbidden by reference to general legality requirements like that of proportionality and the prohibition of unnecessary suffering. Now, suffering may, from an environment protection point of view, no longer be considered “excessive” or “unnecessary” by parties to the Protocol, as long as it is not objectively clear that it is severe and widespread and long-term. Thus, the triple standard may indeed nullify the potential environment-protective impact that such general legality requirements may have had so far. And again, in the absence of an authoritative interpretation of the triple standard, no conclusive evidence can be provided as to when this is the case.

d. The provision certainly does not purport to prohibit all activities which may be harmful to the environment. Only those actions are forbidden which cause

damage, presumably visible, recognizable damage. This observation is to be understood in connection with the following one.

e. The provision merely prohibits methods or means of warfare “which are intended, or may be expected,” to cause damage, *i.e.*, which are *known* to cause damage. Observations d. and e. alone tend to render the provision a rather meagre one in view of the following considerations. Firstly, potential harm may occur which is not directly visible or objectively demonstrable in the sense of causing discernible or perceptible damage. Secondly, many interactive natural processes have not yet been (fully) understood, resulting in the fact that harmful effects which are not (yet) recognized or expected may occur now or in the future. Only quite recently has science become able to demonstrate that even apparently restricted, relatively short-term and seemingly insignificant forms of environmental impact may subsequently turn out to have triggered serious or significant ecological disruption.

f. In this regard, mention should also be made of Article II, paragraph 4, of Protocol III annexed to the Inhumane Weapons Convention,<sup>8</sup> which prohibits the indiscriminate use of incendiary weapons. This Protocol recalls Article 35, paragraph 3, in its preamble and could, therefore, be considered as building on it. The provision in question reads:

[i]t is prohibited 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.

However, this provision’s scope is very restrictive, since—aside from the limitations imposed by Additional Protocol I itself—it pertains to only one specific type of weapon. In addition, the prohibition stipulated here is a very conditional one, since it only protects parts or objects of the environment which are not used for military purposes.

Another relevant provision of Additional Protocol I is Article 55, paragraph 1, which reads:

[c]are 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>9</sup>

The term “includes” might seem to suggest that this provision would prohibit more than what is mentioned there explicitly. However, it has never been claimed by the ICRC or the State parties that this is actually the case or that this Article would purport to prohibit more than Article 35, paragraph 3. On the contrary, the

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last phrase of this provision entails an additional limitation to the general applicability of Additional Protocol I: it reflects a crucial disadvantage, from the perspective of environment protection efforts, of 'Geneva' law, namely that this body of law is essentially man-protection focused, that it is essentially anthropocentric (*i.e.*, that it does not, in principle, prohibit methods or means of warfare which do not at least *also* inflict damage upon human beings directly).<sup>10</sup> In addition, Article 55, paragraph 1, does not apply to means and methods of warfare affecting non-civilian parts, objects or assets of the environment, even if they would cause triple standard damage to them, since this provision ranks under Part IV, Chapter III, which is entitled "Civilian Objects." Identifying affected parts, objects or assets of the environment as a military objective or as an object of military significance would suffice to exclude the applicability of Article 55.

The third relevant provision of Additional Protocol I, Article 55, paragraph 2, reads:

[a]ttacks against the natural environment by way of reprisals are prohibited.

Useful as this provision may be in itself, it does not cover military reprisals not directed on purpose *against* the environment as the object of attack, *i.e.*, it does not prohibit corollary environmental damage occurring in the course of acts of reprisal directed *against* objects other than the environment itself. In addition, by reference to the principles of interpretation *in dubio mitius*, *expressio unius est exclusio alterius*, and *eiusdem generis*, in combination, the prohibitive range of this provision would also appear to be confined to damage meeting the conditions of the triple standard.<sup>11</sup>

In addition, the following observations on the environment-protective merits of the relevant provisions of Additional Protocol I in general are submitted here:

(1) the terminology chosen in the above-mentioned provisions reflects a kind of thinking prevailing at a time when environmental consciousness in connection with armed conflict had just begun to develop, in the aftermath of the Vietnam War.<sup>12</sup> This observation alone tends to render them obsolete;

(2) the terminology chosen was clearly meant to exculpate, not to condemn retroactively the kind of environmental damage—no matter how serious, from a retrospective point of view, this may have been—inflicted by U.S. armed forces in Vietnam.<sup>13</sup>

Also, this observation significantly confines their prohibitive scope;

(3) the afore-mentioned anthropocentric nature of 'Geneva' law, Additional Protocol I included, cannot do justice to the need of environment protection as a primary value in itself, as one begins to recognize it today;<sup>14</sup>

(4) the consequently archaic nature of its provisions—if a bit of an overstatement may be forgiven—is aptly illustrated, firstly, by the fact that the ICRC Draft Provisions made no reference to environment protection at all,<sup>15</sup> and, secondly, by the fact that Additional Protocol I, Article 85, paragraph 3, does not include the infliction of widespread, long-term and severe damage to the environment among the “grave breaches” which require punishment or extradition of offenders;<sup>16</sup> and

(5) it is generally agreed, also by the ICRC itself,<sup>17</sup> that the provisions of Additional Protocol I have not yet developed into generally binding rules of customary international law, since too many States have not become party to it.

Herewith, we turn to another potentially relevant treaty, the Paris Convention Concerning the Protection of the World Cultural and Natural Heritage.<sup>18</sup> The phrase “potentially relevant” is used here because this instrument is relevant under the present section only if the conclusion drawn by the Group of Senior Legal Experts of I.U.C.N. at its Amsterdam meeting in December 1992 is correct, namely that this Convention, concluded for times of peace, is also applicable in times of armed conflict.<sup>19</sup> It should also be observed that this Convention merely provides protection for natural objects identified and recognized as “natural heritage sites.”

The next potentially relevant treaty is the 1925 Geneva Gas Protocol. The better view appears to be, however, that the Gas Protocol was never intended to protect the environment, and that even the employment of herbicides and defoliant agents of the types used during the Vietnam War would only be prohibited to the extent that they can be proven to be toxic to human beings and to actually cause human casualties.<sup>20</sup>

The next treaty, the Environmental Modification Techniques Convention (ENMOD Convention),<sup>21</sup> stipulates in Article 1:

[e]ach State Party to this Convention undertakes not to engage 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.

According to Article 2, the term “environmental modification techniques” 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, hydrosphere and atmosphere, or outer space”. In this regard, the (non-exhaustive) list of relevant phenomena includes:

[e]arthquakes; 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 the climate patterns; changes in ocean currents; changes in the state of the ozone layer; and changes in the state of the ionosphere.

A first preliminary observation pertaining to, again, merely the potential relevance of the ENMOD Convention, is that it is quite often - but incorrectly so - thought that this instrument would prohibit the abuse of the environment as a weapon. Recently, the same mistake was also made when the so-called "Jordanian item" was put on the agenda of the Sixth Committee of the U.N. General Assembly under the title "Exploitation of the Environment as a Weapon in Times of Armed Conflict."<sup>22</sup> However, not exploitation of the environment, let alone the environment itself, is the weapon: the weapon is the manipulated natural process, which may, but does not have to, affect the environment, *i.e.*, the manipulation of a natural process as an instrument of geophysical warfare.

A second preliminary observation—one which, surprisingly enough, also appears to have escaped the attention of authors on this subject—is that it has incorrectly become commonplace to rank the ENMOD Convention among the 'environment protection treaties.' However, the ENMOD Convention is *not* an environment protection agreement; it is not intended to protect the environment or parts thereof. It is meant to prevent "destruction, damage or injury to *any other State Party*."

Presuming, however, that this phrase may include environmental destruction, damage or injury within any State party's territory—but this is no more than a presumption indeed—the word "or" constitutes a clear improvement with respect to the word "and" as it is used in Additional Protocol I: it transforms the triple standard into a non-cumulative one, thereby expanding its prohibitive range.

The same applies to the interpretation of the term "long-lasting," which, for the purposes of this Convention, according to a C.C.D. Understanding of 1976,<sup>23</sup> means: "[a] period of months, or approximately a season" (in contrast to a period of "at least ten years" in the case of Additional Protocol I). In addition, according to the same Understanding, the term "widespread" is supposed to be equivalent to "an area on the scale of several hundred square kilometers," while the term "severe" should be interpreted as: "involving serious or significant disruption or harm to human life, natural and economic resources or other assets."

One may presume—but, once more, merely presume—that "serious or significant disruption or harm" (whatever this may mean) includes environmental damage, by reference to the phrase "natural . . . resources or other assets." If this is correct, the word "or" in this phrase would again constitute an additional improvement with respect to the word "and" in the final phrase of Additional Protocol I, Article 55, paragraph 1.

The potential applicability of this Convention is subject, in any case, to the following limitations:

- (1) it merely protects parts, objects or assets of the environment *within* the territory of State parties to the Convention, as follows from the final phrase of Article 1;

(2) just as in the case of Additional Protocol I, the drafting history and the terminology chosen suggest that the Convention was apparently not meant to cover those means and methods of warfare causing environmental harm which appeared to be militarily useful during the Vietnam War;<sup>24</sup>

(3) indeed, the negotiations focused on the threat of science fiction-like future technological developments.<sup>25</sup>

(4) many less high-tech developed States, in particular developing countries—which certainly also have the capacity to cause serious environmental harm by employing simple, more traditional means and methods such as arson—have not become parties;<sup>26</sup> and

(5) finally, the Convention's prohibitive phrases are vague, full of loopholes, and leave too much room for evasive interpretation (apart from the fact that they were not intended to prohibit practically employed and tested natural process-manipulating practices anyway).

Brief reference may finally be made here, below the level of binding treaty law, to the rather rare provisions on environment protection in times of armed conflict in supportive recommendatory I.G.O. documents. These include the Stockholm Declaration, Article 26 of which stipulates that “[m]an and his environment must be spared the effects of nuclear and other means of mass destruction,”<sup>27</sup> and the World Charter of Nature, Article 5 of which states that “[n]ature shall be secured against degradation caused by warfare or other hostile activities.”<sup>28</sup> However, such provisions are non-binding, invariably abstract and vague, and their practical impact can only be marginal at best.

## 2. Treaty rules potentially related to environment protection.

Under the present section we confine ourselves to some observations on relatively concrete treaty provisions on *jus in bello* of a general character.<sup>29</sup>

In both the ‘Hague’ and ‘Geneva’ Conventions, several general provisions are found from which an indirect, corollary, environment-protective effect might emanate. They range from provisions prohibiting the unnecessary destruction of enemy property<sup>30</sup> to more specific provisions like those preventing starvation,<sup>31</sup> those prohibiting attacks on objects indispensable to the survival of the civilian population,<sup>32</sup> and those condemning attacks against dikes, dams, and nuclear power plants.<sup>33</sup> At first sight, such provisions might seem to lend themselves to unconventional interpretations encompassing an indirect protection of parts, objects or assets of the environment in one way or another.

However, under analysis it soon appears that all these provisions suffer from one or several environment-protective limitations or setbacks.

a. Many of them are merely conditionally prohibitive, since they bow—as part of the treaties in which they are found—to “necessities of war.”<sup>34</sup>

b. Others are only conditionally prohibitive to the extent that they do not protect “military objectives” or “objects of military importance” (concepts which are interpretable at will by belligerents themselves).<sup>35</sup>

c. Again, others merely apply in situations where “severe losses” are directly inflicted upon the civilian population (likewise, a condition interpretable at random by belligerents, which at the same time entails a severe obstacle for their applicability to environment protection as a result of their anthropocentric orientation).<sup>36</sup>

d. As part of the ‘Hague’ or ‘Geneva’ law instruments, their applicability is limited further by the contractual *inter partes* principle governing treaty law in general, as well as, in the case of the ‘Hague’ law, by the *si omnes* clause which is found in, for instance, The Hague Land War Convention to which The Hague Regulations are annexed.<sup>37</sup>

e. The (old) ‘Hague’ law merely covers “war,” not international armed conflicts falling short of “war.”<sup>38</sup>

f. To the extent that they may seem to lend themselves to an environment-protective connotation—as in cases of the protection from starvation or destruction of dikes, dams or nuclear plants—they would merely indirectly protect the environment, prohibit only very specific military activities, and/or result in the protection of only particular pieces of the environment protection cake.

g. The most important conditioning factor is, however, that the question arises whether it is justified at all to inject such provisions with an environment protection-oriented meaning. Establishing a link between them and the modern objective of environment protection is, both factually and legally, disputable at best: all the ‘Hague’ and ‘Geneva’ Conventions and Protocols were drafted and entered into force at “pre-ecological” times, *i.e.*, at times when environmental concern and ecological awareness were virtually non-existent, in particular with respect to armed conflict. As Falk has correctly observed: “[a]ll of the law of war was drafted and evolved in a pre-ecological frame of mind.”<sup>39</sup> Consequently, any effort aimed at a retroactive *hineininterpretieren* of an environmental connotation into such old-fashioned, general treaty provisions, is bound to be a tricky interpretative exercise, which cannot be performed without running the risk of provoking substantial criticism—an observation which, at the same time, exposes its questionable evidential value.

3. Basic principles of customary *jus in bello* potentially related to environment protection.

Under this section, the question arises whether—and, if so, to what extent—fundamental principles of generally binding customary *jus in bello* may

be, or may have become, environmentally relevant. In other words, the question to what extent prescriptions like the requirement of proportionality, non-excessive suffering, discrimination between military objectives and civilian objects, inviolability of civilian targets as primary objects of attack, and the “Martens Clause” may be, or may have become, endowed with an environment-protective meaning.<sup>40</sup>

Today, the thesis is adhered to by some that the “Martens Clause,” for instance, would certainly have become relevant to the present topic. In its modern form the Clause reads:

[c]ivilians and combatants remain under the protection and authority of the principles of international law derived from established custom, from the principles of humanity and from the dictates of public conscience.<sup>41</sup>

The proposition, then, would be that today “the dictates of public conscience,” in particular, should be interpreted as to include the requirement of avoiding at least unnecessary damage to the environment, by reference to today’s widespread environmental awareness and concern throughout society.<sup>42</sup>

In this context, the following observations may be relevant.

a. Subjecting principles of customary law to a modern, liberal interpretation, *i.e.*, a time-related interpretation which takes account of changing and emerging values cherished by society, may be less objectionable than it would be in the case of treaty law. In the former case, State parties cannot claim so easily that they have accepted a precise obligation as formulated in a text, and that “that’s it.” Non-written customary law may indeed lend itself more easily to flexible and dynamic interpretation.

b. If this view is correct, it implies, with respect to environment protection, that the legal experts assembled at the 1991 Ottawa Conference would have been justified to observe—justified as far as customary law is concerned, that is—that “the application and development of the law of armed conflict have to take account of the evolution of environmental concerns generally.”<sup>43</sup>

c. Relying on principles of customary law has the additional advantage, of course, that these are not conditioned by contractual *inter partes* limitations and *si omnes* clauses, since they are generally binding.

On the other hand, however, it should not be forgotten that customary principles of the law of armed conflict entail a number of intrinsic disadvantages and uncertainties. Like all principles of customary law, their contents are abstract and vague, and it is difficult to achieve agreement on specific and concrete entitlements or obligations to be derived from them.<sup>44</sup> In addition, in the case of customary *jus in bello*, belligerents may claim that they have arisen from identical treaty provisions—whatever the International Court of Justice may have said about the independent lives of treaty rules and customary principles arising from

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them<sup>45</sup> and that, therefore, they would not concede to unlinking their contents from those of their conventional origins. Thus, even in the case of basic customary principles of the law of armed conflict, efforts to induce them with an environment-protective element will not be commonly appreciated, either in governmental or in academic circles.

Be that as it may, the experts assembled in 1992 in I.U.C.N.'s Workshop on Protected Areas, War and Civil Strife significantly appeared to be less assured of the correctness of the claim discussed here than their colleagues assembled a year earlier at the Ottawa Conference. The former group pleaded for improved international agreements which should include, among other rules to be newly adopted, a provision embodying.

[r]ecognition that the accepted limits to the right of belligerents to choose means and methods of armed conflict must be interpreted to include the protection of the environment for present and future generations.<sup>46</sup>

4. (Non)-applicability of environment protection treaties concluded for times of peace in times of international armed conflict.

In many respects, the reply to the question whether, in times of armed conflict among belligerents, treaties concluded for times of peace have to be applied or may be terminated or suspended, is uncertain. Significantly, the question was circumvented in the Vienna Convention on the Law of Treaties, Article 73 of which merely provides that its provisions "shall not prejudice any question that may arise in regard to a treaty [ . . . ] from the outbreak of hostilities between States".<sup>47</sup>

This is not the appropriate place to enter into an in-depth analysis of the many problems and uncertainties involved in this matter in general. May it suffice here, therefore, to confine ourselves to the following basic observations.

According to the ancient theory on the effect of the outbreak of hostilities on the continued validity or applicability of treaties, the answer was simple: they did not survive. Indeed, "the farther back [into history] we go, the more sweeping and indiscriminating are the assertions that all treaties are abrogated by the outbreak of war between the contracting parties".<sup>48</sup> However, with the passage of time it was recognized that there could or should be an increasing number of exceptions to this proposition, although maybe it is not so much the rule which has changed as the nature of the treaties to which it applies.<sup>49</sup> Actually, in a nutshell, it seems to be justified to assume that the following synthesis of the modern theory is correct, although it must be recognized that substantial discrepancy in State practice, jurisprudence, and doctrine continues to prevail.<sup>50</sup>

a. Treaties especially concluded for armed conflict as well as dispositive treaties (like border treaties) can neither be annulled nor suspended.

b. Treaties of a political nature which are not intended “to set up a permanent condition of things,” to which the belligerents alone are parties, will be (considered as being) annulled.<sup>51</sup>

c. With respect to all other treaties, no automatic abrogation takes place *ipso facto*, their abrogation or suspension being dependent on both the intention of belligerents and the nature of the treaty in question.

d. This implies that all treaties, except for those mentioned under a. and b. *supra*, to which the belligerents alone are parties, are not automatically—but can be—annulled or suspended as belligerents prefer.<sup>52</sup>

e. Multilateral treaties, to which both belligerents and neutral States are parties, cannot be annulled, but may be suspended as between the belligerents. This even applies, next to “contract-treaties,” to “law-making treaties,” in case “the necessities of war compel them to do so.”<sup>53</sup>

However, even if this synthesis may be correct, a lot of uncertainties remain, taking the following considerations into account. Firstly, most authors merely refer to the effects of “war” on treaty relations, passing by the question whether the above-mentioned, or other, rules would also apply to international armed conflict falling short of war. Akehurst’s remark that “unlike war, hostilities falling short of war do not generally terminate treaties between the hostile States”<sup>54</sup> merely begs the question, since the question today is no longer whether they are terminated, but whether they may be suspended. Secondly, no comments can be found on the question whether the right to suspend treaties as between belligerents should also be presumed to exist if suspension may impair the enjoyment of entitlements under these treaties by third (neutral) States.

The last-mentioned observation brings us back to the topic of environment protection: can an environment protection treaty, concluded for peace-time relations, to which both belligerents and neutral States are parties, be suspended as between belligerents if suspension may, but is not bound to, impair the full enjoyment of environment protection benefits by neutral States parties to that treaty?

The view, advocated by some governments<sup>55</sup> and experts,<sup>56</sup> that treaties relating to environment protection should not be allowed to be suspended, actually still belongs to the realm of *jus de lege ferenda* rather than to that of *lex lata*. Furthermore, the conspicuous fact that not one single environment protection agreement concluded for times of peace embodies a provision ensuring its continued applicability in times of international armed conflict,<sup>57</sup> only serves to increase the uncertainty about the potential applicability of “peace-time” environment protection treaties in times of international armed conflict.

## **B. Relations between belligerents and third (neutral) States**

The treaties outlining the law of neutrality do not embody any provision related *expressis verbis* to environment protection. In this regard, one could merely refer to

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general provisions like the respective Articles 1 of Hague Conventions V and XIII,<sup>58</sup> according to which “the territory of neutral Powers is inviolable,” and belligerents are bound “to abstain, in neutral territory or neutral waters, from any act which would, if knowingly permitted by any Power, constitute a violation of neutrality.”<sup>59</sup>

But also in this case, it should be recalled that these treaties, concluded around the turn of the century, were drafted at a time when ecological awareness was non-existent. Indeed, it was

far beyond the comprehension of those engaged in the 1899 and 1907 legislative process that the environment as such could be made the object of an attack [ . . . ] or might incur long-term and significant damage resulting from the use of conventional weapon-systems.<sup>60</sup>

Consequently, efforts aimed at a retroactive induction of an environmental connotation into their rules are disputable.<sup>61</sup> In addition, one should realize that even if such a dynamic interpretation were justifiable, it would merely concern the prohibition of belligerent acts which cause *demonstrable* damage,<sup>62</sup> inflicted *inside* the territory of neutral States.

As regards treaties concluded between a belligerent and neutral States, it follows from the principles of the law of neutrality that the law of peace, including treaties relating to environment protection, continues to apply. As a question of principle, indeed “there is no reason why such treaties should be affected in any way by the war,”<sup>63</sup> let alone by hostilities falling short of war. However, as explained above, belligerents may, if the necessities of armed conflict so require, suspend the applicability of multilateral treaties *inter se*. Nonetheless, this would presumably not be the case if such suspension *inter se* would impair the enjoyment of rights under these treaties by neutral States, albeit that this effect must be discernible or demonstrable, which, in the case of environment protection treaties, may not always be possible at the present state of scientific knowledge.<sup>64</sup>

Therefore, as far as—but only as far as—demonstrable damage is concerned, prohibitions arising from environment protection treaties to which both belligerents and neutral States are parties would continue to apply. They embody prohibitions to cause transboundary environmental damage, prohibitions to cause damage to particular parts, objects or assets of the environment, and prohibitions to employ specific toxic compounds or disperse particular toxic waste. However, before jumping to promising conclusions in this context, one should take the following observations into account.

1. Rules aimed at protecting the environment *in general* are only found in supportive non-binding instruments like the Stockholm Declaration, the World Charter of Nature, and the Rio Declaration.<sup>65</sup> Treaties concluded for times of peace only protect *particular* parts, objects or assets of the environment—like the ozone

layer, particular territories, seas or ocean regions, or particular species—or prohibit the use or disposal of *particular* toxic substances.

2. As we have seen, the protective merits of these treaties in times of international armed conflict are far from clear and indisputable. Significantly, the example of the new Law of the Sea Convention does not provide any guidelines on how to solve problems arising from the apparent contradiction between, on the one hand, the right of belligerents to use the oceans for military purposes and, on the other, its rules on the prevention, reduction, and control of marine pollution.<sup>66</sup>

In conclusion, it would certainly go too far to uphold the thesis that the law of peace and the law of neutrality, as far as they may be relevant to environment protection in the relationship between belligerents and neutral States, would, by any objective standard, provide reliable protection of the environment in times of international armed conflict.

## II. Non-international Armed Conflict

Nothing much innovative can be said on this aspect of the issue, in view of the following observations. There is simply no provision, either in the 'Hague' and 'Geneva' law, or elsewhere, specifically dealing with environment protection in the course of non-international armed conflict.<sup>67</sup> Additional Protocol II of 1977, which deals with non-international armed conflict, does not even mention the subject. Indeed, a proposal submitted to the Diplomatic Conference to introduce into Protocol II a provision analogous to Article 35, paragraph 3, and Article 55 of Protocol I was explicitly rejected.<sup>68</sup>

Thus, only the prohibition of attacks upon installations containing dangerous forces, the prohibition of starvation of civilians, and other provisions aimed at protecting the civilian population could be indirectly relevant, but the same relativizing observations as made above with respect to analogous provisions pertaining to international armed conflict apply here.

Be that as it may, for governments engaged in a non-international armed conflict, environment protection rules belonging to the law of peace continue to apply—but only those. As regards insurgent factions engaged in such a conflict, there is nothing to be gained or lost from existing rules of law in this respect, apart from the potential applicability of the above-mentioned non-specific provisions of Additional Protocol I—their applicability being dependent on their having entered into force for both the government involved (by ratification) and the insurgents (by having made a declaration to observe them)—international law does not address insurgents at all.

### III. Conclusions on the Protective Merits of Existing Law

It seems that one cannot but come to the conclusion that protection of the environment in times of armed conflict is insufficiently assured by existing rules of international law.

1. The relevant principles and rules of *jus in bello*, both in treaties and customary law, provide for partial and defective protection only, and to the extent that they do provide protection, substantial disagreement about their correct interpretation prevails.

2. Belligerents enjoy substantial freedom to suspend the operation of relevant treaties belonging to the law of peace, to which they are parties, *inter se*.

3. Substantial uncertainty also prevails as regards the possibility of ensuring that belligerents will, in practice, observe their obligation to prevent impairment of neutral States' rights emanating from such treaties as well as customary law.

Actually, even the most optimistic and dynamic interpretation of relevant existing principles and rules could not justify the conclusion that one can be assured that existing law on the protection of the environment in times of international armed conflict is adequate. It can not and will not suffice to continue to rely on calls for a more consistent implementation of existing rules.

Hence, the proposition that additional legislative activity, aimed at ensuring a better protection of the environment in times of armed conflict, should not be called for appears to the present commentator, on closer analysis, not to be tenable.

Amendments of existing rules and adoption of additional ones are indispensable to achieve this purpose.

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#### Notes

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1. U.N. Doc. A/C.6/46, SR. 18 (1991) at 9 and 14; and Morris, *Protection of the Environment in Wartime: The U.N. General Assembly Considers the Need for a New Convention*, 27 Int'l L. 780 (1993).

2. May it suffice, at the outset, just to state for the moment that many authors on the subject take this view.

3. The term "belligerents" is used here as referring to "parties to an international armed conflict", not in the traditional sense of "parties to a war". See also n. 38, *infra*.

4. Protocol I Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, 16 I.L.M. 1391-1441 (1977).

5. Kalshoven, *Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts; the Diplomatic Conference, Geneva, 1974-1977 (Part II)*, 9 Neth. Y.B. Int'l L. 130, n. 56 (1978).

6. Bothe, *The Protection of the Environment in Times of Armed Conflict. Legal Rules, Uncertainty, Deficiencies and Possible Developments* 4, paper submitted at the Ottawa Conference on the Use of the Environment as a Tool of Conventional Warfare (9-12 July 1991).

7. See Green, *The Environment and the Law of Conventional Warfare* 5, n. 11, paper submitted to the Ottawa Conference, n. 6 *supra*.

8. 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 (1981), U.N. Doc. A/CONF.95/15; U.K.T.S. Misc. 23 (1981).

9. Emphasis added.

10. This observation should not be understood as a criticism, but as a fact. Significantly, at the 1991 London Round Table Conference, Gasser, the Legal Adviser to the Directorate of the ICRC, although speaking in his personal capacity, put it this way: “[p]erhaps the ICRC does not look so much at the environment as such but more at the environment in the context of and around human beings. As you know the Geneva Conventions are geared essentially to the protection and safeguarding of human beings in times of armed conflict.” And, after referring to the environmentally relevant provisions of ‘Geneva’ Law, he added: “[t]hese prohibitions protect the environment for *human beings* -when both civilians and combatants are affected”. His additional question: “[b]ut do not most of the serious attacks on the environment inevitably affect mankind?”, should be answered affirmatively, but does not alter the intrinsic limitation of the ‘Geneva’ law addressed here. See Gasser during the London Round Table Session I, in ENVIRONMENTAL PROTECTION AND THE LAW OF WAR: A ‘FIFTH GENEVA’ CONVENTION ON THE PROTECTION OF THE ENVIRONMENT IN TIMES OF ARMED CONFLICT (Plant ed. 1992) at 111. For further comments by the present commentator on this aspect of ‘Geneva’ law, see Verwey, *Protection of the Environment in Times of Armed Conflict: In Search of a New Legal Perspective*, 8 Leiden J. Int’l L. sec. 5 (1995).

11. The principle *in dubio mitius* implies that if the meaning of a term or phrase is ambiguous or at least not entirely clear, that meaning is to be preferred which is the least onerous or involves the least general restrictions for the party assuming an obligation. The principle *eiusdem generis*, which is closely related to the principle *expressio unius est exclusio alterius*, implies that the scope of a non-specific term or phrase is confined by the more restrictive scope of a similar specified term or phrase relating to the same subject matter elsewhere in the same legal instrument. See OPPENHEIM, 1 INTERNATIONAL LAW (Lauterpacht ed. 1974) at 953-54. For an illustrative example of the application of the principle *eiusdem generis* to the law of warfare, in this case implying a restrictive interpretation of the prohibition of the use of chemical weapons under the 1925 Geneva Gas Protocol, see VERWEY, RIOT CONTROL AGENTS AND HERBICIDES IN WAR (1977) at 238-39.

12. See Falk, *The Environmental Law of War: an Introduction*, in ENVIRONMENTAL PROTECTION AND THE LAW OF WAR (Plant ed. 1992) at 86.

13. *Id.*, at 86 *et seq.*

14. See Verwey, *supra* n. 10, section 5.

15. Bouvier, *Protection of the Natural Environment in Time of Armed Conflict*, 285 Int’l Rev. of the Red Cross 574 (1991).

16. See Lijnzaad & Tanja, *Protection of the Environment in Times of Armed Conflict: the Iraq-Kuwait War*, XL Neth. Int’l L. Rev. 181 (1993). See also Kiss, *Les Protocoles Additionnels aux Conventions de Genève de 1977 et la Protection de Biens de l’Environnement*, in *Etudes et Essais sur le Droit International Humanitaire en l’Honneur de Jean Pictet* 186 (1986).

17. U.N. Doc. A/47/328, at 5.

18. Convention Concerning the Protection of the World Cultural and Natural Heritage (1972), 11 I.L.M. 1358 (1972).

19. I.U.C.N./I.C.E.L., *Protection of Cultural and Natural Heritage Sites in Times of Armed Conflict*, 23 Env’t Pol. and L. 259 (1993).

20. See VERWEY, *supra* n. 11, at 73-158, 239 *et seq.*

21. Convention on the Prohibition of the Use of Environmental Modification Techniques (1977), 1108 U.N.T.S. 151. For background information see Juda, *Negotiating a Treaty on Environmental Modification Warfare: The Convention on Environmental Warfare and its Impact Upon Arms Control Negotiations*, 32 Int’l Org. 975 *et seq.* (1978).

22. U.N. Doc. A/46/141 (1991). Subsequently, when introducing the item in the Sixth Committee, Jordan emphasized that the scope of this item should encompass “greater environmental protection, in general, in time of armed conflict”. Hence, the title of the item was later changed, correctly so, into “Protection of the Environment in Times of Armed Conflict”. See U.N. Doc. A/C.6/46/SR.18 (1991).

23. Cf. BOTHE, PARTSCH & SOLF, NEW RULES FOR VICTIMS OF ARMED CONFLICT (1982) at 347.

24. Thus, according to Goldblat, the ENMOD Convention “is only a half-measure because of the conditional character of its prohibitions. It tolerates hostile uses of environmental modification techniques which produce destructive effects below a specified threshold.” See Goldblat, *Legal Protection of the Environment Against the Effects of Military Activities* 22, No. 4 Bulletin of Peace Proposals 5 (1991).

25. See Blix, *Arms Control Treaties Aimed at Reducing the Military Impact on the Environment*, in ESSAYS IN INTERNATIONAL LAW IN HONOUR OF JUDGE MANFRED LACHS (Makarczyk ed. 1984) at 710.

26. See Lijnzaad & Tanja, *supra* n. 16, at 188.

27. Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972), U.N. Doc. A/CONF.48/14.

28. World Charter for Nature (1982), UNGA Res. 37/7.

29. More abstract provisions, like the principle of proportionality, the prohibition of indiscriminate attacks, or the ‘Martens Clause’, which have developed into fundamental principles of customary *jus in bello*, will be considered under Section 3, *infra*.

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30. Convention Respecting the Laws and Customs of War on Land (Hague Convention IV, 1907), Annex (the 'Hague Regulations'), U.K.T.S. 9 (1910), Art. 23, para. 1(g); Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (Geneva Convention I, 1949), 75 U.N.T.S. 31, Art. 50; and Geneva Convention Relative to the Protection of Civilian Persons in Time of War (Geneva Convention IV, 1949), 75 U.N.T.S. 387, Art. 53.

31. Additional Protocol I (1977), *supra* n. 4, Art. 54, para. 1.

32. *Id.*, Art. 54, paras. 1-5.

33. *Id.*, Art. 56.

34. *See, e.g.*, Hague Regulations, Art. 23, para 1(g), and Geneva Convention IV, Art. 53. Significantly, at the Ottawa Conference "[t]here was a shared view that wanton destruction of the environment with no legitimate military objective is clearly contrary to existing international law". *See also, e.g.*, "the rule [ . . . ] on the destruction of enemy property not imperatively demanded by the necessities of war, can have direct implications for the protection of the environment". *See* the Chairman's Conclusions, points 5 and 6.

35. *See, e.g.*, Additional Protocol I, *supra* n. 4, Art. 56, para. 2.

36. *Id.*, Art. 56.

37. *See, e.g.*, Hague Convention IV, Art. 2. The traditional *si omnes* clause implies that the treaty in question is applicable only in wars in which all belligerents involved are parties to that treaty. These conditions no longer play a role, of course, for those provisions which have developed into generally binding rules of customary law.

38. As regards the term "war", the international community learned a bitter lesson when belligerents between the two World Wars showed little hesitation in escaping from their obligation, under the Covenant of the League of Nations and the 1928 Paris Pact, not to resort to "war", by simply titling armed aggression anything else but war. Thus, the Japanese Government justified its invasion in Manchuria in 1931 by claiming this was not an act of war, but merely "an armed international incident". *See* RÖLING, VOLKENRECHT EN VREDE [INTERNATIONAL LAW AND PEACE] 158 (1985).

39. Falk, *Environmental Warfare and Ecocide, in THE VIETNAM WAR AND INTERNATIONAL LAW* 295 (Falk ed. 1976).

40. In this respect, the Group of Experts assembled at the Munich Meeting observed "that the current recognition that the environment itself is an object of legal protection in times of armed conflict implies that traditional perceptions of proportionality and military necessity have become obsolete." *See* Final Report, at 2, n. 3, point 2. According to Baker, new "environment-specific provisions [ . . . ] may not be necessary in all circumstances. This is in part because five long-standing precepts of armed conflict provide potentially far-reaching protection for the environment in times of armed conflict without specifically addressing environmental concerns: the limitation principle, military necessity, discrimination (*i.e.*, between military and civilian objects), preventing unnecessary suffering, and proportionality". However, she also expresses doubts as to whether such general customary principles of the law of warfare can provide for adequate protection of the environment. *See* Baker, *Legal Protection for the Environment in Times of Armed Conflict*, 33 Vir. J. Int'l L. 359, 360-367 (1993).

41. *See* Additional Protocol I, *supra* n. 4, Art. 1, para. 2.

42. Bothe holds: "[i]n our time, the 'dictates of public conscience' certainly include environmental concern." Bothe, *supra* n. 6, at 3. The experts assembled at the Ottawa Conference partly adopted Bothe's view, concluding that "[t]he customary laws of war, in reflecting the dictates of public conscience, now include a requirement to avoid unnecessary damage to the environment" (emphasis added). *See* the Chairman's Conclusions, point 9.

43. *Id.*, point 9.

44. In this regard, Goldblat correctly observes, with respect to the reservations in the text of Additional Protocol I, that in several important instances "derogation from the prohibitions may be made whenever it can be justified by military necessity. However, the required justification is bound to be subjective, because there is no way of balancing such unquantifiable notions as [unnecessary] human suffering and the demands of war. In practice, this provision could amount to passing to commanders in the field the responsibility for deciding in the heat of battle what is lawful and what is not". Goldblat, *Protection of the Natural Environment Against the Effects of Military Activities: Legal Aspects* 4, paper submitted to the Ottawa Conference on the Use of the Environment as a Tool of Conventional Warfare (9-12 July 1991).

45. In the *Nicaragua Case*, the I.C.J. took the position that "even if a treaty norm and a customary norm . . . were to have exactly the same content, this would not be a reason for the Court to take the view that the operation of the treaty process must necessarily deprive the customary norm of its separate applicability". Moreover, with respect to the prohibition of armed force and the right of self-defense, the Court noted that the contents were no longer identical, observing that "customary international law continues to exist alongside treaty law. The areas governed by the two sources of law thus do not overlap exactly, and the rules do not have the same content. This could also be demonstrated for other subjects, in particular for the principle of non-intervention." *Case Concerning Military and Paramilitary Activities in and Against Nicaragua* (Merits), 1986 I.C.J. Rep. 14, paras. 175 and 176.

46. *Parks for Life*, Report of the IVth World Congress on National Parks and Protected Areas 97 (McNeely ed. I.U.C.N., 1993).

47. *Cf.* 1966-II Yearbook of the ILC 267.
48. MCNAIR, *THE LAW OF TREATIES* 698 (1986). *See also* OPPENHEIM II *INTERNATIONAL LAW* 302 (Lauterpacht ed. 1972); and FRANÇOIS, *GRONDLIJNEN VAN HET VOLKENRECHT [BASICS OF INTERNATIONAL LAW]* 349 (1957).
49. AKEHURST, *A MODERN INTRODUCTION TO INTERNATIONAL LAW* 138 (1980).
50. *See* OPPENHEIM, *supra* n. 48, at 302-305.
51. *Id.*, at 303. *See also* MCNAIR, *supra* n. 48, at 703.
52. *See* OPPENHEIM, *supra* n. 48, at 303.
53. *Id.*, at 304. *See also* FRANÇOIS, *supra* n. 48, at 349.
54. *See* AKEHURST, *supra* n. 49, at 139.
55. During the first debates in the Sixth Committee on the 'Jordanian item', only *some* delegations, indeed, suggested that the rules of international law concerning protection of the environment "may not be suspended in times of war". *See* Morris, *supra* n. 1, at 778.
56. Bothe, *supra* n. 6 at 7; and the Chairman's Conclusions, *supra* n. 42, point 11.
57. Possibly except for the 1972 Paris Convention, according to the Legal Experts of I.U.C.N. *Cf.* text accompanying n. 24.
58. Convention Respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land (Hague Convention V), 1907, 36 Stat. 2310; T.S. 540; and Convention Concerning the Rights and Duties of Neutral Powers in Naval War (Hague Convention XIII), 1907, 36 Stat. 2415; T.S. 545.
59. For a treatise on the (potential) relevance of the law of neutrality to environment protection, *see* Bothe et al., *Protection of the Environment in Times of Armed Conflict*, Report to the Commission of the European Communities 49, SJ/110/85.
60. *See* Lijnzaad & Tanja, *supra* n. 26, at 172-173.
61. *See* Bothe et al., *supra* n. 59, at 8.
62. *See id.*, Section. 1.A.1.
63. *See* MCNAIR, *supra* n. 48, at 728. Similarly, the Group of Experts assembled at the Munich Meeting drew "attention to the fact that the rules of international environmental law continue to apply between parties to an armed conflict and third parties." *See* Final Report, at 2, n. 3, point 6.
64. *See* Section 1.A.1, *supra*.
65. *Cf.*, e.g., Stockholm Declaration, *supra* n. 27, Principles 6, 7 and 21; World Charter for Nature, *supra* n. 28, Principle 11.
66. The 1982 Law of the Sea Convention principle that "[t]he high seas shall be reserved for peaceful purposes" (Art. 88), and that "[t]he Area shall be open to use exclusively for peaceful purposes by all States" (Art. 141), is not intended to exclude military activities, neither in times of peace nor in times of armed conflict. In particular, States which claim to have been attacked and States participating in military operations ordered, recommended or sanctioned by competent U.N. organs, can use the oceans for what, by any normal standard, would be called 'belligerent' purposes. The question raised here, in any case, would probably have to be answered along the lines suggested by the experts assembled at the Ottawa Conference: "[a]t the outset, the view was clearly expressed that the [specific] law of armed conflict took precedence over the general law of the environment during wartime". *See* the Chairman's Conclusions, *supra* n. 42, point 11.
67. *Cf.* Marino during the London Round Table Session I, *in* Plant, *supra* n. 10, at 108.
68. *See* Bouvier, *supra* n. 15, at 576.