Enhancing Environmental Protection in Non-International Armed Conflict: The Way Forward

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Abstract

This article analyses the treaty law rules related to environmental protection in non-international armed conflict under international humanitarian law. It highlights that the existing framework is weak and piecemeal, which leaves the natural environment vulnerable to the negative effects of armed conflict. The article poses two potential solutions to enhance environmental protection in non-international armed conflict under international law.

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I. Introduction

Damage to the environment is an inevitable consequence of armed conflict. There are well-documented instances of environmental damage caused in international armed conflicts, such as the US armed forces' use of Agent Orange in the Vietnam War and the burning of Kuwaiti oil wells by Iraqi troops in the Gulf War, which resulted in action by the international community.[1] Although the environmental atrocities that have occurred during international armed conflicts have attracted more attention in the past, the issue is more pertinent in the context of non-international armed conflict. This is not only due to the fact that a large number of armed conflicts in modern times are non-international in nature, but also due to the fact that severe environmental damage has occurred in such conflicts.[2] This is especially true given the increasing role that the exploitation of natural resources by organised armed groups has played in fuelling recent conflicts.[3]

In contrast to the rules regulating international armed conflict, there exists no international humanitarian law provision which prohibits environmental damage in non-international armed conflict explicitly.[4] The protection of the environment is essentially only regulated by general principles of

[1] The environmental damage caused during the Gulf War resulted in UNSC Res. 687 (3.4.1991) UN Doc S/RES/689 (1991) in which Iraq was deemed to be liable under international law for any direct loss and damage, including environmental damage and the depletion of natural resources as a result of Iraq's unlawful invasion and occupation of Kuwait. The UNSC also decided to create a fund and a commission to pay compensation for such claims (United Nations Compensation Commission). The environmental damage caused by the use of Agent Orange in the Vietnam War was a driving force behind the creation of the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (adopted 18.5.1977, entered into force 5.10.1978) 1108 UNTS 152 (ENMOD).

[2] For example, the armed conflicts in the Democratic Republic of the Congo and Colombia. International Law and Policy Institute, Protection of the Natural Environment in Armed Conflict: An Empirical Study, 2014.

[3] The United Nations Environment Programme (UNEP), From Conflict to Peacebuilding: The Role of Natural Resources and the Environment, 2009, 5 states: "Since 1990, at least eighteen civil wars have been fuelled by natural resources: Diamonds, timber, oil, minerals and cocoa have been exploited in internal conflicts in countries such as the Democratic Republic of Congo, Côte d'Ivoire, Liberia, Sierra Leone, Angola, Somalia, Sudan, Indonesia and Cambodia." For an interesting debate on whether non-state parties to an armed conflict have or should have the right to exercise control over natural resources, see *D. Dam-de Jong*, Armed Opposition Groups and the Right to Exercise Control Over Public Natural Resources: A Legal Analysis of the Cases of Libya and Syria, NILR 62 (2015), 3. UNITA in Angola, RUF in Sierra Leone and the Forces Nouvelles in Côte d'Ivoire are cited as examples.

[4] See Additional Protocol to the Geneva Conventions of 12.8.1949, and relating to the Protection of Victims of International Armed Conflicts (adopted 12.12.1977, entered into force 7.12.1979), 1125 UNTS 3, (Additional Protocol I), Arts. 36 and 55.

international humanitarian law, such as military distinction, necessity, proportionality and precaution in attack.[5] However, further protection may be indirectly afforded through several international humanitarian law treaty provisions. This article comprehensively examines the existing treaty law provisions of international humanitarian law which regulate non-international armed conflict to determine whether they afford adequate environmental protection. Once this question has been answered, the focus will turn to what could be done to enhance environmental protection in such conflicts.

II. Environmental Protection Under International Humanitarian Law Treaties

1. Common Article 3

Common Article 3 provides the minimum standards of protection for civilians and other persons not taking an active part in hostilities and is the sole provision of the Geneva Conventions which applies to non-international armed conflicts.[6] Common Article 3 has a wide scope of application and binds States as well as organised armed groups.[7] To trigger its application, the conflict in question must merely involve one or more organised armed groups and the violence has to reach a certain degree of intensity.[8]

Common Article 3 does not provide any direct protection to the natural environment – its text does not mention the word "environment" at all. A

[5] See *T. Smith*, The Prohibition of Environmental Damage During the Conduct of Hostilities in Non-International Armed Conflict, Ph.D. thesis, National University of Ireland Galway, 2013, 87 et seq. On general principles of international law see, *M. Sassòli/A. Bouvier/A. Quintin*, How Does Law Protect in War? Cases, Documents and Teaching Materials on Contemporary Practice in International Humanitarian Law, 2011, 375 et seq.

[6] *L. Vierucci*, Applicability of the Conventions by Means of Ad Hoc Agreements, in: A. Clapham/P. Gaeta/M. Sassòli, The 1949 Geneva Conventions: A Commentary, 2015, 513.

[7] On the principle of equality of belligerency see *S. Sivakumaran*, Re-Envisaging the International Law of Internal Armed Conflict, EJIL 22 (2011), 223, 248; *M. Sassòli*, Critically Examining Equality of Belligerents in Non-International Armed Conflicts, 22.3.2012, Program on Humanitarian Policy and Conflict Research: Harvard Humanitarian Initiative, <http://www.hpcrresearch.org>, accessed 10.7.2015; *M. Sassòli/Y. Shany*, Should the Obligations of States and Armed Groups under International Humanitarian Law Really be Equal?, Int'l Rev. of the Red Cross 93 (2011), 425.

[8] International Committee of the Red Cross (ICRC), How is the Term "Armed Conflict" Defined in International Humanitarian Law?, ICRC Opinion Paper (March 2008).

broad interpretation of its provisions may, however, allow for indirect environmental protection.[9] Common Article 3 may prohibit environmental damage to the extent that such warfare causes violence to life and person; cruel treatment and torture; outrages on personal dignity; or degrading treatment, which are all expressly prohibited by Common Article 3.[10] However, the environmental protection offered by Common Article 3 is weak at best. It is anthropocentric in nature, with the environment only being protected as a consequence of its aim to protect civilians.[11]

2. Additional Protocol II

Additional Protocol II is the only international humanitarian law treaty created solely for the protection of victims of non-international armed conflicts.[12] Additional Protocol II binds both States as well as organised armed groups and was created to develop and supplement the provisions of Common Article 3.[13] During the drafting of this instrument, a specific provision regulating the protection of the natural environment was originally included. However, this provision was ultimately discarded, as a more simplified instrument was preferred.[14] There is thus no express rule providing environmental protection in Additional Protocol II. Nevertheless, Additional Protocol II contains several provisions which may indirectly contribute to environmental protection in non-international armed conflicts.[15]

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[9] *L. Moir*, The Law of Internal Armed Conflict, 2002, 32 et seq.; *T. Smith* (note 5), 54 et seq.

[10] See *C. Bruch*, All's Not Fair in (Civil) War: Criminal Liability for Environmental Damage in Internal Armed Conflict, Vt. L. Rev. 25 (2001), 695, 708. Examples of such warfare which may cause "violence to life and person" cited by *C. Bruch* include e.g. poison gas, landmines and scorched earth policies.

[11] *T. Smith* (note 5), 57.

[12] *M. Bothe/K. Partsch/W. Solf*, New Rules for Victims of Armed Conflicts: Commentary on the Two 1977 Protocols to the Geneva Conventions of 1949, 2013, 1319.

[13] Art. 1 Additional Protocol to the Geneva Conventions (note 4), 1125 UNTS 609 (Additional Protocol II).

[14] This article was Art. 28bis. See *M. Bothe/K. Partsch/W. Solf* (note 12), 770, 774. See the Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva (1974-1977). Vol. XIV.

[15] See *T. Smith* (note 5), 58. See also *T. Meron*, Chapter XX-Comment: Protection of the Environment During Non-International Armed Conflicts in: R. Grunawalt/J. King/R. McClain (eds.), Protection of the Environment in Armed Conflict and Other Military Operations, 1996, 357.

a) The Prohibition Against Pillage

Pillage, "the unlawful appropriation of property during armed conflict", is prohibited by Art. 4 of Additional Protocol II.[16] The prohibition of pillage is absolute, as Art. 4 states that the acts listed "are and shall remain prohibited at any time and in any place whatsoever".[17] According to the International Committee of the Red Cross (ICRC), the prohibition against pillage in non-international armed conflicts has attained customary international law status.[18] The prohibition against pillage may curb the exploitation of natural resources, which has been recognised as a cause of environmental damage in non-international armed conflicts.[19]

Commentary on Art. 4(2)(g) is minimal, merely providing that it covers instances of pillage which are organised and systematic as well as those

[16] On direct participation in hostilities see *N. Melzer*, Interpretive Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law, 2009, Part 1, <https://www.icrc.org>, accessed 16.10.2015. On the definition of pillage see *P. Keenan*, Conflict Minerals and the Law of Pillage, Chinese Journal of International Law 14 (2014), 524, 531. The ordinary dictionary definition of "pillage" is "the act of looting or plundering especially in war". The Merriam-Webster dictionary online, available at <http://www.merriam-webster.com>, accessed 7.1.2015. See also *J. M Henckaerts/L. Doswald-Beck*, Customary International Humanitarian Law, Vol. I, 2009, 185 where it provides a different definition for pillage taken from Black's Law Dictionary, 1979, 1033 as "the forcible taking of private property by an invading or conquering army from the enemy's subjects". However, the definition provided in the text is preferable to this author as the one cited in the ICRC Customary Law Study refers only to the taking of private property, and thus State property is excluded from the definition.

[17] Art. 4(2) Additional Protocol II.

[18] *J. M. Henckaerts/L. Doswald-Beck* (note 16), 39; *T. Smith* (note 5), 60.

[19] *C. Droege/M. L. Tougas*, The Protection of the Natural Environment in Armed Conflict-Existing Rules and Need for Further Legal Protection, in: R. Rayfuse (ed.), War and the Environment: New Approaches to Protecting the Environment in Relation to Armed Conflict, 2014, 11, 40; *D. Dam-de Jong*, From Engines for Conflict into Engines for Sustainable Development: The Potential of International Law to Address Predatory Exploitation of Natural Resources in Situations of Internal Armed Conflict, in: R. Rayfuse (note 19), 206, 211, 214 et seq.; *T. Smith* (note 5), 60 et seq.; *D. Dam-de Jong*, From Engines for Conflict into Engines for Sustainable Development: The Potential of International Law to Address Predatory Exploitation of Natural Resources in Situations of Internal Armed Conflict, Nord. J. Int'l L. 83 (2013), 155. See also UNEP (note 3), 8; *D. Dam-de Jong* (note 3); *D. Dam-de Jong* (note 19), 155, 157 et seq., where the role that the exploitation of natural resources has played in fuelling armed conflicts throughout recent history is explained. See *Armed Activities in the Congo* (*Democratic Republic of the Congo v. Uganda*) ICJ Reports 2005, paras. 222-229. The ICJ found that there was convincing evidence that Uganda had exploited the DRC's natural resources, see paras. 245, 250. The official case summary can be found on the ICJ website, <www.icj-cij.org>, accessed 18.10.2015). See *F. Ntouband*, The Congo/Uganda Case: A Comment on the Main Legal Issues, African Human Rights Law Journal 7 (2007), 162.

which are isolated.[20] It also expressly provides that it applies to State-owned property, thus State-owned nature reserves may enjoy protection under this article.[21] However, Art. 4 expressly provides fundamental guarantees only to those who are not taking an active part in hostilities.[22] The provision thus does not offer protection to property belonging to members of the organised armed groups participating in the conflict. Nevertheless, property belonging to private individuals not taking part in the armed conflict, for example privately owned nature reserves, are afforded absolute protection.[23]

b) Protection of the Civilian Population

Art. 13 of Additional Protocol II provides protection for the civilian population in non-international armed conflicts by prohibiting attacks against civilians which are not taking a direct part in hostilities.[24] This prohibition has attained customary international law status.[25] Environmental protection may be incidental to this provision, as the environment needs to be protected to the extent necessary to ensure the protection of the civilian population.[26] In other words, if the activities of a party to a non-international armed conflict results in environmental damage which threatens or endangers the civilian population, Art. 13 might be violated.[27] It can thus be said that if an attack occurs in an area where there are no civilians, then it is unlikely that Art. 13 provides any environmental protection, unless civilians are still somehow endangered by the attack.[28] On the other hand, the environment may enjoy absolute protection in areas where large

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20 See *Y. Sandoz/C. Swinarski/B. Zimmerman*, Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949, 1987, 1376, available online at <https://www.icrc.org>, accessed 7.1.2015.

21 *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1376.

22 See on this *T. Smith* (note 5), 62.

23 See *T. Smith* (note 5), 62.

24 *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1448.

25 *J. M. Henckaerts/L. Doswald-Beck* (note 16), 19. See the *Abella v. Argentina* Report No. 55/97, Case No. 11.137 IACtHR (22.12.1997) para. 177. The Commission held that, "customary law principles applicable to all armed conflicts require the contending parties to refrain from directly attacking the civilian population and individual civilians and to distinguish in their targeting between civilians and combatants and other lawful military objectives". For commentary on the article see *M. Bothe/K. Partsch/W. Solf* (note 12), 777 et seq.; *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 613 et seq., 1445 et seq.

26 *T. Smith* (note 5), 74.

27 *T. Smith* (note 5), 74.

28 *T. Smith* (note 5), 74.

civilian populations are present as the civilians are protected from attack.[29] As a consequence, the degree to which the environment is protected by this provision hinges on the population density of a specific area.[30]

It should also be remembered that in terms of Art. 13, civilians lose their protection if and for such time they take a direct part in hostilities. This could mean that an area in which the environment previously enjoyed protection under Art. 13 could subsequently lose protection, should it be occupied by civilians who have started taking a direct part in hostilities.[31] In addition, despite being a cornerstone of international humanitarian law, the obligation to protect the civilian population has been violated in recent non-international armed conflicts.[32] Therefore, the potential environmental protection offered by Art. 13 further depends on whether or not it is respected by the parties.[33]

c) Objects Indispensable to the Survival of the Civilian Population

Art. 14 of Additional Protocol II aims to prevent starvation being used as a weapon against civilians by prohibiting attacks against objects indispensable to the survival of the civilian population such as

> "foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works".[34]

Art. 14 has attained customary international humanitarian law status and is particularly important as Additional Protocol II does not contain a provision protecting civilian objects in general.[35]

Art. 14 may provide indirect environmental protection as several objects listed as being protected from attacks, such as agricultural areas, crops and

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29 *T. Smith* (note 5), 74.
30 *T. Smith* (note 5), 74.
31 *T. Smith* (note 5), 74.
32 See *T. Smith* (note 5), 75, where the non-international armed conflict in Sri Lanka is cited as an example of where violations of Art. 13 led to the loss of civilian life and damage to the environment.
33 *T. Smith* (note 5), 75.
34 Additional Protocol II, Art 14. See *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1456; *M. Bothe/K. Partsch/W. Solf* (note 12), 783.
35 Art. 52 of Additional Protocol I provides protection to civilian objects in international armed conflict. See *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1456.

livestock form part of the environment.[36] Art. 14 has been described as the provision of Additional Protocol II which comes the closest to directly protecting the environment, and as being of relevance to prevent the exploitation of natural resources in armed conflict.[37] Art. 14 is promising in that, first, the protection offered is absolute and thus no derogation can be made from it, even in the case of military necessity.[38] Second, the words, "such as" denotes that the list is not exhaustive which means that other elements of the environment, if they are indeed essential to the survival of the civilian population and if attacked would lead to the starvation of civilians, may also enjoy protection.[39]

However, Art. 14 has several shortcomings in the context of environmental protection. First, its scope of application is narrow and consequently limited.[40] Only attacks against objects which, if destroyed, would lead to the starvation of civilians are prohibited. It thus does not cover attacks against the environment which may lead to the death of civilians in a manner other than starvation. Second, it only prohibits attacks against objects which would cause *civilians* to starve. Attacks against objects that would result in the starvation of members of organised armed groups, are not prohibited.[41] Therefore, if a large area of agricultural land is cultivated or stocked with livestock that provides sustenance exclusively to members of an organised armed group, the destruction of the agricultural land or its crops would not constitute a violation of Art. 14. It is evident that in such a situation the provision offers no environmental protection. Although Art. 14 does not explicitly state so, it can be interpreted that an object indispensable to the civilian population which is used to benefit both the civilian

[36] *C. Bruch* (note 10), 714; United Nations Environment Programme (UNEP), Protecting the Environment During Armed Conflict: An Inventory and Analysis of International Law, 2009, 18; *T. Smith* (note 5), 65.

[37] *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1456; *D. Dam-de Jong* (note 19), 159.

[38] *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1456.

[39] *J. M. Henckaerts/L. Doswald-Beck* (note 16), 193. See also *T. Smith* (note 5), 66 and *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1458, where such objects can be defined as "objects which are of basic importance for the population from the point of view of providing the means of existence". The example given by *Smith* is that if civilians are particularly reliant on eating fish from a specific lake to survive, then the lake would be protected from attack as the attack would constitute a violation of Art. 14. *Baker* has also argued that it could include the protection of underground aquifers. See *B. Baker*, Legal Protection for the Environment in Times of Armed Conflict, Va. J. Int'l L. 33 (1993), 351, 370.

[40] See *B. Baker* (note 38), 371.

[41] *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1457.

population as well as the organised armed group, would still enjoy protection.[42]

d) Protection of Works and Installations Containing Dangerous Forces

Art. 15 of Additional Protocol II prohibits attacks against works or installations containing dangerous forces. This prohibition has attained customary international law status.[43] The ICRC commentary on this article emphasises that it does not protect civilian objects in general, and that its scope is narrow.[44] Art. 15 is relevant in the context of environmental protection because history has shown that attacks on dams and dykes can cause severe environmental damage with ensuing humanitarian consequences.[45]

One strength of Art. 15 is that the protection offered is absolute, as it does not provide for any circumstances in which works and installations containing dangerous forces lose their protection. This incidentally results in greater protection for the environment as well.[46] Furthermore, Art. 15 was included in Additional Protocol II because dams and dykes had been the object of devastating attacks in past conflicts,[47] and peacetime incidents have shown that the destruction or damage of nuclear installations can be catastrophic.[48] The incidental environmental protection offered to dams,

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[42] *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1458, *M. Bothe/K. Partsch/W. Solf* (note 12), 783.

[43] *J. M. Henckaerts/L. Doswald-Beck* (note 16), 139.

[44] *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1462.

[45] Most of these have occurred in the context of international armed conflicts. See *C. Bruch* (note 10), 714. See also *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 666, where the following attacks on dams and dykes in armed conflicts are cited as examples: the 1315 Battle of Morgarten, the 1938 breach of the dykes of the Yellow River by the Chinese to stop Japanese troops which resulted in massive losses and damage. In World War II German troops flooded a large area of agricultural land in the Netherlands to prevent the advance of the enemy and two hydro-electric dams in Germany were destroyed, which resulted in large civilian losses, the destruction of over one hundred factories, the loss of a large area of agricultural land and the loss of livestock. Attacks against dams in the Korean war and the Vietnam War also caused severe damage.

[46] *T. Smith* (note 5), 68.

[47] *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1462.

[48] See *T. Smith* (note 5), 69, where the 1986 Chernobyl incident in Russia and the 2011 incident at the Fukushima Nuclear Power Plant in Japan are cited as notable examples of the damage that can be caused by incidents at nuclear power installations. Further examples include incidents which occurred in Kyshtym, Russia in 1957, in Windscale, UK in 1957 and on Three Mile Island in the United States in 1979. See *S. Rogers*, Nuclear Power Plant Accidents: Listed and Ranked since 1952, The Guardian, 18.3.2011, available at <http://www.theguardian.com>, accessed 11.1.2015.

dykes and in particular nuclear installations should thus not be underestimated as attacks on such objects remains relevant in modern non-international armed conflicts.[49]

However, the environmental protection offered by Art. 15 is also limited in many ways. Firstly, it only prohibits attacks against the described objects by the enemy; it does not prohibit the destruction or intentional release of dangerous forces by the party that is in control of the object.[50] Secondly, Art. 15 can be criticised for its narrow scope of application. Many objects containing dangerous installations such as petrochemical plants, oil fields or oil wells may become objects of attacks in modern armed conflicts, yet they are afforded no protection at all by this provision.[51] Lastly, the environmental protection offered by this article is incidental: The aim of Art. 15 is to provide protection to the civilian population against the potential consequences that the destruction of such works and installations may have, and not to protect the environment.

e) Protection of Cultural Objects and Places of Worship

Art. 16 of Additional Protocol II prohibits acts of hostility against

> "historic monuments, works of art or places of worship which constitute the cultural or spiritual heritage of peoples".

Art. 16 may protect parts of the natural environment which constitute cultural, religious or spiritual places.[52] For example, if a specific area or natural landmark such as a mountain or a lake has an important religious, spiritual or cultural relevance to a group of people embroiled in a non-international armed conflict, it may not be attacked.[53] The environmental

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49 *T. Smith* (note 5), 70.

50 *M. Bothe/K. Partsch/W. Solf* (note 12), 786.

51 See *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1462, which states that this shortcoming of Additional Protocol II was already raised during the Diplomatic Conference. See also *T. Smith* (note 5), 70, where damage caused by attacks on petrochemical plants in the armed conflicts in Kosovo and Lebanon are cited. See *H. G. Brauch*, War Impacts on the Environment in the Mediterranean and Evolution of International Law, in: *H. G. Brauch/P. H. Liotta/A. Marquina/P. F. Rogers/M. El-Sayed Selim* (eds.), Security and Environment in the Mediterranean, 2003, 492. See also UNEP (note 36), 18.

52 *C. Bruch* (note 10), 714.

53 See *T. Smith* (note 5), 72, and the example she gives. It is important to note here the link between the protection of the natural environment as a cultural object and the United Nations Convention Concerning the Protection of the World Cultural and Natural Heritage. One of the main aims of the convention is to preserve areas and sites of natural heritage protection.

protection offered by this provision is very limited – not only because it only protects cultural property – but because there is a high threshold of importance that the object of cultural or spiritual importance must have in order to enjoy protection under this article. The object must be of such high importance that it will be recognisable by everyone, without having to be marked.[54]

f) Prohibition of the Forced Movement of Civilians

The final provision of Additional Protocol II which may provide indirect environmental protection in non-international armed conflicts is Art. 17, which prohibits the forced movement of civilians. The prohibition of the forced displacement of civilians in non-international armed conflict has attained customary international law status.[55] Art. 17 prohibits two types of forced displacement. First, the forced movement of civilians *within* the territory of the State in which the armed conflict is taking place is prohibited with the words,

> "the displacement of the civilian population shall not be ordered for reasons related to the conflict unless the security of the civilians involved or imperative military reasons so demand".[56]

This provision does not, however, prohibit the forced movement of civilians if "the security of the civilians involved or imperative military reasons so demand".[57] Second, the forced movement of civilians beyond the boundaries of a State is also prohibited.[58] Additional Protocol II does not provide a specific number of civilians which need to be displaced to constitute a breach of Art. 17, but the commentary states that it covers individuals as well as groups which are forcibly displaced.[59]

The movement of a large number of civilians in armed conflict has a clear environmental aspect.[60] If the environment is damaged to such an extent that civilians are forced to flee their homes, then Art. 17 may have been

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54 *J. M. Henckaerts/L. Doswald-Beck* (note 16), 130 (footnotes omitted).
55 *J. M. Henckaerts/L. Doswald-Beck* (note 16), 457.
56 Art. 17(1) Additional Protocol II. See *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1472.
57 Art. 17(1) Additional Protocol II.
58 Art. 17(2) Additional Protocol II. See *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1472.
59 *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 1472, 1474.
60 International Law and Policy Institute (note 2), 34 et seq.

breached. Types of environmental damage that could force the displacement of civilians have been listed as

> "tampering with water supplies and water tables, polluting rivers, targeting food supplies, spoiling agricultural land, carrying out large-scale bombardments of an area".[61]

One of the most prominent examples is the Rwandan genocide and the ensuing non-international armed conflict that erupted in the Democratic Republic of the Congo. More than one million refugees fled their homes and settled on the border of Virunga National Park which placed a huge amount of pressure on the park's forests and wildlife.[62] This pressure resulted in the park suffering severe environmental consequences, which included deforestation and an increase in the poaching of animals in the Park, both for bushmeat as well as for ivory.[63] This example highlights that the extent to which the environment is protected in practice will depend on the extent to which the primary objective of the treaty obligation is in fact respected.

3. Disarmament and Weapons Treaties

Several weapons used in armed conflicts have the potential to cause serious environmental damage.[64] The Convention on Certain Conventional Weapons (CCW)[65] is one of the few disarmament and weapons treaties that may provide environmental protection in non-international armed conflict. The Convention originally only applied in international armed conflicts, but was amended in 2001 to widen its scope of application to include non-international armed conflicts.[66] It is binding on both States as well as non-state parties to armed conflicts.[67] The CCW was concluded with the aim to restrict or prohibit the use of certain types of weapons which are indiscriminate to civilians or are capable of causing unnecessary suffering to combat-

[61] *T. Smith* (note 5), 76.
[62] See the official website of Virunga National Park, "History", available at <https://virunga.org>, accessed 5.4.2016.
[63] Virunga National Park, "History" (note 62).
[64] UNEP (note 36), 13; *T. Smith* (note 5), 77.
[65] 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, adopted 10.10.1980, entered into force 2.12.1983, 1347 UNTS 137, Convention on Certain Conventional Weapons/Conventional Weapons Convention (CCW).
[66] Amended Art. 1(2) CCW.
[67] Amended Art. 1(3) CCW; *S. Sivakumaran* (note 7), 248.

ants.[68] The CCW directly addresses the environment in its preamble, where it states 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".[69]

This is the same threshold included in Arts. 35 and 55 of Additional Protocol I, which relate to environmental protection in international armed conflicts.[70]

While at first sight it may appear as though the preamble of the CCW provides adequate protection to the environment in non-international armed conflicts, the potential protection offered is limited. Commentary on Art. 35 of Additional Protocol I has stressed that the "triple cumulative standard" set forth with the words, "widespread, long-term *and* severe" makes the threshold extremely difficult to reach, which limits the protection actually offered by the prohibition.[71] There is also little guidance on how the terms, "wide-spread", "long-term" and "severe" should be interpreted.[72] It is for these reasons that this threshold has been widely criticised and deemed to be inadequate and ineffective.[73] While the preamble of the CCW may be useful in that it does at least provide a benchmark level of environmental protection that States need to respect, some have suggested that

> "to have these as standards of permissible environmental damage in non-international armed conflict could potentially undermine any positive effect that the indirect treaty provisions would have".[74]

There is also the issue that the clause appears in the preamble of the CCW and not in the operative text. It is somewhat unclear whether the preambles of treaties contain binding provisions. In terms of Art. 31 of the Vienna Convention on the Law of Treaties, the preamble is considered part of the text of a treaty for the purposes of interpretation.[75] However, there are

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[68] Preamble CCW, The United Nations Office at Geneva, The Convention on Certain Conventional Weapons, available at <http://www.unog.ch>, accessed 19.1.2016. See in particular Arts. IV (10); VII (3); V (11); IV (A)(C)(13).

[69] Preamble CCW.

[70] See Arts. 35(3) and 55 Additional Protocol I.

[71] UNEP (note 36), 12. Only the ENMOD convention provides some guidance as to what these terms mean in the 'understandings' annexed to the treaty.

[72] UNEP (note 36), 12.

[73] *T. Smith* (note 5), 113.

[74] *T. Smith* (note 5), 113.

[75] See Vienna Convention on the Law of Treaties, Art. 31 (2). See *M. H. Hulme*, Preambles in Treaty Interpretation, U. Pa. L. Rev. 164 (2016), 1281.

differing views on the issue, with some commentators stating that the purpose of the preamble is not to be binding and is merely to provide guidance when interpreting the operative provisions of a treaty.[76]

The CCW was complemented by a series of protocols which contain more promising environmental protection measures. The first relevant protocol is Protocol II on Prohibitions or Restrictions on the use of Mines, Booby-Traps and other Devices.[77] Land mines, if detonated, are a serious threat to the environment – to large mammals in particular.[78] The Protocol is binding on States as well as organised armed groups,[79] and contains several provisions which restrict the use of landmines and booby-traps in armed conflicts.[80] By restricting the use of land mines in certain areas to protect humans, the environment is indirectly protected. In addition, Protocol II requires that the parties to a conflict record all areas in which land mines are planted.[81] This requirement facilitates the removal of unexploded landmines after the conflict, which serves to prevent further environmental damage.[82] Protocol III on Prohibitions or Restrictions on the Use of Incendiary

[76] It can be argued that in accordance with general principles of treaty interpretation, the preamble is not binding, but serves to provide the context in terms of which the treaty obligations should be interpreted. See *R. McKenzie/F. Burhenne-Guilmin/A. G. M. La Viña/J. D. Werksman*, An Explanatory Guide to the Cartagena Protocol on Biosafety, 2003, 25. See also *A. Cassese*, The Martens Clause: Half a Loaf or Simply Pie in the Sky?, EJIL 11 (2000), 192; *T. Smith* (note 5), 140. However, the status of the preamble is not that clear-cut. For example, in the *Case Concerning Rights of Nationals of the United States of America in Morocco*, the ICJ noted that the guarantee of equality of treatment had been included in the preamble of the Algesiras Act of 7.4.1906, and concluded that "in the light of these circumstances, it seems clear that the principle was intended to be of a binding character and not merely an empty phrase". It is also the case that a Preamble or individual clauses thereof can, through the process of development of customary international law, become binding in character. The Martens Clause is noted as a "probative" example of this. See International Labor Organisation, Manual for Drafting ILO Instruments, <http://learning.itcilo.org>, accessed 23.3.2016. See *Case Concerning Rights of Nationals of the United States of America in Morocco*, ICJ Reports 1956, 176, 184.

[77] Amended Additional Protocol to 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 (Protocol II entitled Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Indiscriminate Weapons), adopted 3.5.1996, entered into force 2.12.1983, amended 3.5.1996, entered into force 3.12.1998, 2048 UNTS 93, CCW Protocol II.

[78] *A. J. Nocella II/C. Salter/J. K. C. Bentley* (eds.), Animals and War: Confronting the Military-Animal Industrial Complex, 2014; *T. Smith* (note 5), 82; *Y. Sandoz/C. Swinarski/B. Zimmerman* (note 20), 411.

[79] *S. Sivakumaran* (note 7), 248. Amended Protocol II to the Convention on CCW, Art. 1(3) states that it binds "each party to the conflict".

[80] Arts. 3-7 CCW Protocol II.

[81] Art. 9 CCW Protocol II.

[82] See UNEP (note 36), 15.

Weapons provides direct environmental protection to certain aspects of the natural environment.[83] Art. 2 prohibits attacks using incendiary weapons on forests or any other types of plant cover

> "except when such natural elements are used to cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives".[84]

4. Assessment of the Environmental Protection Provided by International Humanitarian Law

The discussion above has revealed that the environmental protection in non-international armed conflicts offered by Common Article 3 is essentially non-existent. As far as disarmament and weapons treaties are concerned, while the CCW may contain a provision providing a benchmark of environmental protection, it is included in the preamble of the treaty and not in its operative text, making it unclear whether or not it is in fact binding. Furthermore, even if the provision is considered binding, its threshold tolerates a high level of environmental damage. The protocols of the CCW which restrict the use of landmines and incendiary weapons offer a degree of environmental protection, but this protection is inadequate.

Additional Protocol II contains several provisions relevant to environmental protection. In a nutshell, the most important elements of protection provided by the provisions of Additional Protocol II are as follows: Flowing from the overlapping protection offered by Art. 13 and Art. 17, the environment is immune from attack in areas where there are civilians, and attacks against the environment which would force civilians to flee their homes are prohibited. Overlapping somewhat with this, areas which produce livestock or crops, or which contain water resources indispensable to the civilian population and which the destruction thereof would result in the starvation of civilians if destroyed, enjoy absolute protection.

Other important provisions of Additional Protocol II are those that protect man-made objects. While these objects are primarily protected because of the effect that their destruction would have on civilians, it indirectly results in environmental protection as well. The man-made objects in question are dams, dykes and nuclear installations, which are protected against

[83] Additional Protocol to 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 (Protocol III entitled Protocol on the Use of Incendiary Weapons), adopted 10.10.1980, entered into force 2.12.1983, CCW Protocol III.

[84] Art. 2(4) CCW Protocol III.

attacks by Art. 15. Even though the number of objects protected by this provision is limited, the level of environmental protection offered is high as the destruction of these objects could have catastrophic effects on the environment. Finally, the protection offered by the prohibition against pillage comes close to offering the most direct environmental protection, even though its aim is to protect "property". The rule prohibiting pillage is important as it may be used to prevent the exploitation of natural resources in non-international armed conflict.

In conclusion, although some level of environmental protection can be read into several provisions of Additional Protocol II, the protection offered is indirect as there is no provision which explicitly provides environmental protection in non-international armed conflict. In addition, as has been noted by experts, even if the provisions of Additional Protocol II are interpreted widely to include elements of environmental protection, the protection offered remains minimal.[85] Such broad legal interpretation may have adverse effects as it may violate the important principle of legal certainty in international law.[86] A further problem is that Additional Protocol II lacks meaningful implementation provisions.[87] This means that even if environmental protection can be read into provisions of Additional Protocol II, actually enforcing the provisions would be challenging. Closely related to this is that there is a lack of case law and state practice dealing with the application of these provisions in practice, which makes their potential difficult to determine.[88]

III. The Way Forward

The existing treaty law rules regulating non-international armed conflicts do not provide adequate environmental protection and the natural environment is left vulnerable to the negative effects of armed conflicts. As

[85] *C. Bruch* (note 10), 715.

[86] The principle of legal certainty is regarded as one of the cornerstones of the principle of the rule of law. The principle basically entails that the public has an interest in "clear, equal, and foreseeable rules of law which enable those who are subject to them to order their behaviour in such a manner as to avoid legal conflict". See *P. H. Neuhaus*, Legal Certainty versus Equity in the Conflict of Laws, Law & Contemp. Probs 28 (1963), 795, available at <http://scholarship.law.duke.edu>, accessed 13.1.2016. See also *J. Maxeiner*, Some Realism About Legal Certainty in the Globalization of the Rule of Law, in: M. Sellers/T. Tomaszewski (eds.), The Rule of Law in Comparative Perspective, 2010, 41.

[87] See *C. Bruch* (note 10), 715.

[88] UNEP (note 36), 51.

highlighted above, this is concerning because the majority of modern armed conflicts are non-international armed conflicts. In addition, such conflicts often occur in countries which have rich biodiversity that needs to be protected.[89] Indeed, the protection of the environment in armed conflicts has gained prominence in the past three decades,[90] leading the United Nations International Law Commission (ILC) to include the topic in its long-term programme of work.[91] The work of the ILC covers both international as well as non-international armed conflicts, and although the Commission has not yet dealt with a study of the non-international armed conflict of the study, it is included in its future programme of work.[92]

This author asserts that there are two potential solutions to the problem of the lack of environmental protection in non-international armed conflict. The first possible solution is to expand the application of international law rules regulating international armed conflicts to cover non-international armed conflicts through customary international law. The second potential solution is to turn to other branches of international law related to environmental protection, such as international human rights or international

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[89] Biodiversity has been threatened in several situations of non-international armed conflict, most notably in the Democratic Republic of the Congo, Rwanda and Afghanistan. See *K. Hulme*, Armed Conflict and Biodiversity, in: M. Bowman/P. Davies/E. Goodwin (eds.), Research Handbook on Biodiversity and Law, 2016, 263; *A. Conteh/M. G. Havin/J. McCarter*, Assessing the Impacts of War on Perceived Conservation Capacity and Threats to Biodiversity, Biodiversity and Conservation 26 (2017), 983, 984; *T. Hanson/T. M. Brooks/F. A. da Fonseca/M. Hoffmann/J. F. Lamoreux/G. Machlis/C. G. Mittermeier/R. A. Mittermeier/J. D. Pilgrim*, Warfare in Biodiversity Hotspots, Conservation Biology 23 (2008), 578.

[90] See *D. Weir*, Whatever Happened to the 5th Geneva Convention, Toxic Remnants of War, 29.7.2015, available at <http://www.toxicremnantsofwar.info>, accessed 14.12.2017, who states that: "In June 1991, Greenpeace International, the London School of Economics and the Centre for Defence Studies organised a Fifth Geneva Convention conference in London. In what turned out to be a busy year for environmental lawyers, the government of Canada convened a Conference of Experts on the Use of the Environment as a Tool of Conventional Warfare, while in Munich, the IUCN and World Conservation Union organised Consultations on the Law Concerning the Protection of the Environment in Times of Armed Conflict."

[91] See the reports of the International Law Commission on the topic which are available at <http://legal.un.org>, accessed 9.11.2017: International Law Commission, Preliminary Report of the Special Rapporteur, Ms *Marie G. Jacobsson* on the Protection of the Environment in Relation to Armed Conflicts, 66th Session of the ILC, 2014, UN Doc. A/CN.4/674 and Corr. 1; International Law Commission, Second Report of the Special Rapporteur, Ms *Marie G. Jacobsson* on the Protection of the Environment in Relation to Armed Conflicts, 67th Session, 2015, UN Doc. A/CN.4/685; International Law Commission, Third Report of the Special Rapporteur, Ms *Marie G. Jacobsson* on the Protection of the Environment in Relation to Armed Conflicts, 68th Session, 2016, UN Doc. A/CN.4/700.

[92] Third Report on the Protection of the Environment in Relation to Armed Conflicts (note 91), para. 269.

environmental law to bolster environmental protection in times of non-international armed conflict.

1. Expanding the Rules Applicable in International Armed Conflicts to Enhance Environmental Protection in Non-International Armed Conflicts

While Additional Protocol II and Common Art. 3 are the primary international humanitarian law rules regulating non-international armed conflicts, the four Geneva Conventions and Additional Protocol I are the primary instruments governing international armed conflicts.[93] The two protocols are closely related – many of the Additional Protocol II rules from which environmental protection can be derived or implied are similar to rules contained in Additional Protocol I.[94] However, the treaties regulating international armed conflicts are comparatively far more comprehensive instruments than those governing non-international armed conflicts.[95] It is thus not surprising that the international humanitarian law rules applicable in non-international armed conflicts have generally developed by looking to international humanitarian law applicable in international armed conflict.[96] Given this trend, turning to the rules applicable in international armed conflicts could be a way to enhance environmental protection in non-international armed conflicts.[97] Indeed, international humanitarian law applicable in international armed conflicts already contains explicit rules providing for the protection of the environment.[98] Most notably, Additional Protocol I prohibits means or methods of warfare which may cause widespread, long-term and severe environmental damage, and also provides:

[93] See ICRC, The Geneva Conventions and Their Additional Protocols, 29.10.2010, <https://www.icrc.org>, accessed 19.12.2017.

[94] For instance Art. 13 of Additional Protocol II matches the first three paragraphs of Art. 51 of Additional Protocol I; Art. 14 of Additional Protocol II corresponds to Art. 54 of Additional Protocol I; Art. 15 of Additional Protocol II corresponds to Art. 56 of Additional Protocol I; Art. 16 corresponds to Art. 53 of Additional Protocol I.

[95] *M. Sassòli/L. Olsen*, The Relationship Between International Humanitarian and Human Rights Law Where It Matters: Admissible Killing and Internment of Fighters in Non-International Armed Conflicts, Int'l Rev. of the Red Cross 90 (2008), 599, 601. This is illustrated by the fact that Additional Protocol II has only 28 Articles, whereas Additional Protocol I has 102 Articles.

[96] *T. Smith* (note 5), 111 et seq.

[97] See on this *T. Smith* (note 5), 111 et seq.

[98] *T. Smith* (note 5), 41 et seq. See Art. 35 and Art. 55 Additional Protocol to the Geneva Conventions (note 4).

"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.

2. Attacks against the natural environment by way of reprisals are prohibited."[99]

The rules regulating international armed conflict can become applicable in non-international armed conflict through customary international law. Customary international law is the second source of international law listed in Art. 38 of the Statute of the International Court of Justice.[100] Customary international law develops from a general and consistent practice of states followed out of a sense of legal obligation, or *opinio juris*.[101] Customary international humanitarian law is an important source as far as non-international armed conflicts are concerned, precisely because of the scarcity of treaty law regulating such conflicts.

The ICRC study on customary international humanitarian law, which was published more than a decade ago, has attempted to identify which international humanitarian law rules may have attained the status of customary international law.[102] The ICRC study argues that many of the international humanitarian law rules applicable in international armed conflicts apply in non-international armed conflicts as a matter of customary international law.[103] This means that the international humanitarian law obligations applicable in non-international armed conflicts are arguably moving closer to the more stringent obligations of states taking part in international armed conflicts. However, it must be noted that this study is contentious. States and academics have expressed concerns regarding the methodology used to establish the rules and whether the authors have submitted sufficient facts and evidence to support these rules.[104]

The ICRC asserts that three customary international rules providing environmental protection in non-international armed conflicts have emerged.

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99 See Art. 35 and Art. 55 Additional Protocol I (note 4).

100 See Art. 38 Statute of the International Court of Justice, adopted 26.6.1945, entered into force 24.10.1945, 3 Bevans 1179, ICJ Statute, which contains the list of sources of international law.

101 See *J. B. Bellinger/W. J. Haynes*, A US Government Response to the International Committee of the Red Cross Study Customary International Humanitarian Law, Int'l Rev. of the Red Cross 89 (2007), 443 et seq.

102 *J. M. Henckaerts/L. Doswald-Beck* (note 16).

103 *J. M. Henckaerts/L. Doswald-Beck* (note 16).

104 See *J. B. Bellinger/W. J. Haynes* (note 101), 443 et seq.

Rule 43 confirms that the general principles of international humanitarian law regarding the conduct of hostilities are applicable to the environment.[105] This rule is not new, as the environment is considered a civilian object in armed conflicts, unless and for such time as that it becomes a military objective.[106] The second rule provides that due regard must be had to the environment in military operations.[107] The ICRC concedes that it is unclear whether this rule has truly attained customary international law status in non-international armed conflicts, stating that this rule is only "arguably" applicable in non-international armed conflicts.[108] Furthermore, the motivation for the application of this rule in non-international armed conflict is weak, as it states that

> "it can be argued that the obligation to pay due regard to the environment also applies in non-international armed conflicts if there are effects in another State".[109]

This implies that in addition to the fact that the very existence of this rule is merely "arguable", it only applies if transboundary harm is caused.[110]

The most significant customary international law rule asserted to apply in non-international armed conflicts is rule 45, which asserts that

> "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"

is a customary international law rule applicable in international armed conflicts, and "arguably" applicable in non-international armed conflicts as

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105 ICRC, Customary International Law Study: Rule 43, <https://ihl-databases.icrc.org>.

106 The San Remo Manual on Non-International Armed Conflicts supports the notion that the environment is a civilian object. See *M. N. Schmitt/C. H. B. Garraway/Y. Dinstein*, The Manual on the Law of Non-International Armed Conflict With Commentary, 2006, 59. See also ICRC, Customary International Law Study: Rule 9, <https://ihl-databases.icrc.org>, accessed 10.11.2017.

107 ICRC, Customary International Law Study: Rule 44, <https://ihl-databases.icrc.org>.

108 ICRC (note 107).

109 ICRC (note 107).

110 On transboundary harm see the *Trail Smelter Arbitration (USA v. Canada)* Arbitral Trib., 3 U.N. Rep. Int'l Arb. Awards 1905 (1941). Transboundary harm may occur in the context of a non-international armed conflict if, for example, the conflict itself is contained to the borders of one state but pollution resulting from military activities has negative effects on the environment in a neighbouring state; or if there is an armed conflict between a state and an organised armed group which is operating from across an international border. See Geneva Academy, Qualification of Armed Conflicts, <http://www.geneva-academy.ch>, accessed 18.7.2015.

well.[111] This rule is clearly reminiscent of the Art. 55 of Additional Protocol I. However, Art. 55 has been widely criticised in that the level of environmental protection offered by it is limited. Firstly, the use of the cumulative word "and" immediately indicates that it sets a high threshold for environmental damage.[112] In addition, the words "widespread", "long-term" and "severe" are not defined clearly. The Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention), which does not apply in non-international armed conflicts, provides "understandings" on how these terms should be understood.[113] It states that the term "widespread" encompasses an area on the scale of several hundred square kilometres; while "long-term" refers to a period of months; and "severe" requires "serious or significant disruption or harm to human life, natural economic resources or other assets".[114] These understandings only serve to highlight that this provision tolerates a high level of environmental damage and thus that it does not provide adequate environmental protection.

The customary international law rules related to environmental protection asserted by the ICRC to apply in non-international armed conflicts are not considered adequate. First, the motivation for their applicability in such conflicts is relatively weak, as the ICRC itself concedes that the rules are only "arguably" applicable in such conflicts.[115] Second, the wording of rule 45 creates an extremely high threshold of application, which tolerates a high level of environmental damage. Third, the ICRC asserts that due regard must be had for the environment, but only in situations where transboundary harm is caused. It is thus clear that the usefulness of these provisions is limited. It is for this reason that other branches of international law related to environmental protection, such as international human rights and international environmental law, may be more promising in the context of enhancing environmental protection in non-international armed conflict.

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[111] See ICRC Customary International Law Study: Rule 45 <https://ihl-databases.icrc.org>.

[112] See UNEP (note 36), 51.

[113] The ENMOD, "understandings" annexed to the treaty.

[114] See ENMOD (note 113).

[115] For example, ICRC, Customary International Humanitarian Law: Rule 45, <https://www.icrc.org>, accessed 26.6.2015: "State Practice Establishes This Rule as a Norm of Customary International Law Applicable in International and, *arguably,* also in Non-International Armed Conflicts." (Emphasis added).

2. The Potential of Other Branches of International Law to Provide Environmental Protection in Non-International Armed Conflict

The second way to enhance the protection of the environment in non-international armed conflict is to turn to other branches of international law which contain provisions on environmental protection, such as international human rights and environmental law. Several international environmental law treaties, such as the World Heritage Convention,[116] the Convention on Biological Diversity,[117] the Convention on International Trade in Endangered Species of Wild Fauna and Flora[118] and the Ramsar Convention[119] protect specific areas or species and have been recognised as having the potential to increase environmental protection in armed conflicts.[120]

While the link between international humanitarian and international environmental law in the context of the issue of the protection of the environment in non-international armed conflicts is clear, the link with international human rights law may seem less distinct. However, there is increasing support for the classification of the protection of the environment as a human rights issue.[121] This is due to the close relationship between environmental issues and certain human rights, and also because international human rights law enforcement mechanisms are already highly developed.[122]

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[116] Convention Concerning the Protection of the World Cultural and Natural Heritage, adopted 16.11.1972, entered into force 17.12.1975, Convention on World Heritage/World Heritage Convention has been widely ratified by 193 state parties. See UNESCO, States Parties Ratification Status, <http://whc.unesco.org>, accessed 14.11.2017 for more information about the Convention.

[117] Convention on Biological Diversity, adopted 5.6.1992, entered into force 29.12.1993, 1760 UNTS 79, (CBD).

[118] Convention on International Trade in Endangered Species of Wild Fauna and Flora, adopted 3.3.1973, entered into force 1.7.1975, 993 UNTS 243, (CITES). See the CITES website for more information <http://www.cites.org>, accessed 1.11.2015.

[119] Convention on Wetlands of International Importance Especially as Waterfowl Habitat, adopted 2.2.1971, entered into force 21.12.1975, 996 UNTS 245, (Ramsar Convention), has 170 state parties. See the Ramsar Convention official website "The Ramsar Convention and Its Mission", <http://www.ramsar.org>, accessed 14.11.2017 for more information.

[120] See on this *K. Hulme* (note 89), 248. See UNESCO, Resource Manual: Managing Natural World Heritage, UNESCO 2010, 26; *A. Peters*, Novel Practice of the Security Council: Wildlife Poaching and Trafficking as a Threat to Peace, EJIL: Talk!, 12.2.2014, <http://www.ejiltalk.org>, accessed 20.3.2017; *B. Sjöstedt*, Protecting the Environment in Relation to Armed Conflict: The Role of Multilateral Environmental Agreements, Ph.D. thesis, Lund University 2016; and *T. Smith* (note 5), 72.

[121] See *J. van der Vyver,* The Environment: State Sovereignty, Human Rights, and Armed Conflict, Emory Int'l L. Rev. 23 (2009), 85.

[122] *J. van der Vyver* (note 121), 93.

Although the right to a healthy environment is included in the domestic law of many states, it is less concretised on the regional and international levels.[123] An examination of the existing legal material reveals that an explicit right to a clean environment is conspicuously absent from any global human rights treaty.[124] Despite this, specific global human rights treaties contain certain human rights that are closely related to environmental protection.[125] These rights are the right to life;[126] the right to health;[127] the right to family life;[128] the right to self-determination;[129] the right to an adequate

[123] UNHR Special Rapporteur on Human Rights and the Environment "Introduction", available at <http://www.ohchr.org>, accessed 9.4. 2015.

[124] See *L. Horn*, The Implications of the Concept of Common Concern of a Human Kind on a Human Right to a Healthy Environment, Macquarie Journal of International and Comparative Environmental Law 1 (2004), 233 et seq.; *L. Collins*, Are We There Yet? The Right to Environment under International and European Law, McGill International Journal of Sustainable Development Law and Policy 3 (2007), 122.

[125] *E. de Wet/A. du Plessis*, The Meaning of Certain Substantive Obligations Distilled From International Human Rights Instruments for Constitutional Environmental Rights in South Africa, African Human Rights Law Journal 10 (2010), 345, 351; UNEP (note 36), 48 et seq.; *D. Anton/D. Shelton*, Environmental Protection and Human Rights, 2011; *L. Hajjar Leib*, Human Rights and the Environment, 2011.

[126] Art. 6(1) ICCPR: "Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."

[127] Art. 12(1) ICESCR: "The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. Importantly, the right to health has been associated with the right to water, as lack of clean water negatively affects the health of people." See Office of the United Nations High Commissioner for Human Rights, The Right to Health: Fact Sheet 31 (2008), 3, 4, 12, <http://www.ohchr.org>, accessed 12.11.2017.

[128] Art. 23 ICCPR: "The family is the natural and fundamental group unit of society and is entitled to protection by society and the State." ICESCR Art. 10: "The widest possible protection and assistance should be accorded to the family, which is the natural and fundamental group unit of society, particularly for its establishment and while it is responsible for the care and education of dependent children."

[129] Art. 1 ICCPR: "1. All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development. 2. All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence. 3. The States Parties to the present Covenant, including those having responsibility for the administration of Non-Self-Governing and Trust Territories, shall promote the realization of the right of self-determination, and shall respect that right, in conformity with the provisions of the Charter of the United Nations." Art. 1 ICESCR: "1. All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development. 2. All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence. 3. The States Parties

standard of living;[130] the right to property;[131] and the protection of minorities.[132] On the regional level, several binding and non-binding agreements allude to environmental rights.[133] However, the African Charter on Human and Peoples' Rights and the Additional Protocol to the American Convention on Human Rights[134] are the only binding regional instruments which explicitly guarantee environmental rights.[135]

The applicability of international human rights law in armed conflict has been set down in international humanitarian law treaties,[136] international human rights law treaties[137] as well as in the decisions of various courts and

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to the present Covenant, including those having responsibility for the administration of Non-Self-Governing and Trust Territories, shall promote the realization of the right of self-determination, and shall respect that right, in conformity with the provisions of the Charter of the United Nations."

130 Art. 11(1) ICESCR: "The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent."

131 Art. 14 African Charter on Human and Peoples' Rights: "The right to property shall be guaranteed. It may only be encroached upon in the interest of public need or in the general interest of the community and in accordance with the provisions of appropriate laws."

132 Art. 28 ICCPR: "In those states in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language."

133 See Art. 38 Arab Charter on Human Rights, adopted 23.5.2004, where it is included under the right to an adequate standard of living. Environmental rights are also alluded to in non-binding human rights instruments such as in Art. 28(f) ASEAN Human Rights Declaration, adopted 18.11.2012, where it is included under the right to an adequate standard of living.

134 Art. 11 Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, adopted 17.11.1988, entered into force 16.11.1999, OAS Treaty Series No. 69 (Protocol of San Salvador) and Art. 24 African Charter on Human and Peoples' Rights, adopted 27.6.1981, entered into force 21.10.1986, OAU Doc. CAB/LEG/67/3 rev 5 (African Charter). Note that the Protocol of San Salvador is not directly enforceable by the Inter-American Court of Human Rights. See *O. R. Ruiz-Chiriboga*, The American Convention and the Protocol of San Salvador: Two Intertwined Treaties – Non-Enforceability of Economic, Social and Cultural Rights in the Inter-American System, NQHR 31 (2013), 159.

135 This is important because to the fact that the majority of non-international armed conflicts occur in Africa. *E. de Wet/A. du Plessis* (note 125), 350.

136 Art. 72 Additional Protocol I; Preamble Additional Protocol II.

137 See e.g., Art. 4 ICCPR; Art. 15 European Convention for the Protection of Human Rights and Fundamental Freedoms, adopted 4.11.1950, entered into force 3.9.1953, ETS 5, (European Convention on Human Rights); Art. 27 American Convention on Human Rights, adopted 22.11.1969, entered into force 18.7.1978. For an explanation, see *S. Sivakumaran*, The Law of Non-International Armed Conflict, 2013, 83.

other bodies.[138] In addition, the ILC Draft Articles on the Effect of Armed Conflict on Treaties takes as its starting point that the existence of an armed conflict does not *ipso facto* terminate or suspend the operation of treaties, and international human rights law treaties are amongst those listed which are suggested to continue to apply during armed conflict.[139] Nevertheless, controversy surrounding the debate remains, as certain state practice still maintains that armed conflicts are governed only by international humanitarian law and that international human rights law does not apply.[140]

The application of international human rights law in non-international armed conflict in particular has also been addressed, with some authors of the opinion that its applicability in non-international armed conflict is even more relevant and necessary than in international armed conflict.[141] Alt-

[138] See *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion), ICJ Reports 1996, 226, para. 25; *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, (Advisory Opinion), ICJ Reports 2004, 136, para. 106; *Democratic Republic of the Congo v. Uganda* (note 19), 168, para. 216; ILC, Report of the Study Group of the International Law Commission, Fragmentation of International Law: Difficulties Arising From the Diversification and Expansion of International Law, 4.4.2006, UN Doc. A/CN.4/L.682, para. 104; UNHCR, General Comment No. 31, in "Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies", HRI/GEN/1/Rev 9 (2008), Vol. I, 243 at para. 11. See also *S. Sivakumaran* (note 137), 83.

[139] Report of the ILC, Draft Articles on the Effects of Armed Conflicts on Treaties, 63rd Session, 2011, II(2) ILCYB, 173, Art. 3. For an overview, see *C. Droege*, The Interplay between International Humanitarian Law and International Human Rights Law in Situations of Armed Conflict, Isr. L. R. 40 (2007) 40; *I. Schobbie*, Human Rights Protection During Armed Conflict: What, When and for Whom?, in: E. de Wet/J. Kleffner (eds.), Convergence and Conflicts of Human Rights and International Humanitarian Law in Military Operations, 2014.

[140] For example, the United States and Israel have defended the position that international human rights law does not apply during armed conflicts. See *I. Siatitsa/M. Titberidze*, Human Rights in Armed Conflict from the Perspective of the Contemporary State Practice in the United Nations: Factual Answers to Certain Hypothetical Challenges, 2011, 1 et seq., 8 et seq., <http://www.geneva-academy.ch>, accessed 1.11.2015. See Letter Dated 14.4.2003 from the Chief of Section, Political and Specialized Agencies, of the Permanent Mission of the United States of America to the United Nations Office at Geneva addressed to the Secretariat of the Commission on Human Rights (Response of the Government of the United States of America to the letter from the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, *Asma Jahangir's* letter to the Secretary of State dated 15.11.2002 and to the findings of the Special Rapporteur contained in her report to the Commission on Human Rights [E/CN.4/2003/3]), UN Doc. E/CN.4/2003/G/80, 2 et seq.; as well as *P. Alston/J. Morgan-Foster/W. Abresch*, The Competence of the UN Human Rights Council and Its Special Procedures in Relation to Armed Conflicts: Extrajudicial Executions in the "War on Terror", EJIL 19 (2008), 183; *M. Dennis*, ICJ Advisory Opinion on Construction of a Wall in the Occupied Palestinian Territory: Application of Human Rights Treaties Extraterritorially in Times of Armed Conflict and Military Occupation, AJIL 99 (2005), 119.

[141] *W. Abresch*, A Human Rights Law of Internal Armed Conflict: The European Court of Human Rights in Chechnya, EJIL 16 (2005), 741, 742.

hough the debate has not been settled,[142] even those known to be otherwise sceptical of the applicability of international human rights law in armed conflict accept the need for the international human rights law to apply in non-international armed conflict.[143] It has been stated that it is implied by the nature of the conflict that individuals (which includes members of non-state parties to an armed conflict) are "within the jurisdiction" of the territorial state against which they are fighting and, therefore, that international human rights law applies just as much as international humanitarian law does.[144] While the applicability of international environmental law in non-international armed conflict has not been addressed to the same extent as the applicability of international human rights law, there are indications pointing to its continued applicability. The Draft Articles on the Effects of Armed Conflict on Treaties take as a starting point that the existence of an armed conflict does not *ipso facto* terminate or suspend treaty obligations, and treaties regulating the protection of the environment are amongst those listed that are suggested to continue to apply.[145] In addition, experts have opined that the applicability of international environmental law treaties is generally not affected by a non-international armed conflict unless the treaty in question contains a provision regulating such.[146]

In summary, there is a degree of acceptance that international human rights law treaties apply in non-international armed conflicts, and there are some indications that international environmental law treaties continue to apply as well. Therefore, international human rights and international environmental law may be used to fill the gaps in environmental protection in such conflicts, including those related to environmental protection.[147] However, the substantive contours of the relationship between these bodies of law remains unclear.[148] When two bodies of law deal with the same issue,

142 Therefore, although it has been recognised that human rights law does apply to states during a non-international armed conflict and that it may be binding on non-state parties to an armed conflict, it may not be applied in the same way, as non-state parties to an armed conflict may lack the capacity or infrastructure to do so. See *G. Blum*, Re-Envisaging the International Law of Internal Armed Conflict: A Reply to Sandesh Sivakumaran, EJIL 22 (2011), 265 et seq.

143 *S. Sivakumaran* (note 137), 84.

144 *E. de Wet/J. Kleffner* (note 139), 3.

145 Art. 3, Draft Articles on the Effects of Armed Conflicts on Treaties (note 139).

146 *A. Bouvier*, Protection of the Natural Environment in Time of Armed Conflict, Int'l Rev. of the Red Cross 81 (1991), 285; *M. Bothe/K. Partsch/W. Solf* (note 12), 581; See UNEP (note 36), 47.

147 *I. Siatitsa/M. Titberidze* (note 140), 17 et seq.

148 See *E. de Wet/J. Kleffner* (note 139), 3.

they could either converge and apply harmoniously, or one or more of their norms could conflict with one another.[149]

This author asserts that international environmental law as well as human rights law treaties are particularly suitable to be applied harmoniously with international humanitarian law because of the nature of the provisions included in the agreements.[150] Many international human rights and environmental law treaty provisions are loosely formulated, allowing for a level of flexibility and discretion as to how they should be applied.[151] This is because these norms need to bind states with different levels of resources and, therefore, they need to give states discretion as to how best to implement a treaty.[152] In order for a conflict to occur, the treaties need to clearly and unambiguously stipulate the obligations of the parties.[153] If the treaty is vague, it means that the provisions are open to interpretation which means that conflicts with other treaties are less likely "because a clear incompatibility will not automatically be established".[154] These elements allow states to take into account the possible impact that an armed conflict may have on their ability to comply with their obligations under these treaties and, as such, allows compromises to be reached.[155]

In essence, the growing acceptance of the application of international human rights and environmental law treaties in armed conflict does not mean that the treaties will apply in the same way that they apply in peacetime, as it would be unrealistic to impose the same duties on states in times of armed conflict as in peace time.[156] Essentially, the interests of the envi-

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149 See *E. de Wet/J. Kleffner* (note 139), vii.

150 See *S. Vöneky*, Armed Conflict, Effects on Treaties, in: F. Lachenmann/R. Wolfrum, The Law of Armed Conflict and the Use of Force, MPEPIL, 2017, 42.

151 See *J. Nickel*, Making Sense of Human Rights: Philosophical Reflections on the Universal Declaration of Human Rights, 1987, 41. See also *S. Liebenberg*, Engaging the Paradoxes of the Universal and Particular in Human Rights Adjudication: The Possibilities and Pitfalls of "Meaningful Engagement", African Human Rights Law Journal 1 (2012), 12. See also *A. Byrnes*, Second-Class Rights Yet Again? Economic, Social and Cultural Rights in the Report of the National Human Rights Consultation, UNSWLJ 33 (2010), 193; *I. Bantekas/L. Oette*, International Human Rights Law and Practice, 2016, 84.

152 See *J. Nickel* (note 151), 41. See also *S. Liebenberg* (note 151), 8, 11. See also *A. Byrnes* (note 151), 201. See *I. Bantekas/L. Oette* (note 151), 84.

153 See *B. Sjöstedt* (note 120), 253; *N. Matz*, Co-Operation and International Environmental Governance, in: R. Wolfrum/N. Matz, Conflicts in International Law, 2003, 10; *D. Shelton*, Resolving Conflicts between Human Rights and Environmental Protection in: E. de Wet/J. Vidmar, Hierarchy in International Law, 2012, 206, 209. See *J. Nickel* (note 151), 41; *I. Bantekas/L. Oette* (note 151), 84.

154 *N. Matz* (note 153), 10 et seq.

155 *B. Sjöstedt* (note 120), 243.

156 See *S. Vöneky* (note 150), 41; *D. Murray*, Practioners' Guide to Human Rights Law in Armed Conflict, 2016, 102.

ronment and individuals who may be negatively influenced by harm to the environment need to be balanced with the military interests of the state in question, which may gain an advantage by conducting attacks in or against areas that may be protected by specific international environmental law agreements.[157]

As a general rule however, the further removed an area is from the conflict and/or the less intense the fighting is at a certain time, the less weight would be afforded to international humanitarian law considerations.[158] Conversely, the closer an area is to a conflict and/or the greater the intensity of the conflict at that particular time, the greater weight could be afforded to international humanitarian law considerations.[159] The relevant international environmental and human rights law treaties, thus, could be applied with reference to international humanitarian law, which would be used to *inform its interpretation* on a case-by-case basis, so that the realities posed by an armed conflict could be taken into account in its application.[160] However, this is merely a general rule, and other considerations would also need to be taken into account in the assessment – for instance although the treaty could apply in total if the protected area is some distance from the actual conflict, resource and institutional capacity constraints resulting from the conflict could still affect whether the state is able to effectively implement the treaty.[161]

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157 See *K. Hulme* (note 89), 263 et seq. and *B. Sjöstedt* (note 120), 264 et seq.

158 *K. Hulme* (note 89), 263; *F. Hampson/L. Sevón/R. Wieruszewski*, Report on The Implementation of Certain Human Rights Conventions in Sri Lanka: Final Report, European Commission, 30.9.2009, 18 et seq., which explains (in relation to international humanitarian law generally) that: "First, LOAC/IHL can only affect the operation of human rights law in areas where the fighting is taking place or in relation to issues arising directly out of the conflict but having an effect everywhere. So, for example, the law and order paradigm will be applicable to killings outside areas where active hostilities are occurring but the LOAC/IHL paradigm will be applicable to the conduct of active hostilities. Similarly, detention will generally be covered by human rights law. Where, however, detention is based on grounds relating to the conflict, wherever the detention occurs, it will be examined in the light of LOAC/IHL."

159 *K. Hulme* (note 89), 263.

160 See *B. Sjöstedt* (note 120), 331 et seq.

161 *B. Sjöstedt* (note 120), 243.

IV. Conclusion

The aim of this article was to analyse the rules applicable to the protection of the environment in non-international armed conflicts under international humanitarian law and to find ways to increase environmental protection in such situations. The analysis of the relevant international humanitarian law treaties revealed that Common Article 3 does not provide any direct environmental protection in non-international armed conflicts. An extremely broad interpretation of its provisions could provide some level of indirect environmental protection. However, such an interpretation is not desirable as it may lead to legal uncertainty which could ultimately undermine international humanitarian law treaty law. This is worrying as Additional Protocol II is not universally ratified and has a higher threshold of application and narrower scope of application than Common Article 3. This means that the only international humanitarian law treaty rules applying to many non-international armed conflicts today are those contained in Common Article 3, which provides extremely weak and indirect protection to the natural environment. Although the analysis identified several provisions of Additional Protocol II as having the potential to prohibit environmental damage in non-international armed conflicts, numerous obstacles were encountered. These include the fact that the protection offered by the provisions is largely indirect and often limited in scope. Furthermore, a lack of case law and State practice makes it difficult to determine how one should interpret these provisions. As with all international humanitarian law provisions, the level of protection offered depends on how the provision is interpreted in practice and furthermore, whether or not it is actually respected by belligerents.

The international humanitarian law treaty law rules which may offer some level of environmental protection in non-international armed conflicts thus do not provide adequate environmental protection. The protection offered is weak and piecemeal, which results in the environment remaining vulnerable to the negative effects of armed conflict. Two solutions to this problem were then explored. The first proposed solution was to extend the rules applicable in international armed conflicts to apply in non-international armed conflict as customary international law. However, this solution was ultimately rejected in light of the fact that the international humanitarian law rules applicable in international armed conflicts themselves are weak as they tolerate a high level of environmental harm. Therefore, even if it is accepted that these rules apply in non-international armed conflicts as a matter of customary international law, the environmental protection offered by them is still inadequate.

The second proposed solution is to turn to international human rights and international environmental law to enhance environmental protection in non-international armed conflicts. While there certainly is more support for the continued application of international human rights law treaties in non-international armed conflict, there is an emerging viewpoint that environmental law treaties may continue to apply as well. It was shown that the loosely-formulated nature of the provisions included in the agreements allows a level of flexibility and discretion as to how they should be applied, makes international environmental law and international human rights law agreements particularly promising to be able to accommodate international humanitarian law considerations. Even though the treaties continue to apply as a general rule, their application in practice might be affected by the applicability of international humanitarian law.[162] Since the level of intensity of each non-international armed conflict differs greatly, and at different points during the same conflict, this would need to be done on a case-by-case basis.

[162] *A. Aust*, Modern Treaty Law and Practice, 2002, 244; *S. Vöneky*, A New Shield for the Environment: Peacetime Treaties as Legal Restraints of Wartime Damage, RECIEL 9 (2000), 20 et seq.; UNEP (note 36), 44.