

Time for “environmentarian corridors”? Investigating the concept of safe passage to protect the environment during armed conflict

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Abstract

Actors engaging in a diverse set of environmental protection activities are experiencing serious difficulties executing their mandates during armed conflict, leading to environmental harm that could otherwise have been mitigated. This article examines to what extent the international legal and policy framework can ensure the protection of environmental protection actors during armed conflict. It is argued that environmental protection actors can be seen either as part of civil defence organizations or as humanitarian relief actors, and are therefore covered by special

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protections under international humanitarian law. However, two main challenges remain: (1) despite these existing provisions, environmental protection actors may still face access and safety issues during armed conflict, and (2) within this framework, environmental protection activities must be linked to civilian needs and cannot be conducted based on ecocentric motivations. To overcome these challenges, the article introduces the concept of “environmentarian corridors”. Environmentarian corridors would allow for the unimpeded movement of environmental protection workers and resources through contested territory and into emergency areas to protect the environment. They would also serve to increase awareness about obligations to protect the environment and would help to ensure the safety of environmental protection actors during armed conflict, as the role and mandate of these actors is explicitly accepted by stakeholders. Additionally, environmentarian corridors offer potential for conducting environmental protection activities on ecocentric grounds. The article concludes by advocating for stakeholders to employ the provisions and concepts articulated herein as a means to further promote and strengthen initiatives aimed at protecting the environment during armed conflict.

Keywords: environmental protection, armed conflict, environmental impacts, international humanitarian law, humanitarian corridors, civil defence, humanitarian relief.

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Introduction

While peacetime activities cause the largest proportion of environmental degradation and damage in the world, the historical record of armed conflicts shows that warfare has also had a dramatic impact on various aspects related to the environment.¹ With Earth systems² already exposed in peacetime, and with the introduction of new military technologies, the severity of environmental impacts associated with armed conflict has considerably worsened in recent years.³ Greater environmental damage is now possible in a single day than in months of warfare 2,000 years ago, even without taking into consideration weapons of mass destruction.⁴ This is further exacerbated by exploitation of natural resources to finance armed forces, leading to significant environmental degradation.⁵

- 1 Karen Hulme, *War Torn Environment: Interpreting the Legal Threshold*, Brill, Leiden and Boston, MA, 2004.
- 2 “Earth systems” are defined here as the interacting physical, chemical and biological processes between the atmosphere, cryosphere, land, ocean and lithosphere. See Will Steffen *et al.*, “The Emergence and Evolution of Earth System Science”, *Nature Reviews Earth and Environment*, Vol. 1, No. 1, 2020.
- 3 Nada Al-Duaij, *Environmental Law of Armed Conflict*, Transnational Publishers, New York, 2004.
- 4 Susan D. Lanier-Graham, *The Ecology of War: Environmental Impacts of Weaponry and Warfare*, Walker, New York, 1993.
- 5 Richard A. Matthew, Oli Brown and David Jensen, *From Conflict To Peacebuilding: The Role Of Natural Resources And The Environment*, Policy Paper No. 1, United Nations Environment Programme (UNEP), Nairobi, 2009; Global Witness, *The Sinews Of War: Eliminating The Trade In Conflict Resources*, briefing document, November 2006.

As the devastating impacts of armed conflicts on the environment have become increasingly considered by the international community, there has been a growing demand for strategies that can prevent and mitigate environmental destruction during war.⁶ Avoiding environmental harm before it occurs is safer, easier and cheaper than retroactively remedying environmental damage that has already been inflicted;⁷ different strategies have therefore been proposed by experts and scholars to prevent environmental damage from occurring in the first place. Such strategies include integrating environmental considerations into military planning,⁸ developing and strengthening international agreements and protocols,⁹ creating protected areas and demilitarized zones,¹⁰ and fostering environmental awareness among military personnel.¹¹

Despite these commendable efforts, however, environmental damage during armed conflict continues to occur. This has most recently been seen in the Russia–Ukraine war, where fighting has led to severe air pollution, greenhouse gas emissions and habitat destruction for wildlife.¹² The environmental disaster in Ukraine highlights the importance of adopting a holistic approach to environmental protection, which should not only focus on preventing harm but also include strategies to mitigate the ecological damage caused by such events. Addressing environmental damage after it has occurred is a necessary course of action in order to mitigate the negative impacts on both the environment and human communities.

Yet, actors engaging in a diverse set of environmental protection activities to remediate environmental harm (such as extinguishing forest fires,¹³ conserving biodiversity¹⁴ or providing environmental remediation¹⁵) are experiencing serious difficulties in executing their mandates during armed conflicts. This leads to environmental harm that otherwise could have been mitigated. Recognizing the importance of engaging environmental protection actors at an early stage after an environmental damage event, this article will discuss the existing legal and policy infrastructure that could serve to secure the safe passage of workers and relief

6 K. Hulme, above note 1.

7 N. Al-Duaij, above note 3, p. 45.

8 David E. Mosher *et al.*, *Green Warriors: Army Environmental Considerations for Contingency Operations from Planning through Post-Conflict*, Rand Corporation, Santa Monica, CA, 2008.

9 Elizabeth Mrema, Carl Bruch and Jordan Diamond, *Protecting the Environment during Armed Conflict: An Inventory and Analysis of International Law*, UNEP and Earthprint, Nairobi, 2009.

10 Michaela Halpern, “Protecting Vulnerable Environments in Armed Conflict: Deficiencies in International Humanitarian Law”, *Stanford Journal of International Law*, Vol. 51, No. 2, 2015.

11 Hendrik A. P. Smit, “How Green is Your Army? The Military Environmental Narrative of the South African Army”, *South African Geographical Journal*, Vol. 100, No. 3, 2018.

12 Paulo Pereira, Ferdo Bašić, Igor Bogunovic and Damia Barcelo, “Russian–Ukrainian War Impacts the Total Environment”, *Science of the Total Environment*, Vol. 837, 2022.

13 Olena Yatseno, “Kinburn Spit was under the Threat of Destruction – Denisova”, *Ecopolitic*, 17 May 2022, available at: <https://tinyurl.com/32f4kana> (all internet references were accessed in July 2023).

14 Henrike Schulte and Doug Weir, “Do Mention the War: Why Conservation NGOs Must Speak Out on Biodiversity and Conflicts”, Conflict and Environment Observatory, 11 April 2022, available at: <https://ceobs.org/do-mention-the-war-why-conservation-ngos-must-speak-out-on-biodiversity-and-conflicts/>.

15 World Bank, *Implementation Completion and Results Report: Red Sea and Gulf of Aden Strategic Ecosystem Management Project*, Report No. ICR00004650, 28 June 2019.

action aimed at protecting, safeguarding and restoring the environment during armed conflict.

First, the article proceeds to describe the anthropocentric and ecocentric underpinnings for engaging in environmental protection activities during armed conflict. These two perspectives are not mutually exclusive, but they do entail the use of different legal and policy instruments to a certain extent, so it is important to understand the difference between them.

Thereafter, the justification for conducting environmental protection efforts during an ongoing armed conflict will be described by highlighting how the current legal and policy frameworks have failed to prevent environmental damage in the context of armed hostilities. It is also noted how post-conflict remedial measures frequently prove inadequate in addressing environmental degradation in a prompt and cost-effective manner, particularly when conflicts become protracted over several years. This speaks to the need for environmental remedial measures also during an ongoing armed conflict.

Resting on the anthropocentric rationale for environmental protection, and given the mounting scientific evidence that testifies to the centrality of a clean, healthy and sustainable environment for human survival, there is a strong argument for considering environmental protection actors to be seen either as part of civil defence organizations¹⁶ or as humanitarian relief actors.¹⁷ This would extend special protections to environmental protection actors under international humanitarian law (IHL).

While this interpretation would represent a significant step towards improving safety and security conditions for environmental protection actors during armed conflict, there may still be situations when these actors are confronted with access and safety challenges. Thus, in addition to supporting sensitization efforts on how existing obligations can be interpreted to allow for access and protection of environmental protection actors, it is suggested that the international community advocate for the establishment of so-called “environmentarian corridors”. This idea draws upon recent legal developments on the concept of protected zones for safeguarding the environment,¹⁸ and would refer to a protected zone which allows environmental protection workers and resources to access contested territory and emergency areas for the purpose of providing emergency environmental protection. By referring to this zone as an “environmentarian corridor”, it may also help to improve general awareness of the importance of protecting the environment during armed conflict.

Finally, it is noted that these two approaches can be utilized together, or independently. Environmental protection activities qualifying as civil defence or

16 As defined in Protocol Additional (I) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 1125 UNTS 3, 8 June 1977 (entered into force 7 December 1978) (AP I), Arts 61–67.

17 The definition of humanitarian relief actors is discussed under the section “Environmental Actors as Humanitarian Relief Workers”.

18 See, for example, International Law Commission (ILC), *Draft Principles on Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/74/10, 9 August 2022, Arts 4, 17.

humanitarian relief can be carried out both in the context of environmentarian corridors and as autonomous, distinct operations. An environmentarian corridor may be called for to enhance safety for those carrying out environmental protection as part of civil defence or humanitarian relief, but also in instances where the link between the environmental protection activity and the well-being and safety of civilians is weaker, and the protection activity is instead underpinned by ecocentric motivations. The success of utilizing a particular framework in a given situation will ultimately depend on the environmental damage situation, the environmental protection initiative under consideration, the conflict scenario, and the geopolitical dynamics involved. Of primary concern is a normative shift in the importance attributed to environmental protection activities during armed conflicts. Parties need to be aware that there is often a pressing need to mitigate and remediate harm as soon as possible after environmental damage has occurred and that environmental protection actors should be accorded free access to carry out activities without having to fear for their security and well-being.

Protecting the environment during armed conflict

Motivations for protecting the environment under international law can generally be divided into two categories: anthropocentric and ecocentric. The anthropocentric perspective values the environment for its utility to humankind, including its ability to provide resources such as food, shelter, fuel and clothing. This approach also recognizes the impact of the environment on the quality of human life.¹⁹

The ecocentric perspective does not ignore the importance of the environment to human survival, but insists that the value of protecting the environment is not dependent on its utility for human beings.²⁰ Of course, both positions are ultimately epistemologically anthropocentric, as they rely on human constructs and reflect human perceptions of the relationships between humans and the natural world. However, the terms are employed in this article to denote a shift from a narrow conception of human interest that prioritizes direct aesthetic, economic or self-preserving concerns to a broader understanding that recognizes the need to sacrifice some of these interests in order to achieve a particular conception of “nature”. Thus, it may be more accurate to characterize the difference as one between anthropocentric anthropocentrism and ecocentric anthropocentrism.²¹

19 Alexander Gillespie, “Anthropocentrism”, in Alexander Gillespie (ed.), *International Environmental Law, Policy, and Ethics*, Oxford University Press, Oxford, 2014.

20 Michael N. Schmitt, “Green War: An Assessment of the Environmental Law of International Armed Conflict”, *Yale Journal of International Law*, Vol. 22, No. 1, 1997.

21 Jessica C. Lawrence and Kevin Jon Heller, “The First Ecocentric Environmental War Crime: The Limits of Article 8(2)(b)(iv) of the Rome Statute”, *Georgetown International Environmental Law Review*, Vol. 20, No. 1, 2007.

In recent decades, there have been various efforts to shift the focus of international environmental law away from its original anthropocentric biases and to recognize the inherent value of the environment and the need to protect it for its own sake, rather than solely for its instrumental value to humans.²² Still, the main focus of IHL, which is the body of law governing armed conflict, has always been humanitarian concerns – protecting the lives and dignity of individuals, distinguishing between combatants and civilians, and regulating the means and methods of warfare in order to minimize suffering and harm to individuals.²³ This means that the justification for engaging in environmental protection measures under IHL will often have to be made on anthropocentric grounds.

Environmental protection under IHL

While IHL has traditionally given less consideration to environmental issues due to its focus on protecting human beings, protection of the environment is not completely absent from this body of law. This section will provide a brief overview of the environmental protections offered by IHL.

Many IHL provisions consider the environment as deserving of protection in light of its importance to humans, human interests and human survival, reflecting an anthropocentric approach. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services has made an attempt to unpack local, indigenous knowledge and academic research from various disciplines in order to describe “nature’s contributions to people” – an analytical and generalizing perspective that highlights the flows from nature to people, defined by the type of contribution that a particular aspect of nature makes to people’s quality of life.²⁴ Considering these various contributions, it is clear that in order to adequately further human welfare and protect humans, the environment needs to be protected. This is also in line with international human rights law, where the human right to a healthy environment has been widely recognized.²⁵ While environmental rights and responsibilities long have been established in many indigenous cultures, the Stockholm Declaration of 1972²⁶ marked the first official recognition of the human right to live in a healthy environment.²⁷ The right to a clean, healthy and sustainable environment as a human right was also recently recognized by the United Nations (UN) General Assembly,²⁸ and several courts

22 Vito De Lucia, “Beyond Anthropocentrism and Ecocentrism: A Biopolitical Reading of Environmental Law”, *Journal of Human Rights and the Environment*, Vol. 8, No. 2, 2017.

23 Michael D. Deiderich Jr, “‘Law of War’ and Ecology – A Proposal for a Workable Approach to Protecting the Environment through the Law of War”, *Military Law Review*, Vol. 136, 1992, pp. 142–143.

24 Sandra Díaz *et al.*, “Assessing Nature’s Contributions to People”, *Science*, Vol. 359, No. 6373, 2018.

25 David R. Boyd, “Catalyst for Change: Evaluating Forty Years of Experience in Implementing the Right to a Healthy Environment”, in John H. Knox and Ramin Pejan (eds), *The Human Right to a Healthy Environment*, Cambridge University Press, Cambridge, 2018, p. 17.

26 Declaration of the UN Conference on the Human Environment, UN Doc. A/Conf.48/14/ Rev.1, 1972.

27 D. R. Boyd, above note 25, p. 17.

28 UNGA Res. 76/300, 28 July 2022.

and tribunals have explicitly acknowledged the interconnectedness between humans and the environment by affirming that environmental harm affects the right to life.²⁹

Under customary IHL, the civilian status of the environment is considered a cornerstone principle in environmental protection during armed conflict.³⁰ The IHL principle of distinction prohibits attacks against the natural environment and affords the environment immunity from attacks as long as it does not constitute a military objective.³¹ However, certain parts of the environment may become legitimate targets, such as when military personnel are using natural areas for cover or concealment.³² In situations where elements of the environment constitute a military objective, the principles of proportionality and necessity provide that an attack may be deemed unlawful if the collateral civilian damage, including environmental damage, is excessive in relation to the specific military advantage gained. States must weigh the anticipated military advantage against the foreseeable environmental damages when assessing whether an attack is proportionate or not. These principles serve to protect the environment from unnecessary harm,³³ but the inherent uncertainty surrounding the potential impact of such damages can make it challenging to accurately determine proportionality in these situations.³⁴

In response to a growing general awareness of the need to protect the environment, notable legal advancements have arisen within IHL with the aim of promoting environmental protection for its own sake.³⁵ The 1970s saw the adoption of the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Techniques (ENMOD Convention)³⁶ and Additional

29 The most recent ruling is the Advisory Opinion of the Inter-American Court of Human Rights which established that there is an inherent relationship between human rights and environmental protection. See, for example, Inter-American Court of Human Rights, *Medio ambiente y derechos humanos [The Environment and Human Rights]*, Advisory Opinion No. OC 23-17, Series A, No. 23, 15 November 2017; Inter-American Commission on Human Rights, *Yanomami v. Brazil*, Resolution No. 12/85, Case No. 7615, 5 March 1985; Community Court of Justice, Economic Community of West African States, *Socio-Economic Rights and Accountability Project (SERAP) v. Nigeria*, Judgment No. ECW/CCJ/JUD/18/12, 14 December 2012; European Court of Human Rights, *Öneryildiz v. Turkey*, Appl. No. 48939/99, Judgment, 30 November 2004, para. 71.

30 Dieter Fleck (ed.), *The Handbook of International Humanitarian Law*, Oxford University Press, Oxford, 2021, p. 341.

31 Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict*, Cambridge University Press, Cambridge, 2016, pp. 204–205.

32 Dieter Fleck, “Protection of the Environment in Relation to Armed Conflicts”, in D. Fleck (ed.), above note 30, p. 341. This principle is codified in Article 2(4) of Protocol III to the Convention on Certain Conventional Weapons, which specifies that only elements of the environment which cover, conceal or camouflage military objectives may be targeted.

33 Peter J. Richards and Michael N. Schmitt, “Mars Meets Mother Nature: Protecting the Environment during Armed Conflict”, *Stetson Law Review*, Vol. 28, No. 4, 1999.

34 Michael Bothe, Carl Bruch, Jordan Diamond and David Jensen, “International Law Protecting the Environment during Armed Conflict: Gaps and Opportunities”, *International Review of the Red Cross*, Vol. 92, No. 879, 2010, pp. 569, 577.

35 D. Fleck, above note 32.

36 Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques, 1108 UNTS 151, 10 December 1976 (entered into force 5 October 1978) (ENMOD Convention), Art. 63(2).

Protocol I to the four Geneva Conventions of 1949 (AP I).³⁷ Both AP I and the ENMOD Convention are unprecedented in one important aspect: both instruments contain provisions that are aimed at protecting the Earth's natural environment for its own sake and do not depend upon direct injury to identifiable human beings, thus taking a more ecocentric approach than previous provisions existing at the time.³⁸

Article 1 of the ENMOD Convention prohibits “environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction”, while Article 35 of AP I holds that “[i]t is prohibited to employ methods and means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment”. Additionally, Article 55 of AP I holds that “[c]are shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage”.

The differences between the texts are not an oversight but are intentional. The three conditions of the prohibition in AP I are cumulative (joined by “and”), making the damage threshold under AP I very high. While the ENMOD Convention does not share the same high threshold (the conditions in the Convention are alternatives, joined by “or”), it is highly specific and refers only to environmental modification techniques, making it difficult to apply in other circumstances.

Limitations of the IHL framework for preventing environmental harm

The existing framework of IHL exhibits several limitations with regard to effectively preventing environmental harm that may occur during armed conflicts.

Scholars have held that it is very unlikely that the damage threshold under AP I or the ENMOD Convention can ever be reached by conventional warfare.³⁹ Both provisions have been criticized for being excessively restrictive, making the prohibition much too narrow from an environmental point of view.⁴⁰

Although the environment in principle is considered a civilian object, elements of the environment often become military objectives if they are used for military purposes. The movement of soldiers, even if temporary, can result in the loss of civilian protections afforded to the environment in which the soldiers move.⁴¹ In cases where the civilian status remains, parties often justify environmental harm by alluding to the principle of military necessity – i.e., that environmental damage is required or necessary to gain a particular military advantage.⁴² While the harm incurred by the environment often leads to serious consequences for Earth systems, it rarely reaches the threshold of causing “widespread, long-term and/or severe” damage as discussed in the previous

37 See above note 16.

38 M. D. Deiderich Jr, above note 23, p. 152.

39 M. Bothe *et al.*, above note 34, p. 576.

40 E. Mrema, C. Bruch and J. Diamond, above note 9, p. 237; M. Bothe *et al.*, above note 34.

41 D. Fleck, above note 32, p. 341.

42 M. Bothe *et al.*, above note 34.

section.⁴³ As a result, parties to an armed conflict can engage in environmental destruction with little or no consequences for their actions.

In order to determine what level of environmental damage would be excessive in relation to the military advantage sought, there have been efforts to derive particular standards for proportionality in attacks.⁴⁴ There have also been calls for interpretive guidance on the requirements for the threshold of “widespread, long-term and/or severe” damage, to make it clear that this threshold should be interpreted in light of the latest scientific understanding of ecosystem functions.⁴⁵ As such guidance has yet to be provided by an authoritative international law body such as the International Court of Justice (ICJ) or the International Law Commission (ILC), it has been suggested that the Martens Clause could be used to derive particular standards for proportionality, as well as to determine the “widespread, long-term and/or severe” threshold with regard to AP I and the ENMOD Convention.⁴⁶

The Martens Clause has found its way into various treaties, including the four 1949 Geneva Conventions and their Additional Protocols, as well as the recently adopted ILC Principles on Protection of the Environment in Relation to Armed Conflicts (PERAC Principles), where it is held that the Clause also applies to environmental matters.⁴⁷ In essence, the Martens Clause provides that in cases not covered by specific international agreements, civilians 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. The ILC also holds that the term “the principles of humanity” can be interpreted more broadly to encompass humanitarian standards that are present not only in IHL but also in international human rights law, which provides vital protections for the environment.⁴⁸

Another proposal that has been discussed to prevent environmental harm is to create legal instruments for establishing place-based protection of critical natural resources and areas of ecological importance;⁴⁹ this was highlighted by the Special Rapporteur on Protection of the Environment in Relation to Armed Conflict⁵⁰ and in the PERAC Principles. States are encouraged to enter into agreements in

43 E. Mrema, C. Bruch and J. Diamond, above note 9.

44 Dieter Fleck, “The Martens Clause and Environmental Protection in Relation to Armed Conflicts”, *Goettingen Journal of International Law*, Vol. 10, No. 1, 2020.

45 E. Mrema, C. Bruch and J. Diamond, above note 9, p. 239; Daniëlla Dam-de Jong and Britta Sjostedt, “Enhancing Environmental Protection in Relation to Armed Conflict: An Assessment of the ILC Draft Principles”, *Loyola of Los Angeles International and Comparative Law Review*, Vol. 44, No. 2, 2021, p. 145; K. Hulme, above note 1.

46 D. Dam-de Jong and B. Sjostedt, above note 45, p. 145; D. Fleck, above note 44.

47 ILC, above note 18, Art. 12.

48 ILC, *Draft Principles on Protection of the Environment in Relation to Armed Conflicts, with Commentaries*, UN Doc. A/77/10, 9 August 2022 (PERAC Principles), Art. 12(7). This is also reflected in the final Principles.

49 E. Mrema, C. Bruch and J. Diamond, above note 9, p. 240.

50 Marja Lehto, *Third Report on Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/750, 16 March 2022, paras 46–54.

which areas of major ecological and cultural importance are recognized as protected against attacks during armed conflict,⁵¹ which would oblige parties to protect these zones against attacks, although if the area contains a military objective, it will subsequently lose its protection against attacks according to the principle of distinction.⁵² It has also been suggested that environmental considerations should be integrated into military planning, and that environmental awareness-raising efforts in the military could be a promising avenue for ensuring environmental protection. However, the effectiveness of these strategies is largely dependent on States' long-term dedication to investing in and securing environmental protection during armed conflict, and they cannot guarantee the complete prevention of all environmental damage, as some level of harm may still occur.

The rationale for remediating environmental harm during ongoing armed conflict

In view of the foreseeable environmental damage during armed conflicts within the current legal and policy frameworks, it is imperative to tackle such damage soon after its occurrence in order to mitigate its detrimental impacts on both the environment and human communities.

Mitigation and remediation efforts are specifically addressed under the PERAC Principles⁵³ and have primarily been considered as important during the post-conflict and peacebuilding phase.⁵⁴ However, evaluations of clean-up efforts in the context of armed conflict have shown that in many cases, the sooner efforts are made to address environmental and health risks, the more likely they are to achieve an effective outcome in terms of protecting the environment and human health from further effects and risks. Early action is also preferable as clean-up costs often increase with time, especially with regard to contaminants that can migrate through the soil and affect groundwater.⁵⁵ As armed conflicts often last longer than a few months – sometimes up to several years⁵⁶ – delaying environmental mitigation and remediation efforts until after the conflict's cessation may result in more severe and long-term environmental consequences and impacts than if remediation had been initiated earlier. It is therefore essential to engage environmental protection actors at an early stage after environmental damage has occurred, in order to protect the environment and the conflict-affected communities dependent on it.

In terms of other environmental protection activities, such as increasing or sustaining biodiversity through conservation efforts, research has found that there is

51 PERAC Principles, above note 48, Art. 4.

52 *Ibid.*, above note 48, Art. 12; see also D. Dam-de Jong and B. Sjostedt, above note 45, p. 137.

53 PERAC Principles, above note 48, Arts 23, 24.

54 David Jensen and Steven Loneragan, *Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding*, Earthscan, Abingdon, 2012.

55 Thor Hanson *et al.*, "Warfare in Biodiversity Hotspots", *Conservation Biology*, Vol. 23, No. 3, 2009.

56 Benjamin Jensen, "How Does It End? What Past Wars Tell Us about How to Save Ukraine", Center For Strategic and International Studies, 4 March 2022, available at: www.csis.org/analysis/how-does-it-end-what-past-wars-tell-us-about-how-save-ukraine.

less damage to biodiversity in places where conservation activities continue compared to areas where conservation efforts are suspended.⁵⁷ The strong positive relationship between biodiversity hotspots and conflict⁵⁸ highlights the importance of continuing conservation efforts in regions affected by armed conflicts.⁵⁹ A framework that safeguards environmental protection actors during armed conflict would enable those actors to undertake these crucial environmental protection activities as well, irrespective of whether such efforts are associated with previous harm or not.

Obstacles to conducting environmental protection activities during armed conflict

In order to adequately safeguard the environment during ongoing hostilities, there is a need to ensure that environmental protection actors have access to areas of environmental concern while being protected from attacks. As civilians, environmental protection workers benefit from rules that prohibit attacks on civilians and civilian objects during armed conflicts. Additionally, personnel and installations affiliated with independent environmental protection organizations also benefit from this protection under customary international law applicable in international armed conflicts (IACs) and non-international armed conflicts (NIACs).

Despite these protections, scholarly literature identifies access and security concerns as the primary reasons why certain mitigation, remediation and conservation activities cannot be carried out during armed conflict.⁶⁰ During the conflict in Kuwait, Iraqi forces intentionally released crude oil from moored tankers at Sea Island, an offshore oil trans-shipment terminal, leading to a significant oil spill in the Gulf. Ongoing artillery fire and the presence of floating mines caused the main difficulties in assessing the impact of the oil spill and implementing remediation efforts to safeguard the environment.⁶¹ In the Okapi Reserve in the Democratic Republic of the Congo, park guards were directly attacked by parties to the conflict, resulting in an increase in elephant and bushmeat poaching as the guards had to abandon their posts.⁶² In Sudan, the operations of international conservation-oriented NGOs were hindered during conflict by a number of factors, including safety risks for fieldworkers.⁶³ During the war in Ukraine, more than 160,000 hectares of Ukrainian forest burned down

57 Andrew J. Plumtre, “Lessons Learned from On-the-Ground Conservation in Rwanda and the Democratic Republic of the Congo”, *Journal of Sustainable Forestry*, Vol. 16, No. 4, 2003, pp. 83–84.

58 T. Hanson *et al.*, above note 55, p. 578.

59 International Union for Conservation of Nature (IUCN), *Conflict and Conservation*, 28 April 2021.

60 *Ibid.*, p. 55.

61 U. C. Jha, *Armed Conflict and Environmental Damage*, Vij Books India, New Delhi, 2014, p. 52.

62 Rene L. Beyers *et al.*, “Resource Wars and Conflict Ivory: The Impact of Civil Conflict on Elephants in the Democratic Republic of Congo – The Case of the Okapi Reserve”, *PLOS ONE*, Vol. 6, No. 11, 2011.

63 Ahmed A. H. Siddig, “Biodiversity of Sudan: Between the Harsh Conditions, Political Instability and Civil Wars”, *Biodiversity Journal*, Vol. 5, No. 4, 2014, p. 545.

as forestry companies and fire fighters were prevented from accessing fire-affected areas and firefighting equipment was damaged by Russian troops.⁶⁴

These examples make it clear that the civilian protection rendered to environmental protection actors has not been sufficient to ensure that these actors can safely access and carry out activities in areas of concern. This can of course be viewed in light of the prevalent disregard for international laws aimed at safeguarding civilians in times of armed conflict in general,⁶⁵ but also in light of the distinctive attributes associated with many environmental protection operations. Those who seek to provide environmental protection or remediation services during armed conflict are likely to operate and carry out activities in dangerous front-line environments. Activities such as decontamination, conservation work or firefighting could also mistakenly be seen as providing assistance to enemy troops or in other ways resembling military activity. There is therefore a pressing need to extend further protections to environmental protection actors in order to ensure that their mandate can be realized in practice.

Strategies on how to realize the mandate to protect the environment during armed conflict have to some extent previously been discussed by legal scholars. Deiderich calls for the international community to allow a neutral body to act as the representative of the environment as a sort of “Green Cross” organization. The body may be responsible for the creation and oversight of environmental conservation areas, providing expert guidance on the appropriateness of military actions based on the principle of proportionality, and overseeing or assisting with efforts to remediate and clean up areas affected by military operations.⁶⁶ Al-Duaij argues that the International Union for the World Conservation of Nature and Natural Resources (IUCN) should have the ability to intervene in military operations in times of armed conflict in order to protect the environment.⁶⁷ Wright proposes that the United Nations Environment Programme (UNEP) should be authorized to enter the locus State following an environmental accident in order to investigate whether the event constitutes a “major international environmental emergency” and to potentially remediate the emergency.⁶⁸

While these proposals suggest that access and safety issues can be addressed through increasing the scope of existing organizations or creating new entities, the present article argues that there is no need for a central authority to assume this mandate. Rather, existing legal and policy frameworks can adequately protect environmental protection actors from attack and oblige parties to allow said actors free and safe passage to carry out environmental protection activities in armed conflict. This will be discussed in the following sections.

64 Serhiy Zibtsev, “Червона спека” [“Red Heat”], *EKO-інформ* [EKO-*Inform*], 27 July 2022.

65 UN Security Council 9327th Meeting, UN Doc. SC/15292, 23 May 2023.

66 M. D. Deiderich Jr, above note 23.

67 N. Al-Duaij, above note 3, p. 471.

68 Claire Wright, “Blueprint for Survival: A New Paradigm for International Environmental Emergencies”, *Fordham Environmental Law Review*, Vol. 29, No. 2, 2017, p. 311.

Protecting environmental protection actors under IHL

Under IHL, there exist certain provisions that aim to protect actors and organizations carrying out non-military activities to safeguard, protect and meet the needs of the civilian population. Taking note of the importance of a safe, healthy and sustainable environment for human beings, this article argues that environmental protection activities effectively aim to safeguard, protect and meet the needs of the civilian population, and shall thus fall under these provisions. The following section will therefore discuss how environmental protection activities qualify as either civil defence activities or humanitarian relief activities.

The IHL provisions concerning civil defence activities and humanitarian relief activities were established recognizing that these operations require an extra layer of protection beyond what is typically provided for civilians. In theory, individuals engaged in these activities should be safeguarded due to their civilian status. However, the practical reality often falls short of providing this protection, as their conduct may be mistaken as having a military rather than humanitarian purpose.

The approach of viewing environmental protection activities as part of civil defence or humanitarian relief finds support in Article 36 of the International Committee of the Red Cross (ICRC) *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict*, which holds that parties to an armed conflict “are encouraged to facilitate and protect the work of *impartial organizations contributing to preventing or repairing damage to the environment*”.⁶⁹ The article subsequently refers to Article 63(2) of Geneva Convention IV (GC IV), which holds that “[o]ther relief societies shall be permitted to continue their humanitarian activities under similar conditions [to National Red Cross and Red Crescent Societies]”, and Articles 61–67 of AP I, which all relate to civil defence activities. These two approaches will be discussed in turn.

It should be noted that the lack of a precise definition of “environmental protection activities” and “environmental protection actors” in the present article is intentional. The intricate relationship between environmental damage, protection efforts and human welfare is unique to each context and locality, and establishing a set of criteria for such activities could limit the scope of what qualifies as environmental harm or protection, as well as excluding organizations and individuals striving to safeguard the environment. Thus, the onus falls on environmental protection actors to evaluate their position within the legal and policy framework outlined in this article.

69 ICRC, *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict*, Geneva, 1994, Art. 36 (emphasis added).

Environmental protection activities as civil defence activities

As warfare has grown more destructive, it has been recognized that a basic necessity in wartime is an effective organization able to assure the survival of the civilian population.⁷⁰ GC IV grants civil protection organizations and their personnel the right to carry out their activities under foreign occupation,⁷¹ and AP I expands the protection for civil defence organizations to cover all situations of IAC. Article 62 of AP I holds that the personnel of civil defence organizations must be respected, protected and enabled to perform their tasks without hindrance except in case of imperative military necessity.⁷² However, protections for those carrying out civil defence activities during NIACs still remain limited, as similar civil defence provisions were never included under Additional Protocol II relating to NIACs due to disagreements between the negotiating parties.⁷³

The basis for protection under civil defence is not that a person or object belongs to a specific (“civil defence”) organization, but that a person exercises, or an object is used for, specific functions.⁷⁴ Thus, a civil defence organization carrying out tasks in an area of conflict enjoys protection as long as it keeps within the civil defence articles of AP I. If not, the personnel and equipment concerned will still be protected but only under the protections that civilians generally enjoy, as described in GC IV.⁷⁵

Many of the tasks outlined as civil defence tasks closely resemble tasks that are carried out for environmental protection purposes. Civil defence tasks are defined under Article 61(a) of AP I, whose introductory paragraph holds that

“civil defence” means the performance of some or all of the undermentioned humanitarian tasks intended to protect the civilian population against the dangers, and to help it to recover from the immediate effects, of hostilities or disasters and also to provide the conditions necessary for its survival.

The paragraph further underlines that the purpose of these activities should be to ensure and further human welfare – meaning that environmental protection activities will have to be conducted on anthropocentric grounds.

Further, the use of the adjective “immediate” emphasizes the fact that civil defence should be restricted to urgent tasks and should not fulfil functions on a long-term basis that are normally performed by others.⁷⁶ This entails that it must

70 Michael Bothe, Karl Josef Partsch and Waldemar A. Solf, *New Rules for Victims of Armed Conflicts: Commentary on the Two 1977 Protocols Additional to the Geneva Conventions of 1949*, Martinus Nijhoff, The Hague, 1982, p. 434.

71 Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into force 21 October 1950) (GC IV), Art. 63(2).

72 AP I, Arts 61–67.

73 Flemming Nielsen, “Civil Defence in International Humanitarian Relief Work, Seen in the Light of the Geneva Conventions”, *Journal of Refugee Studies*, Vol. 9, No. 4, 1996.

74 M. Bothe, K. J. Partsch and W. A. Solf, above note 70, p. 434.

75 F. Nielsen, above note 73.

76 Yves Sandoz, Christophe Swinarski and Bruno Zimmermann (eds), *Commentary on the Additional Protocols*, ICRC, Geneva, 1987 (ICRC Commentary on the APs), p. 718, para. 2354.

be clear how the environmental protection activity will alleviate the “immediate effect” that a given ecological damage will have on humans in order for the actor to be considered as part of civil defence. While the cause and effect of such processes may be straightforward in some cases (such as when extinguishing forest fires), in other cases the relationship may not be as unequivocal (such as when engaging in conservation efforts). However, as scientific understanding of the temporal aspects of nature–human relationships improves, it may become easier to point out the various reasons why these activities should be viewed as dealing with “immediate” effects.

Additionally, the term “disasters” in the introductory sentence is broadly construed and also covers natural disasters as well as any other calamity not caused by hostilities.⁷⁷ This is important, as not all environmental damage in need of mitigation or remediation efforts during armed conflict is a direct result of hostilities – such damage can also be due to natural causes. Yet, the difficulties faced by environmental protection actors in remedying these damages remain the same regardless of whether the damage occurred naturally or because of war.⁷⁸

The list of tasks that follows the introductory paragraph is exhaustive, but is somewhat opened up by a “necessary and proper” clause at the end. While some of the functions listed in Article 61(a) concern matters of a purely human-centred character, others are highly relevant to environmental protection. These are (vii) firefighting, (ix) decontamination and similar protective measures, (xii) emergency repair of indispensable public utilities, and (xiv) assistance in the preservation of objects essential for survival. The ways in which these different tasks can be used for environmental protection activities will briefly be reviewed in turn below.

Firefighting as environmental protection

Fires in the context of armed conflict have led not only to loss of habitats for numerous species, but also to the loss of agricultural crops, forests and other ecological areas,⁷⁹ making firefighting an obvious and crucial environmental protection activity that qualifies as a civil defence task. The introductory sentence in Article 61(a) was particularly stressed with regard to the task of firefighting, as firefighting can also be carried out as part of military operations.⁸⁰ If the firefighting is done with the intention of protecting civilians or military personnel, it should be considered a civil defence task. On the other hand, if it is done to protect a military objective, it is not possible to claim the protection afforded to civil defence tasks.⁸¹ Given the civilian status of the environment,

77 M. Bothe, K. J. Partsch and W. A. Solf, above note 70, p. 434; ICRC Commentary on the APs, above note 76, p. 718, para. 2349.

78 Kaitlyn M. Gaynor *et al.*, “War and Wildlife: Linking Armed Conflict to Conservation”, *Frontiers in Ecology and the Environment*, Vol. 14, No. 10, 2016.

79 N. Al-Duajj, above note 3.

80 ICRC Commentary on the APs, above note 76, p. 723, para. 2376.

81 *Ibid.*, p. 723, para. 2378.

firefighting efforts that seek to extinguish fires for environmental protection purposes would therefore qualify as a civil defence task, as these efforts are not aimed at protecting military objectives but are engaged in the protection of a civilian object and the civilian population.

However, if elements of the environment are used for military purposes, they become military objectives. This could create a problem for firefighters seeking to extinguish fires in areas of major environmental importance, as they would no longer be afforded protection as civil defence personnel. Yet, those parts of the environment that become military objectives rarely remain military objectives for an indefinite amount of time and can regain their civilian status if military forces are no longer present in the given area.

Firefighting helps the population to recover from the immediate effects of hostilities or disasters in various ways. The suppression of fires near civilian populations immediately aids the civilian population as it prevents loss of human life and damage to property. Research has also shown that fires in remote areas can have short-term effects on ecosystem services⁸² and can degrade air⁸³ and water quality.⁸⁴

Decontamination and protective measures

Military activities during armed conflicts often generate hazardous waste, such as explosives, solvents, acids and spent fuel, that can contaminate the surrounding soil, water and air.⁸⁵ It is therefore vital to ensure that actors engaging in cleanup and remediation efforts of contaminated areas are protected during hostilities.

Decontamination and similar protective measures are listed as civil defence tasks under Article 61(a)(ix) of AP I,⁸⁶ rendering protection to any actor engaging in these activities as long as the decontamination and protective measures are conducted to help the civilian population, along with the specifications listed in the introductory sentence of Article 61. The ICRC's 1987 Commentary to this provision notes that decontamination can take various forms, but that the phrase "similar protective measures" allows for flexibility in how decontamination should be interpreted.⁸⁷ This indicates that actors engaging in environmental protection activities which relate to cleanup efforts and decontamination of environmental harmful waste can be considered protected under Article 61(a)(ix).

82 Paulo Pereira, Igor Bogunovic, Wenwu Zhao and Damia Barcelo, "Short-Term Effect of Wildfires and Prescribed Fires on Ecosystem Services", *Current Opinion in Environmental Science and Health*, Vol. 22, August 2021.

83 Carlyn J. Matz *et al.*, "Health Impact Analysis of PM_{2.5} from Wildfire Smoke in Canada (2013–2015, 2017–2018)", *Science of the Total Environment*, Vol. 725, 10 July 2020.

84 Charles Rhoades, João P. Nunes, Uldis Silins and Stefan H. Doerr, "The Influence of Wildfire on Water Quality and Watershed Processes: New Insights and Remaining Challenges", *International Journal of Wildland Fire*, Vol. 28, No. 10, 2019, p. 721.

85 N. Al-Duaij, above note 3, p. 6.

86 ICRC Commentary on the APs, above note 76, p. 727, para. 2385.

87 *Ibid.*

Emergency repair of indispensable public utilities

Aspects of the built environment also have relevance to the “natural environment”.⁸⁸ The destruction of dams that flow to agricultural areas, of sewage treatment facilities and of power plants that release poisonous emissions have resulted in damage not only to the civilian population but to the environment as well.⁸⁹

Emergency repair of indispensable public utilities is listed as a civil defence task under Article 61(a)(xii) of AP I. Here, the term “public utilities” refers to services and commodities that are provided to the general public, such as water, gas, electricity and communications, and it specifically pertains to the facilities and equipment that are used to supply these types of services and commodities.⁹⁰ The report of Committee II specified that the expression “public utilities” includes, “inter alia, water control works (e.g., dams, dykes, drainage and discharge canals, outlets, sluices, locks, floodgates and pumping installations)”.⁹¹ By repairing indispensable public utilities that have been damaged, further environmental harm can be prevented.

The ICRC’s 1987 Commentary on AP I provides that the scope of civil defence efforts typically is limited to the repair of essential public utilities in the event of an emergency. This means that civil defence measures should not address all deficiencies in such utilities, but should rather focus on essential tasks that are necessary to prevent harm or further damage to the environment.⁹²

Assistance in the preservation of objects essential for survival

It has previously been established that a clean, healthy and sustainable environment is recognized not only as an international human right, but as imperative for human survival. Article 61(a)(xiv) of AP I holds that assistance in the “preservation of objects essential for survival” can be seen as a civil defence task. Yet, while the environment is essential for human survival, it is not clear whether the environment can be considered an object essential for survival in the meaning of Article 61(a)(xiv).

The 1973 draft of AP I proposed the inclusion of a provision for the “safeguard of objects indispensable to the survival of the civilian population” in order to align with the language used in Article 48 (the present Article 54) of the draft. Article 54(2) lists “foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and

88 The “natural environment” here refers to “the natural world together with the system of inextricable interrelations between living organisms and their inanimate environment, in the widest sense possible”. See ICRC, *Guidelines on the Protection of the Natural Environment in Armed Conflict*, Geneva, 2020, p. 17, para. 16.

89 N. Al-Duaij, above note 3, pp. 22–23.

90 M. Bothe, K. J. Partsch and W. A. Solf, above note 70, p. 440.

91 ICRC Commentary on the APs, above note 76, p. 729, para. 2394.

92 *Ibid.*, p. 729, para. 2395.

irrigation works” as objects indispensable to the survival of the civilian population. If the original formulation of this provision had been retained, it would have been challenging to justify the inclusion of the environment as an object essential for survival under Article 61(a)(xiv), as the list of objects protected under Article 54 is quite specific.

In order to avoid confusion with the term “indispensable” used in Article 54,⁹³ this proposal was ultimately rejected and the term “essential” was chosen instead to broaden the scope of the provision.⁹⁴ Objects essential for survival are therefore supposed to be broader in scope compared to objects indispensable to the survival of the civilian population. Although the revised provision may appear to have a wider scope, the interpretation provided in the ICRC Commentary suggests that the distinction between “essential” and “indispensable” may have little practical significance in terms of the objects protected under the provision: “Once again common sense must prevail and it is not worth quibbling about whether soap, for example, is essential or indispensable.”⁹⁵ If there is little practical significance in terms of the objects under Article 54 and Article 61(a)(xiv) as suggested by the ICRC Commentary, aspects of the environment that do not relate to food, agriculture or water may therefore not be considered objects essential for survival under Article 61(a)(xiv).

However, “whenever the legal regulation provided by a treaty or customary rule is doubtful, uncertain or lacking in clarity”, the Martens Clause, discussed above, has been seen to offer additional interpretative guidance.⁹⁶ In light of the Martens Clause’s principles of humanity (which refers to humanitarian standards not only in IHL but also in international human rights law) and the dictates of public conscience, it is not radical to argue that the environment should be included in the scope of Article 61(a)(xiv), given the intrinsic relationship between human survival and the environment under human rights law and the intention to broaden the scope of Article 61(a)(xiv).

If this is accepted, environmental protection actors will remain protected when carrying out activities that aim to preserve the environment in various different forms not covered under Article 61(a)(vii), (ix) and (xii). These activities can vary in character and nature as long as they do not involve guard duties or the use of weapons⁹⁷ and are conducted with immediate humanitarian protection needs in mind as given by the introductory sentence to Article 61(a). Activities that can be encompassed under this provision could, for example, include efforts to preserve biodiversity and ecosystems.

93 ICRC Commentary on the APs, above note 76, p. 729, para. 2401.

94 M. Bothe, K. J. Partsch and W. A. Solf, above note 70, p. 441.

95 ICRC Commentary on the APs, above note 76, p. 729, para. 2402.

96 Antonio Cassese, “The Martens Clause: Half a Loaf or Simply Pie in the Sky?”, *European Journal of International Law*, Vol. 11, No. 1, 2000, pp. 212–213; D. Fleck, above note 44.

97 M. Bothe, K. J. Partsch, and W. A. Solf, above note 70, p. 441.

Environmental actors as humanitarian relief workers

Under IHL, protections are also afforded to humanitarian workers and organizations. The humanitarian nature of environmental protection activities has already been discussed in the section above on civil defence; it can therefore be argued that environmental protection personnel could be considered as humanitarian relief personnel and could accordingly be entitled to the protection offered to humanitarian workers.⁹⁸

Humanitarian relief differs from civil defence in that it is featured not only under AP I, but also in the four Geneva Conventions. The scope of humanitarian assistance under the Conventions is broad.⁹⁹ While Articles 59 and 61 of GC IV specify the type of relief to be provided,¹⁰⁰ common Article 3 does not specify the specific nature of the assistance.¹⁰¹ Additionally, common Article 9/9/9/10 indicates that humanitarian efforts may encompass both protective measures and assistance.¹⁰²

In the *Military and Paramilitary Activities in and against Nicaragua* case, the ICJ considered the legal definition of “humanitarian” assistance and held that humanitarian assistance must be given without discrimination “to prevent suffering” and “to protect life and health and ensure respect for the human being”.¹⁰³ The Institute of International Law provides a more extensive definition, considering humanitarian assistance as “all acts, activities and the human and material resources for the provision of ... services of an exclusively humanitarian character, indispensable for the survival and the fulfilment of the essential needs of the victims of disasters”.¹⁰⁴

98 See also [Political Declaration on Strengthening the Protection of Civilians From the Humanitarian Consequences Arising from the Use of Explosive Weapons in Populated Areas, Explosive Weapons In Populated Areas Dublin Conference, 2022](#), where the environmental impacts of explosive weapons are recognized (Arts 1.4–1.5) and the obligation to provide rapid, safe and unhindered humanitarian access and facilitate organizations aimed at protecting and assisting civilian populations and addressing the direct and indirect humanitarian impacts of explosive weapons in populated areas is reaffirmed (Arts 4.4, 4.6).

99 Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field of 12 August 1949, 75 UNTS 31 (entered into force 21 October 1950), Arts 3, 9; Geneva Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea of 12 August 1949, 75 UNTS 85 (entered into force 21 October 1950), Arts 3, 9; Geneva Convention (III) Relative to the Treatment of Prisoners of War of 12 August 1949, 75 UNTS 135 (entered into force 21 October 1950), Arts 3, 9; GC IV, Arts 3, 10, 59, 61.

100 Article 59 of GC IV provides that “relief schemes ... shall consist, in particular, of the provision of foodstuffs, medical supplies and clothing”.

101 Kate Mackintosh, “Beyond the Red Cross: The Protection of Independent Humanitarian Organizations and Their Staff in International Humanitarian Law”, *International Review of the Red Cross*, Vol. 89, No. 865, 2007, p. 116.

102 Common Article 9/9/9/10 states that “[t]he provisions of the present Convention constitute no obstacle to the humanitarian activities which the International Committee of the Red Cross or any other impartial humanitarian organization may, subject to the consent of the parties to the conflict concerned, undertake for the protection of [protected persons] and for their relief” (emphasis added).

103 ICJ, *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Judgment, ICJ Reports 1986, para. 243.

104 Institute of International Law, “Humanitarian Assistance”, Resolution of the 16th Commission, 2 September 2003.

Based on these broader definitions, environmental protection activities may be included in the scope of humanitarian assistance, especially given the importance of a clean and healthy environment to human survival as previously discussed in this article.

Protection of environmental actors as humanitarian relief workers

Similarly to those involved in civil defence activities, persons and facilities providing humanitarian assistance are safeguarded by the general protection provided to civilians and civilian objects from attacks in both IACs and NIACs. However, in contrast to the limited provisions protecting civil defence workers (primarily relying on the AP I provisions discussed in the previous section), the recognition of the civilian status of humanitarian workers is spelled out in the Rome Statute of the International Criminal Court,¹⁰⁵ effectively rendering any violation of this protection a war crime. This is further recognized in custom and was the finding of the 2005 ICRC Customary Law Study.¹⁰⁶ Protections afforded to humanitarian workers can also be found in Article 71 of AP I.¹⁰⁷

Rules under IHL also hold that humanitarian relief shall always be exempted from restrictions created by economic sanctions or a “total embargo” on all forms of economic trade. Special language has therefore been introduced in some resolutions to ensure that the international sanctions regime complies with IHL obligations and to clarify that humanitarian relief remains out of the scope of sanctions.¹⁰⁸

Comparing these aforementioned provisions with those relating to civil defence, one may consider the conceptualization of environmental protection actors as humanitarian relief workers as offering a more encompassing protection framework (effectively applicable in both IACs and NIACs, for example). However, viewing environmental protection action as humanitarian relief is not without its shortcomings. First, the trigger for the rules related to allowing and facilitating access to humanitarian relief in the setting of an armed conflict is the need of the civilian population due to a lack of “necessary supplies”.¹⁰⁹ While environmental protection activities may provide services of a humanitarian

105 Rome Statute of the International Criminal Court, UN Doc. A/CONF.183/9, 17 July 1998 (entered into force 1 July 2002), Art. 8(2)(b)(iii). See also, with regard to non-international armed conflict, the Statute of the Special Court for Sierra Leone, 16 January 2002 (entered into force 12 April 2002), Art. 4(b).

106 See “Rule 31: Humanitarian Relief Personnel Must Be Respected and Protected”, in Jean-Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law*, Vol. 1: *Rules*, Cambridge University Press, Cambridge, 2005 (ICRC Customary Law Study), available at: <https://ihl-databases.icrc.org/en/customary-ihl/rules>.

107 AP I, Art. 71: “(1) Where necessary, relief personnel may form part of the assistance provided in any relief action, in particular for the transportation and distribution of relief consignments; the participation of such personnel shall be subject to the approval of the Party in whose territory they will carry out their duties. (2) Such personnel shall be respected and protected.”

108 See UNSC Res. 2399, 30 January 2018, para. 1(d); UNSC Res. 2593, 30 August 2021, para. 3; UNSC Res. 2582, 29 June 2021, paras 3–4.

109 David Fisher, “Domestic Regulation of International Humanitarian Relief in Disasters and Armed Conflict: A Comparative Analysis”, *International Review of the Red Cross*, Vol. 89, No. 866, 2007, p. 368.

character indispensable for the survival of the civilian population, these activities are not generally concerned with providing relief items or supplies to the civilian population. It has also been noted that an overly broad application of humanitarian assistance can undermine the respect (and protection) afforded to humanitarian work.¹¹⁰ If humanitarian assistance is narrowly defined as only encompassing the provision of relief items, then environmental protection activities would not be considered as falling within the scope of humanitarian assistance, and the protections granted to humanitarian workers would not extend to those engaged in environmental protection efforts.

Independent of whether humanitarian assistance is interpreted in a broad or a narrow sense, ultimately common Article 9/9/9/10 and Article 70 of AP I hold that relief actions which are humanitarian in nature are to be taken in accordance with the acceptance of parties to the conflict.¹¹¹ In other words, the meaning of humanitarian assistance may be defined by the parties to the conflict, who could consider environmental protection activities as an appropriate relief action.¹¹²

Environmentarian corridors

The previous sections have argued that the current provisions under IHL have the capacity to safeguard environmental actors from any form of attack during an armed conflict. Surprisingly, these provisions have not been extensively utilized to advocate for the unimpeded movement of environmental protection actors during armed conflict. One plausible explanation for this limited usage is the lack of awareness surrounding these legal safeguards. This lack of knowledge applies not only to international organizations, national governments, military commanders and non-State armed groups, but also to the environmental protection actors themselves. Conservation organizations, for example, have engaged very little in the conflict and biodiversity nexus, even if they have a crucial role to play.¹¹³ The obstacles that humanitarian actors encounter while delivering aid during armed conflict, including logistical, security, political and legal challenges, may also impede efforts to prioritize the protection of environmental actors.¹¹⁴ Given the limited recognition that environmental protection activities have under IHL, efforts to mitigate and remediate environmental harm might be even less likely to succeed than traditional humanitarian relief efforts.

110 K. Mackintosh, above note 101, p. 125.

111 Article 70 of AP I holds that “[r]elief actions which are humanitarian and impartial in character and conducted without any adverse shall be undertaken, subject to agreement of the Parties concerned in such relief actions”.

112 N. Al-Duajj, above note 3, pp. 470–471.

113 H. Schulte and D. Weir, above note 14.

114 Mariusz Goniewicz and Krzysztof Goniewicz, “Protection of Medical Personnel in Armed Conflicts – Case Study: Afghanistan”, *European Journal of Trauma and Emergency Surgery*, Vol. 39, No. 2, 2013; K. Mackintosh, above note 101; D. Fisher, above note 109.

What is therefore needed is a normative shift in the importance attributed to environmental protection activities during armed conflict. Parties to an armed conflict (States as well as non-State armed groups) need to be aware that there is often a pressing need to mitigate and remediate harm as soon as possible after environmental damage has occurred and that there are obligations under IHL to ensure that environmental protection actors have the ability to carry out their activities without having to fear for their security and well-being.

While raising awareness and promoting normative change generally can be done within the remit of promoting sensitization efforts among relevant actors and stakeholders, it requires substantial time and resources, and is contingent upon political will. Therefore, while recognizing the value of sensitization efforts in fostering this change, this article proposes an alternative and complementary strategy to mere sensitization: the introduction and exploration of “environmentarian corridors” as a mechanism for driving environmental protection objectives forward. The following sections will be dedicated to presenting and discussing this concept.

From the humanitarian corridor to the environmentarian corridor

In situations when there has been a need for operational organizations to secure passage through disputed territory and to access emergency areas for the rapid provision of emergency assistance, there have at times been calls for the establishment of so-called “humanitarian corridors”.¹¹⁵ The concept of humanitarian corridors is not defined in IHL, but “the notion is now so frequently invoked that it goes unnoticed in mainstream public discourse despite having no legal basis or strictly agreed upon definition”.¹¹⁶

Humanitarian corridors exist to protect civilian populations, but are by definition temporary and limited in geographical scope. This has made them subject to criticism,¹¹⁷ as they are said to undermine existing obligations under IHL to allow impartial aid to reach those in need. Under IHL, humanitarian actors shall be allowed consistent and unhindered access to areas where civilian protection needs are present, independent of time and geographical scope.¹¹⁸ In reality, however, there are numerous instances where humanitarian aid cannot effectively reach areas where the need for assistance is critical. Despite their many limitations and challenges,¹¹⁹ humanitarian corridors have been recognized as a

115 Roz Price, *Humanitarian Pauses and Corridors in Contexts of Conflict*, K4D Helpdesk Report, Institute of Development Studies, 17 September 2020.

116 Maelle L’Homme, “Humanitarian Corridors: Negotiated Exceptions at Risk of Manipulation”, *Journal of Humanitarian Affairs*, Vol. 4, No. 1, 2022, p. 48.

117 *Ibid.*; Stephanie Nebhay, “ICRC Seeks Humanitarian Corridor in South Ossetia”, *Reuters*, 8 August 2008; ICRC, “How Humanitarian Corridors Work to Help People in Conflict Zones”, 17 May 2022, available at: www.icrc.org/en/document/how-humanitarian-corridors-work.

118 M. L’Homme, above note 116, p. 48.

119 Key challenges include the need for party agreement and consensus, UN Security Council authorization, a protective military presence and capacity, and blurring of political and humanitarian lines. See “Why Humanitarians Are Wary of ‘Humanitarian Corridors’”, *The New Humanitarian*, 3 November 2015.

“necessary compromise” and a useful tool for implementing temporary emergency interventions in hard-to-reach areas while advocating for more permanent and broader access.¹²⁰

Humanitarian corridors also play a crucial role in highlighting the significance of humanitarian protection activities during armed conflict. As the establishment of the corridor requires an explicit agreement between the conflict parties, it ensures that involved actors are aware of the humanitarian protection needs. With an agreed-upon corridor, humanitarian actors gain official recognition and permission to access affected areas, minimizing the risk of being denied entry. Given the corridor’s limited geographical and temporal scope, monitoring efforts may also become more feasible and resource-efficient compared to the challenging task of ensuring continuous compliance across the entire conflict area.

Similarly to the traditionally considered humanitarian protection needs, environmental protection needs may arise anywhere, at any time. Thus, there should ideally be no temporary or geographical restrictions on environmental protection activities during armed conflict either, as long as they fall under the legal framework reviewed in the previous sections. As previously discussed, however, the realities witnessed on the battleground paint a different picture. Environmental protection actors may, in a similar fashion to humanitarian protection actors, still experience access and security challenges,¹²¹ despite enjoying additional protections under IHL.

One way to address these challenges could therefore be to borrow the concept of the humanitarian corridor and to create a corridor for the purposes of environmental protection – an “environmentarian¹²² corridor” of sorts. Such a corridor, established in response to a specific environmental emergency, would serve as a dynamic, targeted zone of protection, ensuring the safety of environmental protection workers tasked with environmental protection activity.

By specifically referring to this corridor as “environmentarian”, the unique role and importance of protecting the environment in the context of armed conflict is recognized. While the term “humanitarian” has traditionally been associated with providing assistance to those affected by conflict and disasters, the term “environmentarian” specifically refers to individuals and organizations focused on mitigating and remediating the environmental impacts of conflict. Through the use of a separate term, the distinct needs and challenges faced by those who work to protect the environment in the context of armed conflict are acknowledged, and the need to support their efforts alongside traditional humanitarian work is highlighted.

The reason why the term “environmentarian corridor” should be used is to emphasize that when calling for such a corridor, the protection activities will focus

120 M. L’Homme, above note 116, p. 48.

121 IUCN, above note 59.

122 In a similar way to “humanitarian”, “environmentarian” has here been constructed using the word “environment” and the suffix “-arian”. This suffix forms personal nouns and indicates a person or thing that advocates for, believes in or is associated with something, in this case the environment.

on the environment (although the corridor will serve to protect humans as well). As noted above, a too-wide application of humanitarian assistance can undermine the respect and protection usually given to humanitarian work,¹²³ and by using a different term this can be avoided. An environmental corridor can also draw upon recent legal developments and momentum with regard to place-based protections and protected ecological zones.¹²⁴

By calling for environmental corridors in times of impending environmental emergency during armed conflict, the international community can raise general awareness among both parties to a conflict (including both States and non-State armed groups) about the need to protect actors that engage in environmental protection activities in wartime. Indeed, the normalization of humanitarian corridors in public discourse, through such means as political discussions and media coverage, has brought the plight of civilians during armed conflict to the forefront of the public mind. As previously mentioned, calling for environmental corridors as an outreach strategy does not preclude other efforts to raise awareness about obligations under IHL, such as supporting sensitization activities and the wide dissemination of the PERAC Principles that has been called for by the UN General Assembly.¹²⁵

Most importantly, by establishing an environmental corridor, parties to a conflict would have to explicitly agree that these actors enjoy additional protection and that they should be enabled to safely carry out their mandate in the designated area where the corridor has been established. Thus, the parties will not only be informed about the existence of these obligations, but will also have to explicitly commit to respecting them. Environmental corridors could therefore work as a powerful way to raise awareness about the issue while also promoting protection and safety on the ground. Any violation of the sanctity of these corridors could result in international sanctions or prosecutions, providing a powerful deterrent against breaching the agreement or other IHL obligations.

Environmental corridors in practice

It has previously been highlighted that UNEP,¹²⁶ the ICRC *Guidelines on the Protection of the Natural Environment in Armed Conflict*¹²⁷ and the PERAC Principles¹²⁸ encourage the establishment of agreements in which areas of major ecological importance are demilitarized and recognized as protected against attacks during armed conflict. The drafters of the PERAC Principles found support for this approach under IHL in Article 60 of AP I (amongst other

123 K. Mackintosh, above note 101, p. 125.

124 PERAC Principles, above note 48, Art. 4.

125 UNGA Draft Res. A/C.6/77/L.22, 11 November 2022.

126 E. Mrema, C. Bruch and J. Diamond, above note 9, p. 240.

127 ICRC, above note 88, p. 14, para. 14.

128 PERAC Principles, above note 48, Art. 4.

provisions) and Rule 36 of the ICRC Customary Law Study,¹²⁹ which are also key provisions in justifying the legal basis for humanitarian corridors under IHL.

Discussions have generally centred around the need to establish these protected zones either before or at the onset of an armed conflict, and with particular focus on the ecological importance or fragility of a given area. An environmentarian corridor would differ from these protected zones in that it would primarily be established for a particular environmental protection purpose that requires the action and presence of environmental protection actors. Instead of representing an all-encompassing demilitarized zone intended to avoid fighting and military damage from occurring within an ecologically fragile area in the first place, an environmentarian corridor can be established in places that usually do not enjoy the status of a demilitarized zone, yet still require environmental protection services.

In terms of implementation, an environmentarian corridor would not differ significantly from its predecessor the humanitarian corridor. There is no agreed-upon legal definition or process for the establishment of humanitarian corridors, but generally it requires the agreement and consent of the parties to the conflict as well as the international community’s political will to implement and protect them, including at times a UN Security Council resolution.¹³⁰

Practically, environmentarian corridors would be planned and executed in coordination with all parties to the conflict. This coordination would ideally ensure safe access and egress routes, secure communication lines, and zones free from active warfare for environmental protection workers. Physically marking the corridors and effectively communicating their boundaries would further reduce the risk of accidental infringements, helping to enhance the safety of the workers.

For instance, in the aftermath of an oil spill within a conflict zone, an environmentarian corridor could be rapidly designated around the affected area. Environmental protection teams, under the protective banner of the corridor, could then safely access and work in this defined zone to mitigate the impacts of the spill, recover affected wildlife and commence cleanup operations. Similarly, in response to illegal logging activities or wildfire incidents, an environmentarian corridor could be established to facilitate emergency reforestation efforts or firefighting operations.

Environmentarian corridors could also help to secure critical evidence in assessment and monitoring efforts of environmental impacts of armed conflict. Long-term and severe damages to the environment cannot be established unless due diligence has been conducted on-site, or by any available and recognized means of analysis such as remote sensing techniques, including satellite imagery analysis. Environmentarian corridors may function as a way for actors tasked with conducting environmental impact assessments to access areas where environmental

129 ICRC Customary Law Study, above note 106, Rule 36, p. 120. The ICRC Customary Law Study considers that this constitutes a rule under customary international law and is applicable in both international and non-international armed conflicts.

130 R. Price, above note 115.

damage (potentially) has occurred that may still be in a contested territory or area of fighting, in accordance with PERAC Principle 23 on sharing and granting access to information.¹³¹ This would also include promoting meaningful consultations and feedback mechanisms with affected populations and communities to allow for the establishment of appropriate compensation measures.¹³²

Promoting ecocentric protection needs through environmentarian corridors

During armed conflict, situations may arise in which environmental protection activities are warranted not because of the environment's instrumental value to humans, but because the environment has an inherent value that deserves protection. While there is still an ongoing debate among international environmental law and IHL scholars about the extent to which ecocentric motivations for environmental protection should influence international law, it remains clear that both bodies of law include provisions that protect the environment for its own sake, rather than for its relationship with humans.

So far, however, the argument for promoting and establishing environmentarian corridors has primarily departed from the need to strengthen the safety of those carrying out environmental protection activities falling under the civil defence or humanitarian relief framework. A shortcoming of this approach is that it relies heavily on the anthropocentric motivations for environmental protection. Under this framework, environmental protection actors will only be able to benefit from additional protection if it is made clear that the environmental protection activity is effectively safeguarding, protecting and meeting the needs of the civilian population as defined under IHL. In instances where this relationship seems to be less clear, a particular environmental protection activity may not be able to qualify as a civil defence activity or as humanitarian relief.

The benefit associated with advocating for an environmental corridor is that it does not explicitly require environmental protection activities to qualify as civil defence or humanitarian relief. As the corridor is established by agreement between the relevant parties, the primary precondition is that these stakeholders come to a mutual understanding about the specific types of environmental protection initiatives they find acceptable to execute within the established corridor. Thus, there is no explicit technical or legal requirement to link the activity to the fulfilment of civilian needs.

While it may be relatively easier to persuade conflicting parties to establish and ensure the safety of an environmentarian corridor by emphasizing their obligations under IHL to protect environmental protection actors engaged in civil defence or humanitarian relief activities, there may still be instances where parties may be swayed by ecocentric arguments or may acknowledge the necessity of environmental protection efforts beyond the scope of civil defence and humanitarian relief frameworks. Environmentarian corridors could therefore also

131 PERAC Principles, above note 48, Art. 23.

132 *Ibid.*, Arts 5, 24–25.

function as a way to promote environmental protection activities that go beyond what can fall under civil defence or humanitarian relief, and subsequently strengthen overall environmental protection efforts during armed conflict.

Conclusion

In this article, it has been argued that environmental protection actors have a crucial role to play during armed conflict, but that they are facing challenges in carrying out their mandates due to security and access issues. Taking an anthropocentric approach to environmental protection, environmental protection actors can either be seen as part of civil defence organizations or as humanitarian relief actors, and are therefore covered by special protections under IHL. Given the urgent need to respond to environmental harm and damage, efforts to address the issues facing these actors during armed conflict should be encouraged.

However, there is limited awareness of the fact that environmental protection actors are entitled to these protections, making it potentially challenging to implement effective environmental protection measures. Certain environmental protection activities may also fall outside the scope of civil defence and humanitarian relief. To ensure the safety and security of individuals engaged in environmental protection efforts, as well as to allow for other types of environmental protection actions, it is suggested that the international community advocate for the establishment of environmentarian corridors, especially in cases of great environmental emergency. This would allow for the unimpeded movement of environmental protection personnel and resources through contested territory and into emergency areas for the purpose of providing emergency environmental protection assistance. Environmentarian corridors can be seen either as a complement to existing legal provisions, further enhancing protection of environmental protection actors, or as a way to include environmental protection activities that may be justified not on anthropocentric but rather on ecocentric grounds. As a rhetorical device, environmentarian corridors can also serve to heighten general awareness of the importance of environmental protection during armed conflict, drawing vital attention to the need to maintain ecological integrity even in the most tumultuous of circumstances.

Efforts to establish environmentarian corridors may confront similar, if not more arduous, challenges than those encountered when implementing humanitarian corridors. Nevertheless, considering the present planetary crisis and the pressing need for ecological action in times of both conflict and peace, there is an urgent need to find ways in which further environmental destruction can be prevented. To that end, environmentarian corridors represent an avenue worth exploring.