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# The international responsibility of a belligerent State in the event of transboundary environmental damage

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## Abstract

*The outbreak and continuation of armed hostilities can sometimes cause harm to bordering States not directly involved in the hostilities. This has occurred in many military operations conducted during the last few decades. The scope of the*

*provisions relating to the protection of the environment during armed conflict appears to be strictly limited to the territory in which the operations are taking place. It is therefore important to determine the extent to which a belligerent State at the origin of acts that have had devastating consequences on the territory of one or more States not involved in the conflict can be held internationally responsible for those acts based on the principle of international liability for injurious consequences arising out of acts not prohibited by international law, which is still under discussion. The argument put forward in this article is based on the hypothesis that this principle is at least implicitly recognized when it comes to environmental damage caused in the context of an armed conflict. In our view, this is grounded both in the principle of the inviolability of neutral States and in the no-harm principle, whereby a State cannot use its territory in a way that is harmful to other States not involved in the armed conflict. These principles are based on the notions of fault and risk.*

**Keywords:** transboundary environmental damage, transboundary environment, *sic utere tuo ut alienum non laedas* principle, non-harmful use of territory, belligerent State, States not involved in armed conflict, fault, risk, due diligence.

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> [U]nder the principles of international law, … no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.
>
> *Trail Smelter Case*[1]

## The current debate

The rules governing armed hostilities were first established at a time when concerns about protecting the environment were not yet at the centre of the debate. It took until the 1970s for awareness of the issue to be raised on the sidelines of the war in Vietnam.[2] An instrumental view of the environment is often taken in this context, meaning that the scope of its protection is often restricted. Articles 35 and 55 of Additional Protocol I to the four Geneva Conventions (AP I) illustrate the limited extent of this protection.[3] Today's international context, including the

1 *Trail Smelter Case*, in *Reports of International Arbitral Awards*, Vol. 2, p. 1965.

2 Starting in the early 1970s, the steady deterioration in the natural environment gave rise to widespread awareness of people's destructive impact on nature. See Antoine Bouvier, "Protection of the Natural Environment in Time of Armed Conflict", *International Review of the Red Cross*, Vol. 31, No. 285, 1991, p. 567.

3 See Ivon Mingashang, "L'évaluation critique du cadre juridique applicable à l'impératif de la lutte contre les manipulations climatopiques en temps de guerre", in Daniel Dormoy and Camille Kuyu (eds), *Droit(s) et Changements Climatiques*, Les éditions du Net, Paris, 2020.



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required transition to a low-carbon economy, means that a change in perspective is needed. Evolving techniques and methods of combat have highlighted the gap between the principle of *ratione territoriae* limits set out in the law of armed conflict and the extraterritorial – or rather transboundary – consequences of war in relation to transboundary environmental damage.

The disasters that followed the Iraqi attacks on Kuwait illustrate this problem. Iraq was found responsible under international law of spilling 700,000 tonnes of oil into Kuwait's territorial sea over several weeks.[4] The spillage of such large quantities of fuel contaminated the soil and destroyed the biodiversity of the countries bordering the Persian Gulf, even though these countries were in no way involved in the war.[5] The military hostilities that followed the break-up of the former Yugoslavia also led to significant environmental damage being recorded a few years later in neighbouring Eastern European countries.[6] The extent of the damage to the environment in countries neighbouring the military operations was highlighted in a Council of Europe report on the bombing by NATO countries of industrial sites and infrastructure in the Federal Republic of Yugoslavia.[7]

International rules and practices have been developed over time concerning reparations for war-related damage,[8] particularly for military, industrial and economic damage.[9] There are two reasons why a fundamental discussion is needed to determine the applicable legal regime concerning the international liability of a belligerent State that has caused transboundary environmental damage. The first relates to the nature of the damage, and the second to its status. In other words, under what law – *jus contra bellum* (law of collective security) or international environmental law – should the liability be based? Answering that question requires a discussion on the status of transboundary environmental damage resulting from military hostilities. Is the damage the result of an internationally wrongful act, is it a war-related risk, or is it a fault resulting from a failure of due diligence?

This is a complex debate because, according to one reading of international law, restrictions on the sovereignty of States cannot be presumed[10] – anything that is not prohibited is, in theory, allowed. However, based on international practice, the

4 Adam Roberts, "Environmental Destruction in the 1991 Gulf War", *International Review of the Red Cross*, Vol. 32, No. 291, 1992, p. 538.

5 Paul Fauteux, "La guerre du Golfe, la Convention ENMOD et la Conférence d'examen", *United Nations Institute for Disarmament Research Newsletter*, No. 18, July 1992, p. 32.

6 Parliamentary Assembly of the Council of Europe, *Environmental Impact of the war in Yugoslavia on South-East Europe: Report of the Committee on the Environment, Regional Planning and Local Authorities*, Doc. 8925, 10 January 2001, available at: https://assembly.coe.int/nw/xml/XRef/X2H-Xref-ViewHTML.asp?FileID=9143&lang=EN# (all internet references were accessed in September 2024).

7 *Ibid.*

8 See Pierre d'Argent, *Les réparations de guerre en droit international public: La responsabilité internationale des États à l'épreuve de la guerre*, Bruylant, Brussels, 2002.

9 See Permanent Court of International Justice (PCIJ), *Case Concerning the Factory at Chorzów*, Judgment (Claim for Indemnity), Series A., No. 1, 78 September 1927; *Alabama Claims*, in *Reports of International Arbitral Awards*, Vol. 1, p. 1871.

10 PCIJ, *Lotus Case*, Judgment, Series A, No. 10, 7 September 1927, p. 18.



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consequences of an act or behaviour that is not prohibited – and sometimes not expressly permitted – are not necessarily lawful. In this regard, whether attacks that could lead to transboundary environmental damage are strictly prohibited under *jus in bello* is irrelevant. It remains entirely likely that rules and principles of international environmental law, as well as customary rules based on the principle of neutrality and prevention, could adequately fill any gaps in international humanitarian law (IHL) in this area.[11] As such, the responsibility of belligerent States is likely to be incurred in the event of transboundary damage.[12] This could be implemented based on the relationship between the attacker and the victim State not involved in the armed conflict.

In order to understand the reasoning behind the above considerations, a number of points need to be clarified. First, it is important to note that the specific nature of environmental damage resulting from armed conflict, particularly when it extends beyond the borders of the belligerent parties, means that it is a unique form of harm,[13] particularly when it comes to determining the act that gave rise to the harm and the moment that it occurred, and assessing its actual impact. As conflict situations tend to run contrary to logic and coherence, our hypothesis is likely to give rise to a number of practical difficulties when transposed to real-life situations. It is worth pointing out that the references used to establish this hypothesis relate primarily to situations typical of international armed conflicts.

Drawing on the above, this study seeks to identify the presuppositions forming the grounds for international liability in the event of breaches of the international obligation not to harm the territory of a third party or to cause it damage, including in cases where acts not expressly prohibited by international law, particularly within the context of an armed conflict, have an impact on another State's territory. Liability based on fault under the law of neutrality[14] can be applied alongside liability that might be incurred under the principle of prevention and therefore in the absence of any fault.[15] There are two main lines of reasoning in this context: (i) the prohibition of transboundary environmental damage in times of conflict is based on an apparently fluid concept in international law, yet (ii) the international liability of the belligerent State is likely to be incurred in more ways than one in this situation. The aim of this study is to highlight the need to rethink the normative framework of the law of armed conflict in order to reflect the challenges resulting from certain environmental

11 See David Cumin, *Manuel de droit de guerre*, 2nd ed., Bruylant, Brussels, 2020, p. 301; Karine Mollard Bannelier, *La protection de l'environnement en temps de conflit armé*, Pedone, Paris, 2001, pp. 316 ff.

12 Éric David, *Principes de droit des conflits armés*, 6th ed., Bruylant, Brussels, 2019, pp. 884 ff.; see also Christopher Greenwood, "State Responsibility and Civil Liability for Environmental Damage Caused by Military Operations", *International Law Studies*, Vol. 69, 1996, p. 401.

13 See Didier Anouchka, *Le dommage écologique pur en droit international*, new online ed., Geneva Graduate Institute Publications, 2013.

14 Christian G. Caubet, "Le droit international en quête d'une responsabilité pour les dommages résultant d'activités qu'il n'interdit pas", *Annuaire Français de Droit International*, Vol. 29, 1983.

15 Ouedraogo Awalou, "L'évolution du concept de faute dans la théorie de la responsabilité internationale des États", *Revue Québécoise de Droit International*, Vol. 21, No. 2, 2008, p. 149.



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disasters caused by war. This is an issue that has received little or no attention in the international law of armed conflict.

## The transposability of the principles of international humanitarian law to situations of transboundary environmental damage in wartime

The scope of the rules and principles governing the conduct of military hostilities remains limited to the methods and means of combat used within the borders of the belligerent States, and their environmental consequences within those borders. State practice in this regard seems to be uncertain and imprecise in every respect. Equating environmental damage caused to third-party States with collateral damage is a plausible extrapolation of the duty of precaution incumbent on the parties to a conflict.[16] It goes without saying that the treaty rules[17] which may be applicable to parties to a conflict do not explicitly address the international liability of a belligerent State that causes transboundary damage to a third party, but State practice provides precedents in this regard, making this liability plausible under customary law. This must, however, be demonstrated.

### The agnosticism of international treaty law

The polysemic nature of what is not said in international law suggests that what is not excluded is not necessarily prohibited.[18] The treaty law applicable during hostilities is in theory indifferent to the outcome of military attacks that cause transboundary environmental damage – such actions are neither authorized nor prohibited, given the context in which much of the treaty law was established. The law does not like a vacuum, and in accordance with the spirit of the Martens Clause,[19] certain key principles of the treaty law of armed conflict can be interpreted teleologically in relation to this issue.

16 Take, for example, the rules of military necessity and proportionality, which require the strategic importance of the targeted military objective to be weighed up against the potential margin for error relative to other elements in the vicinity.

17 "Treaty rules" refers to all customary principles codified in conventions. A good number of humanitarian principles that are based on customary practice are now codified.

18 See Alexis Marie, *Le silence de l'État comme manifestation de sa volonté*, Pedone, Paris, 2018; Marc Nihoul, "Le silence est-il roi lorsqu'il faut acceptation?", in Pierre D'Argent, David Renders and Marc Verdussen (eds), *Les visages de l'État: Liber amicorum Yves Lejeune*, Bruylant, 2017, Brussels, pp. 591 ff.

19 Put forward in 1899 by the diplomat Friedrich Von Martens, this principle was included in the preambles of Hague Conventions II and IV on the laws and customs of war on land. Under this principle, in cases not included in the provisions adopted by contracting parties, "populations and belligerents remain under the protection and empire of the principles of international law, as they result from the usages established between civilized nations, from the laws of humanity and the requirements of the public conscience". See Catherine Le Bris, *L'humanité saisie par le droit international public*, LGDJ, Paris, 2012, p. 125. The Principles on Protection of the Environment in Relation to Armed Conflicts use the Martens Clause to provide grounds for the applicability of the principles of IHL to the protection of the environment in the event of war. See UNGA Res. 77/104, "Protection of the Environment in Relation to Armed Conflicts", 7 December 2022 (PERAC Principles), Principle 12.



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The extent and scope of principles such as necessity, proportionality and distinction should guarantee the protection of the environment in armed conflicts, both within the territory of the States concerned and within that of States not taking part in hostilities. Given that parties to an armed conflict have the obligation to prevent the unreasonable effects of attacks,[20] could the principle of precaution, to some extent, provide grounds for the prohibition of transboundary environment damage caused to a third party, and therefore for the potential international liability of a belligerent?

## *The applicability of the fundamental principles of international humanitarian law to the protection of the environment of States not involved in an armed conflict*

The environmental damage that may result from the conduct of armed hostilities is recognized only within the territory of the parties to the fighting.[21] However, if re-read in a more contextualized manner, certain fundamental principles of IHL can incur the State's responsibility for environmental consequences affecting a third-party State. The main purpose of the principles of distinction, military necessity and proportionality is to regulate the conduct of parties to an armed conflict with a view to protecting civilians, the civilian population and civilian objects from the harmful effects of war. By extension, and with all other things being equal, these principles can also be applied to the protection of the natural environment from the consequences of war, including beyond the territories of the parties to the conflict.

### *The obligation to protect the transboundary natural environment as an extension of the need to distinguish between military objectives and civilian objects*

In treaty law, the distinction between civilian objects and military objectives does not, in theory, cover the protection of the transboundary natural environment. A fundamental reflection on the protection of the transboundary environment in times of war is therefore needed, based on the premise that the transboundary environment should be included in the list of categories that are immune in this respect.[22]

The transboundary environment can, of course, be included in the category of objects afforded protection under the principle of distinction.[23] However, law

20 Isabelle Fouchard, "Principe de précaution et conflits armés: L'apport du droit international humanitaire", in Luca d'Ambrosio, G. Giudicelli-Delage and Stefano Manacorda (eds), *Dynamiques normatives du principe de précaution et métamorphoses de la responsabilité juridique*, Mare & Martin, Paris, 2018, pp. 58 ff.

21 The protection of the environment is provided for in the following treaties: the ENMOD Convention, Articles 35 and 55 of AP I, and conventions on weapons to be used in military hostilities.

22 Yves Sandoz, "La notion d'objectif militaire", in Vincent Chetail (ed.), *Permanence et mutations du droit des conflits armés*, Bruylant, Brussels, 2013, pp. 389 ff.

23 See Alexandre Kiss, "Les protocoles additionnels aux conventions de Genève de 1977 et la protection de biens de l'environnement", in Christophe Swinarksi (ed.), *Etudes et essais sur le droit international*



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requires precision, which means that we should define as accurately as possible the status by which the transboundary environment can be included in the category of civilian property. Does it fall within the category of the natural environment, property essential to the civilian population, cultural property, or works or installations containing dangerous forces? When damaged, the transboundary environment, as a material reality, could be considered to be essential property, the natural environment itself, cultural property, or works or installations containing dangerous forces.[24]

The terminology used in this classification relates to the field of military operations, the idea being that protection is afforded to items listed as civilian objects.[25] Such objects can be located where military operations take place, and can therefore be exposed to war. Components of the natural environment that are damaged as a result of military operations during an armed conflict are, as a general rule, located on the battlefield. To what extent, then, can the damaged transboundary environment be afforded the status of a civilian object?

It makes sense to implicate a belligerent who fails to apply the principle of distinction in this context. In this case, the belligerent has failed to consider the environment as a unit and in its entirety when launching attacks. Moreover, the rules of international environmental law[26] and/or the rules of international human rights law[27] are also likely to apply in this case.

*The applicability of the principle of military necessity to the protection of the transboundary environment*

The principle of military necessity simply means that the purpose of a military attack must be limited to neutralizing the military target in order to reduce the potential for harm and/or resistance by the opposing party.[28] The attack must enable a party to the conflict to gain a direct and concrete military advantage over the other party. In terms of environmental protection, an attack that breaches this principle would be one that causes gratuitous and punitive

*humanitaire et sur les principes de la Croix-rouge en l'honneur de Jean Pictet*, Martinus Nijhoff, The Hague, 1984.

24 Françoise Bouchet-Saulnier, *Dictionnaire pratique du droit humanitaire*, La Découverte, Paris, 2013, pp. 377 ff.

25 See É. David, above note 12, p. 300 ff.

26 This relates to the issue of the survival or suspension of treaties in times of war. The then United Nations Secretary-General was unambiguous on this point, stating: "International environmental agreements and relevant rules of customary law may continue to be applicable in times of armed conflict to the extent that they are not inconsistent with the applicable law of armed conflict." *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict*, UN Doc. A/49/323, 19 August 1994, point 5.

27 Institute of International Law, "The Application of International Humanitarian Law and Fundamental Human Rights, in Armed Conflicts in which Non-State Entities are Parties", Fourteenth Commission, 1999.

28 Dietrich Schindler, "Transformation in the Law of Neutrality since 1945", in Astrid J. M. Delissen and Gerard J. Tanja (eds), *Humanitarian Law of Armed Conflict: Challenges Ahead*, Martinus Nijhoff, Dordrecht, 1991, p. 370.



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environmental damage.[29] There is no reason why this should not also apply when the damage occurs beyond the borders of the parties to the conflict. The destruction of the environment in times of war is unnecessarily harmful when it does not benefit the party carrying out the attack.

There are, however, two contrasting points to note here. It could be maintained that transboundary environmental damage is lawful if it makes a concrete contribution to the military destruction of the opposing party, as the principle of military necessity has not been violated.[30] It could also be argued that transboundary environmental damage is unlawful if it does not concretely or directly benefit the attacker. In both cases, however, it is difficult to determine how and to what extent such an assessment could be made. It would be absurd to determine that collateral damage to the transboundary environment is lawful on the basis that an act is only prohibited within a State's border and is therefore paradoxically lawful beyond that border. To paraphrase Ronald Dworkin, we need to take IHL seriously.[31] The effects or impacts of a violation of the principle of distinction within the limits of the borders of the belligerent States are unlawful also because they harm the integrity of the environment.[32]

It is a known fact that it is difficult to determine the trajectory indicating the scope and extent of environmental damage or the spatial reach of certain environmental modification techniques. Treaty texts that address the geographical extent of environmental damage do not provide a precise definition of the distance indicating the extent of environmental damage. The interpretative agreement to AP I alludes simply to effects extending over an area of several hundred square kilometres.[33]

Any reference to the territorial extent of the impact of such damage raises concerns as to the way in which the territorial scope[34] of these provisions is interpreted in relationship to the classification of the transboundary consequences of the environmental damage. The provisions of Article 1 of AP I limit the applicability of the principles of IHL to situations covered by Article 2 common to the four Geneva Conventions.[35] These situations do not include the relationship between the belligerents (or one of the belligerents) and the State

29 See Karine Bannelier-Christakis, "L'utopie de la 'guerre verte': Insuffisances et lacunes du régime de protection de l'environnement en temps de guerre", in V. Chetail (ed.), above note 22, p. 395.

30 Elmar Rauch, "Le concept de nécessité militaire dans le droit de la guerre", *Revue de Droit Pénal Militaire et de Droit de la Guerre*, Vol. 19, 1980.

31 Ronald Dworkin, Prendre les droits au sérieux, Presses Universitaires de France, Paris, 1995, p. 515 (original English version: Ronald Dworkin, Taking Rights Seriously, Harvard University Press, Cambridge, MA, 1977.

32 International Committee of the Red Cross (ICRC), *Guidelines on the Protection of the Natural Environment in Armed Conflict*, Geneva, 2022, pp. 80 ff.

33 See Stéphane Solassol, "Les déclarations interprétatives françaises au premier Protocole additionnel aux Conventions de Genève de 1949 relatives à la conduite des hostilités", *Cahiers de la Recherche sur les Droits Fondamentaux*, Vol. 2, 2003, p. 121.

34 É. David, above note 12, p. 300.

35 Asma Mahai-Batel. "La diplomatie humanitaire et le droit international humanitaire: De l'empirisme à une diplomatie de catalyse ?", doctoral thesis, Universitey of Côte d'Azur, 2019, p. 134.



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neighbouring the military operations. Any environmental damage resulting from this relationship is therefore not governed by these rules.

*The application of proportionality in situations of transboundary environmental damage*

Assessing the balance between military necessity and humanitarian considerations[36] requires an evaluation of the excessive nature of the environmental damage, based on its gratuitous and punitive characteristics. Even where the environmental damage is considered necessary in the pursuit of a direct and concrete military advantage, it must be within the threshold for usefulness.[37] This approach is in line with the principle of ensuring that such damage is proportionate to military necessity.[38]

The proportionality test gives rise to the key concepts of direct damage and collateral damage, which can indicate the predictability of the consequences that may result from military hostilities.[39] The collateral nature of certain damage[40] is a key component of the argument concerning the transboundary impact of certain environmental damage. As a result, certain excessive environmental attacks whose consequences extend to countries neighbouring the military operations are a violation of the principle of proportionality. In such situations, the resulting transboundary environmental destruction is disproportionate, especially if the consequences go beyond the initial, legitimate objective of the attack.

Let us take the example of the Israeli forces' aerial bombing in August 2006 of a Lebanese electricity plant suspected of being used to supply weapons used against Israel.[41] An assessment indicated that the consequences of the bombing included direct damage to the power plant, as well as pollution reported to cover 8 kilometres of the Syrian coastline (collateral damage).[42] The destruction alone was enough to gain a direct and concrete military advantage against the Lebanese forces, but the subsequent contamination of the Syrian coastline as collateral damage clearly violated, in our view, the principle of proportionality.

The suspected use of the plant to supply weapons[43] was used to justify the attack on the plant, and this was considered admissible because, as a result of that

36 C. Le Bris, above note 19, p. 125.
37 See PERAC Principles, above note 19, Principle 14.
38 See F. Bouchet-Saulnier, above note 24, pp. 622 ff.
39 See ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, Geneva, 2011, p. 57.
40 For insight into this legal notion, see Helga E. Bories-Sawala, "Dommage collatéral ou condition nécessaire à la colonisation? Les épidémies et leur impact sur les Premières Nations dans les manuels d'histoire du Québec", *Revue des Sciences de l'Éducation*, Vol. 46, No. 2, 2020.
41 Martial Baudot, Etienne Delcroix, Benoit Guiot, Briec le Gouvello and Matthieu Osada, "Une illustration de la guerre de l'information: Le conflit entre Israël et le Hezbollah de l'été 2006", École de Guerre Économique, February 2007, p. 17.
42 United Nations, "Liban: La marée noire a atteint les côtes syriennes", *UN News*, 6 August 2006, available at: https://news.un.org/fr/story/2006/08/95802.
43 François Dubuisson, "La guerre du Liban de l'été 2006 et le droit de la légitime défense", *Revue Belge de Droit International*, Vol. 2006, No. 2, 2006, pp. 533 ff.



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use, the plant lost its protection as a civilian object and became a military objective. This demonstrates that the assessment of proportionality is not absolute and can change relative to other principles of IHL. The same applies, for example, to the principle of precaution, which could provide the basis for the prohibition of transboundary environmental damage.

### *The principle of precaution concerning the transboundary nature of certain environmental damage caused by war*

Formally, measures to protect environmental interests against the effects of an armed attack[44] cover only effects that do not go beyond the belligerents' borders. Yet, in the name of caution and under the principle of precaution, it is hard to see why these measures should not also apply to safeguarding the natural environment, infrastructure and works containing dangerous forces[45] located outside enemy territory. It makes sense to interpret Article 57 of AP I as being consistent with the prohibition against transboundary damage in times of armed conflict. It is generally accepted that the attacker must gauge the destructive potential of the collateral damage that may result from its operations.[46] The attacker should therefore refrain from carrying out its decision if it appears that using the means at its disposal could cause irreversible damage to the environment, based on the chosen target's location and type.

The law applicable in these circumstances could be disputed, given the *ratione materiae* scope of IHL. Article 49 of AP I sets out the attacks to which the rules concerning the protection of the civilian population apply. However, Article 49(2), which refers to "all attacks in whatever territory conducted", opens up the prospect of extending the rules to extraterritorial situations. Could the subsequent use of the term "including" refer to any territory, including neutral territory?

It appears that the phrase "in whatever territory conducted" is intended to cover a geographical range that includes all territories of the opposing parties within the territorial scope of an armed conflict. It also encompasses the space in which hostilities are taking place – land, air or sea.[47] The provisions of Article 49 specify the context in which the attack occurs, which is essentially an armed conflict. References to the civilian population, individual civilians and civilian objects highlight the singular nature of that context.[48]

The principle of precaution recommends a cautious assessment of the destructive potential of attacks through the measured use of means and weapons in the conduct of hostilities.[49] In the context of transboundary environmental

44 Y. Sandoz, above note 22, p. 444.
45 K. Bannelier-Christakis, above note 29, p. 394.
46 See Jean D'Aspremont and Jerome De Hemptinne, *Droit international humanitaire*, Pedone, Paris, 2012, p. 271.
47 Mireille Couston and Geraldine Ruiz, "Le droit de la Haye à l'épreuve des espaces aériens et extra-atmosphériques", in V. Chetail (ed.), above note 22, pp. 305 ff.
48 F. Bouchet-Saulnier, above note 24, p. 422 ff.
49 See J. D'Aspremont and J. de Hemptine, above note 46, p. 271.



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damage, this idea is supported by the theory that IHL is not applicable in situations resulting from the transboundary consequences of war.[50] Indeed, based on Article 58 of AP I, passive precautionary measures must, in theory, be taken by the party under attack. This would imply that countries neighbouring the military operations (victims) must take measures to prevent the effects of attacks emanating from the parties to the hostilities on their own territories. Yet it is no secret that States (or other actors) not involved in hostilities are excluded from the scope of application of these provisions of IHL. They are in no way bound by that law, except in the context of humanitarian relief.[51]

## Addressing the imprecision of treaty law by drawing on international custom

The limitations of international treaty law in the area under discussion can be offset by other sources. It is worth mentioning here that the principles of prevention and neutrality which form part of the rules of armed conflict stem from customary law.[52] Both of these principles require parties to use their best endeavours during war to ensure respect for third parties considered neutral and to protect them from the consequences that may arise as a result of the conflict.[53] The need for prevention has not yet been awarded the status of a rule under IHL, but it is nevertheless considered to be a general principle of law.[54] As such, we argue that it can be invoked to fill the gap in the normative framework relating to transboundary environmental damage.

The principle of neutrality is enshrined in Article 1 of Convention V respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land, and in Article 1 of Convention XIII concerning the Rights and Duties of Neutral Powers in Naval War. Under this principle, what is not permissible within the territorial limits of the parties to the conflict should be no less permissible within the borders of third parties that can be considered neutral States.

### *The inviolability of neutral States in the face of transboundary environmental damage*

The aim of the principle of neutrality is to prevent the geographical spread of international armed conflict to States that are not involved in it.[55] Various

50 *Ibid.*
51 É. David, above note 12, p. 33.
52 The many treaty instruments on which IHL is based are the result of the codification of many of the principles that once guided the conduct of military hostilities. Since time immemorial, a number of State practices have been underpinned by the application of certain general principles of law and have acquired customary force. This is particularly true of practices resulting from the application of the principles of prevention and neutrality in times of war. See Christian Tshiamala Banungana, "De l'exercice par la Cour pénale internationale de sa compétence repressive dans le contexte du développement de l'ordre écologique international", doctoral thesis, Law Department, University of Kinshasa, August 2021, pp. 196 ff.
53 See D. Cumin, above note 11, p. 148.
54 ICRC, *ICRC Prevention Policy*, Geneva, 2010, pp. 11 ff.
55 É. David, above note 12, p. 33.



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situations have demonstrated the need to protect property and areas belonging to powers not involved in an armed conflict. The principle of neutrality grants rights to a State that is neutral in an international armed conflict, as well as obligations.[56] In practical terms, it grants neutral States immunities against the effects of hostilities between belligerent parties.[57] The main aim is to guarantee that no harm of any kind is caused to such neutral States' territorial integrity. It goes without saying that the scope of this principle includes protection against attacks of an environmental nature that are likely to affect neutral States.

*The inviolability of the territory of neutral States*

The inviolability of the territory of neutral States is a corollary of the rights inherent in the principle of neutrality under IHL. In the words of Pitt Cobbett, "[e]very neutral State is entitled to have the integrity of its territory and territorial waters respected by each of the belligerents, both as regards the actual conduct of hostilities, the making of captures, and the preparation of acts of war".[58] This principle implies that the entity covered by the principle must be protected from any hostile act against it, as a consequence of it not being a belligerent party.

Parties to the conflict therefore have an obligation/duty to refrain from any hostile act that may have transboundary consequences of any kind, in particular on the environment. The status of a third-party State provides immunity from attacks by the belligerent parties. This immunity is further strengthened by the requirements of proportionality and, above all, precaution.

An example can highlight how the scope of this principle should be understood from the point of view of IHL. If, during an international armed conflict between State A and State B, a missile hits a village on the territory of neighbouring State C, it will need to be established to which party to the conflict this internationally wrongful act can be attributed. Under the rules governing collective security, this event could be considered merely as a border incident; international precedent relating to the *Oil Platforms* case before the International Court of Justice (ICJ) went in that direction.[59] However, the event would still represent a breach of the obligation of neutrality from the point of view of *jus ad bellum* and *jus in bello*. Regardless of its origin, such a missile strike would constitute an attack on the territorial integrity of a State that is not a party to the military hostilities. As a result, the principle of neutrality is surely applicable to the environmental aspects of transboundary damage.

56 D. Cumin, above note 11, pp. 133 ff.
57 D. Schindler, above note 28, p. 370.
58 Pitt Cobbett, *Leading Cases on International Law: War and Neutrality*, Sweet & Maxwell, London, 1924, p. 402.
59 ICJ, *Oil Platforms (Islamic Republic of Iran v. United States of America)*, Judgment, 6 November 2003, *ICJ Reports 2003*.



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*The applicability of neutrality to the environmental consequences of war*

There is no outright agreement on whether the principle of neutrality can be transposed to the transboundary reality of environmental damage resulting from armed hostilities. Arguments against relate to the environmental nature of the transboundary damage[60] and to the specificities of such damage in wartime.[61] The first point concerns how the principle of neutrality was established. It is tempting to maintain that the environment was not yet a legally protected area when the principle of neutrality was created. Therefore, arguing that transboundary environmental damage is a violation of this principle would distort the scope of the principle itself. If environmental considerations are to be included in some way, the principle must be limited to noting the violation of the physical integrity of the State. This is all the more correct given that neutrality also aims to protect territorial inviolability.[62] Moreover, setting out obligations for belligerent States in this respect means that the scope of this principle is limited to direct damage to the territorial integrity of third-party States. Since transboundary environmental damage is, in most cases, collateral damage, that would mean that the principle would not include the protection of the transboundary environment.

However, several States have not followed this reasoning. Instead, they have argued – through, for instance, the case of the ICJ on the legality of nuclear weapons – that "the principle of neutrality applies with equal force to transborder incursions of armed forces and to the transborder damage caused to a neutral State by the use of a weapon in a belligerent State".[63] The merits of the above reasoning and arguments can therefore be disputed. They can be put into perspective by considering the open nature of the principle of neutrality in treaty law and its implications in terms of customary law. The treaty provisions setting out the acts prohibited under the principle of respect for the inviolability of the territory of neutral States are generic in nature – the lists provided are illustrative.[64]

Articles 1 and 2 of Convention XIII concerning the Rights and Duties of Neutral Powers in Naval War refer, for example, to "any act". Whether

60 This is the argument put forward in Liesbeth. Lijnzaad and Gerard J. Tanja, "Protection of the Environment in Times of Armed Conflict: The Iraq–Kuwait War", *Netherlands International Law Review*, Vol. 40, No. 2, 1993, pp. 172–173.

61 This is the position expressed in William R. Hearn, "The International Legal Regime Regulating Nuclear Deterrence and Warfare", *British Yearbook of International Law*, Vol. 61, 1990, p. 247.

62 K. Mollard Bannelier, above note 11, pp. 323 ff.

63 Nauru, Written Statements, Request for an Advisory Opinion by the World Health Organization (Legality of the Use by the State of Nuclear Weapons in Armed Conflict) Filed with the ICJ, 15 June 1995, p. 35.

64 These types of definition do not allow us to envisage an enumerative indication of the elements with a view to elucidating the meaning of the concept or idea. They thus ensure a broader scope that would be limited in the case of a detailed list. Colombia's proposal in the context of the Working Group on the Elements of Aggression has sufficiently explained the content of a generic definition. See Working Group on the Elements of Crimes within the Jurisdiction of the ICC, Proposal Submitted by Colombia, PCNICC/2000/WGCA/DP.2, 17 March 2000, p. 2. For a full understanding of the issue, see also Christian Tshiamala Banungana. "Vers l'intégration de l'écocide dans le Statut de Rome", *Canadian Yearbook of International Law*, Vol. 59, 2022, pp. 261–265.



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environmental destruction is expressly mentioned as an act that constitutes a breach of the inviolability of neutral States is of little importance in this regard. Evolving and contextualized interpretative processes should be adopted to justify the prohibition of environmental damage that reaches beyond a specific battlefield.[65] IHL treaties are living instruments that should be interpreted based on current living conditions and contemporary ideas.[66] A judge could therefore equate environmental damage with an act that constitutes a breach of the inviolability of the territory of States in times of war.

As the principle of neutrality is enshrined in treaty law, its scope is sometimes considered to be limited to the human damage caused by war. Let us not forget, however, that the principle is rooted in customary law, under which acts infringing the territorial inviolability of neutral States are deemed to be much broader in scope,[67] to the extent that serious environmental damage cannot be excluded. As such, any consequence whatsoever that an attack has on the territory of a neutral State could constitute a violation of the principle of neutrality. The representative of Malaysia maintained in their observations before the ICJ, in the context of another case concerning legality, that "[o]nly the most tortured interpretation can lead to the conclusion that radioactive fallout, causing devastation of humans, flora and fauna, does not constitute a violation of neutral territory".[68] The principle of neutrality is therefore not limited to situations involving the invasion or bombing of neutral territories. It also undoubtedly covers the indirect effects of hostilities and transboundary collateral damage.[69]

The second argument relativizes the context of neutrality in the case of transboundary environmental damage, since situations in which belligerents breach the rights of third-party States in an armed conflict are rare.[70] The argument goes that as the principle of neutrality is rarely applied in the context of armed conflict, it would, *a fortiori*, not be appropriate to apply it in the case of transboundary environmental damage. With the exception of an isolated case involving the violation of neutrality as a result of damage caused to Swiss territory during the Second World War, no situation of this kind has been the subject of arbitration or a legal dispute.[71] However, it is hard to argue that the rarity of situations of neutrality constitutes an objection to the idea of transposing neutrality to the context of transboundary ecological damage. There is therefore a

65 See Mélanie Samson, "Interprétation large et libérale et interprétation contextuelle: Convergence ou divergence?", *Les Cahiers de Droit*, Vol. 49, No. 2, 2008.
66 European Court of Human Rights, *Kress v. France*, 7 June 2001, para. 70.
67 Vincent Chetail, "Droit international général et droit international humanitaire: Retour aux sources", in V. Chetail (ed.), above note 22, pp. 31 ff.
68 Malaysia, Written Statements, Request for an Advisory Opinion by the World Health Organization (Legality of the Use by the State of Nuclear Weapons in Armed Conflict) Filed with the ICJ, 19 June 1995, para. 5.6.
69 K. Mollard Bannelier, above note 11, pp. 323 ff.
70 *Ibid.*, p. 329.
71 Paul Fauteux, "L'utilisation de l'environnement comme instrument de guerre au Koweït occupé", in Brigitte Stern (ed.), *Les aspects juridiques de la crise et de la guerre du Golfe*, Montchrestien, Paris, 1991, p. 240.



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clear need for the principle of neutrality to be respected in order to protect the transboundary environment from the consequences of war.

## *The applicability of the principle of prevention in relation to transboundary environmental damage in wartime*

The no-harm rule, whereby States are prohibited from using their territory in a way that will cause harm to a third party, is enshrined in international customary law. It is covered by the term *sic utere tuo ut alienum non laedas*. When it comes to environmental protection, the no-harm rule offers a preventive approach rather than the remedial, or rather curative, function of the law. The main question is whether this principle can be transposed, particularly when it comes to damage resulting from armed attacks that have repercussions beyond the borders of belligerent States.

### *The prevention of transboundary environmental damage in international law*

It is said that the same causes produce the same effects. The principle of preventing harm caused by the sovereign use of a State's territory was established in international law as a result of the *Trail Smelter* cross-border legal dispute between the United States and Canada. The resulting arbitration was based on the legal scope of the environmental consequences of Canada's use of its territory in a way that was harmful to the United States.[72] The arbitration award, dated 11 March 1941, ruled against Canada in this regard, highlighting a State's international liability for its failure to fulfil its obligation to ensure that sovereign use of its territory did not affect neighbouring States. The Tribunal ruled that

> under the principles of international law … no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.[73]

It is important to specify that the Tribunal avoided settling for a *non liquet*, given the absence of express provisions on the subject in the context of the dispute. The arbitrators reasoned by analogy – taking as a guide a ruling of the US Supreme Court on a water pollution case[74] – that the obligation of due diligence extended to the risks that conduct falling within the exercise of a State's territorial sovereignty will have a transboundary impact.[75]

72 See Gérard F. Fitzgerald, "Le Canada et le développement du droit international: La contribution de *l'Affaire de la fonderie de Trail* à la formation du nouveau droit de la pollution atmosphérique transfrontière", *Études Internationales*, Vol. 11, No. 3, 1980.

73 *Trailer Smelter Case*, above note 1, p. 1965.

74 The *Arkansas Water Diversion* case, cited in Jacques Ballenegger, *La pollution en droit international*, Vaudoise, Lausanne, 1975, pp. 53, 55.

75 An examination of State practice indicates that this obligation is a customary norm. See Olivier Corten and Annemie Schaus, "La responsabilité internationale des États-Unis pour les dommages causés par les



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Under the prevailing case law, the principles applicable to water pollution have been transposed to other transboundary situations relating to the sovereign use of territory for almost a century, based on the practice of due diligence. In line with this precedent, the judge Max Huber recognized in the *Island of Palmas* case that

> [t]erritorial sovereignty … involves the exclusive right to display the activities of a State. This right has as corollary a duty: the obligation to protect within the territory the rights of other States, in particular their right to integrity and inviolability in peace and in war.[76]

The ICJ has contributed to the consolidation of the customary rule in this regard, through at least four related rulings. Remarkably, even at the end of its very first judgment, in the *Corfu Channel* case, the Court, ruling on the international liability of Albania relative to the United Kingdom, set out the due diligence obligation of a territorially competent State in the exercise of its sovereign prerogatives. The Court confirmed the legal scope of this custom by highlighting "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States".[77] In 1996, in its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons* (Nuclear Weapons Advisory Opinion), the Court unequivocally affirmed the customary nature of the due diligence obligation in this area. It emphasized that "the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment".[78] This statement does more than simply confirm the customary nature of this duty; it also demonstrates that the protection of the environment had become an integral part of international law.[79] This approach, which follows the precedent set in the *Trail Smelter* case, helps to address situations relating to the environment in this regard.

Two other judgments handed down by the ICJ, in cases between Argentina and Uruguay and between Nicaragua and Costa Rica, reinforced the legality of the no-harm principle in international law. The 2010 case concerning *Pulp Mills on the River Uruguay* provides for the prevention of transboundary damage from a procedural perspective by setting forth "a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context".[80] In the *Construction of a Road in Costa*

précipitations acides sur le territoire canadien", *Canadian Yearbook of International Law*, Vol. 27, 1989, pp. 242–244.

76 *Island of Palmas Case*, in *Reports of International Arbitral Awards*, Vol. 2, p. 839.

77 ICJ, *Corfu Channel Case (UK v. Albania)*, Judgment, 9 April 1949, *ICJ Reports 1949*, p. 22.

78 ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 8 July 1996, *ICJ Reports 1996* (Nuclear Weapons Advisory Opinion), para. 29.

79 *Ibid.*

80 ICJ, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, 20 April 2010, para. 203.



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*Rica along the San Juan River* case five years later, in 2015, the Court confirmed this procedural obligation as a due diligence measure that should be adopted to prevent transboundary damage.[81] Where applicable, this creates a duty of information and consultation for the territorial State towards the State likely to be affected.[82]

The fundamental idea behind the recognition of the no-harm principle is the need to ensure good neighbourly relations and prohibit the abuse of rights.[83] The recognition of States' sovereign rights over their territory is based on the presumption that they will use their territory in a way that is rational and respectful of the rights of other States. Any use of territory that infringes the rights of other States therefore constitutes an abuse of rights.

*Applicability of the principle of prevention during an armed conflict*

The concept of due diligence provides a framework which ensures that a State can exercise the prerogatives inherent in its territorial sovereignty in a way that does not give rise to acts and consequences which are harmful to bordering territories. Its transposition to the law of armed conflict is based on the inevitable gap that exists between compliance with the principles of distinction, necessity and proportionality and the occurrence of harmful transboundary consequences. From a *jus in bello* point of view, environmental damage could result from behaviours that are not in theory prohibited but which nonetheless cause harmful consequences for the environment.[84] The occurrence of any war-related harm is bound to affect the territorial integrity of the victim State and its legitimate rights and interests. Under the law of armed conflict, whether the perpetrator assessed the environmental consequences of its acts has no bearing on whether those acts are deemed lawful. For example, the use of the monopoly of force to preserve territorial sovereignty is not prohibited, but its consequences are likely to be harmful in some way. Transboundary damage, including the substantial destruction of the environment as a result of war, can be included in the category of dangerous activities that are not prohibited but which violate the no-harm principle.[85]

In its 1996 Nuclear Weapons Advisory Opinion,[86] the ICJ rejected the argument that Principle 21 of the Stockholm Declaration "was obviously not drafted to apply to the conduct of armed conflict, much less to the use of nuclear

81 ICJ, *Certain Activities Carried Out by Nicaragua in the Border Area* and *Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica)*, Judgment, 16 December 2015.
82 *Ibid.*, paras 101–105.
83 K. Mollard Bannelier, above note 11, pp. 323 ff.
84 Categorizing an otherwise lawful behaviour as dangerous means that the risk of those dangers occurring needs to be anticipated. Along these lines, Robert Ago stated that "[b]eing obliged to accept the possible risks arising from the exercise of an activity which is itself lawful and being obliged to face the consequences – which are not necessarily limited to compensation – of the breach of a legal obligation, are two different matters". See *Report of the International Law Commission on the Work of Its Twenty-Sixth Session*, in *Yearbook of the International Law Commission*, Vol. 2, Part 1, 1974, p. 273, para. 109.
85 Nuclear Weapons Advisory Opinion, above note 78, paras 28–30.
86 *Ibid.*, para. 27.



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weapons in foreign territory".[87] In this way, the Court explicitly integrated the issue of environmental protection in wartime into international law. Reacting to the claims of certain States regarding the applicability of treaties and norms relating to the environment in situations of war, the Court recalled States' obligation to prevent the transboundary consequences of the use of their sovereign territory.[88] It concluded its reasoning by urging States to take environmental considerations into account in the pursuit of legitimate military objectives.[89] In the same vein, the International Law Commission's (ILC) Principles on Protection of the Environment in Relation to Armed Conflicts (PERAC Principles) cover the prevention of transboundary harm,[90] though only in the context of military occupation. This is not far removed from the formal recognition of prevention as a principle of IHL applicable in environmental contexts.

The ICJ's reference to Principle 21 of the Stockholm Declaration recommending that States comply with international law relating to the protection of the environment in times of armed conflict[91] is consistent with this approach. The Court's reasoning is revealing in several ways. It highlights first and foremost States' obligation to protect the environment in times of war, before mentioning any specific implications that may arise from that obligation. This relates to the question of the legal scope of transboundary environmental damage caused by military hostilities under the legal framework set forth in Principle 21. The reasoning set out in the Nuclear Weapons Advisory Opinion underpins the idea that transboundary environmental damage caused by war should be prevented.[92]

There are two components to the obligation of a State – in this case a belligerent State – to use its territory in a way that does not cause harm, including during the conduct of hostilities. These are the abuse of rights and good neighbourliness.[93] In terms of the abuse of rights, whether the behaviour is justified by the State's sovereign exercise of its territorial right has no bearing if the exercise of that right violates the territorial integrity of a neighbouring State that is not involved in the hostilities.[94] The same goes for the principle of good neighbourliness. Indeed, the no-harm principle can be violated both in times of peace and in times of armed conflict. It is based on an obligation of due diligence that is rooted in customary practice[95] and imposed on States.[96]

87 United States, Written Statements, Request for an Advisory Opinion by the UN General Assembly (Legality of the Use by the State of Nuclear Weapons in Armed Conflict) Filed with the ICJ, 20 June 1995, p. 19.
88 *Ibid.*
89 *Ibid.*
90 See PERAC Principles, above note 19, Principle 21.
91 *Ibid.*
92 K. Bannelier-Christakis, above note 29, pp. 389 ff.
93 K. Mollard Bannelier, above note 11, p. 316.
94 For a more in-depth analysis, see Marie Lemey, *L'abus de droit en droit international public*, LGDJ, Paris, 2021, p. 477.
95 Samantha Besson, *La due diligence en droit international*, Brill Nijhoff, Leiden, 2021, pp. 242 ff.
96 See Helene Tran, *Les obligations de vigilance des États parties à la Convention des droits de l'homme*, Bruylant, Brussels, 2013, p. 2.



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## Sanctions for breaches of the no-harm principle that result in transboundary environmental damage

If international liability can be incurred for environmental damage caused to a party not involved in a conflict, then penalties and reparations can be applied based on the validity of the international liability of belligerent States. The main applicable norm in this regard is the customary rule of due diligence requiring States to behave in a certain way when exercising territorial sovereignty.[97] For the conduct that caused environmental damage to the territories of States not involved in hostilities to be deemed wrongful, it must be imputable to the State in question. For the wrongful behaviour to be attributable to the belligerent State, its entities must have been acting as entities or agents under its control.[98]

Based on the foregoing, we must now look at two aspects of the theory of responsibility for internationally wrongful acts from the perspective of transboundary environmental damage during an armed conflict. First, we need to examine the scope of the principles governing the international responsibility of States in relation to transboundary situations involving environmental protection. We then need to look at whether the belligerent State's obligation to provide reparations can be applied in the event of transboundary environmental damage.

### International responsibility for internationally wrongful acts in the event of transboundary environmental damage

A sanction is the measure of the likelihood that a given legal situation will be enforced. It helps to ensure that a primary norm requiring certain behaviour or conduct is implemented,[99] particularly in relation to international law. Whether the perpetrator of transboundary environmental damage caused in the context of an armed conflict can be required to make reparations depends on the rule that is applied. Is it a matter of fault or risk?[100]

In order to answer this question, it is worth recalling that the initial act can constitute a violation of the principle of neutrality in armed conflict or a failure to take precautions in the legitimate and sovereign use of force. In both cases, however, responsibility must be imputable to the State. The harmful behaviour must be an act committed by entities and agents in the exercise of their functions in the name, and on behalf, of the State. The unique nature of conflict situations means that conduct outside the scope of the course of duty and conduct in situations arising under the

97 Tiphaine Demaria, "Obligations de comportement et obligations de résultat dans la jurisprudence de la Cour internationale de Justice", *Canadian Yearbook of International Law*, Vol. 58, 2021, pp. 369 ff.
98 Nguyen Quoc Dinh, Patrick Daillier, Matthias Forteau, Alina Miron and Alain Pellet, *Droit international public*, LGDJ, Paris, 2022, pp. 1095 ff.
99 Alain Laquieze, "Sanction", in Denis Alland and Stephane Rials (eds.), *Dictionnaire de la culture juridique*, PUF, Paris, 2003, pp. 1381 ff.
100 See O. Awalou, above note 15, pp. 149 ff.



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control of the belligerent State must also be taken into consideration,[101] particularly in the event of occupation.

### *Basis for the wrongfulness that could incur the international liability of belligerent States in the event of transboundary environmental damage*

We have already shown that both the principle of due diligence – based on the no-harm rule – and the principle of neutrality are used to determine whether transboundary environmental damage is unlawful. The responsibility that is incurred when these two principles are not followed is rooted both in a customary prohibition and in the failure to fulfil the duty to take precautions (risk).

States have an obligation to respect the principle of neutrality in times of armed conflict, which means they can be held liable in the event of substantial environmental consequences caused by military attacks on the transboundary environment. In terms of the precautionary principle, States have an obligation to anticipate the risk of dangers that could result from the sovereign use of their territory.

#### *Failure to fulfil the obligation to respect and ensure respect for the principle of neutrality*

IHL bases the illegality of attacks whose environmental consequences exceed the territorial limits of the States involved in hostilities on the specific obligations that arise from the principle of the inviolability of neutral States.[102] Belligerent States, particularly their commanders and fighters, have a duty to adopt methods, use methods and means of warfare and take measures that do not violate the neutrality that is supposed to guide the law of armed conflict, particularly with regard to transboundary environmental damage. Any conduct that runs contrary to this constitutes a violation of that principle, putting the State at fault under the law of international responsibility. In other words, any act that harms the transboundary environment is an internationally wrongful act. It represents a violation of the inviolability of neutral States in times of war, in accordance with *jus in bello*.

The intention of the belligerent State responsible for the wrongful acts is of little importance.[103] The law of international responsibility assesses both the illegality of the act that gave rise to harm and the harmful and prejudicial nature of the consequences resulting from it, based on the circumstances at the time and of the case.[104] The underlying obligation in this context is general in scope insofar as it is based on a customary rule relating to neutrality in the law of

101 É. David, above note 12, p. 851 ff.
102 Jean Monnier, "Développement du droit international humanitaire et droit de la neutralité", in *Quatre études du droit international humanitaire*, Institut Henry-Dunant, Geneva, 1985, p. 5.
103 É. David, above note 12, p. 846.
104 Nils Melzer and Etienne Kuster (eds), *International Humanitarian Law: A Comprehensive Introduction*, ICRC, Geneva, 2019, pp. 282–283.



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armed conflict.[105] The prohibition relates essentially to physical or material conduct – there must be concrete and real positive acts, rather than an omission that is difficult to justify based on the due diligence criteria required in such circumstances. There must also be objectively observable attitudes and/or physical reactions. As environmental damage is a concrete behaviour capable of affecting States that are not actively participating in military hostilities, it violates those States' right to neutrality.

The idea here is to equate acts that are harmful to the environment of neighbouring States with acts of hostility or combat techniques with collateral effects.[106] This requires a causal link between the harmful consequences and a specific conduct on the part of a belligerent State or resulting from a situation under its control. By way of illustration, there are several examples of environmental damage that can be directly linked to a known and verifiable context of war. These include the destruction of a nuclear facility on the territory of a neutral State by a military power, and the transboundary poisoning of an international waterway with a view to starving the opposing party.

The consequences of the war in the former Yugoslavia on the environment of countries in Eastern Europe represent a violation of the principle of neutrality through anti-environmental behaviour. The report of the Parliamentary Assembly of the Council of Europe stated that

> [e]fforts by Nato air forces to destroy industrial sites and infrastructure caused dangerous substances to pollute the air, water and soil. These substances will have a lasting impact on the health and quality of life of the populations of the countries concerned.[107]

Some environmental consequences are also difficult to link to specific situations of war. This example also shows that according to the principle of precaution, there is a severity threshold for environmental damage caused by war – only environmental damage deemed to be significant in scope, length and severity is prohibited.

*Failure to fulfil the obligation to prevent transboundary environmental damage*

The obligation to prevent transboundary environmental damage is rooted in customary law. The belligerent State has a general duty of due diligence, and if it fails to fulfil that obligation, its international responsibility will be incurred. International public law sets out a system of responsibility based on risk. It is inspired by the standards set by national laws, in order to overcome the difficulty of proving the causal link between the harm caused and the event giving rise to it.[108] In international law, the responsibility incurred by failing to fulfil the obligation to prevent is unique in this way and different from the general

105 D. Schindler, above note 28, p. 370.
106 See I. Mingashang, above note 3.
107 Parliamentary Assembly of the Council of Europe, above note 6.
108 Jean Pierre Beurrier, *Droit international de l'environnement*, Pedone, Paris, 2017, p. 239.



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approach, which is based on the unlawfulness of an international act.[109] Here, it is worth mentioning the key contribution made by the ILC. Through its work on the transboundary consequences of dangerous activities, it has developed a theory on international liability for injurious consequences arising out of acts not prohibited by international law.[110] While there is little point in going back over the substance of previous cases, it is worth recalling that although *jus gentium* law does not prohibit the use of force to preserve and defend one's territorial integrity, that does not make the use of force any less of a dangerous activity for which the risk of possible perils must be anticipated.[111] Any resulting transboundary damage should therefore be assimilated to a danger, the risk of which could be averted by adopting preventive measures.

In this situation, liability is not incurred as a result of a violation of the norms of international law but rather as the result of a failure of prevention and precaution. Belligerent States are required to reasonably assess any risk that could result from an armed operation based on the criteria of proportionality and necessity. Parties to a conflict do not have an unlimited choice in the offensive techniques and means that they can use; unnecessary and superfluous destruction is prohibited by the laws and customs of war. Here, it does not matter whether the environmental damage caused to third-party States was the result of an armed attack involving the legitimate and sovereign use of force.[112] Instead, it is the likelihood of danger that is important in the absence of proof of a causal link between the environmental damage and the event causing it.

International case law has developed a particularly coherent line of reasoning in this respect since the case concerning *British Property in Spanish Morocco*. It attempts to forgo the need for proof by adopting the above approach when it comes to determining the causal link between the event giving rise to the damage and the occurrence of the damage. In the case, the arbitrator Max Huber said that it was possible to establish liability on the basis of sufficient probabilities resulting from all the elements available to him.[113] Similarly, the Iran–US Claims Tribunal dispensed with the burden of proof by declaring nationality to be established on the basis of mere presumptions.[114]

109 Alain Pellet, "Le nouveau projet de la C.D.I. sur la responsabilité de l'État pour fait internationalement illicite: *Requiem* pour le crime?", in *Man's Inhumanity to Man: Festschrift Antonio Cassese*, Kluwer, The Hague, 2002, pp. 655 ff.

110 *International Liability for Injurious Consequences Arising Out of Acts not Prohibited by International Law: Comments and Observations Received from Governments*, UN Doc. A/CN.4/481 and Add.1, 1997.

111 Gabriella Venturini, "Les obligations de diligence dans le droit international humanitaire", in Sarah Casella (ed.), *Le standard de due diligence et la responsabilité internationale*, Journée d'études franco-italienne de Mans, Société Française de Droit International, Pedone, Paris, 2018, pp. 136 ff.

112 Charles Lionel, "Environnement, incertitude et risque: Du pragmatisme aux développements contemporains", *Écologie & Politique*, Vol. 26, No. 3, 2002, p. 112.

113 *Affaire des biens britanniques au Maroc espagnol (Espagne c. Royaume-Uni)*, in *Reports of International Arbitral Awards*, Vol. 2, p. 654.

114 See in particular Iran–US Claims Tribunal, *Flexi-Van Leasing Inc. v. Iran*, Case No. 36-222, Award Final No. 259-36-1, 11 October 1986, pp. 24–26; Patrick Daillier, Myriam Benlolo, Marie Dumée, Anne Robert and Daniel Muller, "Tribunal irano-americain des reclamations", *Annuaire Francais de Droit International*, Vol. 46, 2000.



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The *Corfu Channel*[115] and *Military and Paramilitary Activities in and against Nicaragua*[116] cases brought before the ICJ clearly corroborate this trend, arguing that a serious approximation is sufficient to make up for the impossibility of proving a causal link when establishing whether an international obligation has been breached. In order to protect the transboundary environment, the States involved in an international armed conflict are subject to the customary obligation of causing no harm; if a State fails to fulfil that obligation, it is likely to incur international responsibility on the grounds that it has breached its duty of due diligence concerning the acts of its entities and agents.[117] Due diligence requires a very high degree of vigilance in this case.[118] Belligerent States have the duty, at all times, to safeguard the rights of third parties by monitoring the consequences of activities that take place within their territory. This represents an "extremely high duty of care", to borrow the expression used by Olivier Corten and Annemie Schauss.[119] This approach was affirmed in Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Declaration.

The aim of this obligation is to determine the threshold of action and effort that a belligerent State must demonstrate in order to be discharged of its responsibility in this respect.[120] This requires due diligence, which is of crucial importance when it comes to preventing the risk of danger. In the case concerning the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide*, the ICJ underscored that

> the obligation in question is one of conduct and not one of result, in the sense that a State cannot be under an obligation to succeed, whatever the circumstances, in preventing the commission of genocide: the obligation of States parties is rather to employ all means reasonably available to them, so as to prevent genocide so far as possible.[121]

The responsibility of a State will be recognized if the State has manifestly failed to implement the preventive measures within its power.[122]

### *The imputability of transboundary environmental damage to belligerent States*

For the international responsibility arising from behaviour that constitutes transboundary environmental damage to be incurred by a belligerent State, the

115 ICJ, *Corfu Chanel*, above note 77, p. 18.
116 ICJ, *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Judgment, 27 June 1986, para. 164.
117 Pasquale De Sena, "La 'due diligence' et le lien entre le sujet et le risque qu'il faut prévenir: Quelques observations", in S. Casella (ed.), above note 111, pp. 247 ff.
118 O. Corten and A. Schaus, above note 75, p. 246.
119 *Ibid*., p. 249.
120 *Ibid*.
121 ICJ, *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia-Herzegovina v. Serbia and Montenegro)*, Judgment, 26 February 2007, *ICJ Reports 2007*, para. 430.
122 Olivier Corten, "L'arrêt rendu par la CIJ dans l'affaire du *Crime de génocide (Bosnie-Herzégovine c. Serbie)*: Vers un assouplissement des conditions permettant d'engager la responsabilité d'un État pour génocide?", *Annuaire Français de Droit International*, Vol. 53, 2007, p. 278.



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damage must be imputable to that State.[123] This principle is grounded, in particular, in the work of the ILC.[124] The conduct that causes the unlawful act must have come from the State acting through its entities or agents, in this case the combatants. International case law supports this view. The *Armed Activities on the Territory of the Congo* case confirmed the customary character of the attribution of behaviour of any State organ to the State itself, while the *Military and Paramilitary Activities in and against Nicaragua* case attributed to the State the actions of non-State armed groups.[125] Regardless of the position of the guilty entity, the State's responsibility is incurred.[126] In principle, both the failure to exercise due diligence and any act committed by the armed forces that is contrary to IHL are the responsibility of the belligerent State.

Military operations undertaken without an assessment of the possible risks of spillover into the transboundary environment incur the responsibility of the belligerent State if damage is caused to third-party States. These operations violate the obligation of prevention and the neutrality of States not involved in hostilities. The international law of armed conflict does not make a distinction between acts in the course of duty and those not in the course of duty.[127] Let us take the example of a transboundary attack by a soldier from a community involved in a conflict on a factory belonging to an opposing sociological group in order to settle scores. Such conduct could ultimately cause a transboundary environmental disaster that would incur the responsibility of the belligerent State.

The same applies if there is substantial destruction of the transboundary environment by a non-State armed group under the control of a State. The State will be internationally responsible for the act if the group is wholly dependent on it or has received clear instructions from it to that end. The ICJ contributed to the theory underpinning this customary principle in the *Military and Paramilitary Activities in and against Nicaragua* case. It stated that the principle of total, effective control applies when the group is wholly dependent on the State or when the State has given direct instructions to commit the crime.[128] The judgment in the *Armed Activities on the Territory of the Congo* case takes the same stand, particularly in reference to the support of a State to the activities of non-State armed groups operating from its territory.[129] The ICJ confirmed the scope of the principle in its ruling on the legal scope of acts by armed groups that cannot be considered State entities, within the context of the conflict in the former Yugoslavia. It recalled that the complete dependence or the lack of autonomy of a non-State actor mean that the non-State actor can be equated to a State agent.[130]

123 É. David, above note 12, p. 851.
124 *International Liability for Injurious Consequences*, above note 110.
125 ICJ, *Nicaragua*, above note 116, para. 116.
126 ICJ, *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, 19 December 2005, *ICJ Reports 2005*, para. 213.
127 É. David, above note 12, p. 846.
128 ICJ, *Nicaragua*, above note 116, para. 116.
129 ICJ, *Armed Activities*, above note 126, para. 300.
130 ICJ, *Genocide*, above note 121, paras 161–165.



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The principle of control, as understood from the cases described above, and the general attribution of acts of agents and organs of the non-State armed group to the State mean that transboundary environmental damage can be imputable to the belligerent State under international law. If so, the belligerent State has an obligation to make reparations.

## Nature of the obligation to make reparations for transboundary environmental damage

When the international responsibility of a belligerent State is incurred and the State is required to make reparations for the environmental damage imputable to it, it is necessary to consider the beneficiaries of that obligation and the terms on which it will be fulfilled.

### *Reparations for transboundary environmental damage caused by war*

Transboundary environmental damage causes harm to a State not involved in the armed conflict, and to its population, through the substantial destruction of components of its biosphere and biotope. It therefore follows that it is the State not involved in the armed conflict in which such unlawful acts were committed, as well as its population, that is entitled to reparations. In terms of the international responsibility of the belligerent State, only the (injured) State not involved in the armed conflict that caused the environmental damage can be the beneficiary of the obligation to make reparations.[131]

To operationalize the right to reparations for environmental damage caused by the transboundary effects of armed conflict, Principle 9 of the PERAC Principles must be read in conjunction with the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities. These two sets of principles set out a framework that combines reparations for war damage with specific reparations for purely environmental damage. Paragraph 1 of PERAC Principle 9 sets out the idea of full reparation for environmental damage.[132]

In the event of disputes concerning responsibility for violations of the rules of IHL, paragraph 4 of Principle 6 of the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities, which makes reference to recourse to international claims settlement procedures, should be implemented. This allows the victims of such damage to access compensation provided for by the international jurisdiction through legal proceedings resulting in a judgment or order. This will enable the State to establish a domestic mechanism to identify the beneficiaries and determine the amount of the

131 J. D'Aspremont and J. De Hemptinne, above note 46, p. 429.

132 See PERAC Principles, above note 19, Principle 9. See also ILC, *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities*, in *Yearbook of the International Law Commission*, Vol. 2, Part 2, 2006.



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compensation, assessed in proportion to the harm suffered and the overall amount available. The procedures referred to in paragraph 4 of Principle 6 are also in line with the practice of the United Nations Compensation Commission for Iraq in respect of environmental claims,[133] which could well be the inspiration for the ILC's draft principles in this area.[134]

The issue of the status and place of the destroyed environment arises in this context.[135] The debate on the subjectification of nature in law[136] has given rise to the concept of developing forms of reparations that directly benefit the environment, for instance by restoring it to its original state.[137] The judgment of the ICJ in the *Armed Activities* case also illustrates this trend in the case of damage caused during armed conflict. This case considered the possibility of allowing subjects to obtain reparations for environmental damage in wartime.[138] However, the issue of proof meant that the Court was unable to come to a decision on the level of harm suffered as a result of the environmental damage.[139]

Furthermore, the materialization of the obligation to make reparations depends on the State not involved in the armed conflict, which is responsible for initiating inter-State litigation on the application of the principles of international law relating to transboundary environmental damage in the event of war. As with inter-State arbitration, the ICJ is the competent institution for inter-State disputes of this kind.

### *Appropriate forms of reparation*

The implementation of the obligation to make reparations for damage resulting from the substantial destruction of the transboundary environment in times of war also raises the question of the type of reparations that can be made. These are contingent upon the reality of the environmental destruction[140] and the

133 See Jean-Christophe Martin, "La pratique de la Commission d'indemnisation des Nations Unies pour l'Irak en matière de réclamations environnementales", in Société Française pour le Droit International, *Le droit international face aux enjeux environnementaux: Actes du 43eme colloque de la Société française pour le droit international, Aix-Marseille, 4–6 juin 2009*, Pedone, Paris, 2010.

134 Yann Kerbrat, "Le droit international face au défi de la réparation des dommages à l'environnement: Rapport général sur le thème de la deuxième journée", in Société Française pour le Droit International, above note 133, pp. 140 ff.

135 I. Mingashang, above note 3, p. 186.

136 See Matthias Petel, "La nature: D'un objet d'appropriation à un sujet de droit. Réflexions pour un nouveau modèle de société", *Revue Interdisciplinaire d'Études Juridiques*, Vol. 80, No. 1, 2018.

137 Marja Lehto, *Second Report on Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/728, 27 March 2019, p. 70.

138 It is worth recalling the difficulties inherent in the attribution of such damage: "The damage may be due to several concurrent causes, or the state of science regarding the causal link between the wrongful act and the damage may be uncertain. These are difficulties that must be addressed as and when they arise in light of the facts of the case at hand and the evidence presented to the Court. Ultimately, it is for the Court to decide whether there is a sufficient causal nexus between the wrongful act and the injury suffered." ICJ, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, Judgment (Compensation), *ICJ Reports 2018*, p. 26, para. 34.

139 ICJ, *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment (Reparations), 9 February 2022, *ICJ Reports 2022*, paras 345–350.

140 *Ibid.*



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transboundary impact of the armed conflict on the environment. The specific status of the environment raises questions concerning "the intensity, diversity and nature of the environmental impacts and the impossibility of restoring the environment to its pre-war state on account of the long-term effects of damage".[141] The unique nature of the transboundary impact of war makes it difficult to establish a causal link between the condition of a component of the environment within the territory of a State not involved in the armed conflict and the military events with a transboundary impact.

Often considered the ideal form of reparation for environmental damage, compensation makes it possible to assess, in economic terms, the environmental damage suffered as a result of a violation of State sovereignty or of the principles of humanitarian law.[142] However, environmental damage in wartime generates enormous impacts that cannot be compensated by monetary compensation alone.

The inclusion of other forms of reparation, such as rehabilitation and restitution, should be considered essential wherever possible. From an environmental standpoint, restitution allows for the situation likely to have existed if the damage had not been caused to be restored.[143] The restoration of the environment is the ideal solution in this regard.[144] There is a tendency to consider that implementing this form of reparation in a war context is by no means a foregone conclusion, given the state of relations between the conflicting parties.[145] It is important to note, however, that transboundary environmental damage does not typically generate much animosity between the belligerent State and the State not involved in the armed conflict, so restoring the destroyed environment could be a valid option.

## Conclusion

The situations in which transboundary environmental damage has occurred demonstrate the urgent social need to ensure that this issue is addressed in the normative framework governing the protection of the environment in times of armed conflict. Transposing, through codification, humanitarian principles to the protection of the environment has not been enough to address this unique problem. These rules apply only to attacks within the territorial scope of the war. Any environmental damage that surpasses the enemy territory is not, strictly speaking, prohibited by the rules of war. Practices establishing the territorial inviolability of neutral States and the no-harm rule provide a timid basis for the customary prohibition of such conduct.

141 Parliamentary Assembly of the Council of Europe, above note 6.
142 ICJ, *Certain Activities* and *San Juan River*, above note 81, p. 34.
143 PCIJ, *Chorzów*,above note 9, p. 48.
144 M. Lehto, above note 137, p. 70.
145 Thierry Sénéchal, "Dédommagement, réparation, restitution: Instruments de 'vérité'?", *Topique*, Vol. 102, No. 1, 2008, pp. 30 ff.



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The principle of the sovereign, non-harmful use of territory, which is a corollary of the principle of prevention in international environmental law, also gives rise to the issue of the application of peacetime rules in times of war. Applying these two principles to situations of transboundary environmental damage means that the international responsibility of the belligerent State can be incurred based on the premises of both risk and fault. The failure to ensure the inviolability of neutral States implies that the belligerent State's responsibility can be incurred for an internationally wrongful act, and the failure to comply with the principle of prevention means that the objective responsibility of the belligerent State could also be incurred.

There is no doubt that prevention is the cornerstone of the concept of gauging the transboundary risks of attacks, and that this underpins the obligation of belligerent States to carry out due diligence. In light of this, it would be worth considering the possibility of adopting a fourth protocol to the Geneva Conventions to address this and all other aspects relating to the protection of the environment in wartime.



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