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International environmental law as a means for enhancing the protection of the environment in warfare: A critical assessment of scholarly theoretical frameworks

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* Certain arguments developed in this paper have already been explored in two other papers by the author, but largely from a different perspective. See Raphaël van Steenberghe, "The Interplay between International Humanitarian Law and International Environmental Law: Towards a Comprehensive Framework for a Better Protection of the Environment in Armed Conflict", *Journal of International Criminal Justice*, Vol. 20, No. 5, 2022; Raphaël van Steenberghe, "The Impacts of Human Rights Law on the Regulation of Armed Conflict: A Coherency-Based Approach to Dealing with Both the 'Interpretation' and 'Application' Processes", *International Review of the Red Cross*, Vol. 104, No. 919, 2022.

Abstract

The protection of the environment during warfare attracted significant attention in the 1990s, especially after the 1990–91 Gulf War. It became clear at that time that the few rules provided by international humanitarian law (IHL) aimed specifically at protecting the environment were insufficient. Various studies have since been undertaken with the aim of strengthening that protection from an IHL perspective. It is only recently that scholars and institutions like the International Law Commission have started to reflect on how to better protect the environment in armed conflict through the lens of another branch of international law, namely, international environmental law (IEL). Such an approach has involved examining the interplay between IHL and IEL, and scholars have subsequently proposed and then elaborated on frameworks in that respect. This paper intends to identify common trends of those frameworks and to critically appraise them, with the aim of providing a suitable approach to the interplay between IHL and IEL.

Keywords: international humanitarian law, international environmental law, armed conflict, *lex specialis*, conflicts of norms, principle of systemic integration, coherence.

Introduction

The 1990–91 Gulf War was the main starting point for doctrinal reflections on how to enhance the protection of the environment in armed conflict through international environmental law (IEL). The devastating environmental damage caused by that war showed the weaknesses of the rules of international humanitarian law (IHL) that were specifically devoted to the protection of the environment at the time.[1] Attempts were made as early as June 1991 to provide additional IHL rules on the protection of the environment through the adoption of a new convention;[2] however, this proposal for a "Fifth Geneva Convention" did not have any follow-up.

It is not surprising, therefore, that, shortly after the Gulf War, States considered the issue of the interplay between IHL and IEL. In October 1991, the delegate of the Netherlands stated at the United Nations (UN) General Assembly Sixth Committee, on behalf of the European Community, that it would

> be necessary to examine the relationships between international environmental law and humanitarian law, which seemed to be developing along rather

1 See in particular 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 35, 55. See also 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).

2 Glen Plant, *Environmental Protection and the Law of War: A "Fifth Geneva" Convention on the Protection of the Environment in Armed Conflict?*, Belhaven Press, London and New York, 1992.

> independent lines, even though the developments of environmental law had consequences for the interpretation of rules concerning the protection of the civilian population.[3]

In the same vein, a group of experts convened by the International Committee of the Red Cross (ICRC) in 1992, in the context of the General Assembly's work on the topic, identified several "most important matters requiring study", including the "[r]elationship between international humanitarian law and international environmental law (regional and universal regulations)".[4]

Thirty years later, that issue has still not been comprehensively addressed. The ICRC's 2020 *Guidelines on the Protection of the Natural Environment in Armed Conflict* still raise the concern raised by the ICRC-convened group of experts in 1992: the need to continue clarifying the interaction between the two bodies of law when a rule of IEL and a rule of IHL are found to apply in parallel.[5] In 2022, numerous States and organizations criticized the Draft Principles on Protection of the Environment in Relation to Armed Conflicts adopted by the International Law Commission (ILC) in 2019 as not providing enough guidance on the interplay between IHL and IEL.[6] That being said, at least some aspects of the issue have been implicitly or expressly addressed by the ILC and the ICRC, as well as by scholars. In addition, two comprehensive studies have recently been devoted to the topic,[7] with one of them also considering the interactions of IEL and IHL with international human rights law (IHRL).[8] A general survey of those works shows that two main processes have been considered for enhancing the protection of the environment in warfare through IEL.[9] The first is the application of that body of law, including its treaties, in armed conflict alongside

3 *General Assembly Sixth Committee: Summary Record of the 20th Meeting*, UN Doc A/C.6/46/SR.20, 30 October 1991, para. 3.

4 *Protection of the Environment in Times of Armed Conflict: Report of the Secretary-General*, UN Doc. A/47/328, 31 July 1992, paras 52, 56; see also paras 48, 63.

5 International Committee of the Red Cross (ICRC), *Guidelines on the Protection of the Natural Environment in Armed Conflict: Rules and Recommendations Relating to the Protection of the Natural Environment under International Humanitarian Law, with Commentary*, Geneva, 2020, para. 35.

6 See e.g. comments and observations made by States and institutions quoted in Marja Lehto, *Third Report on the Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/750, 16 March 2022, para. 139. Only one brief and unsatisfactory paragraph has been added to that end in the final version of the commentaries on the Draft Principles adopted in 2022: see ILC, *Draft Principles on Protection of the Environment in Relation to Armed Conflicts, with Commentaries*, UN Doc. A/77/10, 2022 (ILC Commentaries), p. 136, para. 4.

7 Britta Sjöstedt, *The Role of Multilateral Environmental Agreements: A Reconciliatory Approach to Environmental Protection in Armed Conflict*, Hart, Oxford, 2020; Anne Dienelt, *Armed Conflicts and the Environment: Complementing the Laws of Armed Conflict with Human Rights Law and International Environmental Law*, Springer, Cham, 2022. See also the recent symposium co-edited by Jerôme de Hemptinne and this author on "The Protection of the Environment during Warfare: An International Environmental Law Perspective", *Journal of International Criminal Justice*, Vol. 20, No. 5, 2022.

8 A. Dienelt, above note 7.

9 See also, in addition to these two processes, a normative process envisaged by certain scholars which involves using IEL to inspire new IHL rules. For an illustrative case, see e.g. Karen Hulme, "Armed Conflict and Biodiversity", in Michael Bowman, Peter Davies and Edward Goodwin (eds), *Research Handbook on Biodiversity and Law*, Edward Elgar, Cheltenham, 2016, pp. 263–264.

IHL. This "application process" was envisaged soon after the 1990–91 Gulf War.[10] The application of IEL in armed conflict was notably asserted in July 1991 by the participants at the Conference of Experts on the Use of the Environment as a Tool of Conventional Warfare co-sponsored by the Canadian Ministry of External Affairs and the UN.[11] The other process, which was envisaged much later in legal literature, is the "interpretation process", whereby IHL concepts or norms, such as the IHL notion of the "natural environment", are interpreted in light of IEL.[12]

The aim of this paper is to provide a critical assessment of the work of legal scholars dealing with those two processes, including the work of institutions like the ILC, the ICRC and the UN Environment Programme (UNEP). In such works, including the most comprehensive ones, developments may be missing or may be confusing or contradictory in relation to both processes. This paper is mainly concerned with two aspects of the interplay between IHL and IEL, namely the conditions for such interplay and the mechanisms used to solve conflicts between these two bodies of law.

Conditions for IHL–IEL interplay

The conditions for IHL–IEL interplay are different depending upon whether IEL is used to complement IHL through its application in armed conflict (the application process) or through the interpretation of IHL in light of its rules or concepts (the interpretation process). This section will examine the relevant conditions applicable to each process.

The application process

IHL is expected to interact with IEL under the application process only when the two bodies of law enter into conflict. This requires, as a precondition, that they apply to the same conduct and that their respective scopes of application overlap. One must therefore first address the issue of the overlapping scopes of application of IHL and IEL before examining when conflicts arise between the two bodies of law and how to deal with such conflicts.

10 The issue had nonetheless been briefly addressed in 1985 by the Institute of International Law during its work on the effects of armed conflict on treaties: see Institute of International Law, *Yearbook*, Vol. 61, Part II, Session of Helsinki, Pedone, Paris, 1985, p. 223.

11 See Conference of Experts on the Use of the Environment as a Tool of Conventional Warfare (Conference of Experts), "Chairman's Conclusions", July 1991, para. 11, available at: https://gac.canadiana.ca/view/ooe.b4224383F/1 (all internet references were accessed in August 2023). For scholars, see e.g. Michael Bothe, "The Protection of the Environment in Times of Armed Conflict: Legal Rules, Uncertainty, Deficiencies and Possible Developments", *German Yearbook of International Law*, Vol. 34, 1991, p. 59.

12 See e.g. Jean d'Aspremont, "Towards an International Law of Brigandage: Interpretative Engineering for the Regulation of Natural Resources Exploitation", *Asian Journal of International Law*, Vol. 3, No. 1, 2013, p. 17; Daniëlla Dam-de Jong, *International Law and Governance of Natural Resources in Conflict Situations*, Cambridge University Press, Cambridge, 2013, pp. 115–116; Eliana Cusato, *The Ecology of War and Peace: Marginalising Slow and Structural Violence in International Law*, Cambridge University Press, Cambridge, 2021, p. 91.

Overlapping scopes of application

In order to determine the extent to which the respective scopes of application of IEL and IHL may overlap, the different aspects of the IEL scope of application must be examined. The first relates to its temporal scope; this is the well-known issue of the applicability of IEL in armed conflict. The two other aspects, which are rather neglected in legal literature, include the personal and geographical scopes of IEL.

Temporal scope

IHL and IEL may overlap both in times of peace and war. Whereas IHL primarily applies in armed conflict, it contains certain rules that also apply before an armed conflict begins, like the rules prescribing precautionary measures against the effect of attacks,[13] or that extend beyond the end of hostilities, such as the obligations relating to remnants of war.[14] Likewise, although IEL primarily applies in times of peace and contains relevant rules such as those imposing preventive measures[15] or dealing with access to environmental information,[16] it does not necessarily cease to apply during war. It has indeed been extensively debated in legal literature whether IEL continues to apply once an armed conflict has broken out.[17]

Usually, scholars agree that IEL treaties continue to apply to States at least in non-international armed conflict (NIAC), as well as between the belligerent and neutral States in international armed conflict (IAC).[18] As between belligerents in IAC, scholars usually start by looking at the terms of the treaties,[19] before

13 See e.g. AP I, Art. 58.

14 See e.g. Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, as Amended on 3 May 1996, Annexed to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which May Be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, 2048 UNTS 93, 3 May 1996 (entered into force 3 December 1998), Art. 9.

15 See e.g. Convention on Biological Diversity, 1760 UNTS 79, 5 June 1992 (entered into force 29 December 1993) (Biodiversity Convention), Art. 7.

16 For IEL treaties on the matter, see e.g. those mentioned in Marie G. Jacobsson, *Third Report on the Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/700, 3 June 2016, paras 130–140.

17 Silja Vöneky, "A New Shield for the Environment: Peacetime Treaties as Legal restraints of Wartime Damage", *Review of European, Comparative and International Environmental Law*, Vol. 9, No. 1, 2000; 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, pp. 36–41; M. Bothe, above note 11, p. 54; Richard G. Tarasofsky, "Legal Protection of the Environment during International Armed Conflict", *Netherlands Yearbook of International Law*, Vol. 24, 1993, pp. 22 ff.; John P. Quinn, Richard T. Evans and Michael J. Boock, "United States Navy Development of Operational-Environmental Doctrine", in Jay E. Austin and Carl E. Bruch (eds), *The Environmental Consequences of War: Legal, Economic, and Scientific Perspectives*, Cambridge University Press, Cambridge, 2010, pp. 164–165.

18 See e.g. Karine Bannelier-Christakis, "L'utopie de la 'guerre verte': Insuffisances et lacunes du régime de protection de l'environnement en temps de guerre", in Vincent Chétail (ed.), *Permanence et mutations du droit des conflits armés*, Bruylant, Brussels, 2013, p. 405 fn. 66 ; 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, p. 581 ; Dapo Akande, "Nuclear Weapons, Unclear Law? Deciphering the *Nuclear Weapons* Advisory Opinion of the International Court", *British Yearbook of International Law*, Vol. 68, 1997, p. 185.

19 See e.g. UNEP, *Protecting the Environment during Armed Conflict: An Inventory and Analysis of International Law*, 2009, pp. 35–40; M. G. Jacobsson, above note 16, paras 104–120; Alice Louise Bunker, "Protection of the Environment during Armed Conflict: On Gulf, Two Wars", *Review of*

submitting a theory to settle the issue in the numerous instances where the treaties are silent.[20] Since the adoption of the Articles on the Effects of Armed Conflict on Treaties by the ILC in 2011,[21] scholars also abundantly refer to these articles to assert the continued applicability of IEL treaties in armed conflict,[22] even though, as stressed in legal literature,[23] the rebuttable presumption of such applicability provided in the annex to those articles is not based on any firm practice. Other scholars tend to complement the ILC work by relying on "specific State practice", namely declarations made by belligerents in a particular conflict.[24] As a result, it is now often stated in legal scholarship that IEL, including its treaties, continues to apply in armed conflict unless expressly provided otherwise.[25] Elements other than those usually mentioned in legal scholarship, however, could be submitted to support that view. The most interesting one is "general State practice", in the sense of the practice taking the form of general State declarations on the topic, which may supplement "specific State practice". Although they were quite scarce after the 1990–91 Gulf War, such declarations have flourished for the last decade, especially in the context of the ILC's work on the protection of the environment in relation to armed conflicts.[26]

In addition, it is intriguing to observe that many scholarly works examine the issue of the applicability of IEL in armed conflict in relation to IEL itself, as a

European Community and International Environmental Law, Vol. 13, No. 2, 2004, pp. 202–203; E. Cusato, above note 12, p. 89.

20 See e.g. the theories developed in S. Vöneky, above note 17, pp. 20–32; M. N. Schmitt, above note 17, pp. 36–41; Stephanie N. Simonds, "Conventional Warfare and Environmental Protection: A Proposal for International Legal Reform", *Stanford Journal of International Law*, Vol. 29, 1992, pp. 168 ff.

21 UNGA Res. 66/99, 9 December 2011, Annex.

22 See e.g. Marja Lehto, *First Report on the Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/720, 30 April 2018, para. 78; D. Dam-de Jong, above note 12, p. 172; B. Sjöstedt, above note 7, pp. 150–159; A. Dienelt, above note 7, pp. 230–232.

23 See e.g. Adrian Loets, "An Old Debate Revisited: Applicability of Environmental Treaties in Times of International Armed Conflict Pursuant to the International Law Commission's 'Draft Articles on the Effects of Armed Conflicts on Treaties'", *Review of European, Comparative and International Environmental Law*, Vol. 21, No. 2, 2012, p. 133.

24 See e.g. Cyprien Dagnicourt, *La protection de l'environnement en période de conflit armé*, L'Harmattan, Paris, 2020, pp. 137–138.

25 See e.g. ILC Commentaries, above note 6, p. 136, para. 4; see also p. 141, para. 4, and p. 159, para. 3.

26 For explicit endorsements of the continued applicability of IEL in armed conflict, see e.g. statements from Thailand (UN Doc. A/C.6/71/SR.29, 2 December 2016, para. 10) and Portugal (UN Doc. A/C.6/73/SR.28, 10 December 2018, para. 88). For implicit endorsements, see statements made by States asking the ILC to examine (or approving the ILC's proposals regarding) the interactions between IHL and IEL in armed conflict (see e.g. Azerbaijan (UN Doc. A/C.6/73/SR.29, 10 December 2018, para. 114); Vietnam (UN Doc. A/C.6/73/SR.30, 6 December 2018, para. 44); Algeria (*ibid*., para. 82); Italy (UN Doc. A/C.6/70/SR.22, 23 November 2015, para. 117); Greece (UN Doc. A/C.6/70/SR.24, 4 December 2015, paras 2–3; UN Doc. A/C.6/71/SR.29, 2 December 2016, para. 17); Belarus (UN Doc. A/C.6/70/SR.24, 4 December 2015, para. 15); Slovenia (UN Doc. A/C.6/70/SR.24, 4 December 2015, para. 39); Lebanon (*ibid*., para. 59); Austria (*ibid*., para. 66); Romania (UN Doc. A/C.6/72/SR.26, 5 December 2017, para. 28); the Netherlands (*ibid*., para. 37); Thailand (*ibid*., para. 60); Malaysia (*ibid*., para. 120); South Africa (UN Doc. A/C.6/73/SR.30, 6 December 2018, paras 2–3)), or underlining that IHL remains the *lex specialis* in relation to IEL in such conflicts (see e.g. Belarus (UN Doc. A/C.6/70/SR.24, 4 December 2015, para. 15); Greece (UN Doc. A/C.6/71/SR.29, 2 December 2016, para. 17); the United States (UN Doc. A/C.6/73/SR.29, 10 December 2018, para. 41); South Africa (UN Doc. A/C.6/73/SR.30, 6 December 2018, para. 3)).

"special regime", or IEL treaties.[27] Few scholarly writings focus on that issue in relation to the rules of IEL, even though certain scholars rightly stress that such an issue must ultimately be settled at that level when treaties do not contain any indication on their applicability in armed conflict.[28] The traditional test based on the compatibility of a treaty with a state of war might prove useful in this regard.[29] It could exclude the applicability of certain IEL obligations whose performance would be unrealistic between belligerents, such as obligations of cooperation when they are directly connected to the military effort of the belligerents and do not provide a solution that would make them compatible with a state of war.[30] This may actually have a significant impact on the applicability of IEL during warfare, since obligations of cooperation constitute the core business of IEL; that body of law is indeed primarily driven by the principle of good neighbourliness. Alternatively, classical mechanisms provided in the law of international responsibility, such as force majeure, or in treaty law, like the recognition of a fundamental change of circumstances, might be invoked in certain circumstances[31] to exclude the operation of the incompatible IEL obligation.[32]

That being said, certain arguments often developed in legal scholarship, or by authoritative institutions, in relation to the issue of the continued applicability of IEL in armed conflict must be either rejected or developed. One of them, supported by scholars,[33] the ICRC[34] and the ILC Rapporteur,[35] is to make the continued applicability of IEL dependent upon a consistency test with IHL. This argument is questionable as it confuses the applicability of a rule with its application to a

27 See e.g. above note 17.

28 See e.g. Jorge Viñualez, "Régime spécial – cartographies imaginaires: Observations sur la portée juridique du concept de 'régime spécial' en droit international", *Journal de Droit International*, No. 140, 2013, pp. 405 ff.

29 For that test, see e.g. Jost Delbrück, "War, Effect on Treaties", in *Encyclopaedia of Public International Law*, Vol. 4, 2000, p. 1371.

30 See e.g. Convention on the Law of the Non-Navigational Uses of International Watercourses, UN Doc. A/51/869, 21 May 1997 (entered into force 17 August 2014), Art. 30, which authorizes the States Parties to resort to indirect procedures in order to fulfil their obligation of cooperation "[i]n cases where there are serious obstacles to direct contacts between watercourse States". See also ILC, *Principles on Protection of the Environment in Relation to Armed Conflicts*, UNGA Res. 77/104, 7 December 2022 (PERAC Principles), Principle 23(2).

31 These are not available to the aggressor State: see, respectively, ILC, *Responsibility of States for Internationally Wrongful Acts*, UNGA Res. 56/83, 12 December 2001, Art 23(2)(a); Vienna Convention on the Law of Treaties, 1155 UNTS 331, 23 May 1969 (entered into force 27 January 1980) (VCLT), Art. 62(2)(b). See also ILC, *Report of the International Law Commission: Sixty-Third Session*, UN Doc. A/66/10, 2011, p. 195, Art. 15. For detailed and rare discussion on those traditional mechanisms in relation to the applicability of IEL in armed conflict, see D. Dam-de Jong, above note 12, pp. 179–191; C. Dagnicourt, above note 24, pp. 140–143.

32 According to Article 44(3) of the VCLT, above note 31, only the provisions affected by the change of circumstances, rather than the whole treaty, might be suspended or terminated under certain conditions.

33 See e.g. J. P. Quinn, R. T. Evans and M. J. Boock, above note 17, p. 164; D. Dam-de Jong, above note 12, p. 175.

34 See ICRC, *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, Annex, para. 5; ICRC, above note 5, para. 33. The ICRC's 2020 Guidelines (above note 5) nonetheless also refer to a test of incompatibility "with the characteristics of the armed conflict".

35 M. Lehto, above note 22, para. 79; Marja Lehto, *Second Report on the Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/728, 27 March 2019, para. 28.

given conduct. It is only when two rules are applicable that this test can operate to determine which rule applies. This is actually the reasoning adopted by human rights bodies. Those bodies do not question the applicability of an IHRL rule in the case of conflict with IHL, while applying the regime provided under IHL to the concrete conduct at stake.[36] This has the advantage of maintaining the applicability of the inconsistent IEL rule and of providing the State(s) victim of the violation of that rule with an opportunity to seize the enforcement mechanisms provided by the relevant IEL treaty. The argument based on a consistency test with IHL would also have the inconsistent effect that IEL norms would remain applicable between belligerents because they are consistent with IHL, like obligations of cooperation requiring notifications of data related to the war effort, although those norms are clearly incompatible with a state of war.

Another questionable argument frequently advanced by scholars,[37] or by institutions like the ILC,[38] is to build their position in favour of the continued applicability of IEL in warfare on the Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons* (Nuclear Weapons Advisory Opinion) issued by the International Court of Justice (ICJ). Although, as detailed below, in this Opinion, the ICJ asserted that environmental considerations had to be taken into account when applying IHL,[39] it nonetheless stopped short of addressing the issue of the applicability of IEL in armed conflict.[40] The Court acknowledged that States' views on the matter were divided and expressly stated that "the issue [before it was] not whether the treaties relating to the protection of the environment [were or not] applicable during armed conflict".[41]

Finally, several scholars argue that IEL treaties must continue to apply between belligerents that are party to them, otherwise unlawful damage would be caused to the neutral States that are also party to those treaties.[42] This would also run against the indivisible nature of such treaties.[43] Such an argument is only partly relevant. First, it is only valid with respect to IEL treaties that regulate global environmental concerns, such as biodiversity, climate change or the ozone layer, the protection of which is sought for the benefit of all States. Second, even with respect to those treaties, the suspension or termination of their applicability

36 See e.g. European Court of Human Rights (ECtHR), *Hassan v. United Kingdom*, Appl. No. 29750/09, Judgment (Grand Chamber), 16 September 2014, paras 96–111; Inter-American Commission on Human Rights, *Coard et al. v. United States*, Case No. 10.951, 29 September 1999, paras 41–61; *Report on Terrorism and Human Rights*, OEA/Ser.L/V/II.116, Doc. 5 rev. 1 corr., 22 October 2002, paras 141 ff.; Inter-American Court of Human Rights, *The Ituango Massacres v. Colombia*, Preliminary Objections, Merits, Reparations and Costs, Judgment, Series C, No. 148, 1 July 2006, para. 179.

37 See e.g. Kirsten Stefanik, "The Environment and Armed Conflict: Employing General Principles to Protect the Environment", in Carsten Stahn, Jennifer S. Easterday and Jens Iverson (eds), *Environmental Protection and Transitions from Conflict to Peace*, Oxford University Press, Oxford, 2017, p. 93.

38 ILC Commentaries, above note 6, p. 136, para. 4 fn. 593.

39 ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, *ICJ Reports 1996* (Nuclear Weapons Advisory Opinion), para. 32.

40 For a similar view, see D. Dam-de Jong, above note 12, p. 174.

41 Nuclear Weapons Advisory Opinion, above note 39, para. 30.

42 D. Akande, above note 18, p. 184.

43 See e.g. Karine Mollard-Bannelier, *La protection de l'environnement en temps de conflit armé*, Pédone, Paris, 2001, p. 267.

might concern only certain obligations, the non-performance of which would not result in any damage to neutral States.

Personal and geographical scopes

Both IHL and IEL bind States and at least apply within the respective territory of those States. By contrast, it is unclear whether, unlike IHL, IEL is also binding upon armed groups and applies extraterritorially. This issue, which relates to the personal and geographical scopes of application of IEL, is generally overlooked by scholars.[44] It is, however, a crucial issue to consider given that many armed conflicts are non-international in nature, and therefore involve non-State armed groups, and given that IACs, including those involving situations of occupation, necessarily imply an extraterritorial dimension. This issue is thus in urgent need of further development by scholars.

As detailed elsewhere,[45] IEL could arguably be applicable to non-State armed groups under two main conditions. First, the applicable IEL should be well delineated. It would be meaningless to assert the applicability of IEL in general to non-State armed groups given the heterogeneous nature of IEL. One such delineation would involve basing the binding nature of IEL for non-State armed groups on the doctrine of legislative jurisdiction.[46] This implies that the applicable IEL would only include the rules binding upon the State against which, or in the territory of which, the non-State armed group is fighting, in addition to any rules that the non-State armed group would have unilaterally committed to respect. Second, as increasingly – but still controversially – claimed in relation to the applicability of IHRL to non-State armed groups, the relevant IEL norms should only be applicable to those groups that have enough capacity to comply with them, in particular to those having territorial control and exercising State-like functions.[47] Alternatively, the relevant IEL norms should be applicable to any non-State armed group, providing that the positive obligations of result are modulated and rephrased as obligations of means in order to be adapted to the specific material capacity of any such group.

Regarding the extraterritorial applicability of IEL,[48] it is argued that any enquiry on that issue must start from the terms of the treaties, as is usually

44 See, nonetheless, D. Dam-de Jong, above note 12, p. 125.

45 Raphaël van Steenberghe, "The Interplay between International Humanitarian Law and International Environmental Law: Towards a Comprehensive Framework for a Better Protection of the Environment in Armed Conflict", *Journal of International Criminal Justice*, Vol. 20, No. 5, 2022, pp. 1144–1146.

46 On this doctrine, see e.g. Jann K. Kleffner, "The Applicability of International Humanitarian Law to Organized Armed Groups", *International Review of the Red Cross*, Vol. 93, No. 882, 2011, pp. 445–449.

47 See e.g. Office of the UN High Commissioner for Human Rights, *International Legal Protection of Human Rights in Armed Conflict*, 2011, pp. 23–27; Tilman Rodenhäuser, *Organizing Rebellion Non-State Armed Groups under International Humanitarian Law, Human Rights Law, and International Criminal Law*, Oxford University Press, Oxford and New York, 2018, pp. 170–176. However, this claim remains controversial: see e.g. Jelena Pejic, "Conflict Classification and the Law Applicable to Detention and the Use of Force", in Elizabeth Wilmshurst (ed.), *International Law and the Classification of Conflicts*, Oxford University Press, Oxford, 2012, p. 84; Liesbeth Zegveld, *Accountability of Armed Opposition Groups in International Law*, Cambridge University Press, Cambridge, 2002, p. 54

48 R. van Steenberghe, above note 45, pp. 1142–1144.

done in relation to the more general issue of the continued applicability of IEL in armed conflict. Certain IEL treaties, like the 1992 Convention on Biological Biodiversity (Biodiversity Convention), are explicit on this issue and provide for their extraterritorial applicability or at least the extraterritorial applicability of some provisions. Otherwise, each rule must be scrutinized and its exterritorial applicability determined in light of its terms or the nature of the obligation that it provides. Ultimately, where no indication can be found in the treaty or its provisions, IEL treaties could be presumed to apply extraterritorially given the object and purpose of IEL, as IEL primarily aims at mitigating transboundary environmental harm. However, as suggested in relation to the applicability of IEL to non-State armed groups, the applicable IEL would only be extraterritorially binding upon States either if they have sufficient territorial control abroad or if the applicable positive obligations of result are mitigated and formulated as obligations of means.

Conflicting norms or interpretations

When the respective scopes of application of IHL and IEL overlap but the two bodies of law do not come into conflict, IEL is expected to apply alongside IHL without affecting it or being affected by it. In that case, IEL has no impact on IHL as such but only has impact on the regulation of armed conflict, by adding rules to those already provided by IHL on the matter. This is likely often to be the case for matters arsing before or after the armed conflict, since IHL contains few rules applying during those periods, unlike IEL.[49] In times of war, IEL may also play a complementary role with respect to IHL. Even in such cases, though, modulations of the applied IEL norms might then be needed, in cases where those norms, as further explained below, are not formulated in a sufficiently flexible way to accommodate the realities of war.

By contrast, when IHL conflicts with IEL, both bodies of law necessarily interplay. The notion of conflict is therefore pivotal to dealing with such interplay, but very few studies on the topic have delved into it. Most often, it is broadly stated that IHL should apply as the *lex specialis* and therefore prevail over IEL.[50] The most well-known type of conflict is the conflict of norms. As developed by one scholar in a study devoted to the interplay between IHL and

49 For such complementary role played by IEL with respect to certain aspects of the (protection of the) environment, see e.g. Karen Hulme, "Using International Law to Enhance Biodiversity and Nature Conservation during Armed Conflict", *Journal of International Criminal Justice*, Vol. 20, No. 5, 2022, pp. 1171–1176; Mara Tignino and Tadesse Kebebew, "The Legal Protection of Freshwater Resources and Related Installations during Warfare", *Journal of International Criminal Justice*, Vol. 20, No. 5, 2022, pp. 1221–1225; Jérôme de Hemptinne, "The Regulation of Hazardous Substances and Activities during Warfare", *Journal of International Criminal Justice*, Vol. 20, No. 5, 2022, pp. 1268–1270, 1283–1285.

50 See e.g. ILC Commentaries, above note 6, p. 136, para. 4; Daniëlla Dam-de Jong, "From Engines for Conflict into Engines for Sustainable Development", in Rosemary Rayfuse (ed.), *War and the Environment: New Approaches to Protecting the Environment in Relation to Armed Conflict*, Brill Nijhoff, Leiden and Boston, MA, 2014, pp. 909–910.

IEL,[51] such conflict might be construed in two ways: (1) either strictly, as implying that the norm of one body of law obliges its addressees to adopt conduct prohibited by a norm of the other body of law; or (2) more broadly, as involving norms that provide for different, but not contradictory, results. The ILC made such distinction in its work on the fragmentation of international law and opted for the second, broader, meaning.[52] It seems that this is the only conflict of norms that might exist between IHL and IEL, as arguably, no IHL norm imposes on belligerents an obligation to act in contravention to an applicable IEL norm.[53] IHL at most permits rather than prescribes belligerents to act in such a way. That permission encompasses acts such as causing damage to civilian objects, including the environment, as non-excessive incidental damage or as direct damage when and for such a time as that object becomes a military objective, providing that the damage is not widespread, long-term and severe.

Such permission is hardly compatible with the absolute prohibition provided in certain IEL treaties against causing any damage to parts of the environment that they protect. This is arguably the case with respect to Article 22 of the Biodiversity Convention, which provides that the Convention may "affect the rights and obligations of [the States Parties] deriving from any existing international agreement … [when] those rights and obligations would cause a serious damage or threat to biological diversity".[54] This is more clearly the case with respect to Article 6(3) of the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), which provides that "[e]ach State Party to [the] Convention undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage … situated on the territory of other States Parties to this Convention".[55] Admittedly, as emphasized by certain scholars,[56] the relevant norms of the two bodies of law would not come into conflict if the belligerents were to decide to abstain from using the IHL permission to cause environmental damage, and to refrain from attacking a site or area protected by IEL treaties such as the Biodiversity Convention or the World Heritage Convention. This decision would include refraining from causing harm to a specific part of the environment even when it is considered a military objective or is so closely located to a military objective that it is likely to be subjected to incidental damage. However, such abstention would result merely from the free will of the belligerents and not from the law. In such a case, a conflict of norms must therefore be considered to exist between IHL and IEL and should be solved by displacing the inappropriate norm in accordance with the approach detailed below.

51 B. Sjöstedt, above note 7, p. 185.
52 ILC, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, UN Doc. A/CN.4/L.682, 13 April 2006, para. 25.
53 B. Sjöstedt, above note 7, p. 185.
54 Biodiversity Convention, above note 15, Art. 22.
55 Convention Concerning the Protection of the World Cultural and Natural Heritage, 1037 UNTS 15, 16 November 1972 (entered into force 17 December 1975) (World Heritage Convention), Art. 6(3).
56 B. Sjöstedt, above note 7, p. 186.

Legal scholarship often fails to identify another type of conflict between IHL and IEL, namely a conflict between interpretations of the two norms rather than between the norms themselves. Contrary to conflicts of norms, conflicts of interpretation arise when the applicable IEL norm contains open-ended terms which might be subject to either an interpretation based on IEL or an interpretation involving an IHL paradigm. This is the case, for example, with the open-textured Article 3 of the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention), which provides that "[t]he Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands …, and as far as possible the *wise use* of wetlands in their territory".[57] A conflict of interpretation does not require displacing any norm, as is the case for conflicts of norms; rather, it requires interpreting the open-ended IEL term in light of the appropriate applicable regime. This still, nonetheless, implies displacing one regime in favour of another and therefore amounts to a conflict. This is well known in the practice regarding IHL–IHRL interplay. As stated by the ICJ in the Nuclear Weapons Advisory Opinion, the human right not to be *arbitrarily* deprived of one's life must be interpreted in light of the relevant IHL rules rather than the IHRL paradigm when applied in armed conflict.[58] Applying the same standard to IEL–IHL conflicts of interpretation would imply that, in the context of armed conflict, open-ended terms of an applicable IEL norm should be interpreted in light of relevant IHL rules. Such interpretation is needed in order to adapt IEL to the realities of war when applied in armed conflict.

The interpretation process

The application of IEL in times of war, with its potential adaptations in case of conflicts with IHL, is not the only process through which IEL may further enhance the protection of the environment in armed conflict; this may also be achieved by resorting to IEL as a means for interpreting IHL norms or concepts. Several suggestions as to how this can be done have already been put forward in legal literature, such as interpreting the IHL principles of proportionality and precaution relating to the conduct of hostilities in light of the IEL precautionary principle,[59] the IEL principle of prevention[60] or the IEL requirement to conduct an environmental impact assessment.[61] As will be seen in the following sections,

57 Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 996 UNTS 245, 2 February 1971 (entered into force 21 December 1975), Art. 3 (emphasis added). See also the open-ended Article II of the Convention on the Conservation of Migratory Species of Wild Animals, which provides that "[t]he Parties acknowledge the importance of … Range States … taking individually or in co-operation *appropriate* and necessary steps to conserve [migratory] species and their habitat": Convention on the Conservation of Migratory Species of Wild Animals as Amended, 19 ILM (1980), 23 June 1979 (entered into force 1 November 1983), Art. II (emphasis added).

58 Nuclear Weapons Advisory Opinion, above note 39, para. 25.

59 See e.g. K. Stefanik, above note 37, p. 115.

60 See B. Sjöstedt, above note 7, p. 119.

61 See Karen Hulme, *War Torn Environment*: *Interpreting the Legal Threshold*, Martinus Nijhoff, Leiden, 2004, pp. 82–83.

this interpretation process, whereby IHL is interpreted in light of IEL, is different from the application process in several respects. Notably, it does not raise the issue of the overlapping scopes of application of IHL and IEL or the issue of conflicts of norms or interpretation. In addition, it necessarily involves the interplay between the two bodies of law since IEL is incorporated into IHL. Legal scholarship is, however, often confused about the conditions for such interplay.

The irrelevance of the scope of application

Many scholars assume that IEL must apply in armed conflict in order to serve as a means for interpreting IHL.[62] Practice in fact shows that definitions have been borrowed from particular treaties to inform IHL concepts, although those treaties expressly provide that they do not apply in wartime. For instance, both the International Criminal Tribunal for the former Yugoslavia (ICTY)[63] and the Special Court for Sierra Leone (SCSL)[64] acknowledged that the notion of hostage-taking contained in the relevant IHL treaties could be built upon the definition provided in the 1979 International Convention against the Taking of Hostages (Hostage Convention). The Hostage Convention, however, contains a clause excluding its applicability in armed conflict in so far as the act of hostage-taking is regulated by those IHL treaties.[65] In addition, the salient aspects of the elements of the war crime of hostage-taking provided in the Rome Statute of the International Criminal Court (ICC) in relation to both IACs and NIACs are taken from the definition enshrined in the Hostage Convention.[66] Such an interpretative approach is also followed in relation to IEL: scholars do not hesitate to refer to definitions of the environment contained in certain IEL instruments in order to inform the meaning of the notion of the "natural environment" used in IHL,[67] even when those instruments expressly provide that they are not applicable in armed conflict.

In addition, even when the norm used to inform IHL applies in armed conflict, practice clearly shows that this norm must not necessarily have the same scope of application as the IHL interpreted rule.[68] In particular, that norm, unlike IHL, must not necessarily be extraterritorially applicable or applicable to non-State armed groups. Courts such as the ICTY[69] and the

62 See e.g. A. Dienelt, above note 7, p. 293; K. Stefanik, above note 37, pp. 103–104.
63 ICTY, *The Prosecutor v. Tihomir Blaškić*, Case No. IT-95-14-A, Judgment (Appeals Chamber), 29 July 2004, para. 639 fn. 1332.
64 SCSL, *The Prosecutor v. Issa Hassan Sesay et al.*, Case No. SCSL-04-15-A, Judgment (Appeals Chamber), 26 October 2009, paras 577–579, esp. para. 577 in relation to IACs.
65 See International Convention against the Taking of Hostages, 1316 UNTS 205, 17 December 1979 (entered into force 3 June 1983), Art. 12.
66 Knut Dörmann, "Article 8", in Otto Triffterer (ed.), *Commentary on the Rome Statute of the International Criminal Court*, Nomos Verlagsgesellschaft, Baden-Baden, 1999, p. 321.
67 See e.g. Marie G. Jacobsson, *Preliminary Report on the Protection of the Environment in Relation to Armed Conflicts*, UN Doc. A/CN.4/674, 30 May 2014, para. 83; B. Sjöstedt, above note 7, pp. 48, 128.
68 See below notes 69–71.
69 See e.g. ICTY, *The Prosecutor v. Milorad Krnojelac*, Case No. IT-97-25-T, Judgment (Trial Chamber), 15 March 2002, para. 181; ICTY, *The Prosecutor v. Zejnil Delalić et al.*, Case No. IT-96-21-T, Judgment (Trial

ICC,[70] as well as institutions like the ICRC,[71] have abundantly resorted to IHRL, the application of which to non-State armed groups remains controversial, to inform IHL norms applicable to any NIAC and, therefore, to any non-State armed group party to such conflict.

Indeed, the underlying rationale for such an interpretive approach is not that both the interpretative and interpreted norms apply in armed conflict[72] or, more generally, that they have a similar scope of application. It is rather that the notions contained in these norms are similar and that one body of law provides for a workable definition for the other. This is what provides the interpretation process with added value for strengthening the protection of the environment in armed conflict. Under the application process, the potential for IEL to enhance that protection is indeed dependent upon IEL's own scope of application, which is seemingly more limited than that of IHL. Notably, as explained above, it is unclear whether IEL could apply to non-State armed groups and extraterritorially in armed conflict. By contrast, when IEL is incorporated into IHL through the interpretation process, it becomes part of IHL and indisputably applies to any conduct to which the interpreted IHL norm applies, including to non-State armed groups and extraterritorially.

That being said, as with the application process, IEL might require adaptations when being incorporated into an IHL norm, notably in order to conform to IHL structural features such as the principle of equality between belligerents. This is the exact principle that pushed the ICTY to exclude the condition of the involvement of a State agent required by IHRL in the definition of torture when using that definition to inform the same notion under IHL.[73] Adaptations of the IEL interpretative standard may also be needed to accommodate the limited

Chamber), 16 November 1998, paras 534–540; ICTY, *The Prosecutor v. Dragoljub Kunarac et al.*, Case Nos IT-96-23-T, IT-96-23/1-T, Judgment (Trial Chamber), 22 February 2001, paras 519–520.

70 See e.g. ICC, *The Prosecutor v. Al Hassan Ag Abdoul Aziz Ag Mohamed Ag Mahmoud*, Case No. ICC-01/12-01/18-461-Corr-Red, Corrigendum to the Decision on the Confirmation of Charges (Pre-Trial Chamber), 13 November 2019, paras 378–384 as well as 483 and 492.

71 See e.g. ICRC, *Commentary on the Third Geneva Convention: Convention (III) Relative to the Treatment of Prisoners of War*, 2nd ed., Geneva, 2020, paras 710–731, esp. paras 715, 718, 723, 724, 728 (ICRC Commentary on GC III). For remarks that apparently confuse the "interpretation process" with the "application process", however, see paras 94–95.

72 Although in the *The Iron Rhine ("Ijzeren Rijn") Railway Case*, the Permanent Court of Arbitration (PCA) stated, in the French version, that "les normes de protection de l'environnement … peuvent s'avérer pertinentes pour l'interprétation des traités … [dans la mesure où elles sont] *applicables* aux relations entre les Parties" (emphasis added), the term "applicable" meant "binding" upon the parties. This is confirmed by the English version, which uses the term "relevant" rather than "applicable". PCA, *The Iron Rhine ("Ijzeren Rijn") Railway Case (Belgium v. The Netherlands)*, Award, 24 May 2005, para. 60, French version available at: https://pcacases.com/web/sendAttach/481; English version available at: https://pcacases.com/web/sendAttach/478.

73 See e.g. ICTY, *Kunarac*, above note 69, para. 496. In earlier cases, the Tribunal extended that requirement to both State and non-State parties (see e.g. ICTY, *Delalić*, above note 69, para. 473; ICTY, *The Prosecutor v. Anto Furundžija*, Case No. IT-95-17-1-T, Judgment (Trial Chamber), 10 December 1998, para. 162). In that sense, the ICRC position in favour of the incorporation of certain IHRL fair trial guarantees in Article 3 common to the four Geneva Conventions of 1949, but only on the side of the State and not the non-State party, seems misleading (see ICRC Commentary on GC III, above note 71, para. 715). This is indeed contrary to the principle of equality between belligerents.

capacities of States when acting abroad, or those of armed groups. It is highly unfortunate in this respect that the ICC failed to make such adaptations in the *Al Hassan* case, when it interpreted the IHL fair trial guarantees applicable in NIACs in light of IHRL.[74] The Court incorporated in its entirety the relevant IHRL regime in those IHL guarantees, including certain human rights that may hardly be complied with by any armed group, such as the right for the accused to take proceedings before a court in order to decide on the legality of the accused's deprivation of liberty.[75]

The distinction between IEL and environmental considerations

Another significant confusion in legal scholarship regarding the interpretation process is the lack of distinction between IEL and environmental considerations as a means for interpreting IHL.[76] While IEL is the body of codified and customary international law that deals with the protection of the environment, environmental considerations are a vaguer concept that does not stick to the law and includes any concern on the protection of the environment.[77]

The ICJ notably advanced the view that environmental considerations must be taken into account to interpret IHL norms in the 1996 Nuclear Weapons Advisory Opinion. The Advisory Opinion is often misunderstood by scholars. Besides being silent on the issue of the continued applicability of IEL treaties in armed conflict, it does not indicate whether the IHL conditions of necessity and proportionality – or even IHL in general – must be interpreted in light of IEL. It merely refers to environmental considerations or factors as interpretative means.

Three ICJ statements, which are often indistinctly mentioned in legal literature,[78] are of relevance here. In the first one, the Court asserts that "States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives".[79] As emphasized by certain States,[80] that assertion is ambiguous as it is unclear

74 See e.g. R. van Steenberghe, "The Impacts of Human Rights Law on the Regulation of Armed Conflict: A Coherency-Based Approach to Dealing with both the 'Interpretation' and 'Application' Processes", *International Review of the Red Cross*, Vol. 104, No. 919, 2022, pp. 1377–1378. On that incorporation of IHRL into IHL for the purpose of defining the war crime of sentencing without due process, see e.g. Katharine Fortin, "The Procedural Right to a Remedy When the State has Left the Building? A Reflection on Armed Groups, Courts and Domestic Law", *Journal of Human Rights Practice*, Vol. 14, No. 2, 2022, p. 407.

75 ICC, *Al Hassan*, above note 70, para. 384.

76 See e.g. Phoebe N. Okowa, "Natural Resources in Situations of Armed Conflict: Is There a Coherent Framework for Protection?", *International Community Law Review*, Vol. 9, No. 3, 2007, p. 249.

77 As emphasized by States during the ILC's work on the protection of the environment in relation to armed conflicts (see comments by France in ILC, below note 80, p. 81), there is no admitted definition of that concept under international law.

78 For indistinct references to those three statements with respect to different issues, see in particular ILC Commentaries, above note 6, fn. 593, 626, 650, 655, 744, 748.

79 Nuclear Weapons Advisory Opinion, above note 39, para. 30.

80 See e.g. ILC, *Protection of the Environment in Relation to Armed Conflicts: Comments and Observations Received from Governments, International Organizations and Others*, UN Doc. A/CN.4/749, 17 January 2022, p. 88 for Israel and p. 89 for the United States.

whether it deals with *jus ad bellum* or IHL: while immediately preceded by considerations specific to the right of self-defence and referring to the condition of necessity rather than the IHL concept of "military necessity", the Court statement nonetheless ends with the IHL notion of "legitimate military objective".

The second relevant ICJ statement is much clearer and univocally deals with IHL. The Court expressly acknowledges "the general view according to which environmental considerations constitute one of the elements to be taken into account in the implementation of the principles of the law applicable in armed conflict".[81] Only environmental considerations, rather than IEL, are mentioned as potential interpretative means for IHL.

Admittedly, in the third relevant statement, the Court refers to IEL and asserts that

> the existing international law relating to the protection and safeguarding of the environment … indicates important environmental factors that are properly to be taken into account in the context of the implementation of the principles and rules of the law applicable in armed conflict.[82]

However, the interpretative standard envisaged by the Court is not IEL as such but the "environmental factors" indicated by IEL. At most, such a statement shows that there might be a thin line between IEL and environmental considerations or factors. This is arguably the case when environmental concerns are expressed in the preamble of IEL treaties, like the fundamental role of biological diversity in "maintaining life sustaining systems of the biosphere", as indicated in the preamble of the Biodiversity Convention. It is controversial whether such concerns may indeed be used to inform IHL notions, like the test of excessive damage under the IHL rule of proportionality, as environmental considerations or as part of IEL as such.[83]

The distinction between IEL and environmental considerations nonetheless remains noteworthy. Obviously, it is only when IEL is used to interpret IHL that interplay might exist between the two bodies of law. More fundamentally, the mechanism designed to guide such interplay varies depending upon whether IHL is interpreted in light of IEL or environmental considerations. The mechanisms for the interpretation of IHL through IEL are more specific and constraining, notably because, as developed in detail below, all the States bound by the interpreted IHL norm must normally also be bound by the interpretative IEL rule. Such a constraint does not apply to the interpretation of IHL in light of environmental considerations. It is, however, unclear which particular kind of interpretation is then involved and through which specific mechanisms such an interpretation may legally be justified. The least unsatisfactory solution is to classify it under the generic term of "evolutionary interpretation", which covers interpretations made by several courts in many fields of international law on the basis of various mechanisms in order to adapt the terms of a treaty not only to

81 Nuclear Weapons Advisory Opinion, above note 39, para. 32.
82 *Ibid.*, para. 33.
83 R. van Steenberghe, above note 74, p. 1132.

the developing international legal context but also to evolving values, facts and concerns.[84]

In any case, it seems useful that environmental considerations may act as an autonomous means for the interpretation of IHL. However, in the last steps of the ILC's work on the protection of the environment in relation to armed conflicts, the ICRC[85] and some States[86] opposed the draft principle that "[e]nvironmental considerations shall be taken into account when applying the [IHL] principle of proportionality and the [IHL] rule on military necessities".[87] One of the reasons for this was that the notion of "environmental considerations" was too vague and that, in turn, this would risk undermining the application of the rule of proportionality. The draft principle has therefore been deleted and is considered as implicitly contained in the preceding draft principle, which acknowledges "the application of the law of armed conflict [in particular the principles and rules of distinction, proportionality and precaution] to the environment".[88]

However, it is mainly on the basis of the (vague) notion of environmental considerations (or concerns) that the environment historically started to be considered as a civilian object or a(n) (enemy) property under IHL. The relevant IHL rules have then been considered as applicable to the environment, including the main IHL rules on the conduct of hostilities as well as those dealing with (enemy) property under the control of the adversary, such as in cases of occupation.

This can be traced back to the aftermath of the 1990–91 Gulf War. For example, participants at the Conference of Experts on the Use of the Environment as a Tool of Conventional Warfare, held in Ottawa in 1991, emphasized that "the application and development of the law of armed conflict [had] to [take] account of the evolution of *environmental concerns* generally" and asserted that the "customary laws of war … now [included] a requirement to avoid unnecessary damage to the environment".[89] In its Resolution 47/37 of 1992, the UN General Assembly also recognized the application to the environment of the Hague rule that prohibits "the destruction … of property not justified by military necessity and carried out unlawfully and wantonly".[90] In its Nuclear Weapons Advisory Opinion, the ICJ expressly viewed the General Assembly's assertion as being due to the fact that the Assembly took into account "*environmental considerations* … in the implementation of principles of the law applicable in armed conflict".[91]

84 For a comprehensive study of this type of interpretation, see e.g. Georges Abi-Saab, Kenneth Keith, Gabrielle Marceau and Clément Marquet (eds), *Evolutionary Interpretation and International Law*, Hart, Oxford, 2020.
85 ILC, above note 80, p. 181.
86 See e.g. comments by France in *ibid.*, p. 81.
87 *Protection of the Environment in Relation to Armed Conflicts: Text and Titles of the Draft Principles Provisionally Adopted by the Drafting Committee on First Reading*, UN Doc. A/CN.4/L.937, 6 June 2019, Draft Principle 15.
88 PERAC Principles, above note 30, Principle 14.
89 Conference of Experts, above note 11, paras 9, 11 (emphasis added).
90 UNGA Res. 47/37, 25 November 1992, Preamble.
91 Nuclear Weapons Advisory Opinion, above note 39, para. 32 (emphasis added).

The recognition of the application of the relevant general IHL rules to the environment, which is now well established, constituted a major step towards strengthening the protection of the environment in armed conflict – in fact, according to Hulme, this recognition "has done more to protect [the environment] than any environmentally specific rule of international humanitarian law".[92] That being said, the notion of environmental considerations should still be used to further protect the environment in armed conflict. Its vagueness might be seen as an advantage rather than an obstacle to that end; indeed, it may constitute a flexible means for adapting the interpretation or application of IHL to the various and evolving environmental concerns. Such a role is clearly apparent with respect to IHL rules like the principle of proportionality. Environmental considerations might be helpful for those who plan or prepare an attack when determining the expected environmental damage to be balanced against the direct and concrete military advantage anticipated from that attack. Based on recognized scientific knowledge, which may evolve over time, or any information that commanders knew or should have known at the time of the attack, those considerations are particularly useful for assessing the weight or value of such damage and its foreseeability.[93] For example, attackers might know or should have known from information available in recognized environmental studies or from information specifically transmitted to them that the area to be attacked is of particular importance for biodiversity and that the destruction of that area would cause the extinction of a species, which would in turn affect an entire ecosystem of great value for a particular civilian population.

Mechanisms guiding IHL–IEL interactions

As demonstrated above, IHL–IEL interplay only arises in case of conflicts of norms or interpretation under the application process or when IEL is incorporated into IHL under the interpretation process. Formal mechanisms have been identified in legal scholarship, which may provide guidance on the outcome of such interplay, though certain scholars argue that solutions must be found beyond such mechanisms in some cases. These formal mechanisms will accordingly be first examined before appraising the approaches providing solutions that go beyond such mechanisms.

Starting with formal mechanisms

Two main formal mechanisms are considered in legal scholarship with respect to IHL–IEL interplay, namely the principle of systemic integration[94] and the *lex*

92 Karen Hulme, "Taking Care to Protect the Environment against Damage: A Meaningless Obligation?", *International Review of the Red Cross*, Vol. 92, No. 879, 2010, p. 678.

93 See e.g. Cordula Droege and Marie-Louise Tougas, "The Protection of the Natural Environment in Armed Conflict – Existing Rules and Need for Further Legal Protection", in R. Rayfuse (ed.), above note 50, pp. 21–23. See also ICRC, above note 5, sections 117–118.

94 See e.g. ILC Commentaries, above note 6, p. 136, para. 4.

specialis principle,[95] although the former is much less often mentioned than the latter. Moreover, a series of other specific mechanisms are proposed by scholars, but only in relation to the interpretation process. This section will review the two formal mechanisms and those other mechanisms.

The principle of systemic integration

The principle of systemic integration is based on Article 31(3)(c) of the Vienna Convention on the Law of Treaties (VCLT), according to which a treaty shall be interpreted in light of "any relevant rules of international law applicable in the relations between the parties". Scholars have raised some objections against the principle's applicability to IEL–IHL interplay.[96] The first objection concerns the interplay arising in case of a conflict of norms. This objection is clearly valid: the principle of systemic integration is only relevant when interpreting a norm or a concept, not for settling a conflict between two norms whose content is already clear.[97]

Two other, more controversial objections are raised in legal scholarship. The first is the condition of the identity of the parties, according to which parties to an interpreted treaty must be the same as (or at least include) the parties to the treaty serving as a means for interpretation.[98] Otherwise, interpretations based on a treaty could be binding upon States not party to that treaty, which would hardly be acceptable for those States. The second, more disputable objection is that only legal sources can be used as a standard for interpretation. It is true, as emphasized in legal scholarship,[99] that these two objections are particularly relevant with respect to IEL–IHL interplay due to the specific features of IEL, notably that most IEL treaties are ratified by far fewer States than IHL treaties, and that soft-law instruments play a major role in the growth and

95 See e.g. J. d'Aspremont, above note 12, p. 17 fn. 82.

96 See B. Sjöstedt, above note 7, pp. 192–195. See also Dienelt's reflections on those objections, in A. Dienelt, above note 7, pp. 222, 281

97 Admittedly, in the *Hassan* case, the ECtHR resorted to the principle of systemic integration to solve a genuine conflict of norms (ECtHR, *Hassan*, above note 36, para. 102). There was a conflict between (1) Article 5 of the European Convention on Human Rights (ECHR), which allows depriving persons of their liberty only for limitative reasons and which subjects such deprivation of liberty to judicial review, and (2) the IHL rules applicable to prisoners of war and civilian internees in IACs, which permit the detention of those persons for security reasons and do not subject that detention to any review with respect to prisoners of war or provide the possibility for non-judicial review regarding the detention of civilians. The Court gave priority to the IHL rules and presented this outcome as the result of an interpretation of Article 5 in light of those IHL rules, on the basis of the principle of systemic integration (*ibid*., paras 108–111). However, this was highly criticized both by certain judges of the Court (see e.g. *ibid*., Partly Dissenting Opinion of Judge Spano, Joined by Judges Nicolaou and Kalaydjieva, pp. 65–66, para. 18) and by scholars (see e.g. Marko Milanovic, "A Norm Conflict Perspective on the Relationship between International Humanitarian Law and Human Rights Law", *Journal of Conflict and Security Law*, Vol. 14, No. 3, 2010, p. 475), who emphasized that the Court's reasoning actually involved rewriting the ECHR.

98 On that requirement, see e.g. Ulf Linderfalk, "Who are 'the Parties'? Article 31, Paragraph 3(c) of the 1969 Vienna Convention and the 'Principle of Systemic Integration' Revisited", *Netherlands International Law Review*, Vol. 55, No. 3, 2008.

99 See e.g. B. Sjöstedt, above note 7, p. 195.

implementation of IEL. Those objections must not, however, be overemphasized. They do not concern the interpretation of IEL in light of IHL under the application process: first, States parties to the IEL treaty are typically also parties to the IHL treaty, and, second, the IHL interpretative standard is normally a legal norm.

That being said, even when concerning the interpretation of IHL by IEL under the interpretation process, these objections may be mitigated. Regarding the condition of the identity of the parties, it must first be observed that certain IEL treaties, like the Biodiversity Convention, the World Heritage Convention and the Ramsar Convention, are nearly universally ratified; in fact, some have more ratifications than certain IHL conventions, including the two Additional Protocols to the 1949 Geneva Conventions. Second, norms provided in an IEL treaty may be used to interpret any IHL rule, even though that treaty is ratified by a small number of States, providing that the IEL interpretative norm also has a customary nature or that the interpretation of IHL based on the IEL treaty is at least tolerated or accepted by the States not party to it.[100]

Moreover, it is not uncommon that States party to an armed conflict, although bound by the same IHL rules according to the principle of equality between belligerents, will have a different interpretation of those rules. That practice could provide an alternative as well: an interpretation of IHL based on IEL could only be binding upon the States party to the interpretative IEL treaty. Although sound at the theoretical level, such an approach risks being unworkable on the ground. It would lead to a fragmentation of the meanings of the IHL rules, depending upon which IEL treaties have been ratified by the belligerents. Ultimately, if the requirement of the identity of the parties cannot be fulfilled even when mitigated, the interpretation of the IHL norm could be based upon the environmental considerations underlying the interpretative IEL treaty, providing that those considerations are based upon recognized scientific knowledge.

Regarding the requirement that the interpretative standard must be a rule of law, first, practice shows cases in which soft-law environmental instruments, such as Agenda 21,[101] have been relied upon among the materials used for the interpretation of a treaty in accordance with the principle of systemic integration.[102] Second, no problem arises when the norm or principle whose legal status is controversial is expressly provided in a treaty, such as the precautionary principle contained in the 2000 Cartagena Protocol on Biosafety to the Biodiversity Convention.[103] Again, alternatively, environmental considerations could be used as a last resort to inform the IHL norm or concept. In any case,

100 See e.g. Campbell McLachlan, "The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention", *International and Comparative Law Quarterly*, Vol. 54, 2005, pp. 314–315.

101 UN Conference on Environment and Development, "Agenda 21", Rio de Janeiro, 3–14 June 1992, available at: https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf.

102 See World Trade Organization (WTO), *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, DSR 1998:VII, 12 October 1998, pp. 2793–2798, para. 130.

103 Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2226 UNTS 208, 29 January 2000 (entered into force 11 September 2003), Art. 10(6).

while the principle of systemic integration can validly be used to guide the incorporation of IEL into IHL under the interpretation process, caution is required when proceeding to such an incorporation.

The lex specialis *principle*

Although often mentioned in legal literature[104] and by States[105] in relation to IHL–IEL interplay, the *lex specialis* principle is subject to strong criticisms by the few scholars who have devoted an in-depth analysis to the topic.[106] They first emphasize that the *lex specialis* principle can only act as a mechanism for solving conflicts between IHL and IEL in circumstances where both fields of law apply but provide different results.[107] Admittedly, the *lex specialis* principle is better suited than the principle of systemic integration in that respect, since, as demonstrated above, the principle of systemic integration is not a tool for settling conflicts of norms.

However, the *lex specialis* principle can also arguably act as an interpretative tool for guiding the interpretation of IEL in light of IHL under the application process. Such a role is clearly acknowledged in relation to IHL–IHRL interplay: there is indeed an abundant and uniform practice confirming that the *lex specialis* principle may be used to settle conflicts of interpretation that may arise between IHL and IHRL, and that its effect is to prioritize the interpretation based on the special regulation.[108] It is therefore argued that, even though the *lex specialis* principle has traditionally been seen as a rule of norm conflict resolution, together with the *lex superior* and *lex posterior* principles,[109] such meaning has evolved overtime. In light of contemporary practice, the *lex specialis* principle is now also recognized, in accordance with numerous scholars[110] and the ILC,[111] as a tool for solving conflicts of interpretation in order to avoid conflicts of norms between two bodies of law.

In fact, the principle of *lex specialis* seems better suited than the principle of systemic integration in the context of the application process, since its role is precisely to offer a solution by prioritizing the special rule in order to settle a conflict, whether of norms or interpretation. On the other hand, the principle of systemic integration appears to be better suited than the principle of *lex specialis* to act as a tool for guiding the incorporation of IEL into IHL under the interpretation process. That process does not involve solving any conflict of norms or interpretation. It merely consists in interpreting or clarifying an unclear

104 See e.g. D. Dam-de Jong, above note 50, p. 210.
105 See e.g. statements from Belarus (UN Doc. A/C.6/70/SR.24, 4 December 2015, para. 15); Greece (UN Doc. A/C.6/71/SR.29, 2 December 2016, para. 17); the United States (UN Doc. A/C.6/73/SR.29, 10 December 2018, para. 41); and South Africa (UN Doc. A/C.6/73/SR.30, 6 December 2018, para. 3).
106 B. Sjöstedt, above note 7, pp. 166–169; A. Dienelt, above note 7, pp. 278–279.
107 B. Sjöstedt, above note 7, pp. 163–166.
108 See e.g. the case law mentioned in R. van Steenberghe, above note 74, pp. 1362–1363 fn. 112.
109 See e.g. ILC, above note 52, para. 18.
110 See e.g. Gloria Gaggioli, *L'influence mutuelle entre les droits de l'homme et le droit international humanitaire à la lumière du droit à la vie*, Pedone, Paris, 2013, p. 59.
111 ILC, above note 52, para. 56.

or undefined concept against a general legal background, which is the function classically assigned to the principle of systemic integration.[112] The traditional rationale underlying that principle is that a legal concept or norm must be read in light of its surrounding legal context in order to safeguard the coherency of the international legal system as a whole.

That being said, even when admitting that the *lex specialis* principle can act as a tool for solving conflicts of norms, some scholars nonetheless emphasize that this principle is meaningless. They argue that it lacks any normative content that would allow the identification of which rule is special and must be prioritized.[113] However, the fact that the *lex specialis* principle is a mere formal tool does not mean that it should be overlooked. Its function is not to provide normative content, but rather to indicate that, in case of conflict, one norm or interpretation must displace the other. There is therefore no reason to set the principle aside – instead, it must be supplemented by a test, based on substantial considerations, which allows for determining the rule or interpretation that must take precedence over the other one in a particular case. The same is actually true with respect to the principle of systemic integration since, as a formal mechanism, it does not provide any normative indication on which rule is "relevant" and must be taken into account to interpret another rule or concept. As developed below, this might be resolved by adopting a coherency-based approach.

Other mechanisms?

The principle of systemic integration and the *lex specialis* principle are not the only mechanisms mentioned in legal literature in relation to IHL–IEL interplay. Scholars also refer to other mechanisms with respect to the incorporation of IEL into IHL under the interpretation process; however, those mechanisms do not prove useful or reliable.

The first of such mechanisms, notably mentioned by the ILC Rapporteur on the Protection of the Environment in Relation to Armed Conflicts,[114] is the "evolutionary interpretation", which means that a norm must be interpreted taking into account the legal or factual context existing when the norm is interpreted rather than when it emerged. This seems particularly appropriate for the interpretation of IHL in light of IEL since most IHL treaties were drafted when commitment to the protection of the environment was not as significant as it is today and when IEL was non-existent or had just started emerging. However, the notion of "evolutionary interpretation" is a generic term, the purpose of which is merely to emphasize the type of interpretation that is sought, namely an evolutive interpretation. It is not an interpretative mechanism as such and it must therefore be based on true interpretative mechanisms. With respect to the

112 *Ibid*., paras 413–414.
113 B. Sjöstedt, above note 7, p. 167; A. Dienelt, above note 7, p. 279.
114 M. Lehto, above note 6, para. 245. See also, as examples of interpreting the law of occupation in light of subsequent legal developments, PERAC Principles, above note 30, Principles 19, 20.

incorporation of contemporary international law, and in particular IEL, into IHL, it seems that an evolutionary interpretation may be achieved through the principle of systemic integration. It is illustrative that several judicial decisions in which an evolutionary interpretation has been sought expressly or implicitly refer to the principle of systemic integration.[115]

The second mechanism is the "ordinary meaning", as provided under Article 31(1) of the VCLT.[116] Unlike the preparatory works of that article, case law suggests that the ordinary meaning of a term might include not only its everyday meaning but also its meaning derived from international law, including treaties.[117] This means that an IHL term could be informed by IEL treaties on the basis of the ordinary meaning of that term. However, when courts rely on international law to clarify the ordinary meaning of a term, they usually seek the meaning that is commonly shared under that law.[118] This actually amounts to identifying the customary meaning, but it comes close to interpreting a term based on the principle of systemic integration, which, as already seen, involves the interpretation of a term or norm against the general legal background. In that sense, the ordinary meaning would not allow interpretations that are not permitted under the principle of systemic integration, such as interpreting the IHL concept of the "natural environment" in light of a definition provided by a particular IEL instrument.[119] Moreover, unlike the principle of systemic integration, the ordinary meaning is not specific to interpretations based on the law but also serves interpretations based on various elements, including dictionaries or technical manuals.[120]

A third mechanism is the Martens Clause, as provided in several IHL treaties and in customary law.[121] While the "greening" of that clause seems now

115 See e.g. WTO, above note 102, paras 134 and 158, footnote 157; PCA, above note 72, paras 59 and 79; ICJ, *Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970)*, Advisory Opinion, *ICJ Reports 1971*, para. 53 (as interpreted by scholars as applying the principle of systemic integration: see e.g. Ian Sinclair, *The Vienna Convention on the Law of Treaties*, Manchester University Press, Manchester, 1984, p. 140).

116 See e.g. B. Sjöstedt, above note 7, pp. 46, 164; D. Dam-de Jong, above note 50, p. 210.

117 See e.g. Ulf Linderfalk, *On the Interpretation of Treaties: The Modern International Law as Expressed in the 1969 Vienna Convention on the Law of Treaties*, Springer, Dordrecht, 2007, pp. 64–73.

118 See e.g. ICJ, *Kasikili/Sedudu Island (Botswana v. Namibia)*, Judgment, *ICJ Reports 1999*, para. 27; International Centre for Settlement of Investment Disputes, *Asian Agricultural Products Ltd v. Republic of Sri Lanka*, Award, 27 June 1990, *International Law Report*, Vol. 106, para. 47.

119 For interpretations of the notion of "environment" in light of an IEL instrument, see e.g. above note 67.

120 U. Linderfalk, above note 117, pp. 70–73.

121 The Martens Clause provides that "in cases not covered by the law in force, the human person remains under the protection of the principles of humanity and the dictates of the public conscience": see AP I, Art. 1. See also Convention (IV) respecting the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land, 18 October 1907 (entered into force 26 January 1910), Preamble, available at: https://ihl-databases.icrc.org/en/ihl-treaties/hague-conv-iv-1907; 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), Art. 63; 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), Art. 62; Geneva Convention (III) relative to the Treatment of Prisoners of War of 12 August 1949, 75 UNTS 135 (entered into force 21 October 1950), Art. 142; Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into

well established, meaning that the clause also applies to the protection of the environment,[122] it is argued in legal literature that this clause can act as a legal mechanism for the interpretation of IHL in light of IEL.[123] One proposed example is the interpretation of the IHL principle of precaution in light of the IEL principle of prevention.[124] However, such an outcome may again be achieved through the normal operation of the principle of systemic integration. Moreover, it seems preferable to rely on that classical mechanism, the use of which is well known in practice, rather than on a clause the legal effects of which are still uncertain and debated.[125]

The last mechanism is based on general principles of international law. Although the definition of such principles remains debated, the functions ascribed to them vary and include serving as a guidance for interpretation processes.[126] However, the general principles envisaged in legal literature to guide the interpretation of IHL in light of IEL merely consist in IEL principles, such as the precautionary principle, the incorporation of which into IHL is sought.[127] Yet, principles cannot at the same time be incorporated into a norm and guide such an incorporation process. The problem is that the mobilized principles are part of the IEL primary norms or at least have a specific normative-like nature when not expressly provided in treaties. Instead, principles designed to guide the interpretation of a rule of a legal system must be all-encompassing. They must constitute the underlying rationale for the whole of that system and hold all its rules together in a meaningful way. As detailed below, such an approach is possible with respect to IHL–IEL interplay, if both bodies of law are considered as being part of one common legal system and the coherency of that system is ensured by a foundational principle.

Going beyond the formal mechanisms

The two recent comprehensive studies on the interplay between IHL and IEL have emphasized the shortcomings of the *lex specialis* principle and the principle of systemic integration.[128] Each of them therefore proposes an approach, namely the "reconciliatory approach"[129] and the "multi-layered approach",[130] that goes beyond these above-mentioned mechanisms. This section will accordingly

force 21 October 1950) (GC IV), Art. 158; Protocol Additional (II) to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of Non-International Armed Conflicts, 1125 UNTS 609, 8 June 1977 (entered into force 7 December 1978), Preamble.

122 See e.g. ICRC, above note 5, p. 80; PERAC Principles, above note 30, Principle 12.

123 B. Sjöstedt, above note 7, p. 118.

124 *Ibid.*, pp. 119–120.

125 See e.g. Antonio Cassese, "The Martens Clause: Half a Loaf or Simply Pie in the Sky?", *European Journal of International Law*, Vol. 11, No.1, 2000.

126 See e.g. Joseph Raz, "Legal Principles and the Limits of Law", *Yale Journal of International Law*, Vol. 81, 1972, p. 841.

127 K. Stefanik, above note 37, pp. 102–115.

128 B. Sjöstedt, above note 7, esp. pp. 175–212; A. Dienelt, above note 7.

129 B. Sjöstedt, above note 7, esp. pp. 175–212.

130 A. Dienelt, above note 7.

examine these two approaches – however, it will be shown that such approaches themselves raise certain difficulties. A third approach, based on the notion of normative coherency of legal systems, will therefore be proposed.

The reconciliatory approach

Under the reconciliatory approach, which has been developed by Sjöstedt, reconciliation is sought between multilateral environmental agreements (MEAs) and IHL. Such reconciliation is mainly based on the broad mandate and non-confrontational character of the bodies established by MEAs, as well as on the flexible terms of the provisions enshrined in these agreements.[131] It is argued that those treaty bodies are then able to take diverse measures adapted to the concrete realities of war and therefore to enhance the protection of the environment in armed conflict. This approach is presented as going beyond the traditional mechanisms designed to solve normative tensions between IHL and IEL because those mechanisms are considered as inapplicable in such cases.

The reconciliatory approach nonetheless admits that the principle of systemic integration might constitute one of the available means when IHL is interpreted in light of IEL.[132] As emphasized above, however, the operation of that principle raises much more concern in that case than in the case where IEL is interpreted in light of IHL to solve normative tensions when both bodies of law are applicable. Moreover, while giving a key reconciliatory role to treaty bodies, the approach seems to overestimate the power of those bodies by contending that they "can overlook the limitations of the interpretation tools because they are empowered to perform tasks beyond treaty interpretation in their application of the MEA provisions".[133] In fact, any treaty body is normally bound to apply the relevant mechanisms provided under general international law to settle normative tensions between the different branches of that law. This is clearly confirmed by the practice of the various treaty bodies supervising the application of IHRL treaties,[134] or the World Trade Organization (WTO) Agreements.[135] When faced with interplay between branches of international law, including IEL, those treaty bodies use the relevant formal mechanisms, such as the *lex specialis* principle or the principle of systemic integration.

More fundamentally, it is questionable whether the true purpose of the reconciliatory approach is to serve as a theoretical guiding tool for the interplay between IEL and IHL. Its purpose seems rather to refute the view recurrently upheld in legal scholarship[136] that the open-ended and malleable nature of the

131 B. Sjöstedt, above note 7, pp. 197–206.
132 *Ibid.*, pp. 46, 164, 168–169.
133 *Ibid.*, p. 194.
134 See e.g. the case law mentioned in R. van Steenberghe, above note 74, pp. 1362–1363 fn. 112.
135 See WTO, above note 102, para. 130.
136 See e.g. M. N. Schmitt, above note 17, p. 50; Daniel Bodansky, *The Art and Craft of International Environmental Law*, Harvard University Press, Cambridge, MA, 2010, p. 226; Anthony Leibler, "Deliberate Wartime Environmental Damage", *California Western International Law Journal*, Vol. 23, No. 1, 1992, p. 80; A. L. Bunker, above note 19, p. 211.

MEA provisions renders those agreements unhelpful for regulating conduct in armed conflict and strengthening the protection of the environment in such situations. Under the reconciliatory approach, such flexibility, combined with the broad mandate of the treaty bodies, is instead considered as crucial in reconciling IEL with armed conflict and then in allowing IEL to play a critical role in complementing IHL with respect to the protection of the environment in warfare.

The three illustrative cases of normative tensions against which the reconciliatory approach is tested seem to confirm that such an approach is not actually designed to provide a theoretical framework to deal with the interplay between IHL and IEL. The first case involves a conflict of norms between the IHL permission to cause damage to the environment and the absolute prohibition against causing such damage provided in the World Heritage Convention. It is acknowledged that requiring a belligerent to refrain from launching an attack causing such damage "would only restrict the application of the law of armed conflict while the World Heritage Convention applies fully" and that reconciliation might not be possible in that case.[137] The two other cases, which actually involve conflicts of interpretation, are solved through the use of IHL as an interpretative standard for the interpretation of the relevant IEL open-ended treaty obligation, such as the obligation to make a "wise use of wetlands in their territory" provided in the Ramsar Convention.[138] Such a process is not explained under the reconciliatory approach, however, and no interpretative tool is mentioned.[139]

The multi-layered approach

The multi-layered approach, which has been proposed by Dienelt (and which also considers the interactions of IHL and IEL with IHRL), starts from the observation that the "differences, parallels, and similarities" between IHL and IEL show "general compatibility" between these bodies of law.[140] Under this approach, a distinction must be made between the "clarifying function" of IEL with respect to IHL[141] and the "normative intensification" of IHL through IEL.[142] The first function is illustrated by the interpretation of the IHL concept of the "natural environment" in light of IEL,[143] and the second function by the concurrent application of the IHL and IEL regimes to the issue of protected sites and areas. Cases of conflicts of norms are discussed in relation to that second function.[144]

137 B. Sjöstedt, above note 7, pp. 206–207.
138 *Ibid.*, p. 207.
139 Moreover, this process intriguingly looks like an application of the *lex specialis* principle as is done by IHRL bodies when interpreting an applicable IHRL norm in light of IHL. Yet, this principle has been considered as inapplicable under the reconciliatory approach.
140 A. Dienelt, above note 7, p. 277.
141 *Ibid.*, pp. 14–15, 281, 293.
142 *Ibid.*, pp. 14–15, 281, 297.
143 *Ibid.*, pp. 282–297.
144 *Ibid.*, pp. 298–318.

The clarifying function is mainly based on a traditional mechanism, namely the principle of systemic integration.[145] By contrast, the normative intensification is operated in light of the "commonly shared objectives" across IHL and IEL, which arguably form together (also with IHRL) a "unifying *ordre public transnational*".[146] Under this approach, the "parallel prioritization of the environment" that can be inferred from the respective regulation of the protected sites and areas under the different regimes "represents the unifying *ordre public transnational*".[147] The proposal for this *ordre public* is built upon legal theories, elaborated by scholars[148] such as Anne Peters,[149] Alexander Proelβ[150] and Gunther Teubner,[151] that all "focus on shared objectives and unifying public interests".[152] Such a proposal purports to go beyond the formal mechanisms in the sense that such mechanisms, especially the principle of systemic integration, are considered as inappropriate.[153] The apparently claimed reason for excluding the application of the principle of systemic integration with respect to the normative intensification process is based on the view that the condition of the identity of the parties required by that principle would not be fulfilled. The argument put forward is that normative intensification concerns "[o]bligations requiring specific conduct", involving that "the state parties to the [applicable IHL and IEL] conventions in question" must be strictly identical. By contrast, the condition of the identity of the parties would not prevent the application of the principle of systemic integration in relation to the clarifying function. It is indeed claimed that this function concerns "[u]ndefined or unclear and ambiguous terminology of norms", the clarification of which would be possible in light of other treaties "irrespective of states parties", providing that "the treaties enjoy universal or quasi-universal membership and hence represent a common understanding of the term and [that] they address similar objects or the same situation".[154]

Yet, such reasoning is questionable. First, it is dubious that the condition of the identity of the parties required by the principle of systemic integration may vary depending upon whether the principle aims at interpreting an "unclear norm" or an "obligation requiring a specific conduct". Second, it might be difficult to make such a distinction, since certain unclear terms are key elements of obligations of conduct, such as the term "precaution" as part of the IHL-specific obligation of conduct to take precautions. More generally, it seems that the operation of the principle of systemic integration must be excluded with respect to the normative

145 *Ibid.*, pp. 15, 281, 293, 297.
146 *Ibid.*, pp. 15–16, 298, 312, 317.
147 *Ibid.*, p. 317; see also pp. 15–16.
148 *Ibid.*, pp. 314–316.
149 Anne Peters, "The Refinement of International Law: From Fragmentation to Regime Interaction and Politicization", *International Journal of Constitutional Law*, Vol. 15, No. 3, 2017.
150 Alexander Proelβ, *Internationales Umweltrecht*, De Gruyter, Berlin, 2017.
151 Gunther Teubner, *Constitutional Fragments: Societal Constitutionalism and Globalization*, Oxford University Press, Oxford, 2012.
152 A. Dienelt, above note 7, p. 316.
153 *Ibid.*, pp. 281, 293–294, 297, 314.
154 *Ibid.*, pp. 281, 294.

intensification process not because of a required stricter application of the condition of the identity of the parties for that process, but because such a process does not raise any issue of interpretation and involves instead conflicts of norms. It is clear, as emphasized above, that the principle of systemic interpretation is helpless in this respect. This is apparent in the case of co-application of IHL and IEL regulation on protected areas and sites, which is presented as an illustrative case of the normative intensification process and in relation to which conflicts between the relevant IHL and IEL norms are discussed.[155]

More fundamentally, by identifying the "parallel prioritization of the environment" as a shared objective between IHL and IEL (as well as IHRL) and as "represent[ing] the unifying *ordre public transnational*",[156] the multi-layered approach tends to give prevalence to IEL over IHL with respect to the protection of certain areas and sites. It considers those areas and sites as immune to any attack even if IHL permits causing damage to them. Yet, this overlooks a specific feature that is common to IHL and IEL in such cases, namely that they are intended to regulate conduct in armed conflict and not in times of peace. The claimed "unifying *ordre public transnational*", which notably gathers IHL and IEL together, ignores this common specific feature and the need, as detailed below, to counterbalance the prioritization of the environment, which is actually a shared peacetime objective, against considerations specific to armed conflict. Actually, the multi-layered approach has trouble entirely dispensing with such considerations. While claiming that the protected areas and sites remain immune to any attack, that view is immediately mitigated by conceding that this immunity remains "as long as a belligerent party does not *systematically* take advantage of the privileged protection of protected sites, zones and areas in order to achieve a military advantage".[157] That being said, under this view, the transformation of the area or site into a military objective is made dependent upon a stricter condition than that normally required under IHL and incidental damage does not seem to be permitted, although lawful under IHL to the extent that it is not excessive.

The coherency-based approach

Unlike the reconciliatory and multi-layered approaches, the proposed "coherency-based approach" goes beyond the formal mechanisms to the extent that their application must be guided by substantial considerations. The coherency-based approach is thus all-encompassing. It serves as a theoretical framework for both the interpretation process, by guiding the incorporation of IEL into IHL, and the application process, by guiding the resolution of conflicts of norms and interpretation, as well as the mere application of IEL in armed conflict alongside IHL even when no interplay arises between these bodies of law.

155 See *ibid.*, pp. 298–318.
156 See *ibid.*, p. 317; see also pp. 15–16.
157 *Ibid.*, p. 318 (emphasis added).

This alternative approach starts from the key idea that the interplay between IHL and other bodies of law (directly or indirectly) regulating armed conflicts, such as IEL, is a matter of coherence.[158] Although the reconciliatory approach also emphasizes the need for legal coherence,[159] the coherency-based approach provides this idea with a conceptual framework based on legal theories on normative coherence of legal systems,[160] as further enriched by reflections on legal pluralism.[161] As detailed elsewhere,[162] according to those theories, a legal system must not be merely consistent, which means that no conflict exists between its norms, but it must further be coherent, in the sense that its norms must make sense when taken together. Consistency of a legal system is achieved by resorting (if needed) to formal mechanisms of displacement or interpretation, such as the *lex specialis* principle and the principle of systemic integration, while coherency further requires that the ensuing legal solutions must be compatible with substantial considerations, driven by the foundational principle of that system.

It is argued that a common regulation specific to armed conflict may be envisaged as amounting to such a system. That regulation would stem from the combination of IHL with norms of other branches of international law that also (directly or indirectly) regulate conduct in armed conflict, including IEL. It should then be as coherent as any legal system, and its coherency should be ensured by its foundational principle that serves as guidance for the operation of the formal mechanisms. It is submitted that the foundational principle of a common regulation specific to armed conflict is composed of two prongs. The first prong stems from the clear will expressed by States in numerous general declarations to further protect the environment in armed conflict. This means that IEL must be fully incorporated into IHL, through the interpretation process, and fully applied in armed conflict, through the application process. However, since that common regulation is specific to armed conflict, the first prong must be counterbalanced by a second prong, which is based on what fundamentally distinguishes a peacetime from a wartime regulation, namely military necessity. Unlike the approach to a unifying *order public transnational*,

158 For the application of such an approach to IHL–IHRL interplay, see R. van Steenberghe, above note 74, pp. 1368–1396.

159 B. Sjöstedt, above note 7, pp. 189–191.

160 See e.g. Norberto Bobbio, *Teoria dell'Ordinamento Giuridico*, G. Giappichelli Ed., Torino, 1960, esp. pp. 69 ff.; Ronald Dworkin, *Law's Empire*, Fontana Press, London, 1986, esp. pp. 176 ff.; Neil MacCormick, "Coherence in Legal Justification", in Aleksander Peczenik, Lars Lindahl and Bert Van Roermund (eds), *Theory of Legal Science: Proceedings of the Conference on Legal Theory and Philosophy of Science, Lund, December 11–14, 1983*, D. Reidel Publishing Company, Dordrecht, London and Lancaster, 1984, pp. 235 ff.; Vittorio Villa, "Normative Coherence and Epistemological Presuppositions of Justification", in Patrick Nerhot (ed.), *Law, Interpretation and Reality*, Kluwer, Dordrecht, Boston, MA and London, 1990, pp. 430 ff.; Aldo Schiavello, "On 'Coherence' and 'Law': An Analysis of Different Models", *Ratio Juris*, Vol. 14, No. 2, 2001, pp. 233 ff.; Amalia Amaya, "Ten Theses on Coherence in Law", in Michael Araszkiewicz and Jaromir Savelka (eds), *Coherence: Insights from Philosophy, Jurisprudence and Artificial Intelligence*, Springer, Dordrecht, 2013, pp. 257–260.

161 See e.g. Mireille Delmas-Marty, *Ordering Pluralism: A Conceptual Framework for Understanding the Transnational Legal World*, Hart, Oxford and Portland, OR, 2009.

162 Regarding IHL–IHRL interplay, see R. van Steenberghe, above note 74, pp. 1365–1373; regarding IHL–IEL interplay, see R. van Steenberghe, above note 45, pp. 1150–1154.

the coherency-based approach therefore involves taking into account the realities of war in order to make efficient fighting possible and to avoid the common regulation being disregarded. Such effectiveness-based considerations may result either from concrete circumstances or from the structural features of armed conflicts.

As a result, the combination of the two prongs of the relevant "coherency test" for the determination of the regulation of armed conflict dictates that the outcomes of the full incorporation of IEL into IHL, through the interpretation process, or of the cumulative application of IHL and IEL, through the application process, must be adjusted, but only if, and to the extent that, they conflict with those effectiveness-based considerations. This might lead either to the modulation or to the displacement of the "inappropriate" regulation; however, in most cases (contrary to those relating to IHL–IHRL interplay),[163] this will not be needed. Under the interpretation process, the interpreted IHL norm, like the obligation of precaution, may consist in an obligation of means and can then easily be interpreted in light of IEL, as including, for example, the demanding IEL requirement of an environmental impact assessment. On the other hand, the interpretative IEL norm, such as the principle of sustainable use, may be expressed in a sufficiently flexible way to serve as an appropriate standard for the interpretation of the IHL rule on usufruct in situations of occupation. Under the application process, the applicable IEL norm, like the obligation to take measures "as far as appropriate" to protect biodiversity,[164] may have an open-ended nature, which allows it to accommodate the realities of war.

Modulations or displacements are needed only in certain cases, such as in cases of conflicts of norms or interpretation under the application process. It may be argued that, given the specific circumstances of the case,[165] the IHL regime is the *lex specialis* and must be given prevalence over the IEL one, such as in the case of the targeting by a State of an adversary that uses a site protected under the Ramsar Convention for military purposes. The obligation for that State to make "wise use" of such a site should then be interpreted in light of the IHL regime as not preventing that State from causing incidental damage to the site.

However, it must not be forgotten that, albeit distinct from the application process, the interpretation process might apply to the same conduct even though it impacts different norms. Indeed, such targeting must comply with other IHL norms, like the principles of proportionality and precaution. Those principles should be informed by IEL and great constraints then put on the targeting State with respect to the protection of the site. This would result in a combination of the

163 See e.g. R. van Steenberghe, above note 74, pp. 1333–1395.

164 See e.g. most substantial provisions of the Biodiversity Convention, above note 15.

165 The identification of the *lex specialis* should be determined on a case-by-case basis, in light of the above-mentioned substantial considerations. Regarding IHL–IHRL interplay, there is for example growing support for considering IHRL as constituting the *lex specialis* in certain cases of use of lethal force and as prevailing over the competing IHL framework: see e.g. David Kretzmer, Aviad Ben-Yehuda and Meirav Furth, "'Thou Shall Not Kill': The Use of Lethal Force in Non-International Armed Conflicts", *Israel Law Review*, Vol. 47, No. 2, 2014, pp. 191 ff.

application and interpretation processes in relation to the same conduct, which allows the taking into account of the realities of war while at the same time strengthening the protection of the environment.[166]

Conclusion

It is striking to observe a growing legal scholarship on the interplay between IHL and IEL. This is a fortunate evolution since it is well known that the environment needs further protection in armed conflict and that such protection could be achieved through IEL, which might fill the gaps left by IHL in that matter. The two main processes whereby IEL may play its gap-filling role are now well identified, namely in the interpretation of IHL in light of IEL and in the application of IEL alongside IHL. As they do not involve any modification of IHL, those processes have the advantage of accommodating States' view that IEL may be used to enhance the protection of the environment in warfare providing that IHL is not modified.[167] However, legal literature on the topic is confusing and lacks systematicity. The interpretation process is often confused with the interpretation of IHL in light of environmental considerations rather than IEL; moreover, it is not clearly distinguished from the application process. The effects of those processes and the conditions for their application are, however, fundamentally different. The interpretation process means the incorporation of an IEL norm into IHL and therefore implies that such a norm applies to conduct to which it would not necessarily apply according to its own scope of application. By contrast, the application process involves interplay between IEL and IHL norms only when the respective scopes of application of those norms overlap. Legal scholarship fails to delve, in that regard, into the geographical and personal scopes of application of IEL, especially its extraterritorial application and its application to armed groups. Finally, the different types of conflicts are not distinguished, namely conflicts of norms and conflicts of interpretation.

The legal mechanisms mentioned in relation to IHL–IEL interplay also lack in-depth study, which contrasts with the significant literature on such mechanisms with respect to IHL–IHRL interplay. It has been argued, in accordance with the few studies on the matter, that the principle of systemic integration is the best-suited mechanism with respect to the interpretation process. Since it mobilizes

166 Such combination of those processes is in fact already observable in IHRL case law. In the *Hassan* case, the ECtHR applied Article 5 of the ECHR but displaced its content in favour of the relevant IHL regime on detention (ECtHR, *Hassan*, above note 36). This follows the logic of the application process. However, by the same token, the Court used IHRL and, in particular, the ECHR to inform the IHL rule according to which detention must be subject to review by "a competent body". As a result of that interpretation process, the Court strengthened the protection of civilian internees by requiring notably that such a body must "provide sufficient guarantees of impartiality and fair procedure to protect against arbitrariness" (*ibid.*, para. 106).

167 See e.g. statements from the United Kingdom (UN Doc. A/C.6/71/SR.28, para. 25; UN Doc. A/C.6/73/SR.30, para. 9); the Netherlands (UN Doc. A/C.6/72/SR.26, para. 37); and Azerbaijan (UN Doc. A/C.6/73/SR.29, para. 114).

international law, rather than environmental considerations, to interpret IHL, the principle must nonetheless be applied cautiously and its application must respect specific conditions, such as the identity of the parties bound by the interpreted and interpretative norms. On the other hand, contrary to the few studies on the subject, it has been submitted that the *lex specialis* principle is best suited for solving conflicts arising under the application process, be they conflicts of norms or of interpretation.

Finally, only two comprehensive approaches have been proposed so far in legal literature in relation to IEL–IHL interplay (with one also including IHRL). They share one fundamental common feature, namely that the application of the formal mechanisms is excluded with respect to the co-application of IHL and IEL, whereas the principle of systemic integration is nonetheless considered as applicable with respect to the interpretation of IHL in light of IEL. This has led the two approaches to propose a solution going beyond those formal mechanisms in relation to the application process. One of them, the reconciliatory approach, draws its solution from the vagueness of IEL and the flexibility of the mandate of the IEL treaty bodies, which enables the finding of solutions adapted to armed conflicts and, more generally, to any concrete situation. The other one, the multi-layered approach, infers from the parallel shared objectives of IHL and IEL (as well as IHRL) a unifying *ordre public transnational*, which serves as guidance in case of conflicts of norms. A coherency-based approach has been proposed as an alternative, mainly built upon legal theories on normative coherence of legal systems and applying those theories to the claimed legal system formed by all of the norms of international law regulating armed conflict, such as those of IHL and IEL. This approach construes the system as being coherent in the sense given to that term by those theories. This involves going beyond the mere consistency of that system, mainly through the operation of formal mechanisms that enables the avoiding of any conflict between its norms, and achieving its coherency through the guiding role played by a foundational principle that takes into account the realities of war.