

The Role of Customary Principles of International Humanitarian Law in Environmental Protection

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Since armed conflicts exist, environment has been a suffering object, a passive victim of hostilities. This essay attempts to introduce and analyse the contemporary problems deriving from applying the customary principles of International Humanitarian Law (IHL) to environmental protection. Witnessing the environment degradation caused by conflicts, there is an unquestionable antagonism between the seemingly adequate provisions protecting the environment and their practical implementation. IHL sets forth an unrealistically high threshold of destruction that calls for the rationalisation of legal and environmental arguments. This article aims to uncover the gaps and weaknesses in the application of the relevant principles and their assessment is complemented with a short overview of the UN Work Program concerning reports providing another interpretation of the applicable IHL principles and with the introduction of NATO standards and doctrines specifically aiming at environmental protection during operations.

Keywords: International Humanitarian Law, customary rules, environmental protection, NATO

1. Introduction

Throughout millennia, our ancestors have learnt how to occupy territory and exploit its resources. Subsequently, they successfully cultivated, altered, and manipulated it to reap its benefits. The interaction and adaptation between human activities and nature became commonplace but as time went by, our attitude towards nature transformed and developed. Redgwell argues that this development can be divided into three periods: in the first one, exploitation of resources and other environmental benefits were dominating, which later gave place to a reactive approach with a rising number of treaties on pollution abatement, and species and habitat conservation.¹ The fundamental change of approach happened after World War II and nowadays, environmental protection is defined by the precautionary and preventive approach. It may suggest that humanity learnt to appreciate nature both for the benefits it provides and for its own intrinsic values. However, our peaceful symbiosis seems quite afar. When we closer examine the human efforts to protect the environment, there are also signs of systematic abuse both in time of peace and armed conflict. The environment abuse in time of armed conflict raises important questions. One of them is whether provisions of International Humanitarian Law (IHL) concerning environmental protection during armed conflicts are necessary at all. However, if they are, are they adequate? To answer these questions, we should closer examine the nature of direct and indirect

¹ Catherine Redgwell, *International Environmental Law*, in M. D. Evans (Ed.), *International Law*, 2nd edn., Oxford University Press, Oxford 2006, p. 657.

wartime impacts on the environment,² which may be extremely severe and may overstretch the peacetime impacts to the extent that their regulation becomes crucial and unavoidable and therefore a peacetime-wartime separation.

During armed conflicts environmental damage can occur either as the result of direct attack (against land, sea and inland waters, air or any natural resources) or as collateral damage in cases where attacks are directed against military objects or dual-use critical infrastructure (for example water supply, electricity generation, heating or agriculture). Harm to the environment might include the total or partial destruction of land,³ marine environment,⁴ wildlife and agriculture, destabilisation of the surface, flora and fauna, and it can upset the climate and change weather patterns. But it is only an exemplary list of possible results; causing (directly or indirectly) harm to the environment may have additional indirect implications in the near and far future, such as dislocation of people, the growing migration's effect on the environment, water scarcity, poor environmental management with decline in production level and even famine.

Another reason why the peacetime-wartime differentiation might be justified is the growing support for the ecocentric view. According to their supporters, the “ecosphere ... [t]ranscends in importance any one single species”⁵ defeating slowly the domination of the opposite anthropocentric perspective which has always emphasised the needs and wants of human beings and underlining the necessity of preventing large-scale environmental degradation caused by armed activities. The main aims of legislation regarding environmental protection are to preserve and protect the natural environment from any adverse impact and deterioration, and to improve its present state by careful management. By extending this protection to armed conflicts we not only acknowledge its vital importance in sustaining human life, but also its inherent values and exceptional attributes which make it indispensable in supporting any life form on the Earth.

One of the earliest reference indirectly applicable to environmental protection in modern history is found in the 1868 St Petersburg Declaration⁶ which states that “the progress of civilization should have the effect of alleviating as much as possible the calamities of war” and that “the only legitimate object which state should endeavour to accomplish during war is to weaken the military forces of the enemy.” Another early indirect reference is contained in the 1899 Hague Declaration,⁷ according to which, projectiles cannot be used with the sole purpose of dispersing asphyxiation or deleterious gases. Notwithstanding the positive effect the above documents may have had, it has to be seen that at the time of adoption of these declarations, there was no expressed concern regarding environmental protection during hostilities. Today they are still in force and it is all too tempting to refer to some of their provisions as

² For more on the adverse impacts of armed conflicts see Nick Middleton, *The Global Casino, An Introduction to Environmental Issues*, 4th edn., London Hodder Education, London 2008.

³ Scorched earth policy has accompanied the history of warfare from the ancient Scythians until today. Despite it has been prohibited by Article 54 of 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), it still seems to be a familiar routine, see for example the methods used by the Islamic State <http://foreignpolicy.com/2016/04/06/the-islamic-states-scorched-earth-strategy/> (22 August 2017).

⁴ The impact assessment of uses and values carried out by the IUCN and Collaborators in 1994 (*The 1991 Gulf War: Environment Assessment of IUCN and Collaborators*) serves with an estimation and review on the extent of damage done to the flora and fauna, the cleanup activities and possible assistance needed after the Gulf War. <http://www.greenpeace.org/international/Global/international/planet-2/report/1994/4/the-1991-gulf-war-environment.pdf> (22 August 2017).

⁵ J Stan Rowe, *Ecocentrism and Traditional Ecological Knowledge* www.ecospherics.net/pages/Ro993tek_1.html (22 August 2017).

⁶ 1868 St Petersburg Declaration Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight.

⁷ 1899 Declaration (IV, 2) concerning Asphyxiating Gases.

relevant to environmental protection.⁸ Anxiety about the damage became more pronounced at the dawn of the twentieth century, when states gradually started to retreat from the extensive and intentional destruction of nature, and after World War II and the Vietnam War concerns gave way to IHL regulations regarding environmental protection in times of armed conflict: Additional Protocol I⁹ and the ENMOD¹⁰ Convention.¹¹ It seems that by today, the devastating effects of modern warfare inflicted by hostile forces and the findings of scientific research regarding the effects of the environment abuse and degradation facilitated the recognition that exposing the environment to impacts of warfare should be avoided.

2. Different Levels and Regimes of Environmental protection

From time immemorial humankind intended to control and manipulate its surroundings. It meant better or worse resource management on the small scale and substantial modification of the environment on the large scale. The quests to conquer and control (involving military activities) were able to produce adverse multidimensional impact on land, water, air quality and natural resources, and implications of damages caused to nature stretched far beyond the obvious degradation. They also constitute financial, aesthetic, recreational, emotive loss, the lost bequest and option value (often beyond recovery), as well as the actual cost of restitution.¹² Concerning the legal aspect, national environmental legislation creates the most realistic and feasible framework to implement environmental standards regarding the protection of the environment, however, “states and specialized agencies realized fairly rapidly that purely national environmental policies were inadequate in view of the magnitude and the transnational nature of many environmental problems, and that it was essential to adopt international rules.”¹³ In order to avoid clashes, national legal orders were to accept the universally recognised rules and regulations of International Law (conventions, protocols, agreements) and harmonise the internal laws and statutes with the obligations assumed under International Law. (Article 27 of the 1969 Vienna Convention on the Law of Treaties declares that “a party may not invoke the provisions of its internal law as justification for its failure to perform the treaty.”) Apart from treaties on the international plane, bilateral, multilateral and regional agreements can also contribute to the development of international standards and principles,

⁸ See for example Alexandre Kiss & Dinah Shelton, *Guide to International Environmental Law*, Martinus Nijhoff Publisher, Leiden 2007, p. 254.

⁹ 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I).

¹⁰ 1976 Convention on the prohibition of military or any hostile use of environmental modification techniques.

¹¹ The ENMOD Convention’s history started in 1970 at Stockholm where, under the egis of the United Nations, an environment conference was held which adopted a Declaration stating, inter alia, that states have the responsibility “to ensure that activities within their ... [c]ontrol do not cause damage to the environment of other States” (Principle 21 of the Declaration of the United Nations Conference on the Human Environment (A/CONF.48/14/Rev.1, Chapter 1)). Following the Conference, the US Government and the Soviet Union both supported the possibility of an international agreement, and in July 1974, President Nixon and General Secretary Brezhnev “formally agreed to hold bilateral discussions on how to bring about ‘the most effective measures possible to overcome the dangers of the use of environmental modification techniques for military purposes’” (U.S. Department of State, *Diplomacy in Action* website <https://www.state.gov/t/isn/4783.htm> (5 September 2017)). The discussions held between the two nations in 1974 and 1975 resulted in agreement on a common approach and, after intensive negotiations, the text of the draft ENMOD Convention could be agreed upon. For more on the procedural history of ENMOD Convention, see the United Nations website <http://legal.un.org/avl/ha/cpmhuent/cpmhuent.html> (5 September 2017).

¹² For more on the subject see Christopher D Stone, *The Environment in Wartime: An Overview*, in J. E. Austin & C. E. Bruch (Eds.), *The Environmental Consequences of War; Legal, Economic and Scientific Perspectives*, Cambridge University Press, Cambridge, 2000.

¹³ Antoine Bouvier, *Protection of the Natural Environment in Time of Armed Conflict*, *International Review of Red Cross* No. 285, 31 December 1991, p. 567.

therefore accession to these instruments shall also be encouraged.¹⁴ The prerequisite of assessing the question of environmental protection in times of armed conflict is the fact that environment is to be regarded as a civilian object in IHL and enjoys protection accordingly. There is only one specific provision in IHL treaty law protecting the environment according to which “care shall be taken to protect the natural environment against widespread, long-term and severe damage.”¹⁵ The environment is however given an additional protection by the application of IHL principles, which is in the focus of the present essay. Before introducing these principles, let us specify those areas of International Law whose provisions and principle may also have a direct effect on environmental protection.

2.1. Different Regimes of Law Protecting the Environment During Armed Conflicts

Four complementing bodies of International Law constitute the legal framework with provisions directly aiming at protecting the environment.

- A wide range of International Environmental Law (IEL) provisions apply during armed conflict including not only multilateral or regional agreements but also customary principles of IEL (*e.g.* responsibility for environmental damage or the precautionary principle).¹⁶
- International Human Rights Law is also to be included in this exclusive list by virtue of containing Human Rights with a strong link to environmental protection (right to life, private life or the right to a standard of living adequate for the health and well-being).¹⁷ This link is however based on highlighting the green aspects of existing Human Rights rather than adding new rights to the existing treaties.¹⁸ Securing a higher degree of environmental protection based on the degradation’s possible effects on life itself and the quality of life (health) require governments to regulate circumstances and situations, which may lead to environmental harm and thereby adversely affect Human Rights.
- The third pillar, International Criminal Law deals with individual (international) criminal responsibility. Grave breaches of IHL include actions, which indirectly result in environmental damage (widespread, long-term and severe damage to the natural environment clearly excessive in relation to the military advantage anticipated).¹⁹

¹⁴ For more on the importance of accession see Harry H Almond Jr, *Weapons, War and the Environment*, Georgetown International Environmental Law Review, Vol. 3, 1990, pp. 167-197.

¹⁵ Art. 55 of Additional Protocol I.

¹⁶ According to the UNEP’s analysis, “Many argue that the precautionary principle, the principle of pollution prevention and the right to a healthy environment either are or are emerging as principles of customary international law.” in: *Protecting the Environment During Armed Conflict, An Inventory and Analysis of International Law*, United Nations Environment Programme, 2009, p 40

http://www.un.org/zh/events/environmentconflictday/pdfs/int_law.pdf (22 August 2017).

¹⁷ Arts. 3, 12 and 25 of Universal Declaration of Human Rights, Art. 6 of International Covenant on Civil and Political Rights, Arts. 2 and 8 of the European Convention on Human Rights, Arts. 4, 14, 16 and 24 of African Convention on Human and Peoples’ Rights, Arts. 4, 11, 21 of the American Convention on Human Rights.

¹⁸ Alan Boyle, *Human Rights and the Environment: Where Next?*, *European Journal of International Law*, Vol. 23, No. 3, 1 August 2012, p. 614.

¹⁹ According to Art. 8 (2) (b) (iv) of the Rome Statute, “intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated” constitutes a war crime by virtue of violating of the laws and customs applicable in international armed conflict.

- The fourth pillar in the legal structure of environmental protection is IHL, which seeks to regulate the protection of not only those who are not (or no longer) taking part in the hostilities and the conduct of hostilities but also the protection of civilian objects like the environment.

2.2. The Principles of IHL Applicable to Environmental protection

“Custom is at the core of the *jus in bello*”²⁰ coexisting with the treaty law in force. Any custom presumes the existence of consistent state practice (by the majority of states) and the *opinion juris sive necessitatis*, namely the conviction that their action is based on an obligation. According to Richards and Schmitt,²¹ the customary principles of the law of war can be derived from the basic standard that the right of any belligerent to adopt means of injuring the adversary is not unlimited,²² or, according to the contemporary phrasing of Article 35 (1) of Additional Protocol I, “in any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited.” In this restatement, the editors of the instrument made it clear that the protection shall be extended to the civilian population and civilian objects too – including the natural environment. Regarding this rule, Baker has rightly argued that “standing on its own, however, limitation provides basic wartime environmental protection.”²³ This provision therefore shall be studied and interpreted in connection with the principles of IHL, first and foremost with the principle of distinction, whose customary status, Roscini points out, “is nowadays well-established,”²⁴ according to which parties to the conflict shall distinguish between civilian objects and military objectives and shall direct any operation solely against military objectives.²⁵ (When there is a choice possible between several military objectives for obtaining a similar military advantage, the one causing the least danger to civilian objects²⁶ must be selected.)²⁷ The rest of the customary IHL norms originate from this sole rule being the first significant step in introducing limitations on the modern battlefield; the ICJ found it to be a “cardinal principle”²⁸ intransgressible at all time.

2.2.1. Martens Clause

Assessing the dawn of IHL clauses and principles with an indirect link to environmental protection, the Martens Clause²⁹ may prove a valuable starting point.

²⁰ Michael N. Schmitt, Green War: An Assessment of the Environmental Law of International Armed Conflict, Yale Journal of International Law, Vol. 22., No. 1, Winter 1997, p. 51.

²¹ Peter J. Richards & Michael N. Schmitt: Mars Meets Mother Nature: Protecting the Environment during Armed Conflict, Stetson Law Review, Vol. 28, 1999, p. 1075.

²² Art. 22 of the 1907 Hague Convention IV Respecting the Laws and Customs of War on Land.

²³ Betsy Baker, Legal Protection for the Environment in Times of Armed Conflict, Virginia Journal of International Law, Vol. 33, 1992/93, p. 360.

²⁴ Marco Roscini, Targeting and Contemporary Aerial Bombardment, International and Comparative Law Quarterly, Vol. 54, 2005, p. 413.

²⁵ Art. 48 of Additional Protocol I.

²⁶ According to Art. 52 (2) of Additional Protocol I, military objects are those “which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”

²⁷ Art. 57 (3) of Additional Protocol I.

²⁸ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996, p. 257, Para 78.

²⁹ The Clause was named after its drafter, Friedrich Martens who was part of the Russian delegation.

The first codification of the Martens Clause is found in the preamble of 1899 Hague Convention II with Respect to the Laws and Customs of War on Land³⁰ which was followed by a slightly changed formulation in the Preamble of the 1907 Hague Convention IV respecting the Laws and Customs of War on Land.³¹ Although according to Cassese, “the clause essentially served as a diplomatic ploy”³² and was “part of a diplomatic manoeuvring to overcome political difficulties,”³³ it proved to be a valuable help in interpreting IHL and continues to have an undeniable impact not just on civilians and those taking part in the hostilities, but also on policy makers and the public.

The 1949 Geneva Conventions did not contain the clause among their provisions and it appeared again only in Additional Protocol I³⁴ and II.³⁵ Article 1 (2) of Protocol I exceeds the Protocol itself and other conventional instruments of humanitarian law too, when it places the prospective victims under the protection and authority of the principles of International Law derived from established custom, the principles of humanity and dictates of public conscience. Although the Martens Clause underlines the requirement that parties to an armed conflict shall not fight without certain limitations imposed on them, Additional Protocol I does not clarify the notions of “principles of humanity” and “dictates of public conscience” whose content is therefore still subject to arguments. The provision has already given place to various interpretations since it puts the emphasis onto humanity and standards of public conscience instead of referring to state practice. The formulation of Martens Clause demonstrates not just the significance attributed to the principles of humanity and dictates of public conscience but - by being ambiguous - the elusive nature of the concepts, too. There is also a debate among legal experts whether it generates new sources of law, identifies principles of International Law, or creates legal standards inspiring development of International Humanitarian Law.³⁶

The core question however relates to the content of the Clause, which seems to bring in natural law in the way of representing moral values guiding human conduct during hostilities.³⁷ In the Commentary of Additional Protocol I (Geneva, 1987) the ICRC argues that since no IHL codification can be regarded complete given the complex nature of the regulated subject, “the Martens clause prevents the assumption that anything which is not explicitly prohibited by the relevant treaties is therefore permitted”³⁸ or as Ticehurst puts it, “the Clause provides that something which is not explicitly prohibited by a treaty is not ipso facto permitted.”³⁹

³⁰ “ ... [i]n cases not included in the Regulations adopted by them (Parties), populations and belligerents remain under the protection and empire of the principles of international law, as they result from the usages established between civilized nations, from the laws of humanity and the requirements of the public conscience.”

³¹ “Until a more complete code of the laws of war has been issued, the High Contracting Parties deem it expedient to declare that, in cases not included in the Regulations adopted by them, the inhabitants and the belligerents remain under the protection and the rule of the principles of the law of nations, as they result from the usages established among civilized peoples, from the laws of humanity, and the dictates of the public conscience.”

³² Antonio Cassese, *The Martens Clause: Half a Loaf or Simply Pie in The Sky?*, *European Journal of International Law*, Vol. 11, 1 March 2000, p. 198.

³³ Cassese 2000, p. 216.

³⁴ According to Art. 1 (2) of Additional Protocol I, “In cases not covered by this Protocol or by other international agreements, civilians and combatants remain under the protection and authority of the principles of international law derived from established custom, from the principles of humanity and from dictates of public conscience.”

³⁵ 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II).

³⁶ Cassese 2000.

³⁷ For more on the influence of natural law on IHL see Rupert Ticehurst, *The Martens Clause and the Laws of Armed Conflict*, *International Review of Red Cross*, No. 317, 1997, pp. 125-134.

³⁸ Commentary of 1987, *General principles and scope of application*, p. 39, Para 55.

³⁹ Ticehurst 1997, p. 126.

It is the opinion of this author that the Martens Clause shall be interpreted as considering the demands deriving from humanity conveyed by the public conscience, but it should also be underlined that although it was considered in decisions of international courts,⁴⁰ no court has ever based its decision solely on the Martens Clause.⁴¹ Projecting the above onto environmental protection, it can be concluded that the Martens Clause is an autonomous principle, which can contribute to the preservation of environment by creating a boundary for military considerations, prohibiting conduct of hostilities (means and methods) which are exceeding the degree necessary for attaining a definite military advantage. According to the Clause, principles of general International Law apply during armed conflicts even if there is no particular provision in the concerning treaty law. With IHL being silent on a certain matter, the Martens Clause may serve as a backdoor that ensures that other sources of International Law may provide protection to the natural environment.

2.2.2. The Principle of Military Necessity

Similarly to the Martens Clause, the precise content and practical feasibility of the principle of military necessity is also somewhat blurred. Military necessity is basically the concept of legally using only that kind and degree of force which is required to overpower the enemy. At the heart of the concept lies the criterion that no defence (no excuse) shall be provided for unlawful actions committed during hostilities. Unlike the generally acceptable interpretation of military necessity as humanity's counterbalance, Hayashi provides a refreshing new approach of regarding military necessity as being normatively indifferent permitting both the pursuit and abandonment of military necessities.⁴²

It is mentioned in the Preambles of Hague Convention II⁴³ and Hague Convention IV⁴⁴ but it is regulated *expressis verbis* only in Article 23 (g) of the 1907 Hague Convention IV (reflecting customary law), which indicates that any destruction or seizure of the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war, is forbidden. This formulation clearly points to the limited power of the adversaries to cause harm to their enemies. The concept of Hague Convention IV requires the destruction to be "imperatively demanded by the necessities of war", however, no adequate definition is provided, so a less restrictive interpretation may allow the term to be twisted into the required direction allowing acts not militarily necessary. It is also important whether we assess one particular situation involving environment destruction or longer term military plans including the possibility of detrimental environmental effects. If the latter idea prevails, the ability to justify destruction can be seriously undermined.⁴⁵ As Schmitt puts it, "the degree of military advantage ...

⁴⁰ See for example the Trial Chamber Decision of the International Criminal Tribunal for the Former Yugoslavia on 8 March 1996 issuing an international arrest warrant against Milan Martić (IT-95-11-R61), p. 5, Para 13 and Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996, p. 257, Para 78.

⁴¹ The International Court of Justice referred to it as "an effective means of addressing the rapid evolution of military technology." Nuclear Weapons 1996, p. 257, Para 78.

⁴² See Nobuo Hayashi, Military Necessity as Normative Indifference, *Georgetown Journal of International Law*, Vol. 44, 2013, pp. 675-782.

⁴³ "... [i]n the view of the High Contracting Parties, these [provisions ...] [s]o far as military necessities permit, are destined to serve as general rules of conduct for belligerents in their relations with each other and with population ..."

⁴⁴ "... [t]hese provisions ... [a]s far as military requirements permit, are intended to serve as a general rule of conduct for the belligerents and their mutual relations and in their relation with the inhabitants ..."

⁴⁵ Rex Zedalis, Burning of the Kuwaiti Oilfields and the Laws of War, *Vanderbilt Journal of Transnational Law*, Vol. 24, 1991, p. 714.

[i]nfluences its normative admissibility.”⁴⁶ This author shares Luban’s opinion⁴⁷ that the licensing function of IHL is not as fundamental as the constraining function. Hague Convention II and IV are still in force and Green underlines the fact that the rules embodied in these documents have been adopted and adjusted to military requirements; therefore, “the mere plea of military necessity ... [i]s not sufficient to evade compliance with the laws of war.”⁴⁸

Another example for regulating military necessity can be found in the London Charter⁴⁹ establishing the Nuremberg Tribunal and the judgment of the Nuremberg Military Tribunal in the *Hostage Case*⁵⁰ provides important references to the development of the concept. In the case, the United States prosecuted German military commanders charging the defendants with committing war crimes and crimes against humanity. Regarding General Rendulic the defence has invoked the concept of military necessity in order to justify the destruction caused by the retreating German 20th Mountain Army that followed the scorched earth policy in the Norwegian province of Finnmark destroying villages and isolated habitations. As a result of the trial a concept emerged (Rendulic Rule) according to which, situations, circumstances and evidence have to be judged as they appeared to the defendant at the time (the question being whether the defendant could “honestly conclude that urgent military necessity warranted the decision made”). The judges opined that based on the evidence available at the time, the General rightly assumed possible Russian attacks and ordered “to carry out the ‘scorched earth’ policy in Finnmark as a precautionary measure against an attack by superior forces”⁵¹ and therefore the defendant was found not guilty on this charge.

The Geneva Conventions of 1949 hardly contain any reference to the principle of military necessity for the rules regarding the conduct of hostilities were considered part of customary IHL, and therefore the Conventions have not encompassed these apart from a few references. Article 53 of the Fourth Geneva Convention Relative to the Protection of Civilian Persons however provides that “any destruction by the Occupying Power of real or personal property belonging ... [t]o private persons, or to the State, or to other public authorities, or to social or cooperative organizations, is prohibited, except where such destruction is rendered absolutely necessary by military operations.” The scope of Article is limited however to prohibited destruction in occupied territories.⁵² In cases where there is no occupation and parties to the conflict have not ratified Additional Protocol I,⁵³ Article 23 (g) of Hague Convention (IV)

⁴⁶ Peter J. Richards & Michael N. Schmitt, *Mars Meets Mother Nature: Protecting the Environment during Armed Conflict*, *Stetson Law Review*, Vol. 28, 1999, p. 1074.

⁴⁷ David Luban, *Military Necessity and the Cultures of Military Law*, *Leiden Journal of International Law*, Vol. 26, 2013, p. 320.

⁴⁸ Leslie C. Green, *The Contemporary Law of Armed Conflict*, 3rd edn., Juris Publishing, Manchester University Press, Manchester 2008, p. 147.

⁴⁹ According to Art. 6 (b) of the London Charter of the International Military Tribunal, “the following acts ... [a]re crimes coming within the jurisdiction of the Tribunal for which there shall be individual responsibility:

(b) war crimes: namely, violations of the laws or customs of war. Such violations shall include, but not be limited to ... [p]lunder of public or private property, wanton destruction of cities, towns or villages, or devastation not justified by military necessity.”

⁵⁰ *Hostage Case, United States v List (Trial Judgment)* (Nuremberg Military Tribunal, Trial Chamber, Case No 7, 19 February 1948) 8 LRTWC 34 in *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10, Volume XI/2*.

⁵¹ *Hostage Case, United States v List (Trial Judgment)* (Nuremberg Military Tribunal, Trial Chamber, Case No 7, 19 February 1948) 8 LRTWC 34 in *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10, Volume VIII, p. 69*.

⁵² According to Art. 42 of Hague Convention (IV), “territory is considered occupied when it is actually placed under the authority of the hostile army. The occupation extends only to the territory where such authority has been established and can be exercised.”

⁵³ Art. 55 (1) sets forth that “care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or

will be applicable as it was in case of the extensive environmental damage⁵⁴ caused by Iraq in Kuwait during the Gulf War.

Military necessity is problematic from another aspect too as the identification and determination of the parties' intent is always context sensitive and can be decided on the basis of causality and by eliminating any unnecessary and wanton destruction. Clarifying whether environment destruction was crucial to secure any military advantage and balancing between military necessity and environmental concerns will be always challenging, unless a universally acknowledged interpretation of these terms will be accepted. As the ICJ put it in the *Nuclear Weapons Advisory Opinion*, "states must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives. Respect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality."⁵⁵

2.2.3. The Principle of Humanity

The principle protecting indirectly the natural environment in times of armed conflict is the principle of humanity "prohibiting inhumane methods and means of warfare, and usually applied to human suffering – may conceptually offer an avenue for expanding protection of the environment."⁵⁶ The thought of decency, charity and the goodwill to alleviate suffering has been present in the humanitarian law for a long time. It refers to the attitude of humanity towards the defeated by regarding them as part of humankind and equals to the victors, which shall protect life, integrity, health and dignity by protecting the vanquished from inherently wrongful acts. After the horrors of the Second World War, the allied powers brought the International Military Tribunal to life, which was rendered to try and punish the major war criminals of the European Axis among others for crimes against humanity.⁵⁷ According to Article 6 (c) of the Charter of the Military Tribunal,⁵⁸ "the Tribunal shall have power to try and punish persons, who committed ... [c]rimes against humanity: ... [o]ther inhuman acts committed against any civilian population before or during the war [...], whether or not in violation of the domestic law of the country where perpetrated." The enumeration of Article 6 ("other inhuman acts") is open-ended leaving

may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population."

⁵⁴ Destruction of oil wells, oil spills in the Gulf, pollution to the air, the forming of hundreds of oil lakes, disruption of the desert surface, damaging vegetation, destruction of livestock animals, etc. For more on the subject see O. Linden & A. Jerneloef & J. Egerup, *The Environmental Impacts of the Gulf War 1991*, IIASA Interim Report April, 2004 <http://pure.iiasa.ac.at/7427/1/IR-04-019.pdf> (25 August 2017) and William M. Arkin & Damian Durrant & Marianne Cherni, *On Impact, Modern Warfare and the Environment, A Case Study of the Gulf War*, Greenpeace Study, 1991 <http://www.greenpeace.org/international/Global/international/planet-2/report/1991/6/on-impact-modern-warfare-and.pdf> (25 August 2017).

⁵⁵ *Nuclear Weapons* 1996, p. 242, Para 30.

⁵⁶ Michael N. Schmitt, *War and the Environment: Fault Lines in the Prescriptive Landscape*, in J. E. Austin & C. E. Bruch (Eds.), *The Environmental Consequences of War; Legal, Economic and Scientific Perspectives*, Cambridge University Press, Cambridge, 2000, p. 101.

⁵⁷ Crimes inseparable from the principle of humanity.

⁵⁸ 1945 Charter of the International Military Tribunal (Nuremberg).

space for including acts which, apart from injuring human life, health and dignity,⁵⁹ can inflict damage upon the environment too, by poisoning water, destroying crops and food,⁶⁰ setting oil ablaze.

While alleviating human suffering, the principle of humanity can apparently promote the expanded protection for the environment, too. One of the most significant contemporary definitions of crimes against humanity is found in the Rome Statute. Its Article 7 renders punishable “(k) other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health” and according to Green, “once a charge of crimes against humanity is lodged there is no real reason to bring any other, since such a charge may be regarded as ‘wholesale’ in character, embracing within itself all other breaches of the law of armed conflict.”⁶¹ All things considered, the principle of humanity, as opposed to its name, might promote the development of the *ecocentric* concept and it can be conveniently expanded to the protection of certain elements of the natural environment. It may also prove to be a possible avenue for “green” Human Rights (*e.g.* the right to healthy environment or right to natural resources) to flow into IHL.

2.2.4. The Principle of Proportionality

The customary principle of proportionality refers to the undissolvable balancing between two competing interests: military advantage and environmental damage. The concept of proportionality is not mentioned *expressis verbis* in the Geneva Conventions and in Additional Protocol I, there is a clear reference however in Article 51 (5) (b) of the Protocol to the requirement of proportionality⁶² and it is also regulated among the war crimes in Article 8(2)(b)(iv) of the Rome Statute.⁶³ Partly because of the limited number of provisions and partly because of the extensive scope of possible interpretations of the expressions used in the Protocol and in the Statute, the practical application of this principle may be demanding. It requires the finding of an implementable, viable and rational balance between military advantage and environmental damage.

Any military advantage anticipated shall be calculated corresponding to the attack in question and not to the military operation or the armed conflict as a whole by the reasonable military commander in charge, on the grounds of the information available when making any decision on such attack. Since the text refers to the military advantage *anticipated*, what matters is the believed probability of the outcome and not the actual effect. No military action shall ensue collateral damage “disproportionate to the anticipated military advantage likely to result.”⁶⁴ The military advantage shall be concrete and direct,

⁵⁹ According to Para 28 of the Sentencing Judgement of the ICTY in the Prosecutor v Drazen Erdemović case (Judgement of 29 November 1996, IT-96-22-T), “crimes against humanity are serious acts of violence which harm human beings by striking what is most essential to them: their life, liberty, physical welfare, health and dignity. They are inhumane acts which by their extent and gravity go beyond the limits tolerable to the international community, which must perforce demand their punishment.”

<http://www.unhcr.org/refworld/docid/402765a27.html> (25 August 2017).

⁶⁰ E.g. Arts. 54 and 56 of Additional Protocol I.

⁶¹ Leslie C. Green: *The Contemporary Law of Armed Conflict*, 3rd edn., Juris Publishing, Manchester University Press, Manchester, 2008, p. 362.

⁶² “An attack which may be expected to cause ... [d]amage to civilian objects ... [w]hich would be excessive in relation to the concrete and direct military advantage anticipated.”

⁶³ “For the purpose of this Statute, ‘war crimes’ means [...] (b) other serious violations of the laws and customs applicable in international armed conflict ... [n]amely, any of the following acts: (iv) intentionally launching an attack in the knowledge that such attack will cause ... [w]idespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.”

⁶⁴ Michael N. Schmitt, *War and the Environment: Fault Lines in the Prescriptive Landscape*, in J. E. Austin & C. E. Bruch (Eds.), *The Environmental Consequences of War; Legal, Economic and Scientific Perspectives*, Cambridge University Press, Cambridge, 2000, p. 103.

ruling out the opportunity to aim at indirect, potential, immeasurable or indeterminate military advantage and the disproportion in question should be clearly perceptible (the phrasing of the Statute “clearly excessive” discards any excessiveness not obvious for the military commander in charge). It has to be recognized though that even when proportionality is observed, “an attack against a military objective is apt to produce lawful collateral damage to the environment.”⁶⁵

However, how can one measure the devastation caused for example by setting oil rigs ablaze, spilling crude oil into the Persian Gulf and into the desert in Kuwait on a military scale? Putting it differently, how can a definite military advantage be expressed in terms of environmental damage? It definitely requires our reasonable military commander to think, analyse and balance rationally and sensibly when deciding on the fine line separating proportionate and disproportionate damage as “the very subjectivity of value renders agreement on specific balances highly elusive.”⁶⁶ The most important factors to be considered are the civilian nature of natural environment⁶⁷ and the possible extent of foreseeability regarding collateral damage.⁶⁸ Again, Schmitt interprets this question as an antagonism between anthropocentrism with its emphasis on (military) utility and ecocentrism advocating the intrinsic values of nature,⁶⁹ which, though noble as it is, will probably not be resolved satisfactorily in the near future and therefore will leave space for competing interests and interpretations.

2.2.5. The Principle of Unnecessary Suffering

The most important rules for the methods and means of warfare are set in Part III, Section I of the Additional Protocol I. According to the basic rules,⁷⁰ parties do not have an unlimited choice of methods and means of warfare and cannot employ weapons, methods and means that are of a nature to cause superfluous injury or unnecessary suffering.⁷¹ This rule appeared first in the 1868 St Petersburg Declaration⁷² and was later reiterated in Hague Convention IV,⁷³ according to which it is especially forbidden to employ arms, projectiles, or material calculated to cause unnecessary suffering. Long time passed by until the codifiers decided to revive this rule in order to reconfirm its relevance. As a result, the Convention on Certain Conventional Weapons (CCW) serves as an umbrella convention⁷⁴ in order to ban or restrict the use of specific weapons that are believed to cause unnecessary suffering to combatants or to affect civilians, because of their indiscriminate feature; the concept of the unnecessary

⁶⁵ Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict*, 3rd edn., Cambridge University Press, Cambridge 2016, p. 231.

⁶⁶ Michael N. Schmitt, *The Environmental Law of War: An Invitation to Critical Reexamination*, *Military Law and Law of War Review*, Vol. 36, No. 1 and 2, 1997, p. 23.

⁶⁷ I.e. it is considered a military object.

⁶⁸ I.e. how far shall the commander look ahead.

⁶⁹ 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, p. 56.

⁷⁰ Art. 35 (1)-(3).

⁷¹ Art. 35 (2).

⁷² 1868 Declaration Renouncing the Use, in Time of War, of certain Explosive Projectiles.

⁷³ According to Arts. 22 and 23 (e) in Section II of the 1907 Hague Convention IV Respecting the Laws and Customs of War on Land, “the right of belligerents to adopt means of injuring the enemy is not unlimited” and it is “especially forbidden to employ arms, projectiles, or material calculated to cause unnecessary suffering.”

⁷⁴ 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effect; its five Protocols address non-detectable fragments; mines, booby-traps and other devices; incendiary weapons; blinding laser weapons and explosive remnants of war.

suffering shall also extend to unnecessary destruction of property and thus to damage to the environment (US Joint Doctrine for Targeting).⁷⁵

According to Rule 70 of the Customary International Humanitarian Law Study by the International Committee of Red Cross (ICRC),⁷⁶ the use of means and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering is prohibited. Adopting this rule as a norm of customary International Law was intrinsically the confirmation of what has already been set forth in many instruments (St Petersburg Declaration, Hague Convention IV, Additional Protocol I, CCW), and supported by the International Court of Justice as a “cardinal principle of International Humanitarian Law”⁷⁷ introducing unnecessary suffering as a “harm greater than that unavoidable to achieve legitimate military objectives”. If an anticipated use of certain weapon would not meet the requirements of IHL, “a threat to engage in such use would also be contrary to that law”.⁷⁸ Though the prohibition of the employment of such weapons is given voice in the above instruments, it might not be easy to invoke this principle once a weapon is integrated in the weaponry, as states are not under the obligation to decide on an already assessed and approved weapon’s further use according to Article 36 of the Additional Protocol I.

2.2.6. The Principle of Precaution

Article 57 (1) of Additional Protocol I states that “in the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects.” In case of deciding on an attack, all “feasible precaution”⁷⁹ should be taken in the choice of means and methods of attack in order to avoid or minimize incidental damage to civilian objects and no attack should be launched⁸⁰ in case it may be expected to cause incidental damage to civilian objects, which would be excessive in relation to the concrete and direct military advantage anticipated.⁸¹ Although the environment is not mentioned explicitly in Article 57 and 58 (precautions against the effects of the attack), it is considered being a civilian object⁸² and therefore the protection afforded by Article 57 and 58 extends to it.

2.3. Contemporary Targeting and Protection of the Environment

When engaging in any military operation with the potential of causing environmental damage either intentionally or incidentally, prevention and mitigation of adverse effects is required not only by various

⁷⁵ A-1 Appendix A, US Joint Doctrine for Targeting, 2002 <https://www.hsdl.org/?abstract&did=472330> (25 August 2017).

⁷⁶ Jean-Marie Henckaerts & Louise Doswald-Beck, Customary International Humanitarian Law, Volume I: Rules, International Committee of Red Cross, Cambridge University Press, Cambridge 2007.

⁷⁷ Nuclear Weapons 1996, p. 257, Para 78.

⁷⁸ Nuclear Weapons 1996, p. 257, Para 78.

⁷⁹ According to Art. 3 (10) of Protocol (II) on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices annexed to the 1980 Convention on Certain Conventional Weapons, feasible precautions cover “precautions which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military considerations.”

⁸⁰ Attacks may be cancelled or suspended in case excessive damage is expected in relation to the military advantage.

⁸¹ Arts. 57 (2) a) ii)-iii) and 57 (2) b) of Additional Protocol I.

⁸² According to Art. 52 of Additional Protocol I, “1. Civilian objects shall not be the object of attack or of reprisals. Civilian objects are all objects which are not military objectives as defined in paragraph 2.

2. Attacks shall be limited strictly to military objectives. In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”

sources of International Humanitarian Law, but also by the values attached to the natural environment. The worth assigned to nature eventually depends on not only the legal provision and customary law but also on the geographic location where the operation (conflict) takes place, the context (objectives of the operation), as well as on the mind set of those in command. According to the contemporary regulations of targeting, lawful attacks against military objectives shall be limited to those targets which effectively contribute to a military action “or, at least, be about to do so,”⁸³ and whose destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite military advantage.⁸⁴ Speculative, indistinctive or potential advantages are ruled out by the definition. As Schmitt argues, the phrase “civilian object” can be interpreted “as including all components of the environment - land, air, flora, fauna, atmosphere, high seas, etc. - that do not present an advantage (such as cover) to a military operation.”⁸⁵

In order to ensure a high regard for the environment, the Parties to the armed conflict shall at all times distinguish between civilian objects and military objectives, and shall target only military objectives.⁸⁶ Indiscriminate attacks are prohibited by Article 51 (4) of Additional Protocol I, and even military objectives cannot be attacked if such attack “may be expected to cause incidental damage to civilian objects, which would be excessive in relation to the concrete and direct military advantage anticipated.”⁸⁷ Additional Protocol I holds further powerful constraints regarding targeting: according to Article 57, everything feasible shall be done by the planners and decision makers in order to verify that the objectives to be attacked are military objectives and that their attack is not prohibited by special protection and evade or at least minimise incidental damage to civilian objects; military commanders shall avoid launching any attacks which may be expected to cause collateral damage to civilian objects (including the natural environment) which would be excessive relative to the concrete and direct military advantage anticipated.⁸⁸ Parties shall take all necessary precautions to protect the natural environment against the adverse effects of military operations,⁸⁹ and if the attack is inescapable, whenever a choice is possible between more military objectives, on the basis of the available information, the objective expected to cause the least danger to the environment must be selected.⁹⁰

The Rome Statute also renders the extensive destruction of property not justified by military necessity and carried out unlawfully and wantonly, to be a war crime,⁹¹ alongside with the deliberate conduct of any attack against civilian objects⁹² and the intentional launching of any attack in the knowledge that it will cause widespread, long-term and severe damage to the environment – clearly excessive in relation to the concrete and direct overall military advantage anticipated.⁹³ According to the Cassese, the expression

⁸³ Marco Roscini, *Protection of the Natural Environment in Time of Armed Conflict*, unproofed version, 2009, p 16 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1351888 (25 August 2017).

⁸⁴ Art. 52 (2) of Additional Protocol I.

⁸⁵ Schmitt 2000, p. 97.

⁸⁶ Art. 48 of Additional Protocol I.

⁸⁷ *Ibid* Art. 51 (5) (b).

⁸⁸ *Ibid* Art. 57 (2) (a) (i)-(iii).

⁸⁹ *Ibid* Art. 58 (c).

⁹⁰ *Ibid* Art. 57 (3).

⁹¹ Art. 8 (2) (a) (iv).

⁹² Art. 8 (2) (b) (ii) “For the purpose of this Statute, ‘war crimes’ means: ... [O]ther serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts: ... [I]ntentionally directing attacks against civilian objects, that is, objects which are not military objectives...”

⁹³ Art. 8 (2) (b) (iv) “For the purpose of this Statute, ‘war crimes’ means: ... [O]ther serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts: ... [I]ntentionally launching an attack in the knowledge that such attack will cause incidental loss of life or

within the established framework of international law is “intended to convey the notion that for the authors of the Statute the various classes of war crimes specified in Article 8 (2) (b) and (e) are already part of the established framework of international law.”⁹⁴ This latter, already mentioned rule of proportionality (“clearly excessive”) sets an extremely high threshold of application requiring the decision maker to continuously balance military and humanitarian values when developing, validating and nominating targets. The responsibility of a reasonable military commander for decision-making extends to the anticipated (collateral) damage caused and to the implications of inflicting damage. According to Rogers, the responsibilities in attack include (1) the evaluation of the importance of targets and the urgency of situation, (2) the use of intelligence, (3) the choice of weapon, (4) the conditions affecting the accuracy of targeting, (5) the factors affecting incidental loss or damage and (6) the risk to which a commander’s own troops are exposed.⁹⁵ Nevertheless, the accuracy these factors can be weakened by human omission, flawed target intelligence, adverse weather conditions or technical defaults despite the technologic advance and research in order to improve the accuracy in targeting.

Apart from Additional Protocol I and the ICC Statute, other soft and hard law instruments chose to recognise and reaffirm the principles and rules of contemporary targeting, too (e.g. the already mentioned 1994 ICRC/UN GA Guidelines for Military Manuals and Instructions⁹⁶ the 1978 ICRC Fundamental Rules of the International Humanitarian Law Applicable in Armed Conflicts⁹⁷ or the 2002 US Joint Doctrine for Targeting). The Joint Doctrine gives a lot of consideration to those rules of armed conflict that impact targeting decisions (basic principles of law of the armed conflict, rules of engagement, general restrictions, precautions in attack, separation of military activities and environmental considerations). It acknowledges the potential of joint operations to adversely affect natural resources and recommends action to develop plans to prevent or mitigate these adverse effects.⁹⁸ It recognises that it is lawful to cause collateral damage to the natural environment during an attack on a legitimate military target, although the military commander in charge has an obligation to avoid needless harm to the environment “to the extent that it is practical to do so consistent with mission accomplishment.”⁹⁹ Any damage or destruction to the environment not necessitated by military necessity and carried out wantonly is prohibited,¹⁰⁰ but on the other hand, it is long accepted that unintentional collateral damage on the environment does not make an attack unlawful;¹⁰¹ therefore, environmental considerations shall be taken into account at all times (according to Article 35 (3) even against human considerations).

Military objectives, national security and interests have long been balanced against law, ethics and eventually against environmental protection by the decision makers and it is difficult to change human behaviour when it comes to execution in an armed conflict. One way to turn military commanders towards more thorough environmental considerations is making liability and responsibility for breaching

injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated...”

⁹⁴ Antonio Cassese, *The Statute of the International Criminal Court: Some Preliminary Reflections*, *European Journal of International Law*, Vol. 10, 1999, p. 152.

⁹⁵ A. P. V. Rogers: *Zero-casualty warfare*, *International Review of the Red Cross*, No. 837, 2000, pp. 165-181.

⁹⁶ The instrument reconfirms the application of the principle of distinction (II/4), the principle of proportionality (II/4), the Martens Clause (II/7) and the general prohibition of destroying civilian objects (III/9).

⁹⁷ The Fundamental Rules restates that attacks shall be directed solely against military objectives (7).

⁹⁸ Joint Doctrine 2002, A-5, Appendix A.

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ See, generally Thilo Marauhn, *Environmental Damage in Times of Armed Conflict – Not „Really” a Matter of Criminal Responsibility?*, *International Review of the Red Cross*, No. 840, 2000, pp. 1029-1036.

the regulations inescapable and setting compensation for the destruction cause so high that it would turn any environmental degradation/damage a costly mistake for the parties to the conflict.

2.4. The ICRC's Customary Rules Study

International Humanitarian Law went through an immense development in the twentieth century. Notwithstanding the progress (e.g. Geneva Conventions or Additional Protocols), the rules of Customary International Humanitarian Law (CIHL) developed by the ICRC should not be overlooked as they not only facilitate the interpretation of the applicable law, but also guide drafters and policy makers in the course of legislation and application of law. They are the legal and moral foundations of IHL, universal values to which military conduct is measured. The 26th International Conference of the Red Cross had mandated the ICRC to prepare a report on the customary rules of IHL. As a result of the work, a comprehensive study had been completed and published in 2005 (Customary International Humanitarian Law Volume I Rules).¹⁰² Part II of the study deals with specifically protected persons and objects and three rules within Chapter 14 concern environmental protection during armed conflicts.

“Rule 43. The general principles on the conduct of hostilities apply to the natural environment:

A. No part of the natural environment may be attacked, unless it is a military objective.

B. Destruction of any part of the natural environment is prohibited, unless required by imperative military necessity.

C. Launching an attack against a military objective which may be expected to cause incidental damage to the environment which would be excessive in relation to the concrete and direct military advantage anticipated is prohibited.”

Rule 43 clearly reflects the principle of distinction (between military and civilian objects) and the requirement of military necessity as well as the principle of proportionality, i.e. according to the drafters, the general principles of IHL are applicable in case of protecting the environmental (as a civilian object). The protection accorded by Rule 43 A is not absolute however, as it logically follows from its wording that natural environment may be subject of attack if it is to be considered as a military objective.¹⁰³ It seems therefore that ICRC chose to insert a rule that leaves it to the military commander (or personnel) to regard environment as a military object in case it contributes to the adverse party's military efforts and certain military advantage can be obtained from its destruction, and by this deciding not to afford protection to the environment by virtue of its inherent values, only as a civilian object. However, the protection accorded to the environment as a civilian object can be stripped rather easily. Rule 43 B offers an equally relative protection when it gives green light to environment destruction in case of imperative military necessity. Although “imperative military necessity” seems to imply extreme cases of necessity, the term “imperative” is still rather intangible. Rule 43 C is similarly permissive, prohibiting only incidental damage to the environment (excessive in relation to the military advantage) but it enables not excessive incidental damage as a result of an attack. Again, balancing between excessive and not excessive is subject to human judgment and decision. This author is of the opinion that the application of general principles (distinction, military necessity, and proportionality) similarly to any other civilian object, afford the natural environment merely a relative protection.

¹⁰² Jean-Marie Henckaerts & Louise Doswald-Beck, Customary International Humanitarian Law Volume I: Rules, Cambridge University Press, Cambridge 2009 <https://www.icrc.org/eng/assets/files/other/customary-international-humanitarian-law-i-icrc-eng.pdf> (26 August 2017).

¹⁰³ According to Art. 52 (2) of Additional Protocol I, these include objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction offers a definite military advantage.

“Rule 44. Methods and means of warfare must be employed with due regard to the protection and preservation of the natural environment. In the conduct of military operations, all feasible precautions must be taken to avoid, and in any event to minimise, incidental damage to the environment. Lack of scientific certainty as to the effects on the environment of certain military operations does not absolve a party to the conflict from taking such precautions.”

The focus of Rule 44 is on the possible prevention of environmental damage and the necessity of precaution. Some contemporary writers suggest precaution to be considered as an emerging principle as opposed to those who regard it as already existing one.¹⁰⁴ Normally, the requirement of precaution as understood under IHL is not to be mixed with the precautionary principle as applied by International Environmental Law. Under IHL, (feasible) precaution requires measures to avoid damage to civilian objects (including the environment), while the rather ill-defined precautionary principle as understood by IEL in most interpretations means a requirement to prevent harm to the environment even if no compelling scientific evidence exists regarding the effect of certain actions. According to Gardiner,¹⁰⁵ the principle has three important components: “threat of harm, uncertainty of impact and causality, precautionary response”. Unlike the IHL principle, the precautionary principle as understood by IEL stands closer to protecting the environment as such rather than understanding environment as a mere civilian object as is under IHL. Rule 44 seems to wash together (or at least bring closer) the two notions, which in Bothe’s opinion “amounts to a revolution.”¹⁰⁶ According to the study, there is a practice that supports that “this environmental principle applies to armed conflict.”¹⁰⁷ The ICRC experts cite the *Nuclear Tests* case¹⁰⁸ and the *Nuclear Weapons* Advisory Opinion to support the above statement, yet, this author believes that the difference between the notions shall not be blurred, rather, the right approach would be to recognize the substantive overlap and apply the principle of IEL in armed conflict in as much as it is consistent with the applicable law of armed conflict. This means that the precautionary principle under IEL shall conform to and strengthen the applicable rules of IHL.¹⁰⁹

“Rule 45. The use of methods or means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon.”

Rule 45 is the reiteration of Article 35 (3) and 55 (1) of Additional Protocol I. As the drafters of the study highlight it, now there is sufficient state practice to support that this prohibition obtained customary nature.¹¹⁰ Unlike the rather lightweight protection offered by Rule 43, Rule 45 provides a robust, absolute prohibition with no opportunity to derogate. Rule 45 contains a clear and specific prohibition compared to the rather weak formulation of Rule 43 but it also raises certain concerns. Under certain degree of damage the principles of distinction, military necessity and proportionality may also

¹⁰⁴ Gary D. Solis, *The Law of Armed Conflict: International Humanitarian Law in War*, 2nd edn., Cambridge University Press, Cambridge 2016, p. 308.

¹⁰⁵ Stephen M. Gardiner, *A Core Precautionary Principle*, *The Journal of Political Philosophy*, Vol. 14, No. 1, 2006, p. 36.

¹⁰⁶ Michael Bothe & Carl Bruch & Jordan Diamond & 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. 575.

¹⁰⁷ Henckaerts & Doswald-Beck 2009, p. 150.

¹⁰⁸ Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the *Nuclear Tests (New Zealand v France)* case, Order [1995] ICJ Rep 288.

¹⁰⁹ Including the following provisions of Additional Protocol I: Basic Rules in Methods and Means of Warfare (Article 35), New Weapons (Article 36), Basic Rules in General Protection Against Effects of Hostilities (Article 48), Protection of civilian population (Article 51), General protection of civilian objects (Article 52), Protection of objects indispensable to the survival of the civilian population (Article 54), Protection of the natural environment (Article 55), Protection of works and installations containing dangerous forces (Article 56), Precautions in attack (Article 57), Precautions against the effects of attacks (Article 58).

¹¹⁰ Henckaerts & Doswald-Beck 2009, p. 152.

be taken into account, but over the incredibly high (impractical and almost unfulfillable) threshold set by the cumulative criteria (widespread, long-term and severe damage) no such loophole (gap) is offered.

The second part of Rule 45 deals with the destruction of environment used as a weapon. The rule resonates to the protection offered by the ENMOD Convention¹¹¹ but its phrasing is more general; instead of deliberate environmental modification techniques, it refers to the use of environment destruction as a weapon. It does not include any requirement as to the possible effects, but it is rather a benefit than a disadvantage, as the categorical prohibition in the rule is not weakened by further criteria.¹¹²

3. United Nations Work Program

In 2013, the International Law Commission (ILC) resolved to add the subject of environment protection in relation to armed conflicts to its work programme.¹¹³ The first concerning report¹¹⁴ provided an overview of the environmental values and principles applicable in peacetime. The second report identified the existing principles and rules of armed conflict relevant to environment protection.¹¹⁵ The third report ascertained the rules that are relevant to post-conflict situations.¹¹⁶

The ILC second report was adopted with the aim of identifying the existing rules of armed conflict directly relevant to environmental protection. When enumerating the principles applicable to armed conflict, the report reflects an important development: apart from the usual reference to the principle of distinction, proportionality and military necessity, it also mentions the precaution in attack as one of the “most fundamental principles of the law of armed conflict.”¹¹⁷ Annex I of the Report proposed draft principles in order to enhance environment protection and minimize collateral damage to the environment during conflicts. The principles reconfirm the application of fundamental principles of IHL (Principle 2). It is also expressed that the natural environment is of civilian nature and may not be object of an attack (Principle 1). Environmental considerations shall be taken into account when assessing what is necessary and proportionate in pursuing lawful military objectives (Principle 3). Attack against the natural environment by way of reprisal is also prohibited (Principle 4). Finally, the Commission suggest for states to designate areas of major ecological importance as demilitarized zones at least at the outset of an armed conflict (Principle 5).

4. Nato Activities

Let us now turn our attention briefly to how the already mentioned customary principles have been translated into the language of North Atlantic Treaty Organization (NATO) documents regulating

¹¹¹ 1976 Convention on the prohibition of military or any hostile use of environmental modification techniques.

¹¹² Art. I (1) of the ENMOD Convention established a much lower and realistic threshold, according to which “each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, longlasting or severe effects as the means of destruction, damage or injury to any other State Party.”

¹¹³ Summaries of the Work of the International Law Commission, 25 August 2017
http://legal.un.org/ilc/summaries/8_7.shtml.

¹¹⁴ A/CN.4/674 ILC Preliminary report on the protection of the environment in relation to armed conflicts, 30 May 2014.

¹¹⁵ A/CN.4/685 ILC Second report on the protection of environment in relation to armed conflicts, 28 May 2015.

¹¹⁶ A/CN.4/700 ILC Third report on the protection of environment in relation to armed conflicts, 3 June 2016.

¹¹⁷ Second report 2015, p. 47.

activities that may have consequences to the natural environment. This can provide a useful example of how these principles work in the hands of nations, military authorities, and commanders.

Whether carrying out a specific mission or a military training, during implementation NATO and the troop contributing nations share a common responsibility with regards to environment protection, i.e. both NATO and its member states should attempt at eliminating or at least reduction the harmful effects of military activities on the natural environment. In order to protect the environment, NATO developed a number of standards and doctrines. According to Kustrová,¹¹⁸ environment protection in NATO serves enhanced force protection, supports operations and saves money (*e.g.* on remediation or litigation).

In the net of NATO working groups contributing to the development of environmental policies and guidelines, the Environmental Protection Working Group (EPWG) plays the most important role. By the development standardization documents, guidelines and best practices, in the implementation of operation, it focuses on lessening the possible detrimental effects of military activities on the natural environment. The EPWG operates under the Military Committee Joint Standardization Board that reports to the Military Committee, which in turn reports to the North Atlantic Council (NAC).

The Military Committee's MC 469 NATO Military Principles and Policies for Environmental Protection document of 30 June 2003 requires military commanders to respect certain environmental principles during NATO-led activities. The document was updated (MC 469/1) in 2011¹¹⁹ with the aim of facilitating the integration of environmental protection into NATO-led military activities consistently with operational imperatives. The updated document details the responsibilities of military commanders regarding environmental protection during the execution of military activities and acknowledges that harmonization of environmental principles and policies is needed for all NATO-led military activities. In order to reduce the impact on the natural environment, NATO commanders are to apply "best practicable and feasible environmental protection measures."¹²⁰ The document provides a dynamic protection by continuous situational awareness, coordination, information exchange and mission development. According to the document, military commanders shall respect inter alia the following principles during NATO-led activities:¹²¹

- Host Nation law: application of Host Nation law (in case there is no concerning Host Nation environmental law, theatre agreed environmental law protection standards apply)
- Responsibility: NATO and sending states" collective responsibility to protect the environment with each nation ultimately responsible for the actions of its own forces
- Authority: NATO commanders to establish mandatory environmental protection procedures
- Coordination between NATO military authorities, host nations and sending nation regarding environment protection
- Information Exchange between NATO military authorities, host nations and sending nations regarding environmental protection procedures, standards, concerns and agreements

¹¹⁸ Milota Kustrová, *The Legislative Background of Environmental Security During Military Activities and Armed Conflicts*, *Hadměrnök*, Vol. 9, No. 4, 2014, p. 117.

¹¹⁹ www.nato.int/cps/en/natohq/topics_91048.htm (25 August 2017).

¹²⁰ *Ibid.*

¹²¹ NATO LEGAL DESKBOOK, 2nd edn., 2010, pp. 313-314 <https://publicintelligence.net/nato-legal-deskbook/> (25 August 2017).

- Transparency: informing host nation and the public of environmental damage and environmental protection measures
- Mission Development: as missions develop, regularly reviewing and updating environmental protection procedures and standards
- Environmental Expertise: NATO commanders' access to environmental protection expert advice and support

The adoption of MC 469 was followed by and complemented with a number NATO Standardization Agreements (STANAG) and Allied Joint Environmental Protection Publications (AJEPP) dealing with the same subject. These include but are not limited to the following documents which aim at specifying the principles set by MC 469:

- STANAG 2581 Environmental Protection Standards and Norms for Military Compounds in NATO Operations (AJEPP-1)
- STANAG 2582 Environmental Protection Best Practices and Standards for Military Camps in NATO-led Military Activities (AJEPP-2)
- STANAG 2583 Environmental Management System in NATO Operations (AJEPP-3)
- STANAG 7141 Joint NATO Doctrine for Environmental Protection during NATO-led Military Activities (AJEPP-4)

STANAG 7141¹²² allows NATO “to operate effectively and efficiently together with partner nations as well as non-NATO nations on environmental protection functions during NATO led military activities.”¹²³ NATO commanders have to be aware how NATO-led military activities affect the environment in order to be able to take all reasonably achievable measures to protect the environment.¹²⁴ The STANAG also provides environmental planning guidelines for military activities in order to effectively integrate environmental considerations into military activities (e.g. identifying operational activities with a potential impact on the environment, feasible mitigation measures, pollution prevention or operational limits imposed by applicable environmental regulations).¹²⁵ In order to balance environmental protection with mission objectives, determining the elements of environmental risk management framework is of key importance. These elements include the Commander's guidance on environment protection, developing an environmental plan as part of the operations plan, assigning responsibilities and resources for environmental protection, periodic checking and taking corrective actions, and reporting the lessons learnt after action review.¹²⁶

5. Conclusions and Future Prospects

What sort of conclusions and future prospects can be drawn from this short overview of shortcomings and challenges? Apparently, the importance of environment protection in peacetime and during armed

¹²² NATO Standardization Agency (NSA) STANAG 7141, Joint NATO Doctrine for Environmental protection during NATO-led Military Activities, Edition 6, 15 May 2014, NSA(JOINT)0603(2014)EP/7141 (AJEPP-4) nso.nato.int/nso/zPublic/ap/AJEPP-4%20EDA%20V1%20E.pdf (25 August 2017).

¹²³ STANAG 7141 2014, p. 1.

¹²⁴ *Ibid* p 1-1.

¹²⁵ *Ibid* p 2-1.

¹²⁶ *Ibid* p 3-1 and 3-2.

conflicts becomes even more visible once looked at through the standards conveyed not only by International Humanitarian Law, but also by the generally accepted Human Rights. Among others, the Universal Declaration of Human Rights of 10 December 1948 adopted by the United Nations General Assembly confirms everyone's right to life (Article 3) and to "a standard of living adequate for the health and well-being of himself and of his family..." (Article 25). But are these relevant human rights (including the right to a healthy environment) really respected in practice? Not quite so, as observed through the example of the military operations conducted by NATO air forces in Yugoslavia between March and June 1999, where studies and reports agreed that the operations "will have a lasting impact on the health and quality of life of the populations,"¹²⁷ seeing that ecosystems, water reserves, air, soil and vegetation were severely contaminated during the operations. According to the report of the Committee on the Environment, Regional Planning and Local Authorities, as a result of extensive bombings and air strikes, a dangerous level of toxins and contaminants (such as nitrogen-oxide, ammonium perchlorate, sulphur or mercury to name a few) remained compromising directly flora, fauna and human health. By means of the NATO warfare, farming, livestock-breeding and fishing were affected, and this large-scale environment destruction eventually resulted in diminishing biodiversity, disrupted reproduction and migration. If not a deliberate disregard of Articles 55,¹²⁸ 56¹²⁹ and 58¹³⁰ of Additional Protocol I, it certainly was at least *magna negligentia* on the side of NATO forces (decision makers) to disobey the relevant regulations of Additional Protocol I, which should have made a strong basis for NATO's responsibility and liability. In only a 78-day air campaign it became obvious and undeniable that the existing legal regime to prevent environment destruction is vague and inadequate, and therefore offers only an ostensible protection for the natural environment.

Though many scholars (including Postiglione¹³¹ and Falk¹³²) support the idea of a new draft convention with regards to environment protection in times of armed conflict, the intention of ecocide being the fifth international crime against peace before the ICC is premature; what shall be done instead is a wider and more persuasive dissemination of the environment-related standards of the present IHL regime, a more convincing promotion of accession (especially to Additional Protocol I) for those states that have not done it yet and the improvement of state practice – with the aim of intensifying the desire of states to comply, as well as making deviation costly and regrettable. The "new convention approach" is intertwined and competing with Polly Higgins' proposal on ecocide to be considered as the "extensive destruction, damage to or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent, that peaceful enjoyment by the inhabitants of that territory has been severely diminished."¹³³

¹²⁷ Parliamentary Assembly, Council of Europe: Doc 8925 of 10 January 2001 on the Environmental Impact of the War in Yugoslavia on South-East Europe (Report of the Committee on the Environment, Regional Planning and Local Authorities), p. 1.,

<http://www.assembly.coe.int/nw/xml/XRef/X2H-Xref-ViewHTML.asp?FileID=9143&lang=EN> (25 August 2017).

¹²⁸ Protection of the natural environment.

¹²⁹ Protection of works and installations containing dangerous forces.

¹³⁰ Precautions against the effects of attacks.

¹³¹ Amedeo Postiglione, A More Efficient International Law on the Environment and Setting Up an International Court for the Environment Within the United Nations, *Environmental Law*, Vol. 20, 1990, pp. 321-328.

¹³² Richard Falk, The Inadequacy of the Existing Legal Approach to Environmental Protection in Wartime, in J.E. Austin & C. E. Bruch (Eds.), *The Environmental Consequences of War, Legal, Economic and Scientific Perspectives*, Cambridge University Press, Cambridge, 2000, pp. 137-155.

¹³³ Juliette Jowit, British Campaigner urges UN to accept „ecocide” as international crime, *The Guardian*, 9 April 2010 <https://www.theguardian.com/environment/2010/apr/09/ecocide-crime-genocide-un-environmental-damage> (25 August 2017).

But let me return to the NATO air campaign again and underpin the mentioned insufficiency of existing provisions by one of the main findings of the Regional Environmental Center for Central and Eastern Europe prepared for the European Commission on the environmental impacts of the military activities during the Yugoslavia conflict, according to which, “ ... [t]here is no evidence of a large-scale ecological catastrophe, but pollution is very severe in the vicinity of targeted industrial complexes, such as Pancevo, Prahovo or Novi Sad, and many valuable ecosystems were disturbed.”¹³⁴ The question arises, if the environmental consequences of the NATO air campaign in 1999 or the Gulf War (1990-91) do not qualify because of the extremely high threshold of Additional Protocol I, then what does? What sort of unimaginable conflict and environmental catastrophe do we need to change our attitude and persuade decision makers to lower (or reconsider) the present standards? The solutions may include the change of state practice or a Fifth Geneva Convention on environment protection in armed conflicts.¹³⁵

Luckily, IHL is open to the influence of legal principles of other fields of International Law. Through the principle of humanity or the Martens Clause, green rights and considerations can enter the domain of IHL and inspire both law-making and practice.

Apart from the moral unease, the inevitability of punishment and improvement of implementation, further attention shall be paid to those bearing the long-term environmental consequences of warfare, namely members of yet unborn generations. Environmental development is one of the three pillars of sustainable development, which is according to the landmark statement of the 1987 Brundtland Report,¹³⁶ a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Reducing the risk of the natural environment being destroyed and degraded by human impact during armed conflict calls for an improved recognition and respect for the needs and wants of future generations - implying positive social, economic and political changes.

I believe we can all agree with Pachouri, who emphasised in his Nobel lecture given in 2007 that “... [n]ext to reasonable politics, learning is in our world the true credible alternative to force.”¹³⁷ Learning from our mistakes and doing our utmost in order to avoid environmental catastrophes is indeed in our and the future generations’ best interest. According to the Sanskrit phrase of Vasudhaiva Kutumbakam, “the whole universe is but one family”, and this short statement genuinely expresses and promotes nonviolent conflict resolution and peaceful coexistence between humans and every other organism on the planet. We should start seeing the appearance and continuous existence of environmental concerns in legal regimes, on political agendas and news headlines as a final wakeup call and attempt to prevent, mitigate and reverse the harm we have done to the environment in less than a second of the history of Earth.

¹³⁴ Regional Environmental Center for Central and Eastern Europe: Assessment of the Environmental Impact of Military Activities during the Yugoslavia Conflict, Prepared for the European Commission DG-XI Environment, Nuclear Safety and Civil Protection, Preliminary Findings, 1999, p. 1 <http://www.reliefweb.int/library/documents/unepbalk1.html> (25 August 2017).

¹³⁵ Károly Vég, International environmental legal approaches of the Yugoslavian wars 1991-1999, “And who will desalt Carthage’s grounds?” Debreceni Jogi Műhely, Vol. 2, 1 April 2005 http://www.debrecenijogimuhely.hu/archivum/1_2005/ki_sotalanitja_karthago_foldjeit/ (21 September 2017).

¹³⁶ World Commission on Environment and Development: Our Common Future, 4 August 1987 <http://www.un-documents.net/our-common-future.pdf> (25 August 2017).

¹³⁷ R. K. Pachauri (Chairman of the Intergovernmental Panel on Climate Change and Nobel Peace Prize winner in 2007), Nobel lecture, Oslo, 10 December 2007. https://www.nobelprize.org/nobel_prizes/peace/laureates/2007/ipcc-lecture_en.html (25 August 2017).