Protection of the Environment

In Times of Armed Conflict under International Law

-LL.M. in Natural Resources Law and International Environmental Law -

Adrian Jacob Loets, LL.B.

Faculty of Law
School of Social Sciences
Supervisor: Dr. Aðalheiður Jóhannsdóttir
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HÁSKÓLI ÍSLANDS

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A. Introduction

Henri Dunant was 31 years old when on a business trip to Italy, he happened to witness the clash of the French and the Austrian armies in the Battle of Solferino on 24 June 1859. The young man had grown up in peaceful Switzerland in a wealthy bourgeois family and was a faithful protestant. He was therefore shocked and appalled at what he saw during the three days of bloodshed.

> When the sun came up on the twenty-fifth, it disclosed the most dreadful sights imaginable. Bodies of men and horses covered the battlefield; corpses were strewn over roads, ditches, ravines, thickets and fields; the approaches of Solferino were literally thick with dead. The fields were devastated, wheat and corn lying flat on the ground, fences broken, orchards ruined; here and there were pools of blood.[1]

The cruelty of war and the indifference of the participants to the suffering of the opponent side deeply touched Dunant. He tells the story of a wounded Austrian frantically beating with his rifle butt at a French soldier who was trying to give him water. The Austrian feared the man was going to take reprisal on him and could not believe in an act of charity.[2] To Dunant, this scene symbolized the lack of humanity on the battlefield. Immediately after the dust had settled, Dunant set out the help the wounded and volunteered in military hospitals. Only four years later, in 1863, he laid the founding stone of the International Committee of the Red Cross (ICRC) in Geneva. By 1864, the first Geneva Convention had been adopted and in 1907, the Hague Convention respecting the Laws and Customs of War on Land (Hague Convention IV) was adopted, representing the first comprehensive set of rules aimed at mitigating the human suffering caused by armed conflict.[3]

Dunant had touched a nerve. For centuries, war had been glorified. Courage in the field was considered a sign of manhood and death in battle the highest honour attainable for a soldier. The human suffering on the other hand was accepted as a necessary evil. By the end of the 19th century, the public was far from condemning war as such, but the public attitude had changed. If war was inevitable, at least it should be civilized, respecting basic values of humanity. Reprisals on wounded or execution of war prisoners were banned and the ICRC awarded protection to conduct its work. Based on the Geneva and the Hague Conventions, the protection of civilians as well as combatants during armed conflict, was strengthened in the subsequent decades. In 1949, the four Geneva Conventions in their present version were drawn up and in 1977, following the Vietnam War, two

[1] Henri Dunant, *A Memory of Solferino* (International Committee of the Red Cross, Geneva, 1986), p. 11.

[2] *Ibid*, p. 13.

[3] Leslie C. Green, *The Contemporary Law of Armed Conflict* (2nd edition, Manchester University Press, Manchester, 2000), pp. 31-33.

Additional Protocols annexed to them.[4] All these instruments now form a comprehensive set of international legal rules known as the "law of war" or "international humanitarian law" and many of the rules are considered to have attained customary international law status, if not even the non-derogable status of *ius cogens*.

If the late 19th century experienced an awakening of public conscience for humanitarian considerations, our present time is no doubt in the process of discovering the destructive impacts of human activity on the environment. The 1972 Stockholm Declaration is now commonly considered the starting point of a new discipline of international law, frequently referred to as "international environmental law" (IEL). Today, issues like climate change, resource depletion and dramatic loss of biological diversity are matters of pressing international concern and have produced numerous international instruments, as well as case law by international courts. But while the impacts of economic activity on the environment seem quite present in the public consciousness, the destruction of the natural environment during armed conflict has so far failed to produce comparable public concern and outrage. This should not lead to the conclusion that fighting only had a minor impact on the environment. Although there is a lack of comprehensive, long-term and reliable research on the issue, it is clear that modern weaponry, as well as the movement of troops cause severe harm at least in the short and medium term.[5]

Only a handful of incidents of environmental destruction during armed conflict have created significant attention. The chemical defoliation of large parts of the Vietnamese jungle during the Vietnam War resulted in the adoption of the so-called ENMOD Convention in 1977. The debate resurfaced only 14 years later with the intentional burning of Kuwaiti oil fields and the discharge of large quantities of oil into the Persian Gulf by Iraqi troops during the 1991 first Gulf War. In 1999, Yugoslavia took the NATO States, who had participated in the air strikes during the Kosovo war, to the International Court of Justice (ICJ), *inter alia* because of the environmental damage inflicted by attacks on chemical plants and oil refineries.[6] However, these incidents of massive degradation taken aside, the day-to-day destruction of nature during numerous armed conflicts worldwide pass largely by unnoticed. According to data from the University of Uppsala, there were 21 internal armed conflicts and 9 conflicts involving at least one outside State party in 2010.[7] The recent NATO intervention in Libya was justified with human rights violations of the Qadhafi regime and

[4] *Ibid*, pp. 43-45, 50-52.

[5] The impacts of war on the environment are discussed in the following Chapter B.

[6] ICJ, *Legality of the Use of Force (Yugoslavia v. United States of America)*, Application Instituting Proceedings filed by Yugoslavia on 29 April 1999, ICJ General List 1999, No. 114. Identical applications were filed against Belgium, Canada, France, Germany, Italy, the Netherlands, Portugal, Spain and the United Kingdom.

[7] Lotta Themnér and Peter Wallensteen, *Armed Conflict 1946-2010*, Journal of Peace Research (2011) Vol. 48(4).

towards the end of the fighting, attention was also paid to alleged human rights violations of the insurgents. However, neither there, nor in any of the other cases have the environmental consequences of the fighting on the environment been at the heart of the debate or resulted in of investigations.

It is thus not surprising that the international law relating to the environment during armed conflict remains fragmented and ineffective. The objective of this thesis is to provide an analysis of the most important rules of international law protecting the environment during times of armed conflict and to reveal the gaps and shortcomings in want of improvement. The question pursued in the following investigation could be summed up as follows: which are the obligations that limit the States' freedom of action for the benefit of the environment during internal as well as international armed conflict?

To set the scene, the first chapter presents the scientific evidence of war-related environmental damage and highlights the methodological difficulties in coming to reliable conclusions. In this context, the proposition will also be debated that peacetime economic activity might be more destructive than warfare and that its interruption through armed conflict might in fact improve the overall situation of the environment.

Chapter C then proceeds with an examination of the law of war provisions with an environmental relevance. As has already been hinted, the focus of the law of war lies on humanitarian rules and there are only a few provisions, which directly protect the environment for its own sake from war-inflicted damage. Therefore, the investigation will also take into account provisions defending other interests, but potentially protecting nature indirectly, for example by safeguarding opponent property. Finally, it will be examined how gaps within the substantive law of war could be filled from within, notably through the interpretation of the Martens Clause and the general principles of humanitarian law.

Having thus exhausted the rules of law specifically designed to govern warfare, the investigation will then proceed by examining, how other rules of international law could be used to extend the scope of conservation obligations. Chapter D attempts to identify human rights which include notions of environmental preservation and how these could be employed to foster the interests of the environment during armed conflict. As this thesis focuses on the present legal situation, it will primarily be asked, how existing, well-established human rights could be violated through war-related environmental degradation. Nevertheless, it will also briefly be discussed whether a generic environmental human right or "right to a healthy environment" exists. All these rights could improve the lot of nature during armed conflict by opening up a procedural avenue to bring cases of war-related degradation to a judicial review.

Next to human rights law, international criminal law (ICL) is one of the few bodies of international law with vertical effect, allowing for direct enforcement of its rules on individuals and making it particularly effective. Chapter E will therefore study the conditions under which causing environmental damage in armed conflict can represent a war crime or another international crime. As ICL is built on human rights and humanitarian law violations, this young and dynamic field of law represents a cross-section of the international law studied until this point and reflects the most modern developments of that field.

In the sixth Chapter F, finally, the thesis will adopt the perspective of international environmental law (IEL). Since IEL represents classic "peacetime" law, the question arises whether its rules continue to apply even during a state of hostilities or whether they should be suspended or abrogated in favour of the "more specialized" law of war. This classic controversy of public international law necessitates a two-step approach: first of all, it will be examined what contribution IEL could hypothetically make to regulate war-related damage. Against this background, the second step will tackle the question of applicability. In this context, the investigation will take on a different angle. Whereas the previous chapters will have focussed exclusively on the rules pertaining to the protection of the environment from directly war-related damage, the scope of IEL mostly covers economic and other non-war-specific activity. For this reason, a suspension of IEL has the potential of extending the adverse effects of armed conflict on the environment far beyond the immediate destruction of nature through military operations. The consequence would be *additional* damage to the military environmental toll of the conflict, inflicted by reckless and unrestricted war-geared economy. Given the previously hinted suggestion that economic activity may be more destructive than war, this is a disturbing thought. It follows from this that IEL may be one of the most important fields when it comes to preserving the environment during times of armed conflict. In addition, the debate about the continuation of treaties during armed conflict is of the highest topicality, as the International Law Commission (ILC) has just recently, in October 2011, presented its final set of Draft Articles on the effects of armed conflicts on treaties. These will accordingly form the framework for the deliberation of the theoretical and practical approaches to the issue.

The final Chapter G will then sum-up the results of the investigation. Before turning to the perils of warfare to the environment, it should be briefly mentioned what this thesis – for reasons of space – does not cover. It first of all does not discuss the idea of "environmental security" which concerns the pre-conflict phase, mostly centring around the question, to what extent environmental dangers can pose a threat to "international peace and security", thus enabling the United Nations

(UN) Security Council to intervene under Chapter VII of the UN Charter.[8] Likewise, no mention will be made of the environmental hazards posed in the post-conflict period by the challenge to disarm dangerous weapons in an environmentally sound manner.[9] Thirdly, the special debate about the protection of natural resources, for instance from plundering through occupying forces or reckless overexploitation by the war-leading government itself, cannot be considered.[10] The question of State liability for eventual breaches of environmental obligations during armed conflict must, finally, also be excluded.[11]

B. Environmental hazards associated with armed conflict

It is evident that the effects of armed conflict are not only felt by the combatants themselves but, necessarily, also affect the environment in which the hostilities take place. Principle 24 of the Rio Declaration 1992 reflects the apposition between war and conservation by stating:

> Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

With the advent of more and more technologized methods of warfare at the beginning of the last century, the destructive effects on nature reached a new quality. These were first apparent in World War I. By the end of the conflict, large parts of France had been transformed into lifeless deserts of rubble. A good deal of Cambodian territory is still full of landmines planted by the Khmer Rouge regime, which do not only threaten humans but also wildlife. Nowadays, artillery shells, cluster bombs and large tank formations also leave their marks on the environment. Given the obvious destruction caused by warfare, one might ask why there would be a need to take a closer look at these effects. Is it really worth discussing that for instance air strikes can damage ecosystems and harm wildlife? Indeed, the short-term damage seems quite palpable. On the other hand, some ecosystems have proven surprisingly resilient in the long-term. But does the possibility of a later

[8] Refer for instance to Alexandra Knight, *Global Environmental Threats: Can the Security Council Protect Our Earth?*, New York University Law Review (2005), Vol. 80, p. 1549; or, more specifically on the issue of climate change: Francesco Sindico, *Climate Change: A Security (Council) Issue?*, Carbon and Climate Law Review (2007), p. 29.

[9] See for instance: Ulrich Beyerlin and Thilo Marauhn, *Abrüstung und Umweltschutz – eine völkerrechtliche Interessenkollision? / Disarmament and Environmental Protection – Conflicting Interests in Public International Law?*, (Bochumer Schriften zur Friedenssicherung und zum Humanitären Völkerrecht, Bochum, 1994).

[10] A good introduction: Phoebe N. Okowa, *Natural Resources in Situations of Armed Conflict: Is there a Coherent Framework for Protection?*, International Community Law Review (2007), Vol. 9, p. 237.

[11] See Jean-Marie Henckaerts, *International Legal Mechanisms for Determining Liability for Environmental Damage under International Humanitarian Law*, in: Jay E. Austin and Carl E. Bruch, *The Environmental Consequences of War – Legal, Economic and Scientific Perspectives* (Cambridge University Press, Cambridge, 2000), p. 602.

recovery contradict the assumption of damage in the present? These and other methodological questions will be dealt with in the first subsection. In this context, the most pertinent methodological problems will be introduced and, although the issues obviously cannot be answered exhaustively, references will be provided to further, more specific literature. The second subsection will then proceed to illustrate some of the possible environmental damage caused by armed conflict at the example of a few cases.

I. Methodological difficulties of assessing damage

The first problem of properly assessing environmental damage, as already indicated, relates to the time frame of evaluation. If damage is defined as the not only temporary degradation of the environment caused by the military operations, the crucial question would be to determine the time horizon within which the recovery of the ecosystem compensates the initial, short-term destruction. The duration of the damage represents, as will be shown in the next chapter, a crucial criterion whether it falls under certain prohibitions under the law of armed conflict.[12] As it were, several post-conflict environmental assessments indicate that nature can sometimes recover impressively quickly. The oil spill following Iraq's invasion of Kuwait in 1991 led to 6-8 million barrels of oil entering the Persian Gulf. Nonetheless, fish stocks regained their pre-war level by 1994 and a great deal of the oil had already decomposed or been evaporated.[13] There is accordingly a need to add a temporal element to the definition of damage in order to take into account nature's capacity for regeneration.[14] Finding a generally applicable time frame founded on scientific criteria instead of arbitrary fixation is a difficult task. An analysis looking merely at the immediate after-effects risks elevating short-time disturbances to the level of damage. It might also ignore the fact that the displacement of one species might mark the advent of another one in a specific ecosystem.[15] On the other hand, with time almost any scar will heal and an overly long-term perspective would trivialize the devastation nature has suffered in the meantime. Consequently, depending on what classification is used, the picture might look very different.[16] Brauer has proposed a system for a sliding damage scale. He suggests a scale ranging from "environmental differences" (no damage to

[12] These provisions require inter alia "long-lasting" damage to the environment, see below C.III.1.a) and C.IV.

[13] Jürgen Brauer, *War and Nature – The Environmental Consequences of War in a Globalized World* (Rowman & Littlefield Publishers, Plymouth, 2009), p. 96.

[14] Ines Peterson, *The Natural Environment in Times of Armed Conflict: A Concern for International War Crimes Law?*, Leiden Journal of International Law (2009), Vol. 22, p. 325 (p. 335).

[15] In the context of interpreting the requirements of the Rome Statute: Tara Weinstein, *Prosecuting Attacks that Destroy the Environment: Environmental Crimes or Humanitarian Atrocities*, Georgetown International Environmental Law Review (2004-2005), Vol. 17, p. 697 (p. 708).

[16] Brauer, *supra note* 13, p. 24. The present paper does, however, not adopt this terminology and uses the terms degradation, depletion, disruption, disturbance and destruction interchangeably without implying a certain degree of intensity.

the environment) to "disruption" (various graduations of damage), "disturbance" (transitory damage), "degradation" (only partial recovery of the ecosystem but it will emerge again in comparable richness), and "depletion" (an ecosystem of comparable richness will not emerge again), to finally "destruction" (complete devastation) of the ecosystem. These differentiations are based on the individual ecosystem and to what extent it will be able to rebuild itself. The specific time frames would then have to be determined on a case-to-case basis.

Secondly, it would also have to be determined what is meant by regeneration in comparable richness. Could an ecosystem be said to have "recovered" if one species is permanently eliminated but has made space for a new species which would not have found an ecological niche without the war? If damage is understood as a deterioration, a minus, compared to the pre-war state, it is necessary to compare the situation before and after the conflict. Even absent human interference, it is not uncommon that certain species are displaced from an certain area and succeeded by other life forms. Consequently, a standard for comparing biodiversity levels would need to be developed.

A third problem relates to the practical determination of damage. Especially in unstable and conflict-ridden countries, information about the state of the environment before the war, so called "baseline data" may be lacking. In the absence of a solid basis for comparison, attributing a specific disturbance to the conflict as opposed to other factors barely falls short of speculation. In most cases, hardly any such data is available. Often, baseline data collection is a tedious and costly endeavour. An impact assessment of the conflicts in Afghanistan since 1978 prepared by the UNEP, for instance, was obstructed by the absence of sufficient ecosystem-related data. Hence, conclusions had to be based on other sources, like verbal accounts of city officials and residents or even satellite images from the reference timeframe.[17] In another example, the UNEP was unable to determine (beyond reasonable doubt) the effects of the bombing of several large fuel tanks next to the Jiyeh power station during the 2006 Lebanon conflict, for lack of "primary data".[18]

II. Impacts of war on nature

Despite the described obstacles of determining adverse impacts of warfare, a few repeating general patterns can be identified without touching on the often disputed results of a specific conflict. A distinction can be made between the damage directly resulting from military activities – be it intentionally inflicted, or not – and those damages resulting indirectly from war as a secondary consequence. It should be noted, however, that from a conservation perspective war can have

[17] United Nations Environment Programme (herafter: UNEP), *Afghanistan Post-Conflict Environmental Assessment* (UNEP, Nairobi, 2003), pp. 28-29.

[18] UNEP, *Lebanon Post-Conflict Environmental Assessment* (UNEP, Nairobi, 2007), p. 46.

"positive" side effects as well, and that conflicts sometimes represent the lesser evil compared to peacetime economic activity. This will be explored in the third subsection.

1. Direct environmental damage through warfare

a) Incidental or collateral environmental damage

First of all, nature can be damaged collaterally, for example when a petrol supply tank is attacked for a military objective. Even the mere movement of military forces through fragile areas can cause significant harm. Only a thin layer of solid earth for example protects the desert soil. The incidental disruption of that layer by military vehicles, not to mention the digging of trenches, has resulted in considerable erosion, representing certainly one of the gravest but least known consequences of the first Gulf war.[19] The Libyan desert had not recovered from the damage inflicted during the Second World War even before the outbreak of this year's conflict,[20] demonstrating the topicality of the issue. The recent conflict in Libya is likely to have added to these problems. Very commonly, vegetation, wildlife[21] and marine environments[22] are affected as a side effect of warfare. While the recent development of high-precision "smart" bombs may have mitigated this problem, conventional non-precision weaponry continues to play an important role in military strategy.[23] Military debris, like destroyed vehicles or landmines, as well as all kinds of rubbish left behind by troops, can also cause significant pollution. A particularly troubling example is the use of depleted uranium by coalition forces as a way of hardening anti-tank ammunition during the Gulf war and the Kosovo conflict.[24]

How severe collateral environmental damage in an industrialized world can be, is well illustrated by the example of the Kosovo war which has already been mentioned on several occasions. In order to disrupt the supply chain of the Serbian army, NATO jets targeted war-relevant infrastructure, including petrol depots and bridges but also industry. Among these was the petrochemical and fertilizer factory at Pančevo, Serbia, just 20 kilometers to the East of Belgrade,

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[19] Samira A. S. Omar *et al.*, *The Gulf War impact on the terrestrial environment of Kuwait: an overview*, in: Austin and Bruch, *supra* note 11, p. 316 (pp. 324-326).

[20] Silja Vöneky, *Die Fortgeltung des Umweltvölkerrechts in internationalen bewaffneten Konflikten / The Applicability of Peacetime Environmental Law in International Armed Conflicts* (Springer, Berlin, 2001), p. 12.

[21] In depth: Jeffrey A. McNeely, *War and Biodiversity: an Assessment of Impacts*, in: Austin and Bruch, *supra note* 11, pp. 353-379.

[22] For an intensive case study of the consequences of the Gulf war for the marine environment, see Mahmood Y. Abdulraheem, *War-Related Damage to the Marine Environment in the ROPME Sea Area*, in Austin and Bruch, *supra note* 11, pp. 338-353.

[23] Rymn James Parsons, *The Fight to Save the Planet: U.S. Armed Forces, "Greenkeeping," and Enforcement of the Law Pertaining to Environmental Protection During Armed Conflict*, Georgetown International Environmental Law Review, Vol. 10 (1997-1998), p. 441 (pp. 460-461).

[24] The effects of this are subject to extensive debate, see Vöneky, *supra* note 20, p. 23 for further references.

which was bombed several times from April to June 1999. According to unconfirmed figures from the town's mayor, the strikes resulted on one day alone in 15,000 tons of ammonia, 1,800 tons of ethylene dichloride, 1,500 tons of vinyl-chloride monomer, and 250 tons of chlorine being released into the environment. On another day, 1,400 tons of ethylene dichloride allegedly seeped into the Danube river.[25] Aaron Schwabach describes the scale of the negative environmental impact as unprecedented, even in peacetime European history, provided the numbers are accurate.[26] Thus, incidental damage can gain a much larger magnitude than just the degradation in the area where fighting takes place.

b) Intentional environmental damage

Next to the incidental environmental side effects of warfare, damage can also be intentionally inflicted, for instance in order to deprive the opponent of cover. The best-known example in this category is the extensive use of the "Agent Orange" defoliant by the American armed forces in the Vietnam War. It is estimated that approximately 72,400 m^3 of the herbicide were dispersed on the South-East Asian country throughout the conflict.[27] Further substantial damage to the rain forests has been inflicted through the use of Napalm ammunition.

There are even more extreme scenarios discussed in the literature. These include weather change, or the detonation of a nuclear bomb on fault lines to create earthquakes and tsunamis. Whether such techniques will have a real world application, is a matter of controversy. Due to the widespread effects and the difficulties at controlling such techniques, it has been doubted that any conflict party would resort to them.[28] Vöneky, however, recalls that weather manipulation has already been attempted by American troops in Vietnam.[29] Furthermore, she suggests that an isolated belligerent faced with a big number of opponents might be desperate enough to use such large-scale techniques. Another incentive to use such methods would be the high cost-effectiveness ratio, making environmental modification particularly attractive to poor States.[30] As these represent the

[25] Aaron Schwabach, *Environmental Damage Resulting from the NATO Military Action Against Yugoslavia*, Columbia Journal of Environmental Law (2000), Vol. 25, p. 117, Draft Version, Social Science Research Network (http://www.ssrn.com), p. 4.

[26] *Ibid*, pp. 4-5.

[27] McNeely, *supra* note 21, p. 362.

[28] As Stone adequately puts it: "Adventure movies aside, is anyone seriously worried that some fiendish belligerent (presumably a safely land-locked nation) is going to melt the polar ice caps in order to erode his enemy's (and everyone else's) coastline?", Christopher D. Stone, *The environment in wartime: an overview*, in: Austin and Bruch, *supra note* 11, p. 16 (p. 23).

[29] Vöneky, *supra* note 20, p. 15.

[30] Vöneky, *supra* note 20, p. 26.

majority of the conflict-affected areas in the World, it may not be so unlikely after all that the environment might be used as a weapon in a real world conflict.

2. Indirect or induced destruction

Intentional destruction of the environment for military ends is a gruesome thought. Yet, indirect consequences of warfare on the natural environment – for which Lanier-Graham coined the term "induced destruction" – can sometimes be even more destructive.[31] In these cases, the environmental effects do not directly result from military operations but from other mechanisms triggered by the hostilities. The most important example, particularly in recent non-international armed conflicts, is probably the large-scale occurrence of refugees. Displaced from their homes, and with refugee camps often insufficiently supplied, or simply overcrowded, these civilians often feel compelled to resort to poaching and illegal logging to sustain themselves. The conflict in Rwanda in 1994 sent about 700,000 refugees into the highly sensitive Virunga National Park, home to the highly endangered Mountain Gorillas, which resulted in severe damage of the environment through poaching and illegal wood chopping.[32] It is estimated that thus, 113 square metres were entirely deforested in the National Park alone.[33] With the reconstruction of destroyed homes and infrastructure often taking years, the looting of natural resources frequently continues even after the actual fighting has ceased. In the case of another Rwandan site, the Nyungwe National Park, the illegal shooting of elephants continued even after the end of the conflict with the last animal exterminated in 1999.[34] Natural resources are finally also subject to drastic overexploitation from the belligerents themselves – governments as well as insurgents or rebel groups – who use the resources to finance their war effort. In fact, studies indicate that the presence of valuable commodities in an area may make the occurrence of armed conflict there more likely.[35] This frequent occurrence, particularly in African conflicts, would also fall into the category of not directly war-related, or induced damage.

Very often, the negative effects on the environment are amplified by the fact that the government is either too occupied with its own war effort or too weakened to monitor conservation standards effectively.[36] Hence, it is not only needy civilians who loot the natural resources of a war

[31] Brauer, *supra* note 13, p. 20.

[32] McNeely, *supra* note 21, p. 363.

[33] Okonawa, *supra* note 10, p. 243.

[34] Brauer, *supra* note 13, p. 124.

[35] Okonawa, *supra* note 10, p. 240.

[36] An example of this is according to Brauer the inability of the weakened Ethiopian government to effectively continue an anti-erosion programme during the Ethiopian civil war, Brauer, *supra* note 13, p. 163.

zone, but also criminals taking advantage of the general disorder.[37] This means that conflicts can negatively influence the environment even when the actual fighting has ended.

3. "Positive" effects of warfare

It has also been pointed out that by comparison to degradation through peacetime activity, at the end of the day, warfare can be the lesser of two evils, or even a blessing. These two points will in the following be briefly presented.

a) Involuntary creation of "nature reservations"

The contraction of economic activity and resource exploitation may be one of the "positive" effects of the fighting from the environmental point of view. Demilitarized zones, like the one between North and South Korea, are inaccessible and can provide refuge to endangered species beyond the reach of human interference,[38] although at the price of perils to wildlife from landmines, barbed-wire fences and the like. The 7000 km^2 of the former border-perimeter separating Eastern Germany from the West have provided a safe haven for endangered species throughout most of the Cold War. After 1990, the zone has been maintained as a biosphere reservation ("Green Belt") and even inspired an initiative for an extension along the entire former "iron curtain" as a "European Green Belt".[39] It is fair to assume that under different historic circumstances, this unique stretch of connected ecosystems would most likely have not remained as unscathed by human activity. Abandoned military installations can even serve as habitats for endangered species, like an old bunker system in Poland, now home to numerous rare bats.[40] Of course, such nature reserves could equally be created under peacetime conditions. But while war is not a necessary condition for establishing protection zones beyond the reach of human interference, armed conflict's coerciveness can be more pursuasive than civilian conservation efforts, always susceptible to balancing with economic interests.

b) War as less destructive than peace?

In order to get the picture straight, it should also be mentioned that peace has been considered regularly more destructive to the environment than armed conflict, particularly in an age of asymmetrical warfare.[41] The attempt to stimulate economic growth has resulted in severe

[37] Brauer, *supra* note 13, pp. 162, 148.

[38] Stone, *supra* note 28, p. 21.

[39] The initiative is, among others, under the auspices of the International Union for the Conservation of Nature and the German Federal Agency for the Protection of Nature. Confer http://www.europeangreenbelt.org/001.route_ce.html.

[40] Brauer, *supra* note 13, p. 167.

[41] Brauer, *supra* note 13, pp. 162-163, 166.

exploitation of natural resources and pollution. Cynically, human population growth enabled by increased security and prosperity, can exert higher and more continuous stress on the environment than singular occurrences of armed conflict. As has been mentioned, recovery from conflict often happens at surprising speed whereas economically induced degradation usually takes place for many years, causing more profound and long-lasting damage. By stalling conventional economic development, warfare can therefore actually be the "lesser" of two evils from a purely conservationist perspective.[42]

III. Conclusion regarding the impacts of war on nature

Armed conflict can harm the environment in numerous ways. The first and most obvious category is the degradation that directly results from the military operations and can be divided into collateral or incidental damage and intentionally created adverse environmental conditions with the aim of weakening the opponent or achieving another military aim. The defoliation of the Vietnamese jungle as well as the incineration of Kuwaiti oil wells belong to that latter group. Apart from the devastation caused by military means, the indirect or induced consequences of an armed conflict often result in additional harm, for instance the unregulated influx of refugees into ecologically sensitive areas or the over-exploitation of natural resources by belligerents to economically sustain the war-effort. Therefore, armed conflict may seem relatively less harmful than peace, but this should not lead to the conclusion that it was environmentally desirable. In order to better understand the dimension of the injury of the natural environment through armed conflict, more factual post-conflict research is urgently needed. A complete scrutiny of the environmental toll after each conflict by independent experts will lastly also help to arrive at a commonly accepted definition of environmental damage, a prerequisite for effective regulation through international law. The present status of the legal protection of the environment will be the object of the following chapters.

C. Protection of the environment in armed conflict under international law of armed conflict

At the outset, international law of war or international humanitarian law[43] was designed to regulate and restrict the rights of belligerents to inflict damage on the other side as well as third parties, most importantly civilians. But does it also impose an obligation to lead war in a least environmentally devastating way? The environment, as will be shown in this section, has only recently moved within

[42] McNeely, *supra* note 21, p. 357.

[43] In line with modern scholarly doctrine, the terms "humanitarian law", "law of war" and "law of armed conflict" shall be used interchangeably for the purpose of this paper, cf. Christopher Greenwood in: Dieter Fleck, *The Handbook of Humanitarian Law in Armed Conflict (Oxford University Press, Oxford, 1999)*, p. 9.

the ambit of protection of this body of international law. It was not until after the Vietnam War that nature was recognized as a protected interest of its own right. But even under the "classic" humanitarian law regulations, some protection is afforded "indirectly", for example through the protection of opponent property.[44] This section provides an overview and critical appraisal of those provisions, which impose direct or indirect conservation duties on belligerents. As will be seen, the environmental law of war pursues a good faith approach rather than strict prohibitions[45] but can nevertheless protect nature in some extreme circumstances.

I. Hague Convention IV 1907

The Hague Convention respecting the Laws and Customs of War on Land (Hague Convention IV) stipulates general rules of war which State parties are required to follow.[46] It does not contain any explicit obligation to preserve the environment. This is not surprising considering that international law of armed conflict, at its origin, was designed to protect human lives. At the time of Henri Dunant, the thought of limiting fighting to the combatants and excluding aggression against civilians was a ground-breaking development. But although no direct protection of the environment was anticipated by the Hague Convention IV, some of its clauses indirectly protect the environment, for example as opponent property. It is evident that this offers but a rudimentary protection. Nonetheless, the relevant provisions shall be briefly outlined.

1. No unlimited right to injure the enemy: an environmental link?

First of all, an important general rule in Article 22 of the Annex to the Hague Convention IV stipulates that the right of the belligerents to injure the enemy is not unlimited. This is a basic principle of the law of war, which can already be traced back to the 1868 St Petersburg Declaration.[47] The provision implies limitations to the "right" to wage war (*ius in bello*). But it does not specify which behaviour is permitted and which is forbidden. With regards to the environment, two questions arise: does it fall inside the provision's scope at all and if so, to what degree are conservation interests to prevail over military needs? There is no case law on Article 22 with explicit reference to environmental concerns. However, in a recent study conducted by the UNEP on the protection of nature under international law, Article 22 is declared an expression of a

[44] See below C.I.2.

[45] Richard G. Tarasofsky, *Legal Protection of the Environment During International Armed Conflict*, Netherlands Yearbook of International Law (1993), Vol. 24, p. 17 (p. 37).

[46] Article 1 Hague Convention IV.

[47] Liesbeth Lijnzaad and Gerard J. Tanja, *Protection of the Environment in Times of Armed Conflict: The Iraq-Kuwait War*, Netherlands International Law Review (1993), Vol. XL, p. 169 (p. 175).

"precautionary imperative."[48] It is unclear, what is meant by that. Lijnzaad and Tanja, who are quoted as the source, merely state that Article 22 was "the most important provision" of the convention without mentioning a precautionary obligation.[49] One possible explanation is, that the authors attempt to connect the Hague Convention IV with the emerging precautionary principle under international environmental law. This principle, as defined by Principle 15 of the 1992 Rio Declaration, stipulates that "[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". It is an interesting idea to use the general clause of Article 22 as a "door opener" to infer notions from another body of law, namely IEL into the law of armed conflict. There is not much to support that assumption. The authors of the UNEP study do not elaborate their proposal with any legal arguments. A strong counter argument is that Article 22 not only contains no specific obligations. In fact, it does not outline any positive obligations whatsoever, not even in general terms, but merely defines the rights of the belligerents negatively. But there is also another reason to tread cautiously with inferring IEL into the law of armed conflict. As will be discussed below in Chapter D, it is highly controversial whether peacetime IEL applies at all to armed conflict. If these provisions could be inferred into the law of war via Article 22, it would render the classic distinction between the two bodies obsolete. The fact that the States of the UN and the members of the ILC continue to tackle the relationship between the law of war and the IEL on the level of applicability and not by interpreting the substantive law of war, is additional evidence that the proposal to "charge" Article 22 with IEL principles is in contradiction with the prevailing legal doctrine.[50]

2. Protection of the environment as opponent property

Annex Article 23(g) Hague Convention IV establishes a prohibition to "destroy or seize the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war." This prohibition is designed to protect human property but could indirectly include environmental interests as far as they overlap with the property of the other belligerent. The value of the property right on a forest, for instance, largely depends on the integrity of the trees and the game in the forest. In such a case, economic or property interests and environmental protection from warfare would be identical. In practice, however, the provision suffers of two flaws: the narrow scope of

[48] UNEP, *Protecting the Environment During Armed Conflict – An Inventory and Analysis of International Law* (UNEP, Nairobi, 2009), p. 14.

[49] Lijnzaad and Tanja, *supra* note 47, p. 175.

[50] There is a similar debate on whether the Martens Clause contained in the HC IV's preamble can be "charged" with IEL principles. This will be extensively dealt with below in section C.V.1.

application and the wide construction of military necessity. As Tarasofsky has remarked, this results in only "wanton and blatantly useless destruction of the environment" falling under the prohibition.[51]

a) Narrow scope

Regarding the scope, Article 23(g) only protects the environment as far as the opponent "owns" it. Neither damage suffered by the State's own environment, nor spillover effects to ecosystems in neutral states or areas beyond national jurisdiction fall within the purview of the provision.[52] It is not even clear if publicly owned property of the opposed state is covered at all or only private property,[53] nor if the airspace and the territorial sea fall within the property definition's territorial ambit.[54] More generally, it has been criticized that notions of property may be unsuited to protecting indigenous cultures which may be particularly dependent on the environment but to whom notions of property may be alien.[55]

b) Wide exemption of militarily justified damage

But even if the environment in question represents property in the sense of Article 23(g), the exception of destruction "imperatively demanded by necessities of war" is so widely construed that that military interests effectively trump indirect environmental protection. In the so-called "Hostages Trial", for instance, the International Military Tribunal (IMT) in Nuremberg had to rule on the ruthless "scorched earth tactic", employed by retreating German troops in the Norwegian Finnmark province intended to halt or slow down the advancing Soviet forces. The IMT ruled that these measures were justified because there was "some reasonable connection between the destruction of property and the overcoming of the enemy forces."[56] It was further held that necessity should be subjectively defined from the perspective of the commander in the field at the time of the order, and granting a wide margin of discretion.[57] The problem with such a wide construction of military necessity is that in most cases some military advantage of the devastation

[51] Tarasofsky, *supra* note 45, p. 26.

[52] Vöneky, *supra* note 20, p. 30; Tarasofsky, *supra* note 45, p. 38.

[53] The majority of scholars seems to advocate a protection of both private and public property. Some however only see private property protected. Cf. Weinstein, *supra* note 15, p. 714 and Vöneky, *supra* note 20, p. 31 for references.

[54] Vöneky, *supra* note 20, p. 31.

[55] Neil A. Popovic, *Humanitarian Law, Protection of the Environment and Human Rights,* Georgetown International Environmental Law Review (1995-1996), Vol. 8, p. 67 (p. 74); Aurelie Lopez, *Criminal Liability for Environmental Damage Occurring in Times of Non-International Armed Conflict: Rights and Remedies*, Fordham International Environmental Law Review (2006-2007), Vol. 18, p. 231 (p. 243).

[56] IMT Nuremberg, *Trial of Wilhelm List and others*, VIII Law Reports of Trials of War Criminals 34, p. 69, quoted after Tarasofsky, *supra* note 45, p. 25.

[57] Tarasofsky, *supra* note 45, p. 25.

can be identified. Due to the subjective standard and the military discretion, even the most insignificant short-term advantage can therefore potentially justify the most extremely harmful tactics, like the intentional incineration of the Kuwaiti oil wells by Iraq. It is almost certain that no military objective was pursued with these acts.[58] Yet, a military commander could theoretically successfully plead in trial that the smoke want meant to obscure the view of fighter planes.[59] With such low requirements for justification, military necessity is likely to prevail in almost every case.

3. Conclusion regarding the Hague Convention IV

The practical applicability thus limited by the narrow scope and the wide justifications, it is obvious that the Hague Convention IV can only mitigate the environmental toll of warfare in the most extreme circumstances of intentional and useless destruction. The precise nature of Article 22 remains obscure with approaches of interpreting it as a "link" to international environmental law principles lacking the necessary argumentative foundation. The protection of opponent property under Article 23 is widely considered to have attained customary law status,[60] but its indirect protection of the environment proves rather ineffective due to its narrow scope and the readily available justification by a widely construed, subjectively defined military necessity clause.

II. Geneva Convention IV 1949

The Geneva Conventions are concerned with upholding humanitarian law and do not directly protect the environment. Article 53 of the fourth Geneva Convention (Geneva Convention IV),[61] however, prohibits an occupying power to destroy property in the occupied territory. This provision transposes Article 23(g) of the Annex to the Hague Convention IV[62] to the situation of occupied territories and thus suffers from the same deficiencies. On the positive side though, Article 147 Geneva Convention IV equips the prohibition with a stronger enforcement mechanism by declaring the destruction of protected property a grave breach. As a result, State parties are required under Article 148 to hold the party in breach liable in their national civil law. Pursuant to Article 146, they must also penalize and prosecute such grave breaches. Those extreme cases, where Article 53 applies to the destruction of environment, are thus considered an international crime. Just like the

[58] Michael N. Schmitt, *Green War: An Assessment of the Environmental Law of Armed Conflict*, Yale Journal of International Law, Vol. 22(1), p. 53.

[59] Stone, *supra* note 28, pp. 28-29, with reference to statements of US military commanders.

[60] Lijnzaad and Tanja, *supra* note 47, p. 183.

[61] Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949.

[62] UNEP, *supra* note 48, p. 17.

property protection clause under the Hague Convention IV, Article 53 is considered a part of customary law,[63] adding additional clout to the provision.

III. Additional Protocols I and II to the Geneva Conventions 1977

The immense destruction during the Vietnam War led to the realization that the law of armed conflict prevailing at the time did not sufficiently address the hazards of modern warfare. Particularly the law's "blind eye" towards the environment and the insufficiency of the indirect protection through opponent property was recognized as a deficiency. In response, two Additional Protocols to the Geneva Conventions were concluded to improve the effectiveness of the Conventions.[64] For the first time, these protocols introduced provisions which directly protected the environment for its own sake during armed conflict.[65] Additional Protocol I is applicable to international armed conflict, whereas Additional Protocol II relates to internal armed conflict. In the following, the direct as well as the indirect protection of the environment during armed conflict through the Additional Protocols will be presented. The ENMOD Convention, which was adopted shortly before the Additional Protocols, will, for didactical reasons, be dealt with in the next section.

1. International armed-conflict: Additional Protocol I

a) Articles 35(3) and 55 Additional Protocol I as core provisions

In contrast to the pre-Vietnam law of armed conflict, Article 35(3) Additional Protocol I reads *prima facie* like a rather significant step forward. According to the provision

> [i]t is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.

The provision represented a significant improvement compared to the previous legal framework. Notably its scope is significantly wider than that of the Hague and the Geneva Conventions. According to the Additional Protocol I, even non-intentional environmental destruction can represent an illegal method of warfare. As long as the methods or means employed "may be

[63] Vöneky, *supra* note 20, p. 36.

[64] Full texts available at www.icrc.org and printed in International Committee of the Red Cross, *Protocols additional to the Geneva Conventions of 12 August 1949: Resolutions of the 1974-77 Diplomatic Conference, Extracts from the Final Act of the 1974-77 Diplomatic Conference* (ICRC, Geneva, 1996).

[65] Jean De Preux in: Claude Pilloud et al., *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (Martinus Nijhof Publishers, Leiden, 1987), para. 1441.

expected" to cause the specified kind of damage, they are prohibited.[66] Given the serious devastation caused as an unintended side effect of the fighting, which has been outlined in the previous chapter, this must be considered an important step forward. Another improvement is the absence of a justification in case of military necessity. The prohibition in Article 35(3) is hence of an absolute nature.[67] Finally, the provision is evidently applicable to the belligerent party's own environment as well as areas beyond national jurisdiction and neutral States.[68]

Yet, in spite of these improvements, there is still much legal uncertainty around the provision. It remains for instance unclear, whether the term "natural environment" must be read as synonymous with, or rather in apposition to the "human environment".[69] The phrasing of Article 35(3) does not make such a limitation. But the wording of the related provision in Article 55(1) Additional Protocol I suggests that indeed only the "human" environment is covered by Article 35(3).[70] This conclusion is further supported by the fact that an earlier draft of Article 35(3) Additional Protocol I included a fourth paragraph, making express reference to the "stability of the ecosystem" and that this paragraph was scrapped later in the drafting process.[71] The result of this anthropocentric understanding is that Article 35(3) does probably not include the protection of ecosystems for their own sake but only where they serve the immediate purpose of sustaining human life.

The main trouble with Article 35(3) Additional Protocol I however lies in its substantive requirements. The most important restrictions are the three cumulative qualifications of the environmental damage necessary for the provision to apply. Only damage, which is "widespread, long-term *and* severe", falls under the prohibition of the norm. Each of these elements is interpreted to demand exceptionally high levels of environmental destruction. "Widespread" damage is only assumed when an area of at least several hundred square kilometres has been affected. This standard applies to all situations, regardless of the size of the country, meaning that the environment in smaller countries is entirely deprived of protection under Article 35(3).[72] Secondly, "long-term"

[66] Stefan Oeter in: Fleck, *supra* note 43, p. 117.

[67] Oeter, *supra* note 43, p. 117.

[68] Tarasofsky, *supra* note 45, p. 51.

[69] Yoram Dinstein, *Protection of the Environment in International Armed Conflict*, Max Planck Yearbook of United Nations Law, Vol. 5 (2001), p. 523 (p. 534.).

[70] Further references on the debate can be found with Peterson, *supra* note 14, pp. 328-329 and Tarasofsky, *supra* note 45, p. 50.

[71] De Preux, *supra note* 65, para. 1447

[72] In extreme cases, this may leave very small States completely unprotected by the provision. The justification for this however could be that ecosystems and not State boundaries are the object of protection, Peterson, *supra* note 14, p. 331.

damage requires harm that lasts for at least one decade.[73] Severity is finally only fulfilled if the damage compromises the survival of the population for a long time (probably at least a decade) or causes severe health problems for such time.[74]

These are indeed very high requirements. The spatial requirement of a devastation encompassing several hundred square kilometres would have been met during the Vietnam War, even according to the most pessimistic estimates.[75] But it is hard to imagine a situation where the three elements might be fulfilled cumulatively. Accordingly, scholars doubt that the environmental consequences of the Vietnam War or the oil well burning in Kuwait met all three elements.[76] Certain delegations at the Additional Protocol I's negotiations opined that even the fighting in France during the First World War did not have the necessary long-term impact to fall under the clause.[77] If this is taken seriously, probably only nuclear, biologic or chemical weapons are able to cause the necessary threefold damage. Cynically, the major military powers – remarkably except for Russia – have excluded precisely these weapons from the Additional Protocol I's scope through reservations.[78] India, Israel and the United States have at the time of writing not even ratified the Protocol.[79] One wonders why the threshold was set this high, largely depriving Article 35(3) of practical applicability. The function of the threefold limitation is to distinguish "normal" damage incidental to conventional warfare from excessive destruction.[80] The cumulative damage standard, however, goes far beyond that because it excludes even intentionally inflicted environmental damage if the necessary magnitude is not reached. The true motive therefore can be no other than to preserve a maximum of operational freedom for the contracting parties' armed forces, regardless of the environmental needs. This is deplorable but seems to be the prevailing legal situation.

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[73] Some delegations at the conference were even proposing a minimum time of 20 to 30 years for a damage to qualify as "long-term", cf. De Preux, *supra note* 65, para. 1454.

[74] Vöneky, *supra* note 20, pp. 39-40.

[75] According to these, an area of 97,063 km^2 has been affected (26,313 km^2 by defoliation, 3,250 km^2 by bulldozing and 67,500 km^2 by bombing and artillery fire), see Brauer, *supra note* 13, p. 156.

[76] Schmitt, *supra note* 58, p. 75. Dissenting: Luan Low and David Hodgkinson, *Compensation for Wartime Environmental Damage: Challenges to International Law After the Gulf War*, Virginia Journal of International Law (1995), Vol. 35, p. 405 (p. 430); Robert Kolb and Richard Hyde, *An Introduction to the International Law of Armed Conflict* (Hart Publishing, Oxford/Portland, 2008), p. 148.

[77] De Preux, *supra note* 65, para. 1454.

[78] See the reservations submitted by France on 11 April 2001, para. 2; the United Kingdom on 2 July 2002, para. (a); all available at: http://www.icrc.org/ihl.nsf/WebSign?ReadForm&id=470&ps=P. The United States are not party to the Additional Protocol I.

[79] The Protocol is also probably not yet part of international customary law. This view is underlined by a remark of the ICJ in the Nuclear Weapons case (ICJ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion of 8 July 1996, ICJ Reports 1996, para. 31) and shared by most scholars, see for instance Vöneky, *supra* note 20, p. 50; Tarasofsky, *supra* note 45, pp. 41-42; Schmitt, *supra note* 58, p. 76.

[80] Vöneky, *supra* note 20, p. 41.

b) Other Additional Protocol I provisions with environmental relevance

The Additional Protocol I did not only introduce a provision directly protecting the environment in armed conflict but also created new obligations which may have an indirect conservation effect. These tend to regulate only specific kinds of damage. But in exchange, they often set up a significantly less restrictive threshold, thus making them in their respective cases more effective than the "general" provision in Article 35(3).

aa) Prohibition of attacks on works or installations containing dangerous forces

The destruction of the Chinese Huayuankow Dike in 1938 is frequently quoted as an example of highly disproportionate and destructive warfare using forces of nature. Although the Japanese advance could be halted temporarily, an estimated 750,000 civilians lost their lives and millions of square meters of farmland were destroyed.[81] In order to address such scenarios, Article 56(1), first sentence Additional Protocol I prohibits attacks on works or installations containing dangerous forces. It reads

> Works or installations containing dangerous forces, namely dams, dykes and nuclear electrical generating stations, shall not be made the object of attack, even where these objects are military objectives, if such attack may cause the release of dangerous forces and consequent severe losses among the civilian population.

The provision is another good example of the indirect protection method that dominates the law of armed conflict when it comes to the environment. Although the main protected interest is clearly the civilian population, the environment is implicitly protected as well from the dangerous forces enumerated in Article 56(1). It is also remarkable that military objectives do not *per se* represent a justification. Only if the protected installations themselves are used for military purposes in the sense of Article 56(2), the prohibition "shall cease".[82]

Despite these strengths, the limitations of the provision lie in its very narrow field of application. As the word "namely" indicates, must the list of protected objects in Article 56(1) be considered exhaustive.[83] Attacks on other installations unleashing "dangerous forces", for instance chemical industry plants, are not covered. But even if an installation falls within the Article's scope, the unspecified requirement of a threat of "severe losses" among civilian lives suggests a rather high threshold of application that is not necessarily met in all circumstances. This seems to be

[81] Schwabach, *supra* note 25, p. 32; Brauer, *supra* note 13, p. 40.

[82] Philippe Sands, *Principles of International Environmental Law* (2nd edition, Cambridge University Press, Cambridge, 2003), pp. 312-313.

[83] Vöneky, *supra* note 20, p. 48. Dissenting: Kolb and Hyde, *supra* note 76, p. 149.

evidenced by the fact that attacks by coalition forces in the first Gulf War on water supply installations, nuclear installations and power plants of Iraq were not challenged by anyone under Article 56(1). This could represent evidence that State practice has adopted a narrow interpretation of the "severe loss" requirement.[84]

bb) Prohibition of attacks on demilitarized or non-defended areas

According to Articles 59 and 60 Additional Protocol I, certain areas can be declared non-defended or demilitarized areas. Such sites must then be omitted from the hostilities.[85] Although these provisions primarily pursue humanitarian aims, they can also serve environmental purposes. In most cases, the environment will simply benefit incidentally. However, Vöneky suggests that States could even reach a prior agreement on such areas in peacetime to protect the environment. The advantage would be increased certainty and reliability on which areas are exempt from fighting. So far, no such agreements have been concluded in practice.[86] This is hardly surprising. During a conflict, it is unlikely that the belligerents would muster the necessary cooperative spirit. Probably, both sides would also regard such arrangements as an unnecessary limitation of their military operative capacity. Pre-emptive agreements for a future conflict on the other hand, are confronted with diplomatic obstacles, as they would signal to the other side that a conflict is "anticipated" or at least not entirely excluded. If at all, such an arrangement is conceivable in a multilateral agreement. For example, cultural or natural world heritage sites under the World Heritage Convention (WHC)[87] could be declared undefended or demilitarized zones by an amendment of the convention. In such a set-up, no unwanted signal for escalation would be conveyed. Moreover, the sites would be defined according to internationally recognized standards, dispelling fears that a potential adversary could abuse the instrument to gain a strategic advantage.

2. Non-international armed conflict: Additional Protocol II

The Additional Protocol II, sets up rules governing non-international armed conflict. Pursuant to Article I, a conflict is of an internal nature if it "take[s] place in the territory of a High Contracting Party between its armed forces and dissident armed forces or other organized armed groups." Thus,

[84] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3rd edition, Oxford University Press, Oxford, 2009) p. 206.

[85] See Popovic, *supra* note 55, p. 75. In contrast, Brauer cites evidence according to which "85% of (...) protected areas are little more than paper creations", Brauer, *supra note* 13, p. 164.

[86] Vöneky, *supra* note 20, p. 49.

[87] The relevance of the WHC in protecting the environment is further discussed at F.I.2.a).

civil war without the involvement of the State's armed forces is expressly excluded.[88] Despite this limited scope, the Protocol constitutes an important step forward, given that the vast majority of armed conflicts today happen inside a State.[89] Where the Additional Protocol II applies, conservation obligations on military activities are marginal and derive only indirectly from other protected interests. Article 14 prohibits attacks on "objects indispensable to the survival of the civilian population such as food-stuffs, agricultural areas for the production of food-stuffs, crops, livestock, drinking water installations and supplies and irrigation works." Article 15 mirrors the prohibition of attacks on works and installations containing dangerous forces in Article 56(1) Additional Protocol I, but interestingly seems stricter, not containing any exceptions for militarily used installations.[90] Article 16 finally safeguards cultural objects and may therefore also coincide with environmental protection.[91] Given the absence of a direct conservation clause and the weak indirect protection, it can be concluded that the environmental toll of internal strife remains even less regulated than in international armed conflict. Overcoming this traditional fixation of international law of armed conflict on inter-State disputes likely represents the most pressing contemporary challenge for that field of law.

IV. ENMOD Convention 1976

As was mentioned earlier, the Vietnam War did not only trigger an overhauling of the Geneva Conventions. One year before the Additional Protocols were signed, another important treaty relating to the environment in armed conflict was adopted by the UN General Assembly and opened for signature. Just like the Additional Protocol I, the Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques (ENMOD Convention) directly protects the environment, albeit only of other States, not the own or stateless environment. At the time of writing, the convention had 74 State parties.[92] The core norm, Article I(1), stipulates:

> 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.

[88] Nada Al-Duaij, *Environmental Law of Armed Conflict* (Transnational Publishers, Ardsley/New York, 2004), p. 109. In these cases, only common Article 3 to the Geneva Conventions provides some basic protection, Lindsay Moir, *The Law of Internal Armed Conflict* (Cambridge University Press, Cambridge, 2002), pp. 102-104.

[89] Lopez, *supra* note 55, pp. 232-233.

[90] Moir, *supra* note 88, p. 118.

[91] UNEP, *supra* note 48, p. 18.

[92] According to information from the ICRC, http://www.icrc.org/ihl.nsf/WebSign?ReadForm&id=460&ps=P (last accessed 22 November 2011).

What strikes the reader first is the usage of the terminology "widespread, long-term or severe damage" which reminds of the intensity threshold in Article 35(3) Additional Protocol I. Interestingly, however, the ENMOD Convention is satisfied with one of the elements being fulfilled alternatively whereas Additional Protocol I requires all three elements cumulatively.[93] This lowers the bar for the Convention's application significantly. In addition, the meaning of the requirements must be interpreted independently in the ENMOD Convention.[94] An annexed "Understanding" clarifies that the temporal and the gravity element are defined less stringently than in the case of its counterpart in the Additional Protocol I. While the spacial element is defined in line with the Protocol as several hundred square kilometres, "long-term" damage is already assumed if the devastation lasts "for a period of months, or approximately a season." Severity is finally assumed when measures involve "serious or significant disruption or harm to human life, natural and economic resources or other assets."[95]

In spite of this lower threshold, the scope of the Convention remains quite narrow. For one, it covers only environmental modification techniques in the sense of Article II. These represent a "manipulation of natural processes", meaning for example that the burning of oil wells would fall outside the ENMOD Convention's ambit.[96] As Tarasofsky observes, the term "technique" also seems to indicate a certain sophistication which might not be fulfilled in the case of simple burning either.[97] The fact that the parties did agree to subsume herbicide use under the definition, a rather low-tech instrument, may contradict this however.[98] A second shortcoming of the Convention is the fact that only intentional modification of natural processes falls within the definition in Article II ENMOD Convention. Incidental environmental modification is thus not prohibited.[99] Furthermore, only the actual use of modification techniques is outlawed, but not the development, testing of or threat[100] with them. This is apparently due to the parties' fear of an uncontrolled extension of ENMOD Convention's scope on account of the difficulty of defining a threat.[101]

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[93] See above at C.III.1.

[94] Cf. the Understanding regarding the Convention, annexed to the ENMOD Convention.

[95] The interpretation provided by the Understanding is generally accepted as reflecting the intention of the drafters, see De Preux, *supra note* 65, paras. 1450, 1452.

[96] Vöneky, *supra* note 20, p. 55.

[97] Tarasofsky, *supra* note 45, pp. 44-45. Assuming a violation of the ENMOD Convention: Al-Duaij, *supra* note 88, pp. 300, 308.

[98] Sonja Ann Jozef Boelaert-Suominen, *International Environmental Law and Naval War*, Newport Papers No. 15 (2000), p. 59, Al-Duaij, *supra* note 88, p. 307.

[99] Vöneky, *supra* note 20, p. 55.

[100] Lijnzaad and Tanja, *supra* note 47, p. 187; Tarasofsky, *supra* note 45, p. 47.

[101] Georges Fischer, *La Convention sur l'interdiction des techniques de modification de l'environnement à des fins hostiles*, Annuaire Français de Droit International, Vol. 23, p. 820, (p. 826).

It can thus be concluded that the Convention's success so far is a matter of interpretation. The fact that there has not been a practical case in which the ENMOD Convention was considered violated could be explained with its relatively narrow scope.[102] On the other hand, that circumstance could also be brought forward as proof of the Convention's success in halting the use of environmental modification techniques.[103]

V. General provisions of the law of armed conflict

So far, it has been concluded that despite remarkable progress, the direct and indirect protection of the environment by the substantive law of armed conflict seems rather unsatisfactory. But if the specific provisions of the law of war remain fragmented, the question arises if the gaps could be filled in by using the general clauses governing the international law of armed conflict. This thought underlies the fundamental Martens Clause, but even the general principles could offer some input for the protection of the environment in times of armed conflict.

1. Martens Clause

a) Environmental considerations in the Martens Clause *de lege lata*

The famous Martens Clause was first conceived at the 1899 first Hague Peace Conference and has frequently been cited as a possible "entrance" point for all sorts of considerations into international humanitarian law, including aspects of conservation. Similar proposals have already been briefly discussed in the context of Article 22 Additional Protocol I.[104] The Martens Clause was placed at the end of the preamble to the Hague Convention IV and stipulates that

> "(u)ntil 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(,)"

It may serve as a "catch-all" provision, affording protection – even where the law of war remains incomplete – by binding all parties involved to the "laws of humanity" and "dictates of the public conscience." Possibly because of its broad wording, it has been reiterated – literally or slightly

[102] Tarasofsky, *supra* note 45, p. 47.
[103] UNEP, *supra* note 48, p. 12.
[104] See above section C.I.1

adapted – in several humanitarian law instruments,[105] prompting Cassese to label it a "contemporary legal myth."[106] If the positive humanitarian law only provides for rudimentary environmental protection, the question is if the Martens Clause's "dictates of the public conscience" can fill in the gaps, as several scholars purport.[107] The question became pertinent in the ICJ's 1996 *Legality of the Use or Threat of Nuclear Weapons* advisory opinion, where some of the Pacific States affected by the tests, raised among other issues the Martens Clause in their written statements as grounds for the illegality of nuclear weapons.[108] However, the Court only held that the clause was an "an affirmation that the principles and rules of humanitarian law apply to nuclear weapons"[109] suggesting that environmental protection was limited to a declaratory reaffirmation of the already existing environmental protection framework discussed above. This seems to affirm Russia's assertion that the Martens Clause does not have a contemporary meaning beyond the existing humanitarian treaty law.[110] Rightly, this purely declaratory reading has been criticized as contrary to the principle of international treaty law that norms should be interpreted so as to give them relevance and meaning.[111]

There are some approaches in the legal literature designed to equip the clause with a genuine environmental protection meaning of its own. Some authors for instance consider the it an independent source of law next to Article 38 of the ICJ Statute. This would however not solve the fundamental problem of determining which specific protection standards the "dictates of public conscience" would require.[112] Another approach would be to read the clause as a dynamic element, allowing construing humanitarian law in the light of new developments.[113] Hence, it could for example be read in the light of contemporary concerns for the environment.[114] One step further in such a dynamic interpretation could be to actually infer "very well accepted" soft law principles

[105] For instance the Additional Protocols I and II of 1977; or the 1980 CCW Convention, see Al-Duaij, *supra* note 88, p. 111.

[106] Antonio Cassese, *The Martens Clause: Half a Load or Simply Pie in the Sky?*, European Journal of International Law (2000), Vol. 11(1), p. 187, (p. 187).

[107] Karen Hulme, *Armed Conflict, Wanton Ecological Devastation and Scorched Earth Policies: How the 1990-1991 Gulf Conflict Revealed the Inadequacies of the Current Laws to Ensure Effective Protection and Preservation of the Natural Environment*, Journal of Conflict and Security Law, pp. 45-81, (p. 51); Sands, *supra* note 82, p. 311.

[108] Jochen von Bernstorff in: Max Planck Encyclopedia of Public International Law (Heidelberg and Oxford University Press, Heidelberg, 2011), *Martens Clause*, para. 12.

[109] ICJ, *Legality of the Threat or Use of Nuclear Weapons*, *supra* note 79, pp. 226-267, para. 87.

[110] von Bernstorff, *supra* note 108, para. 12.

[111] Cassese, *supra* note 106, p. 215.

[112] Vöneky, *supra* note 20, p. 71.

[113] von Bernstorff, *supra* note 108, para. 13.

[114] Hulme for instance sees the clause as now including a notion of an "environmental conscience", Hulme, *supra* note 107, p. 51.

into the public conscience clause.[115] These could include among others the obligation not to cause transboundary environmental harm[116] or even the precautionary principle, much like it has been suggested for Article 22 Hague Convention IV.[117]

b) Martens Clause and the environment *de lege ferenda*

Instead of interpreting the environment into the Clause, other scholars consider an amendment inevitable for the provision specifically to include notions of conservation. These academics consider a flexible provision like the Martens Clause useful for improving the lot of nature during armed conflict. In a 1992 draft for a "Fifth Geneva Convention", a group of experts recommended a provision "that in cases not covered by the convention, the environment remains under the protection of the principles derived from established custom and the dictates of public conscience."[118] A panel of legal experts in Ottawa had already demanded a similar provision in 1991.[119] Most recently, the World Conservation Congress, held in Amman in 2000 under the auspices of the International Union for Conservation of Nature (IUCN), has adopted such a clause which would read as follows:

> Until a more complete international code of environmental protection has been adopted, in cases not covered by international agreements and regulations, the bio-sphere and all its constituent elements and processes remain under the protection and authority of the principles of international law derived from established custom, from dictates of the public conscience, and from the principles and fundamental values of humanity acting as steward for present and future generations.[120]

The nearly universal membership of States (as well as of non-governmental organizations, NGOs) to the IUCN has led Al-Duaij to the conclusion that this clause now formed part of the peremptory international *ius cogens*.[121] This seems like a rather rash conclusion. Either way, even the "Amman Clause" fails to specify the precise nature of the environmental protection it affords and how these should be balanced with military needs. Until the specific contents of an "environmental conscience" has been sufficiently established, the Martens or the Amman Clause will therefore

[115] In this direction: Al-Duaij, *supra* note 88, pp.102-103.

[116] Principle 21 of the Stockholm Declaration (1972), UN Doc A/Conf/48/14, often called the precautionary principle.

[117] In detail on the precautionary principle under present IEL: Sands, *supra* note 82, pp. 266-279; Birnie, Boyle and Redgwell, *supra* note 84, pp. 152-164.

[118] Glen Plant, *Environmental Protection and the Law of War: A 'Fifth Geneva' Convention on the Protection of the Environment in Time of Armed Conflict* (Belhaven Press, London/New York, 1992), p. 43.

[119] Tarasofsky, *supra* note 45, p. 35.

[120] International Union for Conservation of Nature, *A Marten's Clause for environmental protection,* 2nd Session of the World Conservation Congress, October 2001, Resolution 2.97.

[121] Al-Duaij, *supra* note 88, pp. 113, 102.

remain marginal. The key deficiency of the both provisions, their fickle and undefined phrasing, will not be overcome by a mere inclusion of the environment in general terms. In this context, a suggestion by Cassese should finally be mentioned which might prove valuable to add more "meat" to the elusive phrasing. In the eyes of Cassese, the main function of the Martens Clause is to smooth the way for the creation of new customary law. According to him, whenever the dictates of public conscience are concerned, the lack of a consistent State practice[122] can be compensated by a strong *opinio iuris*.[123] If the "public conscience" contains an environmental aspect, this lower threshold might facilitate the creation of specific norms through customary international law and fill the vague environmental side of the Martens Clause with life.

2. Other general principles of international humanitarian law

Other general principles with an environmental relevance include the principles of distinction, necessity, proportionality and humanity.

a) Distinction or discrimination principle

The principle of distinction demands that military operations distinguish between military and civilian targets and limit their attacks to the former ones. This rule is expressed in several treaties[124] and is also considered part of customary international law. In theory, as far as the environment is linked to the civilian population, it would thus be indirectly protected against attacks.[125] In practice, however, the military targets are widely defined.[126] Particularly the requirements of an "effective contribution" and a "definite military advantage" are widely construed, justifying for example also purely economic targets on cotton plantations in cases where the war effort was indirectly financed by revenue from these activities.[127] There has even been a suggestion that the mere weakening of morale through destruction of infrastructure already represented enough military justification. [128] What is more, there is a broad scope of discretion allowed to the commander in the field in assessing what represents a military target. Therefore, the distinction principle is unlikely to protect

[122] Article 38(1)(b) ICJ Statute.

[123] Cassese, *supra* note 106, p. 214.

[124] The first mention is in the 1868 St. Petersburg Declaration. The principle is also articulated in Article 52(2) Additional Protocol I.

[125] Tarasofsky, *supra* note 45, p. 27.

[126] Article 52(2) Additional Protocol I defines military targets as follows: "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*." (emphasis added)

[127] Tarasofsky, *supra* note 45, pp. 26-27.

[128] UNEP, *supra* note 48, p. 13.

nature very effectively and will only be violated in extreme cases of where the intentional killing of non-combatants coincides with environmental damage.

b) Necessity principle

A second relevant principle states that no more suffering than "necessary" for the military success shall be inflicted onto the other side.[129] This principle can also provide indirect protection of the environment[130] but suffers of the same deficiencies as the discrimination principle, most importantly a wide discretion of the commanding officer. In addition, as Shaw has remarked, whether some destruction is necessary can only truly be assessed *ex post*, meaning that *ex ante*, a decision to attack may be justified as necessary, even where a later assessment comes to a contrary conclusion.[131]

c) Proportionality principle

Thirdly, the customary law proportionality principle should be mentioned. The destruction of the Kuwaiti oil wells was widely understood to violate the prohibition to inflict disproportionate damage.[132] Proportionality, unlike the necessity principle, is not concerned with the military means but with the extent of damage inflicted.[133] Prohibited is hence any damage to non-combatants (and the environment around them), which would be disproportionate to the military gains. It is obvious that the application of this standard depends a lot on whether the environment is attributed its own value in the balancing or whether only the humanitarian interests are considered. In support of this, it could be argued that humanitarian law now recognizes the environment as an interest worthy of protection of its own in the Additional Protocol I or the ENMOD Convention. But even assuming the environment plays its own part, the actual balancing is a difficult act. In a reflective article, Schmitt likens this valuation process to the comparison of "apples with oranges" due to its "temporal, contextual, cultural and conceptual" determination.[134] This criticism is of course valid for all proportionality norms. Nonetheless, the principle has proven an effective limitation in many contexts, for instance in the constitutional law context. At least in cases of evidently disproportionate environmental destruction, the proportionality principle might therefore impose additional conservation standards.

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[129] See for example Article 35(2) AP I and the Preamble of the CCW Convention (1981).

[130] In detail: Schmitt, *supra note* 58, pp. 52-55.

[131] Malcolm Shaw, *United Nations Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons*, Review of International Studies, Vol. 9, p. 113, cited after Tarasofsky, *supra* note 45, p. 28.

[132] UNEP, *supra* note 48, p. 13.

[133] Tarasofsky, *supra* note 45, p. 29.

[134] Schmitt, *supra note* 58, pp. 55-61.

d) Neutrality Principle

Finally, the customary law imperative not to cause harm to States that are neutral to the conflict[135] can also imply the indirect protection of the natural environment in those countries.[136] Again, the key question is that of the threshold of damage that would violate the neutrality rights of the third State. Prohibiting any, even minor, effects on neutral States' environments would amount to "effectively illegalizing all but the very low-grade forms of warfare."[137] Absent case law or State practice, the environmental scope of neutrality rights therefore remains an open question.

VI. Conclusions regarding the protection under law of armed conflict

Until this point, the investigation has uncovered some obligations restricting belligerent States in their military operations aimed at safeguarding the environment. It has also revealed a slow, yet steady development towards higher standards of environmental protection. The Hague Convention IV and the Geneva Convention IV could merely protect the environment indirectly through prohibitions to harm other, related interests and were always subject to derogation in case of military necessity. By contrast, the post Vietnam War period has brought forward direct and absolute prohibitions to cause widespread, long-term and severe damage, laid down in Article 35(3) Additional Protocol I as well as Article I(1) ENMOD Convention. Both of these instruments have widened the scope of conservation during armed conflict, the former by including not only intentional but also negligent destruction, the latter by replacing the cumulative three-pillar test with an alternative test ("wide-spread, long-term *or* severe") and lowering the threshold for each of the elements.

Overall, however, the law of war as per 1977 continues to suffer from fragmentation and excessively high threshold requirements. The ENMOD Convention no doubt lowers the bar significantly but only concerns "environmental modification techniques" and does not cover the much more relevant "collateral" damage resulting from conventional warfare. Article 35(3) Additional Protocol I on the other hand sets the yardstick so high, that even the most atrocious cases of conventional war-related degradation like the Kuwaiti oil incident or the dramatic destruction of large parts of Northern France during World War I cannot fulfil all three requirements. This results in curious consequences. For example, it would be deemed an illegal environmental modification technique under Article I(1) ENMOD to destroy a forest through herbicides in order to deprive the

[135] By some authors cited in conjunction with the "Trail Smelter Principle", Tarasofsky, *supra* note 45, p. 31.
[136] Richard Falk, *The Environmental Law of War*, in: Plant, *supra note* 118, p. 78 (p. 85).
[137] Tarasofsky, *supra* note 45, p. 32.

enemy of cover, but still be allowed to simply burn the forest down to chase out the opponent.[138] Protection of the environment under law of armed conflict thus remains limited to environmental modification techniques or cases of extreme and wanton destruction possibly only achievable in nuclear warfare.

Mere attempts to fill the gaps, either through a reinterpretation of the Martens Clause or the general law of war principles, do not significantly improve the effectiveness, because it is still unclear where the line between militarily justified destruction and "unnecessary" environmental atrocities should be drawn. In conclusion, it is evident that quite a lot of environmental destruction remains unregulated and that the law of war provisions relating to the environment are therefore in urgent need of improvement. Birnie, Boyle and Redgwell have aptly described the law of armed conflict as "one of the least sophisticated parts of contemporary international law."[139] Absent stringent and comprehensive regulation, environmental protection will remain at the mercy of the belligerent parties "good faith". Given the failure of that approach to impose meaningful limitations, the following sections will explore other legal norms and their effectiveness in protecting the environment in armed conflict.

D. Protection of the environment in armed conflict under international human rights law

As the previous investigation has shown, the direct protection of the environment under the law of armed conflict is limited to instances of wanton and grossly excessive destruction. These limitations are largely due to political constraints, notably the unwillingness of military powers to be restricted in their operational freedom. But if direct protection of the environment through law of war is politically unfeasible at this time, it may be useful to resort to other, more established regimes overlapping with conservation interests. In the last chapter, indirect protection through humanitarian provisions has already been tackled. In the following, it will be attempted to link international human rights to the protection of the environment in armed conflict. Compared with humanitarian law, human rights cover a wider range of rights than the mere protection of the physical integrity of people. Thus, they could potentially broaden the scope of environmental protection as well. In addition, human rights entitle groups or individuals and therefore reach beyond the realm of inter-State relations. To the extent that environmental or environmentally related rights are

[138] Provided burning is not considered a "technique" in the sense of Article II ENMOD, see the debate above at C.IV.
[139] Birnie, Boyle and Redgwell, *supra* note 84, p. 207

enforceable,[140] they possess a vertical dimension which can provide an incentive to private parties to (indirectly) defend the interests of the environment against their governments.[141]

I. Right to life

The most obvious human right affected by armed conflict is the right to life. All major international human rights instruments protect this right.[142] However, the question arises to what extent this could be linked with environmental considerations. In the jurisprudence of the European Court of Human Right (ECtHR), it has been recognized in several cases that the right to life can be affected by environmental degradation leading to health hazards.[143] The case of *Öneryildiz v Turkey* for instance dealt with a deadly methane explosion at a municipal waste-processing site caused by technical inadequacies.[144] It was held that the right to life under Article 2 ECHR entailed a positive obligation to protect persons within the State party's territory from threats to their lives, including threats arising from environmental destruction.[145] This duty applied to "any activity, whether public or not, in which the right to life may be at stake". That these activities can include the use of weapons was affirmed in the case *L.B.C. v the United Kingdom*, where the effects of nuclear weapons testing on human health were declared a potential infringement of the right to life. A British soldier had been ordered to stand in the open during a nuclear test in the South Pacific. His daughter later suffered from leukemia from the age of three and was seeking compensation from the British government, alleging a causal link between her father's irradiation and her illness. Although the case was dismissed for lack of evidence, the considerations of the ECtHR suggest that it considered the right in principle applicable to the testing of nuclear weapons.[146] The UN Human Rights Committee, now replaced with the Human Rights Council, has taken a similar approach, although the case law is scarcer. Regarding Article 6 ICCPR, the Human Rights Commission's remarked in its General Comment 14(23) that "[i]t is evident that the designing, testing, manufacture, possession and deployment of nuclear weapons are among the greatest threats to the

[140] To what extent "greening" human rights can actually contribute to conservation, has however been contested, see Birnie, Boyle and Redgwell, *supra* note 84, pp. 269, 279-280.

[141] Birnie, Boyle and Redgwell, *supra* note 84, p. 268.

[142] For example Article 2 European Convention of Human Rights (ECHR); Article 6 International Convenant on Civil and Political Rights (ICCPR); Article 4 African Charter on Human and Peoples' Rights (ACHPR); Article XXIII of the American Declaration of the Rights and Duties of Man (ADRDM).

[143] Birnie, Boyle and Redgwell, *supra* note 84, pp. 283-284.

[144] ECtHR, *Öneryıldız v. Turkey*, Judgment of 30 November 2004, Application no. 48939/99, para 13.

[145] ECtHR, *Öneryıldız v. Turkey*, *supra note* 144, para 71.

[146] ECtHR, *L.C.B. v. the United Kingdom*, Judgment of 9 June 1998, Application no. 14/1997/798/1001, paras. 35-41.

right to life which confront mankind today."[147] In a case regarding the French nuclear tests in the Moruroa atoll, the Commission reiterated that statement *obiter dictum*.[148]

All this seems to establish that environmental damage can infringe on the right to life of the State party's own inhabitants. Consequently, in cases where environmental degradation results from military operations on the State's own territory, there would also be a human rights angle. But what about cases where armed forces operate in the opponent's territory or in areas beyond national jurisdicition? The ECtHR case law suggests that the obligation to protect human rights also includes a "transboundary" element.[149] In the case of *Cyprus v Turkey*, the ECtHR was called to sanction right to life violations committed by Turkish soldiers during the occupation of Northern Cyprus.[150] This seems to indicate that States also remain bound to respect human rights when they act outside of their own territory. In the context of warfare, where fighting frequently takes place outside one belligerent's territory, this means that human rights violations through environmental degradation can be attributable even beyond the States own territorial jurisdiction. Building on the case law of the major human rights bodies, it thus seems likely that the right to life not only prohibits warring States from directly harming civilians but also from creating environmental conditions which amount to a health hazard.[151]

II. Right to property

The protection of the environment in times of armed conflict through the protection of opponent property has already been reviewed in the context of international humanitarian law. Property rights are also protected under human rights law[152] and therefore, it seems conceivable that environmental damage inflicted by military means might also violate human rights. Although there is no case law with a link to military environmental destruction, there is abundant jurisprudence on the link between the environment and the right to property. In the case *Maya Indigenous Community of Toledo v Belize*, the Inter-American Commission of Human Rights (IACHR) recognized the soil degradation caused by logging a violation of the right to property, because the environmental degradation would negatively affect the petitioners' agricultural subsistence. In this context, it was considered that the right to property under Article XXIII ADRDM should be interpreted with due

[147] UN Human Rights Committee, General Comment No. 14(23) of 2 November 1984, UN Doc. A/40/40, para. 4.

[148] UN Human Rights Committee, *Bordes v France*, Decision of 22 July 1996, Communication No. 645/1995, para. 5.9.

[149] Alan Boyle, *Human Rights or Environmental Rights? A Reassessment*, Fordham Environmental Law Review (2006-2007), Vol. 18, p. 471 (p. 500).

[150] ECtHR, *Cyprus v Turkey*, Judgment of 10 May 2001, Application no. 25781/94, para. 124.

[151] See also the African Commission on Human and Peoples' Rights' (hereafter African Comission) seminal *Ogoniland* decision, *The Social and Economic Rights Action Center and the Center for Economic and Social Rights v Nigeria*, Communication No. 155/96 of 27 October 2001 (hereafter *Ogoniland*), paras 67-69.

[152] Article 14 ACHPR; Article 21 ACHR

regard to the unique understanding of property among indigenous peoples and their special relation to their environment.[153] The ECtHR on the other hand has been more cautious in positioning the right to property against mere environmental disturbances.[154] The right to property could hence also provide indirect environmental protection in times of armed conflict, although the adverse effects on the property will probably have to go beyond a mere disturbance of a "pleasant" environment. In that sense, the threshold for property rights seems to be quite high.

III. Right to privacy

The right to privacy, guaranteed in a number of international human rights treaties, does not obviously seem to be connected to notions of environmental protection. However, next to the right to life, the right to privacy has been the main human rights guarantee invoked by the ECtHR in environmental cases. In particular the cases *Guerra and others*[155] and *Fadeyeva*[156] have shaped the Court's case law on the environmental side of this right. In the latter case, a Russian national invoked Article 8 ECHR against a nearby steel factory arguing that the Russian government had violated her right to a home, family and private life by failing to regulate the pollution from the plant. The Court concluded that this right had indeed been violated by virtue of the health deterioration suffered by the applicant because of the factory.[157] The right to privacy thus runs parallel to the right to life by requiring belligerents not to damage the environment to an extent which would harm human health, because it represents a prerequisite for enjoying the right to a private life. The notion of a right to family life would be particularly strongly affected in case of harm to children or on human fertility. This would for instance be the case with nuclear, biological and chemical weapons. But also land-mines might represent a particular violation of that right because of the particular danger they pose for playing children, even after the end of the armed conflict.

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[153] IACHR, *Maya Indigenous Community of Toledo v Belize*, Report of 12 October 2004, Case No. 40/04, para. 16: "For indigenous communities, relations to the land are not merely a matter of possession and production but a material and spiritual element which they must fully enjoy, even to preserve their cultural legacy and transmit it to future generations." Also see paras. 112-120.

[154] Dinah Shelton, *Human Rights and the Environment: Jurisprudence of Human Rights Bodies*, Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment (2002): Background Paper No. 2, available at http://www2.ohchr.org/english/issues/environment/environ/bp2.htm#_ftn8 (last accessed 22 November 2011).

[155] ECtHR, *Guerra and others v Italy*, Judgment of 19 February 1998, Application no. 16/1996/735/932.

[156] ECtHR, *Fadeyeva v Russia*, Judgment of 30 November 2005, Application no. 55723/00.

[157] *Ibid*, para. 134.

IV. Right to a healthy or satisfactory environment?

The above-mentioned human rights can be instrumentalized to "incidentally" cover environmental interests. Their common feature is that the violation of another interest takes place by environmental damage, for example by adversely affecting the health of the plaintiff. But is there, in addition to these established rights, a "right" to an intact, healthy or satisfactory environment as such? Such a "right" could strengthen the status of the environment in the balancing with other interests, notably economic ones. In addition, this could also offer a procedural advantage. Whereas the above-mentioned rights require the plaintiff to be individually injured in his other interests by environmental degradation to bring a case, an environmental right could be enforced through public interest litigation, allowing possibly even NGOs to fight for the cause of the environment before a court.[158] But whatever the practical advantages of an independent environmental human right, it cannot yet be considered to have attained a binding legal status under present international law.[159] Admittedly, many instruments, including the ACHPR,[160] Stockholm Declaration,[161] the Aarhus Convention[162] and the ICESCR 1966[163] make reference to a right to a "healthy", "satisfactory", "secure, healthy and ecologically sound" environment or one which "permits a life of quality and well-being" or was "favourable to development". The non-binding Draft Principles On Human Rights And The Environment, published in 1994 by the UN Sub-Commission on the Prevention of Discrimination and Protection of Minorities, proclaim a right to a "secure, healthy and ecologically sound environment."[164]

But as Boyle observes, the sheer diversity of phrasing already highlights the main problem with such an environmental right, namely the uncertainty of its precise contents.[165] Although the idea of a right to a functional environment has featured prominently in the African Commission's *Ogoniland* decision,[166] most international human rights bodies have preferred the "indirect approach" of promoting environmental interests solely by relying on other, non-environmental

[158] Boyle, *supra* note 149, pp. 505-507. Regarding NGOs in international proceedings, also cf. Dinah Shelton, *The Participation of Nongovernmental Organizations in International Judicial Proceedings*, American Journal of International Law (1994), Vol. 88(4), p. 611.

[159] More optimistic though, Sands, *supra* note 82, pp. 294-298.

[160] Article 24.

[161] Principle 1.

[162] Preamble, 7th recital.

[163] Article 12.

[164] Para 4.

[165] Boyle, *supra* note 149, p. 484 with a more detailed discussion of the advantages and disadvantages of such a right.

[166] African Commission, *Ogoniland*, *supra* note 151, paras. 52-53.

human rights.[167] Where environmental "rights" exist under national law, these tend to stipulate mere directive principles as opposed to enforceable positions.[168] This indicates that those States do not consider themselves bound by a customary law environmental human right either. Even the Draft Principles on Human Rights and the Environment, the only instrument linking environmental rights and armed conflict, stops short of setting clear standards. Paragraph 23 merely reiterates that

> States and all other parties shall avoid using the environment as a means of war or inflicting significant, long-term or widespread harm on the environment, and shall respect international law providing protection for the environment in times of armed conflict and cooperate in its further development[,]

without specifying what that "international law" could be. Obviously, there is a lot more to be said about the issue of an international environmental human right. For the purposes of the present paper, suffice it to say that at least regarding the protection from war-related environmental damage, such a right lacks the specificity to impose meaningful obligations on combatants additional to the law of war. Absent case law to that avail, for instance from the African Commission, this "right" is likely to remain irrelevant for regulating armed conflict within the foreseeable future.

V. Conclusion regarding international human rights law

Human rights have the potential of overcoming a key deficiency of law of armed conflict, namely its mere inter-State character and the lack of effective enforcement, because they provide an incentive for individuals to bring a case and thus indirectly lend the environment their voice. Although a direct human right to a becoming environment has not yet materialized, there is abundant case law linking other, non-environmental, human rights to environmental notions, thus providing indirect protection. Accordingly, international human rights bodies have assumed violations of the rights to life, property and privacy through environmental degradation in several instances. Apart from the cases examining a possible infringement of the right to life through nuclear testing, however, the case law exclusively concerns civilian industrial pollution or degradation. For the question of how the "greening" of existing human rights might contribute to protect nature from warfare, the relationship between military needs and human rights still awaits clarification. In that context, it will be particularly interesting, how the derogation clauses will be interpreted, which allow the partial suspension of human rights in cases of public emergency.[169]

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[167] Likewise the academic literature, see Johan D. van der Vyer, *The Environment: State Sovereignty, Human Rights, and Armed Conflict*, Emory International Law Review (2009), Vol. 23, p. 85 (p. 96).

[168] African Commission, *Ogoniland*, *supra* note 151, p. 478-482.

[169] For instance Article 4 ICCPR or Article 15(1) ECHR.

Yet, the willingness of the ECtHR and the Human Rights Council to tackle nuclear test cases inspires optimism that they will not shy away from submitting conventional warfare to a human rights scrutiny.

E. Protection of the environment in armed conflict under international criminal law

ICL originates from international humanitarian law but also maintains close ties with international human rights law. The Nuremberg and Tokyo IMT were in charge of prosecuting offences against the laws and customs of war during the Second World War. With the Genocide Convention[170] and the installation of the *ad hoc* Tribunals for Yugoslavia and Rwanda, the scope of ICL was extended to include not only crimes against the other belligerent but also against the civilian population. Underlying these "crimes against humanity" and genocide are notions of human rights. ICL can therefore be placed at the intersection of humanitarian and human rights law. As has been seen in the previous chapters, both human rights and the law of war can be used for environmental ends. Hence, it seems natural to continue the investigation with an analysis of the international criminal provisions and whether they might cover environmental offences – both directly or by the violation of another protected interest, notably human rights.

Two features make ICL a particularly relevant and particularly effective for the question at hand. Firstly, the criminal provisions represent the most recently codified constraints of military operations. The dense amount of case law produced by the international criminal justice system provides an unprecedented clarification of the limitations and can help to get a clearer picture of the hazy law of war provisions. Secondly, ICL establishes direct individual responsibility, penetrating the veil of statehood and effectively deterring those "pulling the strings". Thirteen years after the establishment of the International Criminal Court (ICC) has gained acceptance. Arrest warrants against the Sudanese President Bashir and the former Libyan leader Muammar Qadhafi,[171] as well as the recent captures of Radko Mladić and Goran Hadžić evidence a strong willingness of the international community to prosecute international atrocities in criminal proceedings. ICL might therefore serve as a door opener to a greater awareness for environmental matters during warfare.

[170] UN Convention on the Prevention and Punishment of the Crime of Genocide of 9 December 1948 (Genocide Convention), UN Treaty Series Vol. 78, p. 277.

[171] The latter warrant was even issued at the unanimous referral of the Libyan situation by the UN Security Council, see UN Security Council Resolution 1970 (2011) of 26 February 2011, UN Doc. S/RES/1970, with voting report available at http://unbisnet.un.org (last accessed 22 November 2011).

I. Environmental damage as a war crime

The Rome Statute of the ICC[172] contains a provision directly protecting the environment and penalizing attacks on it, even when humans are not affected. According to Article 8(b)(iv) ICC Statute, a war crime is committed by

> (i)ntentionally 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.

But although the provision has been in effect for 13 years, the last two cases of conviction or even prosecution of a crime against the environment stem from the Nuremberg trials after the Second World War.[173] In the first case – the already mentioned "Hostages Trial" – German General Rendulic was ultimately acquitted because he had considered the torching of large areas necessary to halt the Russian's advance.[174] In the second decision, the so-called "Polish timber" case, German administrative staff who had authorized timber harvesting "far in excess of what was necessary to preserve the timber resources of the country"[175] were charged with war crimes. Yet, while the case law remains sparse, this should certainly not lead to the conclusion that since that time there has not been at least reason for investigating such an offence. But how can the striking indifference of international criminal tribunals towards the environmental toll of hostilities be explained? Possible answers to this question can be grouped into legal causes on the one hand, as well as political reasons on the other. Both shall be briefly considered in the following.

1. Legal problems in the application of Article 8(b)(iv) of the ICC Statute

The terminology of the norm and the balancing of military objectives with conservation interests are both familiar from the law of war provisions and show the close ties between the two bodies of law. Accordingly, the legal inadequacies of the "environmental war crime" are also similar and can be identified as a main reason for the norm's marginal importance over the last decades. The following subsections discuss those legal issues which are, in the author's opinion, most virulent.

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[172] Rome Statute of the International Criminal Court of 17 July 1998, UN Doc. A/CONF.183/9 (hereafter: ICC Statute)

[173] Carl E. Bruch, *All's Not Fair in (Civil) War: Criminal Liability for Environmental Damage in Internal Armed Conflict*, Vermont Law Review (2000-2001), Vol. 25, p. 695 (p. 716).

[174] Weinstein, *supra* note 15, p. 704.

[175] UN War Crimes Commission, *History of the UN War Crimes Commission and the Development of the Laws of War* (1948), p. 496, cited after Tarasofsky, p. 39.

These comprise the vagueness of the damage threshold (a), the difficulty to disprove military necessity (b), and the limitation to international armed conflict (c).[176]

a) Vagueness of required damage and legality principle

Only damage that is "widespread, long-term and severe" amounts to a war crime. This raises the question, how these terms must be defined. Given the identical terminology in the environmental law of war provisions, it seems logical to turn to them for interpretation. However, as has been established in Chapter C, these conditions are defined differently under the Additional Protocol I and the ENMOD Convention. As a third option, they could be given an autonomous meaning under the ICC Statute. Despite three different interpretations available, the legal literature and case law on this question remain thin. In Triffterer's Commentary on the ICC Statute, Arnold merely states that the threshold "is quite high […] and it probably excludes the sort of damage caused by heavy shelling during World War I"[177] which indicates that she follows the Additional Protocol's standard. This proximity to the Protocol is also supported by the cumulative threefold requirement, speaking against an analogy to the (alternative and hence more expansive) ENMOD Convention's benchmark.[178]

However, ICL has also got to take the rights of the defendant into account and to fulfil a particularly high standard of clarity. The *nullum crimen sine lege* principle, a fundamental *habeus corpus* element, demands that a criminal offence be sufficiently clearly defined by law at the time of the criminal act in question.[179] The available interpretations differ dramatically, so it could probably be argued that the mere vagueness of the provision already contradicted the legality principle.[180] In the author's view, the only option to give a sufficiently clear meaning to the norm and to avoid a *nullum crimen* violation, is a strict application of the *in dubio pro reo* principle. As Article 22(2), second sentence ICC Statute makes clear, "[i]n case of ambiguity, the definition shall be interpreted in favour of the person being investigated, prosecuted or convicted."[181] Applying this rule, the definition, which sets the bar for criminal liability higher and thus makes prosecution harder, must be adopted. This would be the interpretation under the Additional Protocol I, because

[176] Other issues include for instance the definition of "natural environment" or "attack" under the norm, see Peterson, *supra* note 14, pp. 328-329 and pp. 335-336.

[177] Roberta Arnold in: Otto Triffterer (ed.), *Commentary on the Rome Statute of the International Criminal Court – Observers' Notes, Article by Article* (2nd edition; C.H. Beck, Hart Publishing and Nomos; Munich; 2008), Article 8, para. 60.

[178] Jessica C. Lawrence and Kevin Jon Heller, *The Limits of Article 8(2)(b)(iv) of the Rome Statute, The First Ecocentric Environmental War Crime*, Georgetown International Environmental Law Review, Vol. 20 (2007), p. 73.

[179] Bruce Broomhall in: Triffterer, *supra* note 177, Article 22, para. 32.

[180] Lopez, *supra* note 55, p. 258; Lawrence and Heller, *supra* note 178, p. 71.

[181] Broomhall, *supra* note 179, paras. 47-49.

the ENMOD Convention's Understanding requires a less restrictive standard. While the legality principle would hence not be violated by the mere absence of a definition of the terms "widespread, long-term and severe" in the Statute, this would still lead to an almost impractically high threshold of liability. This, however, seems to have been taken into account by the drafters when explicitly referring to the threefold damage threshold.

b) Subjectively defined military necessity and burden of proof

The second problem compound is also familiar from several humanitarian law provisions and revolves around the exemption of militarily necessary damage from the scope of application. Only the infliction of damage that is "clearly excessive in relation to the concrete and direct overall military advantage anticipated" represents criminal behaviour. Some authors have pointed out that there are hardly any practical situations imaginable where this standard could be fulfilled. Their argument maintains that damage, which qualifies as widespread, long-term and severe, will seldom be justifiable by military necessity.[182] However, given the inclusion of the proportionality standard, there must have been at least theoretical cases of application in the eyes of the Statute drafters. In such cases, there will undeniably be a bias in favour of military considerations over conservation.

But the main trouble lies with the subjective definition of necessity and the question of how it could be proven that a perpetrator did not consider his actions necessary. The phrasing ("military advantage *anticipated*")[183] makes it clear that necessity is not determined objectively but represents a mental element.[184] The problem with that is how notoriously difficult to establish mental elements are in criminal proceedings. This provokes the question with whom the onus of proof lies. As a general rule, the prosecution has to prove all elements of crime and the defence all circumstances, which absolve the defendant from liability, for instance defences.[185]

At least some authors[186] seem to consider military necessity a defence. Consequently, the burden to prove his own conviction of military necessity would be the defendant's. On the other hand, it does not seem in contradiction with the phrasing to read absence of necessity as an element of crime. In this case, the prosecution would have to establish the defendant's assessment of the

[182] Dinstein, *supra* note 69, p. 536; Peterson, *supra* note 14, p. 341.

[183] Emphasis added.

[184] Arnold, *supra* note 177, Article 8, para. 58.

[185] Robert Cryer *et al*, *An Introduction to International Criminal Law and Procedure* (2nd edition, Cambridge University Press, Cambridge, 2010), pp. 433-434.

[186] Lopez, *supra* note 55, p. 261; Mark A. Drumbl, *Waging War Against the World: The Need to Move From War Crimes to Environmental Crimes*, in: Austin and Bruch, *supra* note 11, p. 620 (p. 623).

military benefit. Indeed, the majority of scholars seem to see the onus with the prosecution.[187] In practice, this would represent an almost insurmountable challenge. After all, not only proof of the knowledge of the factual circumstances would be required but also that the damage was – in the defendant's view – "clearly" greater than the military gain. Even if the defendant regretted his decision, would he admit it? The only practical means of proving the opposite would be by showing that there were other, less harmful courses of action the commander failed to pursue, although they were obvious to him. But the consequence of this would be transform the *mens rea* into a negligence standard, contrary to the provision's clear phrasing that requires the attack to be launched "in the knowledge"[188] of "clearly excessive" damage.[189] Finally, the subjective standard is likely to privilege commanders who do not think about the environment at all, overestimate military advantages or simply do not possess a lot of knowledge about the ecological results of their actions.[190] After all, the *ex post* review of this decision is bound to the individual commander's assessment of the situation and his personal knowledge. This is well illustrated by the "Hostages Case." The Tribunal held that, although the defendant's scorched earth tactics were objectively useless, the mere fact that the accused subjectively believed that a Russian surge was imminent provided justification.[191] In order to overcome this flaw, Drumbl suggests reading at least some element of "objective knowledge" into the provision[192] but this seems in juxtaposition to the phrasing of the provision and therefore in violation of the legality principle because it would widen the scope of criminal liability to the defendant's disadvantage. The unfortunate result of the subjective standard therefore remains that even a widespread, long-term and severe damage in the sense of Additional Protocol I could be justified, as long as the accused is convinced of a military benefit or simply does not consider the issue.

c) Exemption of non-international armed conflict

Finally, the environmental war crime is only penalized under Article 8(b)(iv) of the ICC Statute if it is committed within the context of international armed conflict.[193] With the increasing dominance of non-international conflict compared to classic State-State hostilities, this limits the applicability

[187] Assuming that the onus lies with the prosecution, Weinstein, *supra* note 15, p. 709. Lopez (*supra* note 55, p. 261) and Drumbl (*supra* note 186, p. 629) surprisingly come to the same conclusion although considering military necessity a defence.

[188] See ICC Elements of Crime, Article 8(2)(b)(iv), para. 3, requiring positive knowledge of the effects of the attack.

[189] Arnold, *supra* note 177, para. 60.

[190] Lawrence and Heller, *supra* note 178, pp. 81-84.

[191] Lopez, *supra* note 55, p. 248.

[192] Drumbl, *supra* note 186, p. 628.

[193] ICC Elements of Crime, Article 8(2)(b)(iv), para. 4. The inclusion of non-international armed conflict into Article 8(2)(b)(iv) was "explicitly rejected" during the Statute's drafting, Lopez, *supra* note 55, p. 250.

rather significantly. There is evidence though that this lacuna was intended by the State parties of the Rome Conference.[194]

2. Practical and political reasons for lack of application

Next to legal hurdles, Weinstein also blames political considerations for the lack of prosecution of environmental crimes. She identifies four factors, which contribute to the impunity of perpetrators against nature. First of all, belligerents tended not to be too eager to push for an investigation of the other side's wrongdoings, fearing that an independent inquiry might also draw attention to their own methods of warfare. Secondly, States were afraid that a prosecution of the other side might smack of victor's justice and provoke political tensions. Thirdly, the international community and the general public did not regard environmental crimes as equally atrocious and worthy of prosecution as humanitarian abominations. Finally, she ascertains a trend of solving environmental transgressions through State liability proceedings and monetary compensation rather than criminal sanctions.[195]

In the opinion of the author, political factors should not be overestimated. It should be recalled, that the ICC possesses mandatory jurisdiction over its State Parties[196] and that the independent Office of the Prosecutor can investigate all possible infringements.[197] Prosecution is not up to the State parties' discretion. For this reason, it seems more likely that practical difficulties of proving the high legal requirements make prosecutors shy away from charging perpetrators with environmental war crimes. In any case, even if it is true that States stay away from criminal prosecution for political reasons, this does not need to be a bad thing, as monetary compensation at least provides funds to rebuild the damaged environment. The negative effect of such an approach would of course be that Article 8(2)(b)(iv) ICC Statute would lose its deterring quality.

II. Prosecution of environmental damage as a means of committing genocide or war crimes

Given the legal limitations of Article 8(2)(b)(iv) ICC Statute and the alleged political hurdles in the way of its stringent application, Weinstein has suggested prosecuting environmental destruction not as an independent offence. Rather, she suggests that the focus of prosecution should be on cases where harm to nature is inflicted as a means of committing other humanitarian offences, namely genocide and crimes against humanity. The advantages of such a strategy could be twofold: first of all, there could be a higher willingness to prosecute offences if a humanitarian atrocity was

[194] Drumbl, *supra* note 186, p. 631.
[195] Weinstein, *supra* note 15, pp. 711-712.
[196] Article 12(1) ICC Statute.
[197] Articles 42(1) and 15(1) ICC Statute.

involved. Secondly, the incidental acknowledgement of environmental destruction in such cases could help establishing valuable precedence for the protection of the environment in ICL and contribute to the clarification of the requirements of Article 8(2)(b)(iv) ICC Statute.

1. Doctrinal approach

Weinstein bases her proposition on the case law established by the International Criminal Tribunal for Rwanda (ICTR) in the *Akayesu* trial regarding so called "genocidal rape". In the judgment it was held that

> [w]ith regard, particularly, to […] rape and sexual violence, the Chamber wishes to underscore the fact that in its opinion, they constitute genocide in the same way as any other act as long as they were committed with the specific intent to destroy, in whole or in part, a particular group, targeted as such. Indeed, rape and sexual violence certainly constitute infliction of serious bodily and mental harm on the victims and are even, according to the Chamber, one of the worst ways of inflict harm on the victim as he or she suffers both bodily and mental harm.[198]

The Tribunal had acknowledged rape as a means of committing the crime of genocide, if the act was accompanied by the specific genocidal intent. Weinstein's rationale is that "[j]ust as rape was prosecuted as a tool to achieve genocide, environmental destruction can be prosecuted as an accelerator of genocide or as a crime against humanity."[199] She illustrates her proposal with the example of the Marsh Arabs in Iraq, a Shia minority, which was significantly decimated under Saddam Hussein's regime by the destruction of their environment. Following an uprising of the Marsh Arabs in 1991, the Iraqi government began draining the extensive wetlands the Marsh Arabs depended on for their livelihood. By the year 2000, 90% of the marshes had been dried out, decimating the population from 250,000-300,000 to 40,000 persons.[200] Assuming these acts were carried out with the intent to destroy in part or as a whole the Marsh Arabs, they amount to genocide in the sense of Article 6(c) of the ICC Statute, namely through "[d]eliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part." Furthermore, she classifies these acts as a crime against humanity in the sense of Article 7(1)(k) of the ICC Statute.[201] The principal advantage of prosecuting ecological destruction through the

[198] ICTR *The Prosecutor vs. Jean-Paul Akayesu*, Case Number ICTR-96-4-T, Judgment of 2 September 1998, para. 731.

[199] Weinstein, *supra* note 15, p. 714.

[200] Weinstein, *supra* note 15, pp. 715-716.

[201] Article 7(1)(k) ICC reads: "For the purpose of this Statute, 'crime against humanity' means any of the following acts when committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the

"avenue" of this provision was the fact that it did not require any nexus to armed conflict, thus also permitting the prosecution in internal and irregular conflicts.[202]

2. Comment

Nothing can be said against a pragmatic prosecution of environmental crimes as "annexes" to other, humanitarian crimes and to find ways of holding perpetrators responsible. Yet, it is unclear, how far Weinstein is prepared to extend criminal liability for genocide-connected environmental offences. Her phrasing suggests that – provided the perpetrator is motivated by genocidal intent – criminal liability should already ensue if the destruction of nature is used as a mere "accelerator of genocide".[203] To found this conclusion on the *Akayesu* judgment is misleading because it suggests a general rule that the acts described in Article 6 ICC Statute could also be fulfilled by mere contributing factors to the destruction of a protected group. This is clearly not the case. According to the Chamber, the rape must be the *actus reus* and not just a mere contributing factor or side effect.[204] Translated into acts of environmental destruction, criminal responsibility can only be attributed if the perpetrator at least intends to use the degradation in order to bring about the (partial) physical destruction of the protected group.

Apart from this necessary clarification, Weinstein's proposal deserves applause. First of all, it addresses some of the legal hurdles of prosecuting environmental atrocities as independent crimes. What is more, she resolves many of the issues within the present legal framework, thus avoiding the need for a time-consuming and difficult negotiation of amendments to the Rome Statute or even an "Ecocide Convention".[205] On the other hand, she presents an opportunity for providing criminal prosecution of "ecocrimes" with the acceptance necessary for the gradual future development of this field. And while it does not heal all the shortcomings of the present environmental ICL, these small steps may in the end prove more effective than a general overhauling of the ICL framework.

III. Conclusion regarding international criminal law

Article 8(2)(b)(iv) ICC Statute criminalizes the intentional infliction of widespread, long-term and severe damage to the environment during international armed conflict. The provision has evidently been drafted in the same terminology of the law of war provisions and complements them by

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attack: […] Other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health."

[202] Lindsay Moire, *The Law of International Armed Conflict* (Cambridge University Press, Cambridge, 2002), p. 161.

[203] Weinstein, *supra* note 15, p. 714.

[204] Sherrie L. Russell-Brown, *Rape as an Act of Genocide*, Berkeley Journal of International Law, Vol. 21, p. 350 (pp. 352, 362).

[205] A proposal for such an independent "ecocide convention" has been made by Drumbl, *supra* note 186, pp. 636-646.

providing individual criminal responsibility for breaches. Unfortunately, the three cumulative elements must also be understood in the same rigid sense as the provisions of Article 35(3) Additional Protocol I, exempting the majority of environmental war-damage from its scope. But even where these requirements are met, it will be very hard for the prosecution to prove that the defendant was also aware of the lack of military necessity. The provision likewise does not cover internal armed conflict, with the contradictory result that one same strategy may be illegal in international armed conflict but legal in internal strife. Therefore, it is not surprising that Article 8(2)(b)(iv) still awaits practical application. Presently, it seems more practical to prosecute environmental offences where they serve as a tool to commit genocide or crimes against humanity. This would not only have the welcomed side effect of helping to clarify the requirements of Article 8(2)(b)(iv). It would also help to gradually build up awareness for the environmental toll of armed conflict and acceptance for its legal prosecution, possibly paving the road for an amendment of the Rome Statute or at least a reinterpretation of the strict requirements. The question will then be, if the international legal community is going to show the same willingness to punish crimes against nature as crimes against people.

F. Protection of the environment in armed conflict under international environmental law

The growing concern of the international community for the environment has also led to the emergence of a variety of international treaties and instruments specifically designed for the protection of nature. This body of international law has seen a lot of development and refinement in the past years. Again, the question investigated in the following section will be if and to what extent this set of rules can contribute to filling up the lacunae of the law of war.

Two realizations govern the structure of the argument. Firstly, it must be understood that IEL contains very little reference to warfare and was mainly designed to regulate peacetime (economic) activity. This raises the question if IEL can make a meaningful contribution to the protection of the environment in times of war. At the beginning, it will therefore be analysed what restrictions and obligations IEL, were it applicable, would institute regarding war-specific hazards to the environment. But if most IEL has been designed for regulating peacetime activity, another question arises: Are IEL norms even formally applicable during times of armed conflict at all or are they not subject to suspension, abrogation or withdrawal? Whereas the first section investigates if IEL norms could be interpreted to *practically* fit the specific situation of armed conflict, the second question to be answered would be whether IEL could also *legally* apply under such circumstances. It is obvious

that the consequences of the latter issue extend far beyond the immediate destruction inflicted by military operations. If IEL treaties were suspended, even non war-related economic activity would no longer be subject to the rules imposed by IEL. Consequently, provisions on pollution regimes, protected areas or biological diversity would no longer apply. Thus, the environment would not only suffer from destruction through military operations but also from unrestricted pollution and exploitation of natural resources. Such damage can be attributed to the "indirect" or "induced" damage category[206] and will be at the heart of the second subsection of this Chapter.

I. Hypothetical scope of international environmental law regarding war-specific environmental degradation

Before the question of applicability is addressed, it is useful to examine how effectively IEL could protect the environment from war-specific damage, assuming it were applicable to situations of armed conflict. This procedure offers a twofold benefit: On the one hand, work economy seems to prescribe this order. Although even the mere suspension of the non war-related IEL during armed conflict could have dramatic effects on the environment, the case for upholding IEL can only grow stronger if also provisions protecting nature from warfare itself can be identified. In addition, it also seems like a sensible procedure with regard to the discussion of the theoretical issue itself. Especially in a tradition- and doctrine-fraught theoretical debate, a reminder of the practical stakes can be enlightening. Yet, the sheer bulk of relevant law would exceed the space and scope of the present thesis. What follows is consequently not an exhaustive, but merely an illustrative account of some provisions appearing either particularly relevant or illustrative of certain aspects.

1. Provisions for the protection of the marine environment

The marine environment is not only threatened by naval warfare but can even be endangered when hostilities take only place on land, as the Gulf war oil spills have shown. Among the IEL relevant to the protection of the marine environment, the United Nations Convention on the Law of the Sea (LOSC) certainly takes a centre-stage position. Today, it also boasts a near-universal membership. Against this background, it is well worth taking a look at those provisions, which might impose limitations to warfare in the interest of the marine environment. Next to the LOSC, there is an abundance of other conventions protecting the marine environment, for instance the MARPOL convention,[207] the London Anti-Dumping Convention[208] as well as regional treaties.[209] For the sake of space however, these cannot be investigated in detail.

[206] See above B.II.2.

[207] International Convention for the Prevention of Pollution from Ships (MARPOL1973/1978) of 2 November 1972, International Legal Materials, Vol. 12, p. 1319 and Vol. 17, p. 546.

a) Obligations to protect the marine environment

aa) Obligation to protect and preserve the marine environment and not to cause transboundary environmental damage

The general clause of Article 192 LOSC submits States to an "obligation to protect and preserve the marine environment." Article 194(1) LOSC elaborates this obligation as a duty to take all necessary measures "to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal." As the words "any source" and the non-exhaustive listing ("*inter alia*") of potentially harmful activities in Article 194(3) LOSC shows, warfare could be within the scope of this obligation, although it is not explicitly mentioned. On the other hand, it is clarified by the words "best practical means at their disposal" that this is not an absolute obligation but depends on the individual capacity of each State.[210] Importantly, Article 194(2) LOSC stipulates an obligation to ensure "that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights." Accordingly, even areas beyond national jurisdiction like the high seas are protected by the norm.[211]

bb) Obligation to prevent, reduce and control pollution through use of technology

Article 196(1) LOSC requires State parties to "prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control." This could be a relevant addition to the ENMOD Convention's prohibition of environmental warfare. For example, the general term "use of technology" is much wider than the term "environmental modification technique" in ENMOD Convention. Furthermore, the word "and" establishes a hierarchy between prevention, reduction and control of pollution, meaning that prevention comes foremost. Only where it cannot be prevented it must be reduced and only where it cannot be reduced it must be controlled. If the LOSC were applicable in armed conflict, States would therefore have to make an effort to minimize the pollution resulting from their military operations.

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[208] Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter of 13 November 1972 (London Convention), International Legal Materials, Vol. 11, p. 1294, and Protocol of 17 November 1996.

[209] Take for instance the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols (Barcelona Convention) 1976/1995, for commentary on the relevance in conflict see UNEP, *supra* note 48, p. 36. Other regional conventions can be found at http://www.unep.org/regionalseas/.

[210] Birnie, Boyle and Redgwell, *supra* note 84, p. 389.

[211] *Ibid*, p. 387; Vöneky, *supra* note 20, p. 80.

cc) Obligation to use the High Seas only for peaceful purposes

According to Article 88 LOSC "[t]he high seas shall be reserved for peaceful purposes." This is however not to be understood in the sense of a prohibition of any military activity or a demilitarization. The provision merely prohibits activities, which represent an aggression[212] in breach of Article 2(4) of the Charter of the United Nations.[213] On the other hand, freedom to use the high seas for warfare may not compromise the interests of other States, which are non-party to the conflict. It follows that intentional pollution of the marine environment is not justified by the right to wage war on the high seas.[214]

dd) Protection of the international seabed Area as "common heritage of mankind"

Article 141 LOSC again stipulates that the Area is reserved for peaceful purposes, which must be read in the same sense as Article 88. Article 145 furthermore contains a general obligation "to ensure effective protection for the marine environment from harmful effects" of activities in the Area. In addition to that, Article 136 declares "the Area and its resources […] the common heritage of mankind." Article 140(1) continues that, activities in the Area must be carried out for the common benefit of mankind. It has been suggested that this represents a limitation for the use of the Area for military purposes where this is incompatible with the use for the common heritage or where it would "disproportionally impede" such use.[215] From where this proportionality standard is derived remains unclear, but the general approach that the common heritage concept should entail a responsibility to protect the Area seems convincing. As will be discussed below, the thought of a common interest in the preservation of a certain environment can also be used to support the cause for maintaining IEL treaties in effect during armed conflict.[216]

b) Exceptions for warships and warplanes

The LOSC unfortunately makes one notable exception to the pollution prevention clauses. Article 236, first sentence LOSC stipulates that

> "[t]he provisions of this Convention regarding the protection and preservation of the marine environment do not apply to any warship, naval auxiliary, other vessels or aircraft owned or operated by a State and used, for the time being, only on government non-commercial service.

[212] Michael Bothe, *The Protection of the Environment in Times of Armed Conflict – Legal Rules, Uncertainty, Deficiencies and Possible Developments*, German Yearbook of International Law (1991), Vol. 34, p. 54 (p. 61).
[213] Charter of the United Nations of 26 June 1945, UN Treaty Series, Vol. 892, p. 119.
[214] Likewise Bothe, *supra* note 212, p. 61; Vöneky, *supra* note 20, p. 84.
[215] Vöneky, *supra* note 20, p. 86.
[216] See below F.II.3.d)cc)(3) and F.II.4.a).

This does however not mean that these vessels were exempt from all environmental restrictions. First of all, only prohibitions "regarding the protection and preservation of the marine environment" fall within the exception. Other norms, like the peaceful use clause or the common heritage principle continue to apply. Furthermore, Article 236, second sentence LOSC imposes an obligation for

> "each State [to] ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with this Convention."

This underlines that government vessels are not exempt from all environmental obligations. In addition, the sovereign immunity clause only applies to government vessels. Land-based pollution of the marine environment remains covered,[217] for instance from land warfare, as well as regular economic activity. Despite the deplorable limitation of its scope, the LOSC could therefore be an important instrument of protecting the marine environment from the effects of armed conflict.

2. Provisions for on biological diversity

As the example of the Rwandan conflict discussed above has shown, biological diversity and functioning ecosystems belong to the most vulnerable victims of fighting. Wildlife and their habitats can be intentionally destroyed, but severe damage also results from incidental destruction where nature is viewed as a "collateral" damage of some military operation.[218] Especially the latter category is hardly covered by the IEL protecting biological diversity, as the following section will explain. However, with the growing public awareness for protecting biological diversity of the last twenty years, some useful norms could at least theoretically apply.

a) CBD 1992

The Convention on Biological Diversity of 1992 (CBD) sets up a framework for national measures rather than stipulating specific obligations. That notwithstanding, the Convention's scope encompasses a broad, comprehensive subject matter. The agreement also enjoys the advantage of widespread ratification.[219] And although there is no specific reference to armed conflict in CBD, a few provisions could potentially prove useful for regulating war-related environmental degradation.

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[217] Alice Louise Bunker, *Protection of the Environment During Armed Conflict: One Gulf, Two Wars*, Review of European Community and International Environmental Law (2004), Vol. 13(2), p. 201 (p. 202).

[218] See Brauer, *supra* note 13, pp. 121-130.

[219] Sands, *supra* note 82, pp. 516-517; Birnie, Boyle and Redgwell, *supra* note 84, pp. 612, 617.

Article 3 CBD reiterates the well-established Trail Smelter principle, charging States with the "responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." Read in conjunction with Article 1, this arguably could mean that a belligerent State must resort to the least destructive weapons and tactics available and that intentional destruction of nature is illegal.[220]

Articles 8 and 9 CBD require certain biodiversity protection *in* and *ex situ*. Article 8(a) CBD demands the establishment and maintenance of protected areas on the State parties' own territory. This provision is limited by the caveat "as far as possible and as appropriate", so it is unlikely that a zone, once established, would have to be spared from fighting under all circumstances. At least, Article 8(a) would demand a higher degree of attention to such areas and even adjacent areas,[221] if it were applicable to armed conflict. Other potentially relevant measures under CBD include restrictions to the introduction of genetically modified organisms (GMOs)[222] and sustainable use of natural resources.[223] Given the fact that the war effort is frequently economically enabled through reckless resource-exploitation, particularly the latter aspect has a high relevance.

Next to obligations of conduct, the convention also imposes duties of cooperation and consultation among the States.[224] It is questionable to what extent these are compatible with military objectives and the (at least under law of war) legitimate interest of inflicting damage on the opponent, for example if the notification of the opponent of a certain environmental threat would compromise tactical advantages.[225] This points already to the notion of "compatibility" which will play an important role in the later doctrinal debate on the applicability.[226] At least in relation to non-conflict parties, however, these consultation duties should fully apply.

In summary, the application of CBD to armed conflict would not provide comprehensive protection of biodiversity It would however mend some of the deficiencies of the law of war, for instance by covering damage which is not wide-spread, long-term and/or severe, and also destruction on the parties' on territory or neutral States. Finally, it would help prevent environmental damage induced by warfare.

[220] McNeely, *supra* note 21, p. 353; Vöneky, *supra* note 20, pp. 106-107.
[221] Article 8(d) CBD.
[222] Article 8(g) CBD.
[223] Articles 8(i) and 10 CBD.
[224] Articles 5 and 15-21 CBD.
[225] In detail regarding this problem: Vöneky, *supra* note 20, pp. 129-130.
[226] See below F.II.3.d)ee)(2).

b) World Heritage Convention 1972

Although not strictly speaking an IEL treaty, the World Heritage Convention of 1972 (WHC)[227] encompasses environmental notions, for example by protecting certain areas as natural heritage sites. If the natural heritage site provisions were applicable to armed conflict, the duties outlined in Articles 4 and 5 would impose rather stringent limitations. Where natural heritage sites have been installed, the host State would be required to make "utmost" efforts for their protection, albeit only according to that State's individual capacity. If the opponent is a WHC party as well, Article 6(3) requires both sides to respect the protected heritage on each other's territory. Lastly, even the mere risk of an outbreak of hostilities could justify the inscription of a valuable site on the "danger list" according to Article 11(4) WHC. The Convention could thus even provide pre-emptive protection. In practice, the WHC has unfortunately not prevented much war-specific degradation, even where natural heritage sites exist, but this seems more a practical than a legal problem. That said, it is obvious that the Convention can only protect a few selected areas. Even with the best enforcement, the WHC would not be suited to comprehensively prevent damage to the wider natural environment.

3. Provisions for climate protection

The UN Framework Convention on Climate Change (UNFCCC) and the 1997 Kyoto Protocol commit States to reduce emissions of a number of gases provoking the change of the Earth's climate. These emission targets correspond to a duty to take "measures to mitigate climate change by addressing anthropogenic emissions by […] and measures to facilitate adequate adaptation to climate change."[228] This could require belligerent States to minimize the emission of greenhouse gases of their weapon systems and operations, regardless of the territory where the operation takes place.[229] On the other hand, that the emission targets themselves do not help to reduce war-related greenhouse emissions as such because the States are not required to restrict a specific emission source like for instance warfare.[230] Again, the main relevance of the targets could be to restrain emissions from economic activity, even in times of armed conflict.

II. Applicability of peacetime international environmental law treaties to armed conflict

The previous subsection has shown that IEL in most cases not does address war-related damage but can be interpreted in such a way. The main relevance of IEL for the issue at hand seems to be the

[227] Convention Concerning the Protection of the World Cultural and Natural Heritage (WHC) of 16 November 1972.
[228] Article 4(1)(b) UNFCCC.
[229] Vöneky, *supra* note 20, p. 104.
[230] *Ibid*, pp. 104-105.

regulation of damage induced by armed conflict. With this realization, the scene is set for the second question, namely whether IEL provisions remain in effect during armed conflict.

Most IEL treaties do not make express provision for the outbreak of armed conflicts and due to the scarcity of relevant State practice, scholars have been struggling to find a general answer since the early 20th century. With the scarcity of case law and the contradictory practice, this has been a difficult task. The adoption of the 1969 Vienna Convention on the Law of Treaties (VCLT)[231] offered an opportunity to overcome this deadlock. Indeed, the Convention formulates general rules on perturbation of international contracts, for instance the rules on fundamental change of circumstances (*clausula rebus sic standibus*).[232] Unfortunately though, the ILC "dodged the issue" and explicitly excluded the effects of armed conflict from the Convention's scope[233] with the preposterous justification that armed conflicts "must be considered an entirely abnormal condition" and that therefore no specific rules were needed.[234] This was of course not true at the time and is unfortunately not the case today.

In 1985, the *Institut de Droit International* (IDI) presented the first proposal for codified rules governing the law of treaties in armed conflict, but did not resolve the dispute.[235] After many years of neglect, the issue resurfaced in the aftermath of the first Gulf War when the environmental disaster in Kuwait provoked international outrage. Once again, the debate remained largely confined to academic discussion though and it was not until 2004 that the UN General Assembly referred the issue "Effects of armed conflicts on treaties" to the agenda of the ILC to complete the work on the VCLT.[236]

In October 2011, the ILC finally submitted a revised set of Draft Articles (hereafter: ILC-DA) to the current UN General Assembly's 66th session.[237] The General Assembly's Legal Committee discussed the ILC-DA on the 27 and 28 October [238] but no outcomes of the debate have been released at the time of writing. The United States are the only major military power to have

[231] In particular Articles 62 and 63 VCLT.

[232] For details, see Malgosia Fitzmaurice and Olufemi Elias, *Contemporary Issues in the Law of Treaties* (Eleven International Publishing, Utrecht, 2005), pp. 173-200.

[233] Article 73 VCLT reads: "The provisions of the present Convention shall not prejudge any question that may arise in regard to a treaty from a succession of States or from the international responsibility of a State or from the outbreak of hostilities between States".

[234] Anthony Aust, *Modern Treaty Law And Practice* (Cambridge University Press, Cambridge, 2007), p. 308.

[235] Institut de Droit International, *The Effects of Armed Conflicts on Treaties*, Resolution of 28 August 1985 (hereafter: IDI-Resolution).

[236] UN General Assembly, Resolution 59/41 of 2 December 2004, para. 5.

[237] ILC, *Report of the International Law Commission*, General Assembly Official Records, 66th session, Supplement No. 10, UN Doc. A/66/10, para. 89 and due for publication in Yearbook of the International Law Commission, 2011, vol. II, Part 2.

[238] UN General Assembly, *Work Programme of the Sixth Committee at the 66th session (2011)*, available at http://www.un.org/en/ga/sixth/66/Work%20Programme.66th_2nd%20half.pdf (last accessed 22 November 2011).

disclosed their statement before the Legal Committee. The American representative stressed that his government was opposed to the idea of a binding Convention and preferred to consider the ILC-DA as a mere "guidance for individual States when determining the effect of specific armed conflicts on their treaty relations."[239] Although adoption at the present General Assembly seems unlikely, it is evident that the findings of the ILC have brought the debate a significant step ahead. Even if the States do not adopt the articles in the form of an agreement,[240] it is possible that over time they might eventually pass into customary international law.[241]

The analysis in the present thesis will follow the framework set out in the ILC-DA. To introduce the topic an overview of the case law, State practice and academic opinions prior to the adoption of the Draft Articles will be provided. This is an important prerequisite for the understanding of the ILC-DA, which build to a large extent on the prevalent doctrinal approaches. Afterwards, an attempt will be made to link the ILC-DA with the current state of the debate and to apply the findings to the particular question of whether environmental treaties continue to apply in armed conflict. Thirdly, an alternative approach to establish a wide continuation of IEL treaties will be presented. Finally, the question of the fate of customary IEL in armed conflict, which falls beyond the scope of the Draft Articles and has only received little scholarly attention, will be touched upon in order to complete the picture.

1. Case Law and State Practice

Until today, case law and state practice on the issue of the effect of armed conflict on treaties remain thin. The already mentioned *Threat or Use of Nuclear Weapons* advisory opinion of 1996 in front of the ICJ represent the closest an international court has come to a ruling on the issue. Although the judges had the opportunity to clarify at least some of the issues regarding the continuation of international treaties during armed conflict, they preferred to side-step the issue.

> However, the Court is of the view that the issue is not whether the treaties relating to the protection of the environment are or are not applicable during an armed conflict, but rather whether the obligations stemming from these treaties were intended to be obligations of total restraint during military conflict. The Court does not consider that the treaties in question could have intended to deprive a State of the exercise of its right of self-defence under international law because of its obligations to protect the environment. Nonetheless, States must take environmental considerations into account when assessing what is necessary and proportionate in the

[239] United States of America's Mission to the UN, *Remarks by The Honorable Harold H. Koh, Legal Adviser, U.S. Department of State, at a General Assembly Sixth Committee (Legal) Session on October 27, 2011: Report of the International Law Commission on the Work of its 63rd Session (Part II)*, available at http://usun.state.gov/briefing/statements/2011/176935.htm (last accessed 22 November 2011).

[240] As happened in the case of the VCLT, see Aust, *supra* note 234, pp. 6-7.

[241] Ian Brownlie, *Principles of International Law* (7th edition, Oxford University Press, Oxford, 2008), p. 29.

> 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.[242]

This statement raises probably more questions than giving answers. Instead of addressing the logically primary question of whether the treaty is applicable at all, it directs the focus to the precise contents of the treaty obligations. It also remains unclear where IEL obligations would reach an intensity to deprive a State of its right to self-defence and what happens if a belligerent does not act in self-defence?

The practice of States regarding the continuation of environmental law proves similarly inconclusive. Where States choose to follow or not to follow their IEL treaty commitments, it is uncertain whether the conduct was inspired by *opinio iuris* or merely political considerations. The continued cooperation of Iran and Iraq through the Regional Organization for the Protection of the Marine Environment (ROPME) during their conflict[243] and the abidance of NATO forces to the LOSC's environmental provisions during the Kosovo conflict in 1999[244] can be cited as positive examples from the scarce evidence. At the same time though, Bosnia and Croatia did not respect international environmental treaties[245] and the NATO States did not refrain from attacking the Pančevo chemical factory in Kosovo. Three major military powers, the United States, France and the United Kingdom, also expressly contested the applicability of peacetime environmental law to armed conflict in the *Legality of the Use or Threat of Nuclear Weapons* proceedings before the ICJ.[246] Case law and State practice therefore cannot provide a sufficient basis for any general conclusions on whether or not IEL treaties continue to apply during armed conflict.

2. Doctrine in academic writing

Scholars of international law remain until today divided on the question of what happens to a treaty when armed conflict breaks out between (some of) its parties. At the time of writing, the protagonists of the debate have not yet commented on the ILC-DA, so that it is unclear to what extent their position may be influenced by them. Yet, as will be shown in section 3, most approaches have found some sort of resonance in the ILC-DA, so that major shifts of the doctrinal positions seem unlikely. In preparation of the analysis of the ILC-DA, the three predominant academic opinions shall be outlined.

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[242] ICJ, *Legality of the Threat or Use of Nuclear Weapons, supra* note 79, para. 30.
[243] Vöneky, *supra* note 20, p. 141, see also Tarasofsky, *supra* note 45, p. 71.
[244] Despite not being parties to this treaty, Vöneky, *supra* note 20, p. 142.
[245] *Ibid*, p. 142.
[246] *Ibid*, p. 161.

a) Termination theories

aa) Absolute termination theory

Traditional legal doctrine for a long time maintained that, all legal relations between the belligerents ceased to exist with the outbreak of hostilities.[247] This was primarily underlined with a natural law argument. With armed conflict, it was believed that the struggling nations returned to an "original state" of lawlessness. The second argument points out the particularities of modern war as witnessed in the two world wars. With the aim of these "total" wars being the total annihilation of the other State, including the population, it was considered incompatible to uphold any legal relationships.[248] More subtly, English courts at the beginning of the 20th century, inferred an "implied term" of termination into the contract.[249] The counter arguments to all these constructions are obvious. There is simply no legal basis for the assumption that contractual relationships were incompatible with a state of war.[250] An "implied" termination clause represents nothing more than a legal fiction. But also the natural law argument cannot be maintained today. The international legal order after the foundation of the United Nations is characterized by the prohibition of violence as laid down in Article 2(4) UN Charter.[251] In fact, the very existence of law of war proves that States wanted to subject warfare to a legal regime of rights and obligations and not some anarchic State of lawlessness. Some treaties also contain clauses allowing the parties to suspend or terminate the treaty. These would be redundant if the treaty was automatically jeopardized by the outbreak of conflict.[252] At least an absolute termination theory is therefore clearly in contradiction of present public international law.[253]

bb) Lex specialis approach

Nevertheless, a more moderate version of the termination theory prevails. This theory could be called the "*lex specialis*" approach.[254] Its cornerstone is the general principle *lex specialis derogat lege generali*, in other words that general laws are derogated by provisions with regulate the specific case. The argument claims that while not all contractual ties between the belligerents are

[247] Stone, *supra* note 28, p. 24.

[248] Richard Rank, *Modern War and the Validity of Treaties*, Cornell Law Quarterly (1952-1953), Vol. 38, p. 321 (pp. 321-322) with further references.

[249] Arnold Duncan McNair, *Legal Effects of War* (2nd edition, Cambridge University Press, Cambridge, 1944), pp. 143-146.

[250] Rank, *supra* note 248, p. 328.

[251] Vöneky, *supra* note 20, p. 224.

[252] Rank, *supra* note 248, pp. 328-330.

[253] Rank, *supra* note 248, p. 324.

[254] See for example Bothe, *supra* note 212, p. 59, or, in a milder form, Boelaert-Suominen, *supra* note 98, p. 133.

cut with the outbreak of war, only those rules, which contain specific rules for warfare, continue to apply while "peacetime" law is abrogated.

This does not immediately seem unreasonable. For instance, it could be argued that international human rights and humanitarian law treaties protected the same interest and that the latter must therefore override the former to avoid a conflict. The first problem with such a view is, however, that it is unclear how far the abrogation extends. An *en bloc* termination or suspension of "peacetime" law would mean that law of war is even considered special in those instances where the two bodies of law do not collide.[255] Given the fact that the law of war mentions the environment only scarcely and given the increasingly comprehensive scope of IEL, the case of contradicting rules seems more like the exception than the rule.

But even where such a clear conflict can be identified, for example in the case of human rights versus humanitarian law, the international law and State practice do not support the *lex specialis* argument. The law of war itself incorporates notions of human rights through the Martens Clause or Article 72(1) Additional Protocol I.[256] The latter provision explicitly states that persons in the power of a conflict party are "*additional* to […] other applicable rules of international law relating to the protection of fundamental human rights during international armed conflict."[257] At closer examination, the apposition of the two regimes suggested by the *lex specialis* approach is simply inconsistent with the legal reality.

b) Continuation theories

On the other side of the doctrinal spectrum, it has very early been contested whether it had any effect on treaties at all that nations were at war. This school of thought, commonly labelled continuation theories, rejects the presumption of automatic termination as a legal fiction, suggesting that treaties remain unaffected by the hostilities and continue to bind the parties, both towards other states as well as towards each other. As the examples initially cited show though, neither of these clear-cut theories finds support in State practice. In fact, states have not been dealing in a uniform way with the issue, in some cases upholding the treaties, in others not. Therefore, the vast majority of scholars now favour a differentiated view.[258] These are commonly divided into differentiation theories and classification theories.

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[255] In a similar direction: Michael K. Prescott, *How War Affects Treaties Between Belligerents: A Case Study of the Gulf War*, Emory International Law Review (1993), Vol. 7, p. 197 (p. 205).

[256] Vöneky, *supra* note 20, p. 286 with references.

[257] Emphasis added.

[258] Brownlie, *supra* note 241, p. 616; Vöneky, *supra* note 20, p. 226; Prescott, *supra* note 255, p. 222.

c) Differentiation theories

Differentiation theories attempt to find abstract conditions for a treaty to apply in times of armed conflict. Once such a criterion has been found, proponents of this approach would test whether a treaty meets it and thus establish whether the agreement continues to apply during armed conflict. The key question of this theory is obviously, which criterion should be determining. In response to that question, two camps can be identified: a subjective, intention-based doctrine and an objective test, based on the nature and purpose of the treaty.

aa) Doctrine of intention

Rank was first to suggest that this criterion should be the intention of the parties at the time of the conclusion of the agreement. Since a treaty's legal authority was created through the agreement of the parties, it followed that its abrogation should be determined in the same way. In support of this proposition, an array of case law from American and English courts is cited, as well as the fact that many treaties contain express provisions for the outbreak of hostilities.[259] The trouble with this approach is, as Rank himself recognizes,[260] that there are also many treaties which simply do not make express provisions and that it will be difficult to derive a clear intention from the preparatory materials. Until a competent international judicial organ could determine the intention, there would a great deal of uncertainty about whether the treaty still applied or not. In multilateral settings, this could also cause particular hardship for the non-belligerent parties, as they would be left in the dark whether they could expect performance of the belligerents' treaty obligations or not. Consequently, the doctrine of intention would most likely fail to provide a solution in practice.

bb) Doctrine of objective nature and purpose

By contrast, an objective differentiation theory would examine, whether a treaty's objective nature and purpose was compatible with the existence of armed conflict between the parties.[261] Under such an approach, for example, so-called "political" treaties could be deemed "incompatible" with war,[262] as well as obligations of notification, requiring direct communication between the opponents. The problem would evidently be to determine the purpose of a treaty. Especially environmental law treaties often pursue a multitude of sometimes even conflicting objectives. In those cases, the only way to implement an objective "compatibility" test would be to examine each

[259] Rank, *supra* note 248, p. 325, with references to the British case *Marryat v Wilson* and the American case *Allen v Markham*.
[260] *Ibid*, p. 330.
[261] Vöneky, *supra* note 20, p. 228-229; Prescott, *supra* note 255, p. 205.
[262] Aust, *supra* note 234, p. 309.

treaty provision independently according to its own nature and purpose. The result would be that some provisions would be abrogated while others would remain applicable.[263] Such a "patchwork" approach would create much uncertainty. But what is more, the fragmentation of a treaty that was negotiated as a "package" could result in an agreement, which the parties would never have concluded in the first place. In order to avoid such a danger, inevitably the subjective motives of the parties would have to be explored, compromising the objective basis of the doctrine. Yet, even where this is feasible, the determination of a provision's purpose will also have to rely on the scarcely documented intentions of the parties. In sum, the objective differentiation theory creates such insurmountable difficulties that it does not seem practicable at present.

d) Classification theories

With the problems of the absolute theories and the differentiation theories as described above, the majority academic opinion, as well as the ILC's proposal, lean towards a third category, frequently referred to as classification theories. Defining what distinguishes a classification theory from the differentiation doctrine is not an easy task. Especially the overlaps with the objective differentiation theory are so significant, that it can be impossible to tell them apart. It could perhaps be said that in a pure form, a differentiation approach would test each individual treaty under a certain *abstract* rule, for instance whether parties intended to maintain it in effect throughout a conflict. Classification theories on the other hand would identify *groups* of treaties and only ask, if a treaty's subject matter falls within the descriptive scope of this treaty. However, each of these groups is not chosen at random but rather as an expression of an underlying rationale. In the end, it appears to be be a mere matter of phrasing, whether this rationale is expressed as an abstract rule or in the form of a group of treaties which fulfil that rule. This shows, that classification and differentiation theories are rooted in the same idea, namely to find an adequate general distinction criterion between applicable and non-applicable treaties. Nevertheless, the terminology is widely used and helps to trace the development of the debate and the reasoning of the different participants. It will therefore be maintained for the purposes of the present investigation.

The first attempts at identifying groups of treaties that remain unaffected by armed conflict can be traced to Arnold Duncan McNair's monograph on the law of treaties from 1938.[264] Silja Vöneky, subjected the groups thus far identified to an extensive scrutiny in her doctoral dissertation

[263] Prescott, *supra* note 255, p. 205.

[264] Arnold Duncan McNair, *The Law of Treaties* (Clarendon Press, Oxford, 1938), pp. 530-553. Note however that some authors assign McNair's position to the objective differentiation doctrine, see above at F.II.2.c)bb).

and concludes that eight groups of treaties survive the outbreak of hostilities.[265] According to her, all those treaties remain applicable in armed conflict which (a) expressly stipulate so; (b) by their very purpose must necessarily remain in effect during armed conflict; (c) are multilateral treaties and compatible with the maintenance of international armed conflict; (d) founding treaties of international organizations; (e) treaties establishing an international regime or status; (f) treaties establishing permanent rights, or a permanent status or regime; (g) human rights treaties; (h) treaty obligations, which are part of the international *ius cogens* or establish duties *erga omnes* towards the international community as a whole. Vöneky was first to provide a doctrinal foundation ot classification theory and represents the most recent reaffirmation of that approach.

The ILC-DA reflect these groups to a large extent, underlining the dominance of the classification method. Given the large overlaps between classification theory and the ILC's approach, the following section is therefore structured in accordance with these groups taken up by the ILC and will discuss whether they should apply to determine the continuation of treaties during armed conflict, considering both the ILC's view and the scholarly writing prior to the issuance of the ILC-DA.[266]

3. Draft Articles of the International Law Commission

As has been already hinted, the ILC-DA contain an indicative list of treaty categories, which are likely to continue during armed conflict. Due to the list's comprehensive nature and the vagueness of the general provisions on applicability, it is reasonable to assume that these presumptions will gain paramount importance, once the ILC-DA are in force. For this reason, this section will focus on an analysis of these groups and their relevance for protecting the environment during armed conflict. Before that, however, a brief survey of the ILC-DA's scope and systematic structure shall be undertaken so as to understand the significance and limitations of the groups presumed to apply during armed conflict.

a) Scope of the ILC Draft Articles

Pursuant to Article 1, the ILC-DA apply to the "relations of States under a treaty", that is only to international treaties, although the membership of IGOs to such an agreement does not exclude it from the ILC-DAs' scope.[267] Treaties are defined in Article 2(a)[268] as written, not purely oral,

[265] Some of them based on McNair's initial work on the subject cited *supra* note 264, others on her own research. For an analysis of McNair's grouping, see also Aust, *supra* note 234, pp. 309-310.

[266] See below F.II.3.d).

[267] See Article 2(a) ILC-DA, last clause.

[268] An almost identical definition is adopted under Article 2(1)(a) VCLT. This facilitates the incorporation of the ILC-DA into the VCLT.

agreements. Remarkably though, the ILC-DA apply to all armed conflicts, whether international or non-international, as Article 2(b) clarifies. This means that the fate of treaties is determined according to the same rules in international and non-international armed conflict. Given the notorious difficulties of distinguishing between the two and the hard to accept contradictions this traditional differentiation entails, this is an important step forward.

b) Systematic structure of the ILC Draft Articles

The ILC-DA are divided into three parts – Scope and definitions; Principles; Miscellaneous – with Part Two containing the substantive provisions on the effects of armed conflict on treaties. Article 3 expressly rejects the termination theories, clarifying that treaties are not "*ipso facto* terminate[d] or suspend[ed]," neither among the belligerents nor in relation to third parties. In order to determine, whether a treaty can be terminated, suspended or withdrawn from, the ILC-DA establish a hierarchical three-tier test. The analysis of a particular treaty must begin at the first stage and only if this test proves inconclusive, the next stage in the collapsing scale may be resorted to.

aa) First stage: Express provisions on the applicability in armed conflict

Article 4 ILC-DA represents the first step in that multi-layered test. It stipulates that treaties containing provisions on their applicability shall be treated accordingly.[269] Although Article 4 merely speaks of "provisions," this only covers express provisions.[270] Provisions, which give a mere indication on the fate of the treaty in armed conflict but do not do so in an unequivocal manner, must be referred to Article 5 as the second stage. Article 4 reflects a unanimous consensus in the legal literature that express provisions should have primacy over general rules on applicability.[271] However, uncontroversial as this first rule may be, there is no peacetime IEL treaty, which contains such an express perpetuation clause.[272] For the object of the present investigation, Article 4 is therefore irrelevant.

bb) Second stage: Determination according to the rules on treaty interpretation

In the absence of express provisions, Article 5 ILC-DA represents the next stage of inquiry. Here, the "rules of international law on treaty interpretation" are applicable, which are mostly laid down

[269] Article 4 ILC-DA.

[270] ILC, *supra* note 237, Article 4, para. 2.

[271] Vöneky, *supra* note 20, pp. 239-241. Also see Stephanie N. Simonds, *Conventional Warfare and Environmental Protection: A Proposal for Legal Reform*, Stanford Journal of International Law (1992), Vol. 29, p. 165 (p. 190); Aust, *supra* note 234, p. 309; Tarasofsky, *supra* note 45, p. 69; McNair, *supra* note 264, p. 538.

[272] On the other hand though, Article XIX(1) OILPOL Convention empowers the parties to suspend the treaty's operation, see Vöneky, *supra* note 20, p. 312.

in Articles 31-33 VCLT for parties to the VCLT but also include customary law principles. Accordingly, the applicability of a treaty during armed conflict must be examined "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose."[273] Failing that, or other applicable rules of treaty interpretation, the third and final stage of Articles 6 and 7 comes into play.

cc) Third stage: Determination according to "all relevant factors"

According to the ILC's commentary, Articles 6 and 7 ILC-DA shall represent the last and decisive stage, if the tests under Article 4 and 5 prove inconclusive.[274] Given the scarce regulation of the effect of armed conflict or even clues within the treaties themselves, the former will likely be the crucial test to establish the continuity or abrogation of IEL treaties. Article 6 reads as follows:

> In order to ascertain whether a treaty is susceptible to termination, withdrawal or suspension in the event of an armed conflict, regard shall be had to all relevant factors, including:
>
> (a) the nature of the treaty, in particular its subject matter, its object and purpose, its content and the number of parties to the treaty; and
>
> (b) the characteristics of the armed conflict, such as its territorial extent, its scale and intensity, its duration and, in the case of non-international armed conflict, also the degree of outside involvement.

On first glance, the criteria set out in Article 6(a) bear a strong resemblance to the VCLT test incorporated by Article 5. However, the factors listed in the two subparagraphs are not meant to be exhaustive ("all relevant factors, including"), nor does the list indicate a hierarchy of the factors in the individual case.[275] Hence, the "Chapeau" of Article 6 with its open phrasing allows taking into account all kinds of factors, including contextual elements like the number of parties or the nature of the armed conflict. As the commentary makes clear, these factors are to be identified and weighed on a case-by-case basis instead of a general rule.[276]

It is evident that an entirely open-ended approach would be difficult to apply in practice. After all, it would be entirely up to the interpreter how to weigh the different relevant factors. To provide some guidance, Article 7 and the annex were inserted. These provisions connect to the factors listed in Article 6. In determining the applicability of a particular treaty during armed

[273] Article 31(1) VCLT, for details see Aust, *supra* note 234, pp. 234-244.
[274] ILC, *supra* note 237, Article 6, para. 1.
[275] *Ibid*, Article 6, para. 3.
[276] *Ibid*, Article 6, para. 2.

conflict, Article 6(a) provides that regard shall be had "*in particular* [to] its subject matter."[277] The factor "subject matter" is further specified in Article 7, pursuant to which

> [a]n indicative list of treaties the subject matter of which involves an implication that they continue in operation, in whole or in part, during armed conflict, is to be found in the annex of the present draft articles.

According to the commentary, if a treaty's subject matter is listed in the annex, this establishes a rebuttable assumption that the subject matter speaks in favour of the treaties continuance. This should not be confused with a presumption that the categories of treaties listed as such remain effective.[278] Rather, it establishes – absent of contrary indication – that one of the factors to be taken into account according to Article 6, namely the subject matter, supports the continuation of the treaty.[279] Nonetheless, as the words "in particular" underline, this factor bears heavy weight. Also, given that other factors will typically have proven inconclusive before recourse is made to Articles 6 and 7, the inclusion on the list results in a "quasi presumption" of continuation.

In the terms of the traditional doctrine, the ILC's approach consequently represents an interesting combination of the objective differentiation theory[280] with the classification theory. Whereas the primary focus lies on interpretation, with particular regard to the objective nature and purpose, the rebuttable presumption of certain groups of treaties permits to overcome a deadlock in case the treaty and the preparatory materials do not provide enough evidence to ascertain whether the treaty should remain in force during armed conflict.

c) Determining the applicability of environmental treaties according to the rules of treaty interpretation

Before the presumptions under Article 7 ILC-DA can be activated, the rules of treaty interpretation need to be exhausted without a conclusive result. These require *inter alia* an examination of the "ordinary meaning to be given to terms of the treaty in their context and in the light of its object and purpose".[281] This standard connects to the previously discussed suggestion that treaties should

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[277] Emphasis added by the author.

[278] A misunderstanding that happened to the drafters of the 2009 UNEP report in their analysis of the preliminary Draft Articles, see UNEP *supra* note 48, p. 46.

[279] Likewise, though somewhat unclearly phrased, the ILC's commentary, ILC, *supra* note 237, Annex, para. 1, 3: "The present annex contains an indicative list of categories of treaties *the subject matter* of which carries an implication that they continue in operation, in whole or in part, during armed conflict. […]The effect of such an indicative list is to create a set of rebuttable presumptions based on the subject matter of those treaties: the subject matter of the treaty implies that the treaty survives an armed conflict. *Although the emphasis is on categories of treaties, it may well be that only the subject matter of particular provisions of the treaty carries the implication of continuance*" (emphasis added).

[280] The recourse to the intention of the parties is expressly rejected by the ILC, see *Ibid*, Article 5, para. 3.

[281] See above, F.II.3.b)bb).

remain in force, which by their nature and purpose. As has been established there, the idea behind this proposal is to introduce a more certain and objective criterion for distinction than the parties' intentions. It has also been concluded that the nature and purpose test cannot function without substantial recourse to subjective intentions and therefore rarely fulfils its promise.[282]

Nonetheless, the ILC has affirmed the criterion by including it in Articles 5 and 6 ILC-DA. With that in mind, the question arises to what degree a treaty's nature and purpose must aim at the regulation of environmental protection during armed conflict, for the treaty to remain in force. A narrow interpretation posits that only such IEL treaties, which regulate wartime behaviour[283] or contain general principles of international law,[284] can be clearly placed inside this category.[285] The former could for instance be assumed, if a particular treaty, expressly or implicitly sets up obligations to take or omit certain actions in warfare. An example could be Article 6(3) WHC, as Tarasofsky[286] notes. The provision reads as follows.

> Each State Party to this 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.[287]

Since deliberate action is required, only the most reckless peacetime pollution could be assumed to fall within the provision's scope, while it almost certainly seems to imply armed conflict damage.[288] Article 6(3) WHC must therefore by its nature and purpose remain effective during conflict.[289]

The next issue would then be whether the treaty as a whole or merely the provision in question should remain in effect during armed conflict.[290] As has been mentioned, treaties are often multipurpose, so that there is a strong case that only those Articles whose nature and purpose is directed at protecting the environment from fighting should be perpetuated. In the example of the WHC, this would at least include all provisions relating to the definition and direct protection of cultural and natural heritage sites and therefore a substantial part of the convention. Part IV on the institutional details of the World Heritage Fund, for example, as well as Part VI on educational

[282] See above F.II.2.c)bb).

[283] Like Chapter VII of the UN Charter.

[284] Such as the VCLC.

[285] Vöneky, *supra* note 20, p. 242.

[286] Tarasofsky, *supra* note 45, p. 65.

[287] Emphasis added by the author.

[288] Tarasofsky, *supra* note 45, p. 65.

[289] This also seems to be the view of the UNEP, see UNEP, *supra* note 48, pp. 37-38.

[290] Likewise: Michael Bothe *et al.*, *International law protecting the environment during armed conflict: gaps and opportunities*, International Review of the Red Cross (2010), Vol. 92(879), p. 569 (p. 582).

programmes could be suspended because they do not focus on the protection of heritage sites from armed conflict. Given the already mentioned difficulties of separating treaty provisions, Article 5 ILC-DA could prove a very contentious provision.

d) The rebuttable presumptions of Article 7 in conjunction with the annex

Article 7 ILC-DA and the annex are evidently designed to provide guidance in the handling of Article 6 and its rather unspecific phrasing. By establishing a presumption that certain treaties' subject matter indicated the continuation of such agreements, the ILC-DA seem to offer a clear and manageable rule to the treaty interpreter. A look at the list reveals the significant overlaps with traditional classification theory:

(a) Treaties on the law of armed conflict, including treaties on international humanitarian law;
(b) Treaties declaring, creating or regulating a permanent regime or status or related permanent rights, including treaties establishing or modifying land and maritime boundaries;
(c) Multilateral law-making treaties;
(d) Treaties on international criminal justice;
(e) Treaties of friendship, commerce and navigation and agreements concerning private rights;
(f) Treaties for the international protection of human rights;
(g) Treaties relating to the international protection of the environment;
(h) Treaties relating to international watercourses and related installations and facilities;
(i) Treaties relating to aquifers and related installations and facilities;
(j) Treaties which are constituent instruments of international organizations;
(k) Treaties relating to the international settlement of disputes by peaceful means, including resort to conciliation, mediation, arbitration and judicial settlement;
(l) Treaties relating to diplomatic and consular relations.

The most remarkable provision is certainly Annex paragraph (g). It establishes a presumption that "treaties relating to the international protection of the environment" represent a subject matter indicating continuation. Taken at face value, this exceeds all propositions advanced by scholars so far. It should be borne in mind though that all the groups represent mere rebuttable presumptions and that other "relevant factors" under Article 6 might outweigh them. This raises the question what force each of the presumptions possesses and what considerations could possibly be advanced to prove the presumption of subject matter continuation wrong. This can only be ascertained by examining the legal reasoning behind each category of treaties justifying the presumption. In what follows, the legal arguments supporting the environmentally relevant presumptions shall be analysed as well as possible counter-arguments. To this end, the explanations in the commentary

shall be considered as well as arguments advanced by classification theorists in the legal literature. Finally, by analysing the rationale behind each group, the scene is also set for the analogy approach to be discussed in section 4.

aa) Treaties relating to the international protection of the environment

Logically, the presumption under Annex paragraph (g) directly declaring IEL applicable to armed conflict shall be examined first. If this presumption prevails, IEL treaties would in most cases be "conflict-proof", making efforts to interpret other groups as protecting the environment during armed conflict largely obsolete. Under the "object and purpose" test, only one scholar has proposed that environmental treaties were a subject matter that indicated continuation.[291] As the commentary reveals, the ILC itself is aware that this proposal does not reflect a general consensus in international law:

> The pleadings relating to the Advisory Opinion of the International Court of Justice on the *Legality of the Treat or Use of Nuclear Weapons* indicate, quite clearly, that there is no general agreement on the proposition that all environmental treaties apply both in peace and in time or armed conflict, subject to express provisions indicating the contrary.[292]

Nonetheless, the Commission considers the observations of the ICJ, combined with Principle 24 of the Rio Declaration and Articles 35(3) and 55 Additional Protocol I "general and indirect support"[293] for the presumption of applicability. In the opinion of the author, this represents too much of a generalization. As has been noted, the ICJ's remarks explicitly avoided the issue of the effects of armed conflict on treaties. In fact, the case law cited by the ILC suggests that the obligations on belligerent parties to protect the environment from "widespread, long-term and severe damage" originate from the principles of necessity and proportionality under law of armed conflict and not from IEL.[294] Given the shaky legal foundation of Annex paragraph (g), it is useful to examine the other, more established groups mentioned in the Annex, in an attempt to derive further legal authority for the continuation of IEL treaty law during armed.

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[291] Aust, *supra* note 234, p. 310.

[292] ILC, *supra* note 237, Annex, para. 53 (footnotes omitted).

[293] *Ibid,* Annex, para. 55.

[294] ICJ, *Legality of the Threat or Use of Nuclear Weapons*, *supra* note 79, para. 30: "Respect for the environment is *one* of the elements that go to assessing whether and action is in conformity with the principles of necessity and proportionality" (emphasis added). See also the discussion above at C.V.2.b) C.V.2.c).

bb) Treaties on the law of armed conflict, including treaties on international humanitarian law

Law of armed conflict or humanitarian law treaties represent primary example of treaties, which expressly apply during armed conflict or must at least continue to apply by virtue of their object and purpose. Yet, as has been concluded in chapter C, these bodies of law only provide a very fragmented protection for the environment, namely against environmental modification techniques or blatantly intentional and useless destruction. The inclusion in Annex paragraph (a) is therefore likely to remain declaratory, as most law of war treaties would remain applicable under Article 5 ILC-DA. In the view of the ILC, the provision is meant as a catchall for those norms which do not contain express reference to their continuation. Although the presumption in Annex paragraph (a) will probably remain irrelevant, due to Article 5, it still adds further affirmation to the view that such treaties must continue to apply during armed conflict.

cc) Treaties declaring, creating or regulating a permanent regime or status or related permanent rights, including treaties establishing or modifying land and maritime boundaries

The first group of environmentally relevant peacetime agreements could be treaties relating to a permanent regime or status as listed under Annex paragraph (b). The provision reflects a large consensus in the legal literature that such treaties remain unaffected by armed conflict.[295] In order to ascertain how this presumption could contribute to the protection of the environment during armed conflict, it must first be determined which treaties fall under the category and secondly whether there is a strong case for their continuation.

(1) Definition of permanent status treaties

Despite the agreement on the continuation of status treaties among classification theorists, it has been debated what defines a status treaty. Whereas a narrow approach limits the group to those legally binding agreements relating to the internationalization, demilitarization or neutralization of land areas or waterways, a wider approach also includes delimitation agreements or even founding treaties for international organizations (IGOs).[296] This debate will only have historic interest once the ILC-DA come into force. Although the ILC seemingly adopts a wide position, enumerating illustratively "cessions of territory, treaties of union, treaties neutralizing part of the territory of a State, treaties creating or modifying boundaries, and the creation of exceptional rights of use of or access to the territory of a State,"[297] there is no longer a risk of blurring the distinctions between the

[295] Schmitt, *supra note* 58, p. 39; Vöneky, *supra* note 20, pp. 255-257; Aust, *supra* note 262, pp. 309-310; Tarasofsky, *supra* note 45, p. 63; McNair, *supra* note 264, pp. 538-539.

[296] For further details on the debate, cf. Vöneky, *supra* note 20, pp. 256-257.

[297] ILC, *supra* note 237, Annex, para. 8.

different types of treaties, the main concern of the narrow interpretation. Under the ILC-DA, the structurally divergent treaties not dealing with the use of territory have been assigned to separate categories. For example, IGO founding treaties are dealt with in a separate provision in Annex paragraph (j) and those relating to rights of aliens in the wider category of Annex paragraph (e).[298]

The common structural feature of status treaties within the meaning of Annex paragraph (b) is consequently that they relate to territory. They comprise status agreements in the above-described narrow sense and the – additionally mentioned – boundary agreements, provided that they are meant to establish permanent rights and obligations. A special category of status treaties in Annex paragraph (h) relates to international watercourses and will be discussed below.[299] The main three groups of agreements falling within the narrow definition of Annex paragraph (b) are treaties on internationalization, neutralization and demilitarization. Internationalization and neutralization, always concerns the territory under the jurisdiction of a particular State, whereas demilitarization refers to areas beyond national jurisdiction. The concepts of neutralization and internationalization can be illustrated at the example of the Panama Canal treaty of 1977 between the United States and Panama,[300] providing in Article II that

> The Republic of Panama declares the neutrality of the Canal in order that both in time of peace and war it shall remain secure and open to peaceful transit by the vessels of all nations on term of entire equality […].

For an example of demilitarization, the Korean Armistice Agreement 1953[301] could be referred to.[302]

Finally, only status treaties that are "permanent" are covered by the provision. The notion of permanence is not elaborated on by the commentary. McNair in his early treatise from 1938 defines permanence "not in the sense of eternal but as indicating something of which its owner cannot normally be deprived against his will."[303] Since the commentary cites McNair as inspiration for other points, it seems reasonable to infer that the ILC has tacitly adopted this interpretation. As will be seen in the next section, this would also be in line with the legal reasoning behind the provision.

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[298] ILC, *supra* note 237, Annex, para. 13.

[299] See section F.II.3.d)hh).

[300] *Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal* of 7 September 1977, American Journal of International Law, Vol.72, p. 238.

[301] *Agreement Between the Commander-in-Chief, United Nations Command, on the One Hand, and the Supreme Commander of the Korean People's Army and the Commander of the Chinese People's Volunteers, on the Other Hand, Concerning a Military Armistice in Korea* of 27 July 1953, American Journal of International Law, Vol. 47(4), p. 186.

[302] Article I(6) of the Agreement reads: "Neither side shall execute any hostile act within, from, or against the demilitarized zone."

[303] McNair, *supra* note 264, p. 538.

(2) Legal arguments in favour of continuation of status treaties

The continuation of status agreements regarding territory finds strong support in case law and literature.[304] But whereas the support for upholding status treaties even throughout armed conflict is unanimous, the reasoning behind it differs. The main argument stresses that such treaties establish rights and obligations *erga omnes* for the benefit of the whole international community and that the outbreak of armed conflict between some States must not compromise the common good.[305] This thought also reverberates in the judgment by the Permanent Court of International Justice (PCIJ) in the so-called *Wimbledon* case from 1923.[306] The S.S. Wimbledon was a British steamship carrying weapons and ammunition to support the Polish war effort against Russia. On its voyage to Danzig, Germany denied the vessel passage through the Kiel Canal, evoking its own neutrality. This provoked an application by France, Great Britain, Italy and Japan to the PCIJ, based on Article 380 of the Versailles Peace treaty, which stipulated in almost identical wording as the Panama Canal treaty 1977:

> The Kiel Canal and its approaches shall be maintained free and open to the vessels of commerce and of war of al1 nations at peace with Germany on terms of entire equality.

The PCIJ concluded that pursuant to this provision, the Canal had been internationalized and that the British vessel could not be expelled because of an armed conflict Germany as the territorial State was not involved in. To underline this result, the Court went on to argue:

> It follows that the canal has ceased to be an interna1 and national navigable waterway, the use of which by the vessels of states other than the riparian state is left entirely to the discretion of that state, and that it has become an *international waterway* intended to provide under treaty guarantee easier access to the Baltic for the *benefit of al1 nations* of the world.[307]

In the last paragraph, the Court not only emphasises that the international status of the Canal entails that its use should be for the whole international community. The recourse by Germany to its neutrality was also explicitly rejected with the argument that it had nonetheless to honour its contractual duties towards all nations.[308] Accordingly, international case law supports the notion

[304] McNair, *supra* note 264, pp. 538-539.

[305] Eckart Klein, *Statusverträge im Völkerrecht – Rechtsfragen territorialer Sonderregime* (Springer, Berlin, 1980), p. 297, cited after Vöneky, *supra* note 20, p. 264.

[306] PCIJ, *Case of the S.S. Wimbledon*, Judgment of 17 August 1923, Series A, No. 01.

[307] PCIJ *Case of the S.S. Wimbledon*, *supra* note 306, p. 22, emphases added by the author.

[308] *Ibid*, pp. 25, 30.

that a State opening part of its territory to an international regime or status must abide to its promise even during armed conflict, except it is itself a party to the hostilities. In those cases, access can be denied to other belligerents. The implication of the judgment is however, that even then, the territorial State remains bound *vis-à-vis* non-belligerent State parties.[309]

Next to the idea that status treaties benefit the community of nations as such, other authors invoke a structural argument to justify the perpetuation of such treaties during armed conflict. They submit that the obligations arising from a status treaty were characterized by an "integrated nature". As such, they were owed not to an individual party, but could only be fulfilled towards all parties together as a joint obligation. Hence, the suspension of contractual passage rights even to a party the territorial State is at war with, would mean a breach of contract towards all parties.[310]

Annex paragraph (b) is limited to treaties establishing a permanent status or regime. The underlying intention of the parties to create permanent rights and obligations, for instance by ceding part of their territory, does indeed provide a powerful case for continuation.[311] If the outbreak of war would revert a legal act that was concluded "once and for all", this would effectively be tantamount to a retroactive effect of the outbreak of conflict.[312] Although the aforementioned considerations speak in favour of also upholding non-permanent status treaties, the ILC's proposal certainly reflects the minimum-consensus. It can therefore be asserted that there is a firm practice confirmed by case law and scholarly writing that treaties establishing an international regime or status remain unscathed by armed conflict unless the territorial State itself is a belligerent.

(3) Environmental status treaties?

Since it has been established that status treaties in general continue to apply during armed conflict, the next logical question for the purposes of the present paper is whether any IEL status treaties exist. Indeed, most IEL treaties "are rather characterized by imposing duties to act or to omit upon the parties."[313] They do not tend to concern the permanent status of an area. At first glance it seems therefore that this group will probably not greatly contribute to improving environmental regulation of warfare.

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[309] Vöneky, *supra* note 20, p. 262.

[310] Klein, *supra* note 305, p. 297; similar: Simonds, *supra* note 271, p. 190 ("a derogation by one party makes the treaty meaningless for the others"). As Vöneky rightly points out, this view can neither be reconciled with the *Wembley* case, nor with the VCLT, whose Article 60(2)(c) expressly provides for the possibility of a partial suspension in case of grave breaches of contract, Vöneky, *supra* note 20, p. 267.

[311] Schmitt, *supra* note 58, p. 40. In a similar direction ILC, *supra* note 237, Annex, para. 11.

[312] ILC, *supra* note 237, Annex, para. 11; also Vöneky, *supra* note 20, pp. 268, with further references.

[313] *Ibid*, p. 324, translation from German by the author.

On the other hand, it could be argued that the provisions of the LOSC's Part XI relating to the deep seabed created an international status or regime. Unlike in the case of other such treaties, the Area never belonged to the jurisdiction of one state but has always been international. Being under the administration of the International Seabed Authority (ISA) for the benefit of mankind as a whole, the Area possesses stark resemblance to international regimes. But even then, it would be questionable, whether only the internationalization as such or also the environmental duties to protect the Area and its resources from pollution or excessive research[314] would be "conflict-proof". An argument in favour could be that not only the formal internationalization as such but also its purposes must be protected from the outbreak of war. The management of the natural resources and a fair sharing thereof for the benefit of all mankind[315] were key motives for creating the Part XI regime in the first place.[316] Accordingly, the conservation of these resources does not represent a mere side effect of the Area regime. It must rather be considered the substantive core of the relevant LOSC provisions. If the resources could be damaged during armed conflict without limitation, the Area would be demoted to a mere formal regime. This represents a strong argument that the Area regime of Part XI, including all environmental provisions, establishes an international status or regime and therefore continues to apply even during an armed conflict of parties to the LOSC.[317] Overall, however, the relevance of this category of treaties for directly upholding IEL during armed conflicts seems marginal.

dd) Treaties which are constituent instruments of international organizations

IGOs are increasingly involved in the protection of the environment on an international level. Most of them are specialized in a particular area and provide an institutionalized framework for addressing the challenges for the environment in their field of expertise. Others, like the UNEP, have a broader purview. An example of a specialized and effective IGO in the field of IEL could be the UN Food and Agriculture Organization (FAO) which has the authority to approve conventions and submit them to the member States.[318] In this system, numerous environmental conventions have

[314] In particular Articles 138-139, 145-147.

[315] Although it is unclear, whether the benefit of mankind regime only relates to non-living resources or also so-called "marine genetic resources" (MGR), see in detail Stephanie Adelle Bonny, *Bioprospecting, Scientific Research and Deep Sea Resources in Areas Beyond National Jurisdiction: A Critical Legal Analysis*, New Zealand Journal of Environmental Law (2006), Vol. 10, p. 41; and, most recently, UN General Assembly Resolution 65/20 of 19 November 2010.

[316] See UN General Assembly Resolution 27/49 of 12 December 1970. Also, the key provision in Article 136 LOSC emphasizes the resources ("The Area and its resources are the common heritage of mankind.").

[317] Other opinion: Vöneky, *supra* note 20, p. 324, who considers only the formal internationalization protected but who still applies Part XI during armed conflict by means of an analogy to the Status treaties, see below F.II.4.a).

[318] Article XIV of the Constitution of the Food and Agriculture Organization of the United Nations (FAO Constitution) of 16 October 1945.

been adopted, including for instance a treaty to combat illegal, unreported and unregulated (IUU) fishing on the high seas.[319] The latter convention shows that the importance of maintaining IGO founding treaties lies not so much in the regulation of war-related damage but rather in the preservation of peacetime IEL. If IGO founding treaties were suspended during international armed conflict, the environmental damage would reach far beyond the actual fighting. Not only would an effective tool for the creation of IEL be immobilized. In addition, the crippling of the institutional framework would also compromise the implementation and surveillance of the existing agreements. If for example the surveillance of the UN Fish Stocks Agreement (UNFSA)[320] through the competent fishing organizations would be stalled, illegal, unreported and unregulated (IUU) fishing could proceed unchecked and cause additional damage to the harm created by warfare.

Therefore, it must be welcomed that Annex paragraph (j) ILC-DA extends the rebuttable presumption of continuation to founding treaties of IGOs. The ILC's position of continuation is in line the IDI-Resolution from 1985,[321] and it is also supported by State practice. For example, during both World Wars, the operation of the Universal Postal Union (UPU) or the International Union of Railways (UIC) continued with the participation of all belligerents. At least the executive organs and the activities of the organization remained in place, as far as they did not require any direct contact between the belligerents.[322]

However, as in the groups of treaties previously discussed in this chapter, the reasoning underlying this result remains uncertain. It is not unlikely, that the States involved did not want to compromise the work of the IGO more than necessary for the maintenance of armed conflict. In a similar direction, it has been argued that the UPU and UIC have remained in operation because they fulfilled a role for the common good of the international community on a "non-political" level. Political IGOs, for instance collective defence organizations, could according to this view be suspended.[323] The ILC does not seem to make such a distinction, although the thought somewhat echoes in the State practice cited in support of Annex paragraph (c) relating to multilateral law-making treaties, which is discussed in the following section.[324]

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[319] Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing of 22 November 2009, which is at the time of writing however still awaiting sufficient ratification to enter into force.

[320] Agreement for the Implementation of the Provisions of the LOSC relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995).

[321] Article 6 of the IDI-Resolution reads: "A treaty establishing an international organization is not affected by the existence of an armed conflict between any of its parties."

[322] Vöneky, *supra* note 20, pp. 251-252.

[323] Ingrid Detter, *The Law of War* (2nd edition, Oxford University Press, Oxford, 2000), p. 349.

[324] There, State practice is cited upholding treaties of a "technical or non-political nature" like "various postal and telegraphic conventions" as "multilateral law-making treaties", see ILC, *supra* note 237, Annex, para. 18.

Another exception advanced by scholars concerns provisions which necessitate direct contact between the belligerents, or which in other ways conflict with the maintenance of warfare.[325] Pursuant to this view, provisions like Article XIV FAO Constitution would be upheld, whereas the publication of statistical or technical information to the organization and its members as foreseen under Article XI FAO Constitution might conflict with military secrecy requirements. Despite the wider phrasing, this position also seems to inspire the ILC-DA. In its commentary, the Commission expressly anticipates the possibility that members of an IGO might suspend their participation in the regular operation of the organization due to the necessities of an armed conflict.[326]

In conclusion, it can therefore be said that at least those provisions within the founding treaties of IGOs remain in effect that do not require direct communication between the belligerents nor compromise the conduct of war by the parties.

ee) Multilateral law-making treaties

Almost all environmental treaties have been concluded by more than two parties. Since Annex paragraph (c) extends the presumption of applicability to multilateral law-making treaties, a significant number of IEL treaties would also be continued under this provision. As this would render the other categories largely obsolete, it is evident that such a result could not have been intended by the ILC. [327] There are two different opinions about the treatment of multilateral treaties.

(1) Technical treaty standard

According to the ILC's commentary, the provision apparently does not encompass all law-making multilateral treaties but rather only "multilateral treaties of a technical character"[328] and only State practice and municipal case law in support of such a scope is cited. This mirrors the decisive thought of the previous section on the continuation of IGO constituent instruments that at least "technical" or "non-political" relations between States should not be terminated but merely suspended between belligerents. Similar proposals have been made in the legal literature,[329] so the Commission's position is certainly a possible interpretation. Since environmental agreements

[325] See references by Vöneky, *supra* note 20, p. 249, *inter alia* to Schmitt, *supra* note 58, p. 39.

[326] "This general proposition is without prejudice to the applicability of the rules of an international organization, which include its constituent instrument, to ancillary questions such as the *continued participation of its members in the activities of the international organization*, the suspension of such activities in light of the existence of an armed conflict and even the question of the dissolution of the organization.", ILC, *supra* note 237, Annex, para. 67.

[327] Note however the definition by McNair, adopted by the ILC in the commentary: "By these are meant treaties which create rules of international law for regulating the future conduct of the parties without creating an international regime, status, or system", McNair, *supra* note 264, p. 723, cited in ILC, *supra* note 237, Annex, para. 15.

[328] ILC, *supra* note 237, Annex, para. 16.

[329] Detter, *supra* note 323, pp. 347-348.

represent political commitments of the parties, applying this standard would mean that IEL treaties would not fall under Annex paragraph (c).

(2) Compatibility test

Prior to the adoption of the ILC-DA, multilateral law-making treaties were only considered to apply if they were "compatible" with the pursuance of the armed conflict. Under this approach, the protection of the environment from fighting obviously depends on how compatibility is defined. The vast majority of commentators adopted a strict compatibility criterion. According to their definition, only such treaties are compatible, which do not impose any obligations impairing the maintenance of war. This is notably assumed by the proponents for any obligation that stricter than the law of war duties.[330]

Stephanie Simonds has proposed an alternate interpretation of compatibility. In her opinion, "general provisions", which do not expressly exclude warfare from their scope, remain applicable "unless interpreted to require absolutely no damage to the environment."[331] In addition to that, requirements that collide with military secrecy, such as notification to opponent states or public environmental impact assessments, would be abrogated.[332] Almost any IEL treaty would meet these requirements. As the fewest conventions contain absolute prohibitions, the result of Simonds' approach would be an inversion of the military-friendly majority opinion towards a presumption for upholding environmental obligations.

Neither camp within the compatibility approach underlines their position by doctrinal arguments or State practice. A strong argument against the majority side would be that it makes the category meaningless for the protection of the environment from the effects of war. As soon as a treaty imposes duties higher than those applicable under traditional law of war, the debate becomes redundant. Regarding the opposite interpretation, there is no support in State practice for the assumption that any treaty must remain in force that does not impair military secrecy and does not establish absolute prohibitions. Also, the majority interpretation of "compatible" is much closer to the word's grammatical meaning than the "non-absolute prohibition" test, which seems entirely unrelated. While it cannot be denied that this interpretation exempts all direct war-related damage from the scope of IEL, it would still govern the State's non war-related economic activity, even during armed conflict.[333]

[330] Vöneky, *supra* note 20, pp. 244-245.
[331] Simonds, *supra* note 271, pp. 195-196.
[332] *Ibid*, pp. 196-197.
[333] Vöneky, *supra* note 20, p. 317.

(3) Conclusion

While the ILC apparently considers technical, non-political multilateral treaties to prevail at the outbreak of armed conflict under Annex paragraph (c), the majority doctrine up to this point has been testing multilateral treaties for "compatibility". Under the latter standard, the majority upholds those multilateral law-making treaties during armed conflict which do not hinder the maintenance of war. But whereas it is quite uncontested that purely technical agreements remain unaffected insofar as they do not require direct cooperation between the belligerents, it will have to be seen, whether in addition also compatible survive the outbreak of hostilities. In the opinion of the author, much speaks in favour of this. And whereas the extension of Annex paragraph (c) in this direction will not help to mitigate direct war-specific environmental degradation, it will nonetheless contribute to maintaining the regulation on economic and other non war-related activity.

ff) Treaties on international criminal justice

ICL treaties, notably the Rome Statute, can also have a relevance in protecting the environment during armed conflict, as has been analysed in Chapter E.[334] Annex paragraph (d) ILC-DA upholds criminal law treaties in the event of an armed conflict. This would encompass the Rome Statute 1998, but not for instance the *ad hoc* Tribunals which were set up by a UN Security Council resolution.[335] Although ICL is not discussed in the relevant legal literature, there are not many arguments against the ILC's proposal. As the Commission points out, war crimes inherently require a nexus to armed conflict. Genocide and crimes against humanity, while not formally requiring such a connection, will also regularly occur in a situation of armed conflict.[336] This indicates that the Rome Statute's nature and purpose relate to regulating warfare, much like the closely related provisions of international humanitarian law, and might already be upheld under Article 5 ILC-DA. The Commission also repeats the additional argument that the crimes under the ICC-Statute are considered to affect the international community as a whole. A final argument is the *ius cogens* character of for instance the crime of genocide[337] which in itself dictates the continuation of these norms.[338] At least from the States recognizing the ICC will therefore probably support Annex paragraph (d).

[334] See above E.II.

[335] *Ibid*, Annex, para. 22.

[336] *Ibid*, Annex, para. 23.

[337] ICJ, *Armed Activities on the Territory of the Congo*, Judgment of 3 February 2006, ICJ Reports 2006, p. 6, para. 64; Cryer, *supra* note 185, p. 204.

[338] ILC, *supra* note 237, Annex, para. 25.

gg) Treaties for the international protection of human rights

With the direct protection of the environment under international law of armed conflict being rather rudimentary, it has been concluded that indirect protection plays a decisive role.[339] In this context, human rights take a prominent position. Although the right to a healthy environment proclaimed in the 1972 Stockholm Declaration[340] cannot yet be said to have attained the status of customary international law,[341] fundamental guarantees like the right to life, the right to property and the right to privacy provided for in various human rights conventions can be instrumentalized for environmental purposes.[342] It is therefore interesting to note, that the ILC has included human rights treaties in the indicative list of the ILC-DA Annex under paragraph (f). A similar position has been adopted in the IDI Resolution, which declares that "treaty provisions relating to the protection of the human person" cannot be suspended unilaterally by one conflict party.[343] Some scholars have even suggested that any international treaty establishing individual rights, not only human rights treaties, should continue in the event of armed conflict.[344]

At the outset of the debate on the effects of armed conflicts on treaties, it was considered that human rights treaties were suspended or abrogated with the outbreak of fighting. This has been mainly based on the "*lex specialis* argument" which was already discussed in the context of the termination theories.[345] As these deliberations have shown, the assertion of incompatibility cannot be maintained under present international law.

Instead, everything speaks in favour of the continuation of human rights. This is firstly underlined by the existence of derogation clauses in many human rights instruments. Article 4(1) of ICCPR 1966 provides a possibility to "take measures derogating from [the] obligations under the present Covenant to the extent strictly required by the exigencies of the situation" in a "public emergency which threatens the life of the nation and the existence of which is officially proclaimed." Although not specifically mentioning war, there are not too many situations imaginable threatening the "life of the nation", apart from armed conflict and natural disaster. Hence, if the human rights guaranteed under the ICCPR were automatically abrogated during such a situation, this provision would be deprived of a large part of its scope of application. The provision

[339] See above Chapters C and E.

[340] Principle 1, Stockholm Declaration 1972.

[341] Birnie, Boyle and Redgwell, *supra* note 84, p. 271.

[342] In details, see Boyle, *supra* note 149, p. 471.

[343] Article 4 IDI Resolution, although it only excludes unilateral suspension, raises the question if a bilateral suspension between the belligerents might be possible. Such a scenario seems, however, unlikely.

[344] Detter, *supra* note 323, p. 348.

[345] See above section F.II.2.a)bb).

of Article 4(2) even declares certain rights non-derogable, which clearly contradicts the suggestion that human rights were *per se* inoperable during armed conflict.[346]

The case law of the ICJ also invokes the derogation clauses in support of continuing human rights treaties. The ICJ assumed that the ICCPR continued to operate in armed conflict, although holding that the contents of the right had to be determined in accordance with the law of armed conflict. In the *Nuclear Weapons* advisory opinion, the Court stated:

> The Court observes that the protection of the International Covenant of Civil and Political Rights does not cease in times of war, except by operation of Article 4 of the Covenant whereby certain provisions may be derogated from in a time of national emergency.[347]

The ICJ's observations are limited to the ICCPR. However, similar derogation clauses are also contained in other human rights treaties, for instance Article 15(1) of the European Convention on Human Rights (ECHR). There is no reason why these should be treated differently. The continuation of human rights during armed conflict has clearly inspired the Nuremberg judgments after the Second World War, which did not only prosecute breaches of the law of war but also of human rights.[348] Finally, it has been pointed out that human rights treaties represent an *erga omnes* obligation of States and that consequently a suspension in relation to the opponent State would result in non-performance towards all States.[349] This thought has been recognized by the ILC in the context of maintaining the closely related ICL provisions. In conclusion, the ILC's presumption of upholding human rights treaties during armed conflict seems to be well founded on international case law and practice and will therefore be difficult to rebut.

hh) Treaties relating to international watercourses and related installations and facilities

In the opinion of the ILC, international watercourses conventions represent a sub-category of the status treaties, warranting the creation of a special group under Annex paragraph (h). This category also includes non-navigational uses of international watercourses, as the express reference to Article 29 of the UN Watercourses convention 1997[350] demonstrates.[351] Article 29 does not answer the question of continuation as such but stipulates that even in armed conflict, watercourses and

[346] Likewise ILC, *supra* note 237, Annex, para. 50; Vöneky, *supra* note 20, pp. 282-283.

[347] ICJ, *Legality of the Threat or Use of Nuclear Weapons*, *supra* note 79, para. 25, also quoted in ILC, *supra* note 237, Annex, para. 49.

[348] Vöneky, *supra* note 20, p. 281.

[349] *Ibid*, pp. 289-290.

[350] Convention on the Law of the Non-navigational Uses of International Watercourses of 21 May 1997, General Assembly resolution 51/229, UN Doc. A/51/49 (hereafter: UN Watercourses Convention).

[351] ILC, *supra* note 237, Annex, para. 61

related installations and facilities remain under the protection of the "principles and rules of international law applicable in international and non-international armed conflict." According to the ILC-DA, there is now a presumption that these rules include international watercourse treaties. Most importantly, this will comprise the UN Watercourses Convention,[352] once it has entered into force.[353] Also, a number of relevant regional arrangements exist.[354] The presumption does not extend however to the important Helsinki Rules 1966 and Berlin Rules 2004, which do not have treaty status and only have legal effect through international custom.[355]

The continuation of the UN Watercourses Convention would indeed impose significant duties on States for the protection of international watercourses, which include not only surface waters but also ground waters.[356] Next to a general obligation not to cause harm to the other watercourse States,[357] Part IV also provides for extensive conservation duties. Under this Part, States shall "protect and preserve the ecosystems" of watercourses[358] as well as "prevent, reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse States *or* to their environment."[359] Part IV also contains provisions on the protection of the marine environment[360] as well as for management standards.[361] The Watercourses Convention reaches beyond the immediate interest of the States in the economic utilization of the watercourse towards a protection of nature for its own sake.

All this would mean that belligerents would have to ensure that their military operations do not significantly harm the environment of the opponent State. Such harm does apparently not need to affect the whole State's environment, it suffices that for instance "human health or safety" are generally affected.[362] This raises the question what other "relevant factors" in the sense of Article 6 ILC-DA could be evoked to counter the rebuttable presumption. Although Article 6

[352] Hesitant however: UNEP, *supra* note 48, p. 39.

[353] According to Article 36(1) UN Watercourse Convention, it will enter into force 90 days after deposition of the 35th instrument of ratification, acceptance, approval or accession with the UN Secretariat. As of 15 October 2011, 24 States have become party, see http://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-12&chapter=27&lang=en#1.

[354] Birnie, Boyle and Redgwell, *supra* note 84, pp. 572-580.

[355] Salman M. A. Salman, *The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law*, Water Resources Development (2007), Vol. 23(4), p. 625 (pp. 630-631).

[356] Article 2(a) UN Watercourses Convention.

[357] Article 7 UN Watercourses Convention, although Salman posits that this obligation was "subordinated" to the equitable and reasonable utilization principle, see Salman, *supra* note 355, p. 634.

[358] Article 20 UN Watercourses Convention.

[359] Article 21(2) UN Watercourses Convention (emphasis added).

[360] Article 23 UN Watercourses Convention.

[361] Article 24 UN Watercourses Convention.

[362] See the *travaux préparatoires* by the ILC, *Draft articles on the law of the non-navigational uses of international watercourses and commentaries thereto and resolution on transboundary confined groundwater*, Yearbook of the International Law Commission, 1994, Vol. II, Part Two, Article 21, para. 6.

dictates a case-by-case approach in the selection and balancing of factors,[363] the "characteristics of the armed conflict" listed in its paragraph (b) open an opportunity to take into account military necessity in the individual case. If a watercourse represented a disputed delimitation line between the two States,[364] for instance, much fighting would take place around it. In such a case, greater damage to the shared watercourse would be inherent in the armed conflict and would have to be tolerated. In other cases, where fighting takes place "incidentally" around a watercourse, however, belligerents would have to tread more carefully and avoid fighting around ecologically sensitive areas.

The inclusion in the Annex list thus provides particular recognition to the protection of international watercourses and will likely have strong significance for the conservation of their ecosystems, once the Convention enters into force. The specific mentioning the protection of watercourses also gives more clout to the general upholding of IEL treaties under Annex paragraph (g). As such, the future State practice might pave the way for elaborating a meaningful scope of application for that rather opaque and contentious provision.

ii) Treaties relating to aquifers and related installations and facilities

The protection of aquifers is already covered by the scope of the UN Watercourses Convention previously mentioned. The inclusion of aquifer-related treaties to the Annex list may nonetheless prove relevant, as the convention is not in force yet and as major military powers, like the United States and the United Kingdom, have not become parties. The ILC mainly supports the inclusion with its own Draft Articles on aquifers of 2008[365] and the "vulnerability of aquifers and the need to protect the waters contained therein".[366] This may not be much to go on, especially as the referral to the Commission's own work seems rather circular. Depending on the acceptance the aquifer Draft Articles may gain, Annex paragraph (i) ILC-DA might however be important to give effect to these principles.

e) Right to self-defence and no benefit to the aggressor principle

Part III of the ILC-DA contains two provisions, which are likely to attract a lot of controversy because they have the potential to jeopardize the differentiated system of continuation rules described above. These provisions read:

[363] See above, F.II.3.b)cc).

[364] As a large portion of watercourses apparantly do, see Birnie, Boyle and Redgwell, *supra* note 84, p. 536.

[365] ILC, Draft articles on the Law of Transboundary Aquifers of 8 May 2008, Official Records of the General Assembly, Sixty-third Session, Supplement No. 10 (A/63/10).

[366] ILC, *supra* note 237, Annex, paras. 64-65.

Article 14 Effect of the exercise of the right to self-defence on a treaty

A State exercising its inherent right of individual or collective self-defence in accordance with the Charter of the United Nations is entitled to suspend in whole or in part the operation of a treaty to which it is a Party insofar as that operation is incompatible with the exercise of that right.

Article 15 Prohibition of benefit to an aggressor State

A State committing aggression within the meaning of the Charter of the United Nations and resolution 3314 (XXIX) of the General Assembly of the United Nations shall not terminate or withdraw from a treaty or suspend its operation as a consequence of an armed conflict that results from the act of aggression if the effect would be to the benefit of that State.

Articles 14 and 15 ILC-DA suggest that a State acting in self-defence in the sense of Article 51 UN Charter would be entitled to suspend its treaty obligations towards the aggressor to the extent that they are "incompatible with the exercise of that right." The aggressor on the other hand would remain bound to all treaty obligations if their suspension or termination would benefit that State. The consequence of this is the establishment of a double standard, requiring the aggressor to abide to its obligations but liberating the self-defending State from these bonds. The same approach has also been taken in Article 9 of the IDI Resolution. According to the ILC's commentary, the aim of Article 14 is to give effect to the prohibition of armed attacks under Article 2(4) UN Charter. In addition, it is designed to counter an imbalance between the two sides,

> which would undoubtedly emerge if the aggressor, having disregarded the prohibition on the use of force […], were able, at the same time, to require the strict application of the existing law and thus deprive the attacked State, in whole or in part, of its right to defend itself.[367]

However, it is questionable whether this objective is achieved. As has been noted, a literal application of Article 14 in combination with Article 15 would merely shift the imbalance from the self-defending State to the aggressor, but not balance it. This would establish an undesired incentive, as both parties would feel encouraged to declare the other side the aggressor and consider themselves free from all treaty obligations.[368] As a result, neither side would abide with its environmental treaty commitments. This problem could be solved by a Security Council resolution determining the aggressor, as provided for in Article 16 ILC-DA. But in cases where the Security Council's decision is stalled, for instance by a veto from one of the permanent members, the

[367] ILC, *supra* note 237, Article 14, para. 2.

[368] Likewise: Vöneky, *supra* note 20, p. 305.

situation would, in the ILC's words, "remain in limbo."[369] In the meantime, the conflict would continue without regard for treaty obligations imposed by IEL on either side.

There is consequently a strong case that Articles 14 to 16 should be more narrowly construed. Support for this can be deduced from the ILC's commentary, stating that the right of the self-defending State to suspend, terminate or withdraw from treaties

> is subject to the application of articles 6 and 7: a consequence that would not be tolerated in the context of armed conflict can equally not be accepted in the context of self-defence.[370]

Consequently, if a treaty applies during armed conflict under the general rules of Articles 6 and 7, Article 14 cannot justify a suspension by the State under attack and would be overruled. Interestingly, treaties, which do provide for their continuation during armed conflict and are therefore upheld under Articles 4 and 5, *can* apparently be suspended, based on Article 14 ILC-DA. This seems like a rather odd and contradictory result, as these treaties provide the strongest case for continuation. It is likely that the omission of Article 4 and 5 in the above-cited commentary section represents a drafting error. That said, it would have certainly been desirable that the ILC had clearly defined the scope of the self-defence exception within the provision itself, in order to avoid misunderstandings or even abusive interpretation. In conclusion, Articles 14 and 15 do not apply to treaties which are upheld by virtue of Articles 4 to 7 ILC-DA.

4. "Analogy approach": the analogous application of classification theories

Until this point, it has been attempted to determine rules under international law on the continuation of environmental treaties in the event of an armed conflict. The ILC's recent proposal on the issue is likely to have a significant impact on the debate, although the adoption through an international convention or the passing into customary law still seem far away. The Draft Articles define a set of abstract rules and elaborate these through an indicative listing of treaty groups, which are presumed to remain in effect during armed conflict.

In the meantime, the gap could be filled by an alternate approach made by Silja Vöneky. For the purposes of the present paper, this approach is called "analogy approach". The analogy approach is inspired by the realization that the traditional groups of continuing treaties remain limited to a narrow part of international law and omit large parts of IEL. Therefore, in order to broaden the scope of applicable peacetime IEL during armed conflict, the rules behind each group

[369] ILC, *supra* note 237, Article 15, para. 3.
[370] *Ibid*, Article 14, para 2.

are applied analogously to other, similar IEL treaties. The argument is that although these IEL treaties do not strictly fall within the established categories of continuing treaties, they share a common rationale or structure with them. *In concreto*, those treaty provisions relating to the protection of areas beyond national jurisdiction are likened to treaties establishing an international status or regime in the sense of ILC-DA Annex paragraph (b). Secondly, treaties relating to a common good or a global environmental resource, for example the UNFCCC and its protocols, are considered to share features of international human rights treaties as per Annex paragraph (f). In order to justify the analogy, Vöneky resorts to a general principle that equal provisions must be treated in an equal way. Those IEL treaties found structurally alike to those included in the classification theory's categories must therefore be subject to the same fate in the case of armed conflict.[371]

Before the doctrinal foundations of the analogy approach are presented, it should be pointed out that a comprehensive discussion of the complex analogy would by far exceed the limited space of the present thesis. The case for the analogy alone is developed over more than 130 pages in Vöneky's dissertation. The following investigation will therefore not discuss the arguments behind the analogy approach in detail but rather focus on a descriptive account of its conclusions and the relevance the approach might have as a "back-up" argument for the continuation of certain IEL treaties during armed conflict.

a) Environmental treaties for the protection of areas beyond national jurisdiction

The traditional foundation of IEL lies in the prohibition to cause significant transboundary harm to another State. Developments like overfishing and pollution of the high seas or climate change have in recent years shifted attention to the protection of areas beyond national jurisdiction and treaties have been adopted to address these challenges. In the view of the analogy approach, treaties relating to areas beyond national jurisdiction and international status treaties share a decisive common feature, namely the fact that both groups protect an interest of the international community as a whole as opposed to mere national interests. Therefore, they must be treated alike.

The decisive question is then, what constitutes a treaty that is meant to serve the international community as a whole under international law. Comparing a number of treaties, Vöneky concludes that three cumulative elements established the orientation for the common good: the treaty must generally be aimed at a common interest of States, it must offer – at least potentially – a specific advantage to all states and no particular States must be benefited over the others.[372] In the case of

[371] In detail: Vöneky, *supra* note 20, pp. 339-347.
[372] *Ibid*, pp. 365-367.

treaties relating to the protection of areas beyond national jurisdiction, these requirements were fulfilled by a number of agreements, three of which are used as examples.

aa) Provisions on the protection of the Area and the high seas

In Vöneky's opinion, the provisions on the deep seabed Area under the LOSC's Part XI establish a regime which fulfils all three conditions. By dedicating the resources of the Area to all of mankind and by excluding any claims of sovereignty over the Area or any parts of it, the State parties had taken account of all States' common interest in the protection of the Area and its resources.[373] The Convention expressly stipulates that all activities in the Area must benefit mankind as a whole and installs a benefit sharing system with landlocked or developing States through the ISA to ensure that not only coastal and developed States profited from these resources. Consequently, all States had an equal advantage from the regime and no State was privileged over another. Based on these observations, the analogy approach concludes that the provisions of Part XI, in particular Article 145 LOSC and the regulations enacted on its basis by the ISA, continue to apply even during times of armed conflict. The same was true for the high seas provision[374] under the LOSC and the environmental duties contained therein.[375]

bb) Antarctic Treaty System

The treaties under the Antarctic Treaties System and in particular the Environmental Protocol[376] attached to the Antarctic Treaty 1959, represent another set of agreements which protect the environment for the benefit of the whole community of States and must therefore continue under the classification approach.[377] However, in this case, the elements are more difficult to establish. First of all, some States exercise *de facto* territorial rights over certain parts of Antarctica and thus have a stronger interest compared to the rest of the international community. A counter argument could be that at least as far the protection of the environment is concerned, the Protocol clearly declares conservation an interest of all mankind. This is evidenced for example in paragraph 7 of the Protocol's preamble, stipulating that "the development of a comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems is in the interest of mankind as a whole."[378] The second requirement, equal interest in the conservation of the

[373] Article 137 LOSC.
[374] Article 192 and Part XII LOSC.
[375] Vöneky, *supra* note 20, pp. 391-403.
[376] Protocol on Environmental Protection to the Antarctic Treaty of 4 October 1991.
[377] Vöneky, *supra* note 20, pp. 382-391.
[378] *Ibid*, p. 383.

Antarctic environment, follows from the crucial relevance of this area for the global environment. The third element, namely that no State be privileged over another, is more doubtful, since the "consultative parties" are accorded a special Status under the Antarctic Treaty, for instance in the administration of Antarctica. In the opinion of Vöneky, this can be countered by considering these States mere "trustees" for the international community as a whole.[379]

The continuation of the Antarctic Treaties would uphold important conservation restrictions for the protection of the fragile Antarctic ecosystem. The environmental protocol establishes extensive environmental duties, outlined in Article 4 and in the Annexes, including regulations on waste disposal and marine pollution. In addition, other treaties under the Antarctic Treaty System,[380] like the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), the Convention for the Conservation of Antarctic Seals (CCAS) and the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) impose relevant environmental obligations. [381]

cc) Outer Space Treaty

Finally – although warfare in this area seems unlikely – Article IX of the Outer Space Treaty[382] (OST) should be mentioned, requiring States to "conduct exploration […] so as to avoid […] harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose." The treaty unequivocally declares outer space beyond national appropriation[383] and stipulates that its exploration be "carried out for the benefit and in the interest of all countries."[384] This could be used to argue in favour of continuing the treaty's environmental obligations during armed conflict in analogy with the treaties protecting areas beyond national jurisdictions.[385]

b) Environmental treaties protecting a common good or global environmental resource

The second group of environmental treaties that can be applied during armed conflict by analogy to the groups recognized under the classification theory are those treaties, which protect a common

[379] Vöneky, *supra* note 20, pp. 384-385.

[380] All Antarctic Treaties and Protocols are available at http://www.ats.aq/e/ats.htm (last accessed 22 November 2011).

[381] *Ibid*, pp. 386-387.

[382] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1966), UN GA Resolution 2222 (XXI), UN Doc. A/6431 (hereafter: OST).

[383] Article II OST.

[384] Article I(1) OST.

[385] Vöneky, *supra* note 20, pp. 377-381.

good or global environmental resource. This group comprises *inter alia* treaties protecting the global climate and the ozone layer.

Similarly to the treaties protecting areas beyond national jurisdiction, these treaties also protect a common interest of all States. There is however a fundamental difference. Treaties protecting common goods or global resources do not to regulate access to a certain resource or benefit sharing, but are more about the protection of a common environmental good from an environmental threat. Since this exact structural feature justified the analogy in the first place, a different reference point for analogy within the classification theory groups needs to be identified.

Vöneky believes that international human rights treaties share enough common characteristics with treaties protecting a common good to provide such a link. Human rights treaties are also included in the ILC-DA under Annex paragraph (f). If an analogy can be justified, the case for continuation would therefore be quite strong. It has already been mentioned that Vöneky sees the primary reason for the continuation of human rights in a certain form of altruism.[386] She posits that human rights agreements put States under an obligation to respect and promote human rights without offering them a benefit in return. This absence of "reciprocity" proves in her view that human rights treaties do not serve one State but the common interest of the whole international community. Thus, all requirements for the analogy are in place: If treaties protecting common goods or global environmental resources share the structural feature of limited reciprocity, they must also be continued during armed conflict. Although the common goods protected, were situated on the territory of a State and are therefore not entirely abstract from national interests,[387] States protected biological diversity, for instance, in the interest of the whole international community. This thought shall be further exemplified by two categories of environmental treaties.

aa) Climate protection treaties

The Earth's climate is the first example of a resource, which, by its very nature, represents an interconnected phenomenon of global concern that cannot be attributed to a single State or group of States.[388] According to the analogy approach, treaties protecting the global climate also pursue a common interest. This orientation towards the whole community of States was prominently reflected in the UNFCCC's preamble, expressly declaring climate change and its adverse effects "the common concern of humankind".

[386] See above F.II.3.d)gg).
[387] Vöneky, *supra* note 20, p. 409.
[388] *Ibid*, p. 411.

However, the UNFCCC follows the "common but differentiated responsibilities" principle,[389] resulting in differentiated commitments of the countries. This makes it problematic whether indeed each State has a specific and equal interest in the common goal and that no State is privileged over the others, essential requirements to establish the common good orientation. In Vöneky's opinion, the fact that the emission targets are to be reached subject to a "common but differentiated responsibility" does not change the fact that the developing countries also had to contribute to the protection of the global climate, albeit on a smaller scale.[390] In addition, the principle of sustainable development ensured that climate protection should have primacy over economic development; despite Article 4(7) UNFCCC stipulating that "economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties."[391] The decisive consideration had to be that due to the global nature of climate change, States shared a common destiny[392] and that therefore the agreement shared the specific common interest structure of human rights treaties.

bb) Conservation treaties

Unlike in the case of climate treaties, the object of protection of conservation treaties is quite tangible and can usually be associated with a particular State's territory. This situation, however, is quite similar to that of human rights treaties, where nationals of each individual State party are protected on the country's territory.[393] The only question is therefore, how to establish the necessary common interest foundation in the case of conservation treaties. In the case of the most important international conservation instrument, the CBD, the analogy approach again refers to the preamble, declaring biodiversity protection the "common concern of mankind",[394] "of critical importance" for meeting the needs of the "world population"[395] and in the interest of "present and future generations"[396] The argument is that all this establishes the State parties' position as "trustees"[397] in

[389] Article 3(1) UNFCCC.

[390] *Ibid*, p. 413. It is however commonly assumed that the principle does indeed establish "double standards", see in detail: Yoshiro Matsui, *The Principle of 'Common but Differentiated Responsibilities'* in: Nico Schrijver and Friedl Weiss (eds.), *International Law and Sustainable Development – Principles and Practice* (Martinus Nijhoff Publishers, Leiden/Boston, 2004), p. 73 (pp. 81-84).

[391] *Ibid*, p. 415.

[392] *Ibid*, p. 417.

[393] *Ibid*, p. 426.

[394] Preamble para. 3 CBD.

[395] Preamble para. 20 CBD.

[396] Preamble para. 23 CBD.

[397] The thought of trusteeship is also reflected in the CBD Nagoya Protocol's Preamble's 6th recital: "Recognizing that public awareness of the economic value of ecosystems and biodiversity and the fair and equitable sharing of this economic value with the *custodians of biodiversity* are key incentives for the conservation of biological diversity and the sustainable use of its components" (emphasis added), *Nagoya Protocol on Access to Genetic Resources and the Fair*

charge of preserving biological diversity, even where there is no immediate (reciprocal) benefit for the individual nation – much like in the case of human rights protection.[398] It must be admitted that there are some elements of reciprocity in CDB, for instance in the exchange of access to genetic resources for technology transfer. But these exchange arrangements ultimately serve the purpose of conservation because they reward the resource States for preserving their biological diversity in the interest of the whole international community.[399]

c) Comment on the analogy approach

Under traditional classification doctrine, only a modest number of environmental treaties are unequivocally applicable to times of armed conflict. The analogous application of the rules relating to status treaties and human rights treaties – both accepted categories of treaties prevailing during armed conflict – would lead to a number of key environmental instruments surviving the outbreak of war. Notably such treaties relating to the protection of the environment beyond national jurisdiction, like the deep seabed Area, or treaties protecting a global environmental resource, such as biological diversity and the global climate, would remain effective. As has been stated before, this would not seem to impose immediate restrictions on the way war is fought, but would at least maintain control over "regular" economic activity, which is especially relevant in a "war geared" economy that might tend to overexploit natural resources.

Whether the intricate doctrinal construction behind the analogy approach will have to be resorted to largely depends on the extent the ILC-DA eventually will gain acceptance. If the presumptions of the Annex were fully implemented, the general continuation of IEL treaties through Annex paragraph (g) would render the analogous application of the classification approach to other groups of environmental treaties superfluous. On the other hand, in the event of a partial implementation of the other, more established categories of continuing treaties, the case for the analogy would grow stronger. The more solid these rules for treaty continuation become, the firmer the foundation for their analogous application will grow.

In the interest of clarity, it would be preferable if the ILC-DA Annex paragraph (g) eventually were enacted. Despite its sound substantiation with legal arguments, the rather complex judicial analogy construction remains vulnerable to objection at each of its components. The relevance of the analogy approach is therefore probably more that of a "back-up" argument. As such, it might help preserve some of the world's most fragile ecosystems, notably the deep seabed and Antarctica

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and Equitable Sharing of Benefits Arising From Their Utilization to the Convention on Biological Diversity, COP 10 Decision X/1 of 29 October 2010, Annex I.

[398] Vöneky, *supra* note 20, pp. 427-428.

[399] *Ibid*, pp. 430-432.

as well as biological diversity in times of armed conflict, even absent a decisive reform of the international law of treaties by the States.

III. Applicability of customary IEL in armed conflict

So far, this paper has only dealt with the effects of armed conflict on treaty provisions protecting the environment. While these certainly represent the bulk of IEL, significant obligations also derive from customary international law, for example the obligation not to cause transboundary harm.[400] The ILC-DA and the legal doctrine largely exclude the question, whether the rules governing the continuation of treaties should also apply for customary IEL. Some commentators naturally seem to assume that customary international law always prevails during armed conflict.[401] This view however ignores that customary law requires a continuous and uniform practice of States. Since the States, in the scarce documented instances, have neither consistently respected nor disregarded customary IEL, there is no reason to believe customary IEL should always be continued during armed conflict.[402] Rather, there is a strong argument to evaluate customary norms, like equivocal treaty norms, based on their subject matter. Those customary norms falling within one of the categories of the classification approach are therefore likely to remain unaffected by armed conflict. If treaty norms and customary norms dealing with the same issue were treated differently, this would result in a hardly justifiable contradiction and pure formalism.[403] Although this paper, for reasons of space, can certainly not deliver a comprehensive answer on the fate of customary law in armed conflict, equal treatment with treaty norms seems like the most sensible option.[404]

IV. Conclusions regarding international environmental law

IEL can contribute to the protection of nature from the hazards of armed conflict. Although primarily designed to govern peacetime activity, conservation duties and instruments can also mitigate the environmental toll of fighting. Provisions restricting the pollution of the marine environment can pose limitations on military operations at land and at sea. The declaration of natural heritage sites under the WHC can protect exceptional pieces of nature against degradation from fighting and protected areas under the CBD can be exempt from military operations. However, most agreements are designed to regulate peacetime activity and do not seem to fit the regulation of war conduct. Important agreements, like the LOSC, even exempt pollution from war vessels from

[400] For an extensive analysis of the customary IEL relevant to armed conflict, see UNEP, *supra* note 48, pp. 40-43.
[401] Rank, *supra* note 248, p. 336.
[402] Vöneky, *supra* note 20, pp. 534-535.
[403] Vöneky, *supra* note 20, p. 537.
[404] Likewise UNEP, *supra* note 48, pp. 46-47.

their scope. Their true relevance therefore seems to be to maintain regulation over non war-related activity, notably in the economic sphere, even in times of armed conflict. Thus, at least the *acquis* of IEL can be preserved, preventing additional degradation to that inflicted directly through the conduct of hostilities. Given this practical importance of IEL during armed conflict, the key question is whether treaties directly or indirectly protecting the environment remain applicable during armed conflict.

The recent version of the ILC-DA mark a milestone in a decade-long, protracted debate on the effects of armed conflict on treaties. They represent the most comprehensive proposal for a Convention and are backed up by the high authority of the ILC. Although little is known of the debate in the UN General Assembly's Legal Committee, it seems unfortunately that States are reluctant to formally adopt the proposals. Absent conclusive state practice or case law, the law on the effect of armed conflict on environmental treaties thus remains divided between the traditional doctrinal opinions. Those arguing in favour of absolute derogation or continuation probably represent the minority and are contradicted by contemporary international law. The majority of scholars promoting a differentiated treatment, on the other hand remain divided between classification theorists and those in favour of an objective nature and purpose test.

The ILC-DA support the former group and mainly follow a classification approach. According to the ILC, the applicability of a particular treaty must be established through a collapsing scale of hierarchical tests. Consequently, a treaty's express provisions first and foremost govern a its fate. Because most IEL treaties lack such a provision, the rules on treaty interpretation have to be resorted to as the next stage. If these do not produce a conclusive answer, the keystone of the ILC-DA comes into play: As a third stage, an indicative list of treaties is provided which are rebuttably presumed to apply.

Like this analysis has attempted to demonstrate, many of these treaty groups can be interpreted to ensure that environmentally relevant treaties will not be abrogated or suspended during armed conflict. Annex paragraph (g) even contains a general presumption for the continuation of environmental treaties, although neither the scope nor the standing of this provision within international law are clear at the time of writing. Consequently, the belligerents would remain bound by their environmental treaty commitments within the categories' scope, irrespective of their right to self-defence under Article 51 UN Charter.

But although the classification approach as formulated by the ILC-DA can broaden the scope of environmental obligations during armed conflict, a significant portion of IEL would still be left out until Annex paragraph (g) gains full acceptance. In order to fill these gaps, one approach could be to apply the classification rules analogously to IEL treaties, which share a structural feature of

these rules. Treaties protecting the environment for the common good of all States could thus be likened to status treaties and human rights treaties, which are both included in the ILC-DA indicative list of continuing treaties.

A last question concerned the fate of customary environmental law during armed conflict. Although there is almost no conclusive State practice or academic writing on the topic, much speaks in favour of treating customary IEL in the same manner as treaty law. Consequently, customary IEL, which falls within one of the established subject matter groups under the classification approach, should continue during armed conflict.

Nevertheless, the ILC-DA's adoption seems to be the most desirable option from an environmental law point of view. At the end of the day, the protracted academic debate shows that only a formal agreement can put an end to the uncertainty on the environmental duties of belligerent States. Such an agreement would serve as a powerful reminder to States to abide with their international obligations towards the environment and provide an angle for the political pressure necessary to enforce these commitments. Only under such pressure will the environment be regarded as an interest worthy of its own protection in armed conflict, as opposed to a mere collateral damage.

G. Conclusion

The aim of this thesis was to determine, whether States are under an obligation to protect the environment during armed conflict and which specific duties this entails. It has been concluded that several legal restrictions for the benefit of the environment exist. In what follows, these findings will be summarized chapter by chapter.

At the outset, it was analysed in what ways warfare may damage the environment. As has been seen, military operations may threaten the environment in a number of ways, but may also have "positive" side effects by clearing sensitive areas from economic exploitation and by disrupting environmentally harmful economic activity. Yet, past armed conflicts have entailed severe environmental degradation. This degradation can be divided in two groups: damage directly resulting from military operations and indirect or induced damage. The first category includes collateral environmental damage, for instance through the movement of troops or the bombardment of opponent positions, but can also comprise intentional devastation, for example through so-called scorched-earth tactics. The second category, indirect destruction, describes the negative side effects of armed conflict which do not directly result from military operations. These effects can be equally devastating, for example when refugees are driven into ecologically sensitive areas and forced to exploit the natural resources there to sustain themselves.

After this factual background analysis, the next chapter investigated to what extent the law of armed conflict or humanitarian law submitted belligerent States to duties towards the environment. It was found that the law of armed conflict has only by the end of the 1970-ies recognized the environment as an interest worthy of direct protection, when the Additional Protocol I and the ENMOD Convention were adopted. Both instruments contain a prohibition to cause "widespread, long-term and/or severe" damage to the environment in armed conflict. However, it was found that these requirements are interpreted so restrictively, that these prohibitions are largely deprived of practical applicability. In addition, wide justifications for military necessity further limit the prohibitions' scope and it is therefore not surprising that not a single case of violation has been determined in any conflict-related environmental disaster so far. But even the indirect protection of the environment through humanitarian provisions has proven ineffective. The protection of opponent property under the Geneva Convention IV, for instance, is limited by military necessity, as is the prohibition of attacks on dangerous installations, for example dams or nuclear plants. Although interpretive attempts exist to fill these gaps by using the Martens Clause or the general principles, no clear and practicable standard has so far been suggested to separate permissible militarily inflicted harm from excessive devastation.

Given the ineffectiveness of the protection of the environment through the law of armed conflict, the ensuing question was tackled whether more stringent restrictions could be derived from other bodies of international law. To that avail, the next chapter investigated, to what extent human rights contained an environmental side and could give the right to citizens to demand environmental limitations on warfare. It was observed that the rights to life, to property, and to privacy have been subject to "greening" in a number of human rights cases, and could therefore also serve as limitations on military operations where civilians are affected.

Subsequently, the examination turned to international criminal law, which has close ties both to human rights and to the law of armed conflict. First of all, the "environmental war crime" under Article 8 of the Rome Statute was analysed. This provision directly protects the environment, but was regrettably phrased in accordance with the Additional Protocol I, setting the bar for criminal prosecution equally high. In addition, the precedence from the Nuremberg IMT's "Hostages Case" suggests that a defendant can be justified if he merely assumed that his actions were justified by a military objective. Again, it was therefore concluded that an indirect approach would be the most pragmatic way of prosecuting environmental damage. In the context of the ICC, the prosecution could lay a focus on cases where international crimes against humans, for instance genocide, are committed by creating adverse environmental conditions. By creating precedence and acceptance, this procedure might pave the road for a more expansive interpretation of the

environmental war crime and at least somewhat improve the situation of the environment in armed conflict.

The last chapter finally investigated, which restrictions international environmental law might impose on States during armed conflict. At the beginning of this chapter, the obligations arising from IEL on warfare itself were scrutinized. The main problem is however, whether IEL applies in situations of armed conflict although it has been designed for the regulation of peacetime activity. This has given rise to claims that IEL was either suspendable, or even abrogated, in the relationship between the belligerents in times of war. It is evident that this would not only jeopardize any attempt to curtail excessive military degradation but would additionally cancel out restrictions on economic activities and allow irresponsible exploitation of natural resources. In addition, present international law clearly contradicts these termination theories. The preferable option is therefore a classification approach, which determines the question of continuation according to the subject matter of the treaty in question. The Draft Articles on the effects of armed conflict on treaties, which were recently presented by the ILC, strengthen the case for this method, although their adoption will probably take some time. Only a fraction of environmental treaties fall within any of the proposed categories, but these include important instruments like Part XI of the LOSC or certain CBD provisions. It is also possible to apply the classification rules analogously to treaties protecting areas beyond national jurisdiction, for example the Antarctic Treaties, or treaties protecting a global resource like the UNFCCC and the Kyoto Protocol. These agreements could thus be maintained in operation during armed conflict, even though this approach has not found any resonance in academic writing or State practice yet.

To sum up the answer on the initial research question, one could say that the protection of the environment during armed conflict has improved during the last century but that it remains too fragmented to provide adequate and effective protection. With the direct environmental protection under the prevailing law of war originating from the infancy of IEL, the modern legal developments and the increased contemporary consciousness of the presence have not yet been translated into effective legal provisions. In the meantime, the most effective restrictions of warfare can therefore be derived through indirect protection from non-environmental provisions and the select few environmental treaty and customary norms, which unequivocally remain in effect during armed conflict. The fact that the ILC has reinvigorated the debate on the effects of war on treaties should be used to direct more public attention to the fate of the environment in times of armed conflict. As Henri Dunant has proven, the laws of war are not static but must keep up with the *zeitgeist*. The time might soon be right to take the next step in the process that was started after the Vietnam War,

and to agree on specific and effective provisions for the protection of the environment, be it by amending the existing instruments or even by a "Fifth Geneva Convention".[405]

[405] As proposed by Glen Plant, see above C.V.1.b).

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HÁSKÓLI ÍSLANDS