Creating a Framework for the Prosecution of Environmental Crimes in International Criminal Law

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The issue of climate change has pushed accountability for environmental damage to the top of the international agenda. However, international criminal law does not attempt to attach criminal liability to environmental damage at present. Although the number of areas of international law concerned with environmental issues has grown significantly over the past three to four decades, space has yet to be made within the framework of international criminal law for 'environmental crimes'. While there is some scope at the International Criminal Court for accountability to attach to situations of environmental harm, there is indeed still considerable debate as to whether criminal sanctions are an appropriate form of responsibility for environmental damage at all.

The objective of international criminal law is to provide a means of individual criminal accountability for the most serious atrocities that occur on Planet Earth.

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There is no doubt that rapidly changing environmental conditions can cause catastrophic consequences for both human life and other elements of the natural environment. The effects of tsunamis, hurricanes, typhoons, droughts, floods and other extreme weather events are a constant feature of global news reports. Man-made environmental disasters can have equally devastating effects some of which, it is argued here, should give rise to individual criminal liability. However, given the nature of some environmental damage and the current incarnation of international criminal law, the International Criminal Court or other ad hoc international criminal tribunals may not always provide an appropriate or adequate means of responding to the damage that is caused to the natural environment.

In this chapter, the first step in assessing the value of individual criminal responsibility for environmental damage is a detailed examination of the environmental dimension of the current framework of international criminal law. Noting that there is a distinct absence of environment-specific provisions in international criminal law at present, the discussion below will begin by critically examining the potential for existing international criminal law to give rise to individual criminal liability for environmental damage. Secondly, though ambitious, there is considerable scope for the amendment of existing ‘core’ crimes - or indeed international criminal law as a whole - to include explicit prohibitions on environmental damage. The second part of this chapter will therefore examine possible ameliorations to existing crimes within the current framework of international criminal law; the specific example of amendments to war crimes provisions will be used to illustrate this point. Finally, there is the possibility that States could agree to a fundamental expansion of international criminal law to respond directly to situations of deliberate environmental damage. This chapter will therefore conclude with an appraisal of the proposals that call for the establishment of a separate and distinct category of environmental crimes – often called ‘ecocide’ or ‘geocide’ – within the structure of international criminal law.

I. Current Responsibility for Environmental Damage in International Criminal Law

In existing international criminal law, environmental damage is only a criminal offence when it can be described in terms of a crime that already exists. The key point in relation to existing international criminal law is that the environmental damage merely amounts to the tool by which atrocity is perpetrated and ‘the [environmental] destruction becomes a crime because of its humanitarian consequences’. In other words, the environmental damage per se does not yet amount to an offence under

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international criminal law. Essentially, criminal liability arises as a result of the effects of the environmental damage on the human population, as human beings and their security are at the centre of contemporary international criminal law. Though this approach may be somewhat clunky and awkward, there is certainly scope for existing crimes to be interpreted in a ‘green’ manner, and it is to these interpretations that this discussion now turns.

A. Genocide and the Environment

In 1948, the Genocide Convention defined the crime of genocide\(^5\) and this definition has since been transcribed *verbatim* into article 6(c) of the Rome Statute of the International Criminal Court.\(^6\) Although a number of actions are enumerated as amounting to acts of genocide, the most pertinent in terms of environmental damage is the proscription on the deliberate infliction of ‘conditions of life calculated to bring about [a group’s] physical destruction in whole or in part’.\(^7\) The Rome Statute’s ‘Elements of Crimes’\(^8\) describes the conditions of life amounting to genocide as being the ‘deliberate deprivation of resources indispensable for survival’.\(^9\) No stretch of the imagination is required to foresee how environmental conditions, or the calculated and intentional destruction thereof, could be used as a means of effecting the destruction of a specific population, thereby amounting to an act of genocide.

In 1985, the Whitaker Report\(^{10}\) highlighted the suggestion, made by some members of the Sub-Commission on Prevention of Discrimination and Protection of Minorities, that the scope of the Genocide Convention ought to be expanded to explicitly include environmental destruction. The proposal sought to include ‘ecocide’ in the Genocide Convention as an act of genocide. This should not be confused with another permutation of ecocide as being perhaps a crime in its own right which will be discussed later in this chapter. Ecocide within the context of the crime of genocide was envisaged to amount to ‘adverse alterations, often irreparable, to the environment – for example through nuclear explosions, chemical weapons, serious pollution and acid rain, or destruction of the rain forest – which

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\(^7\) ICC Statute, art 6(c).


threaten the existence of entire populations, whether deliberately or with criminal negligence’.

The rationale behind this proposition was the feeling amongst some members of the Sub-Commission that ‘indigenous groups are too often the silent victims of such actions’ and that the ‘physical destruction of indigenous communities’ amounted to genocide and required ‘special and urgent action’. An illustrative example is the situation of the Aché Indians in Paraguay during the 1970s. As a result of State policies to encourage mining and cattle-raising in forests occupied by this indigenous group, the Aché Indians were brutally targeted and their forested area of habitation was destroyed with the aim of removing them from the land. This was done to such an extent that some commentators believe this group no longer exists. In short, it seems as though conditions of life calculated to bring about the physical destruction of a group were used. However, one crucial element in the proof of genocide which is missing in this scenario is that of genocidal intent.

For acts to be recognised as genocide, they must be carried out with genocidal intent: that is, the ‘intent to destroy, in whole or in part, a national, ethnical, racial or religious group’. Genocidal intent is indeed a challenge in attempting to prosecute environmental damage as genocide, though it has remained a difficult mens rea standard to prove in most circumstances. The proposal for ‘ecocide’ in the Whitaker Report appears to suggest that a lower ‘criminal negligence’ standard of intent would be more appropriate where responsibility for environmental damage was in question. Paraguayan officials maintained that the Aché Indians were being targeted and killed ‘because their land was desired, and not because they were Indians’ and as a result, what occurred ‘was not genocide’. In other words, the intent of the alleged perpetrator was to clear the land, not to destroy in whole or in part a national, ethnical, racial or religious group. In the absence of genocidal intent, an act cannot be considered genocide.

This thinly veiled justification appears to easily defeat genocidal intent when it is linked to acts of environmental damage that result in the destruction of a group. Put simply, acts amounting to the actus reus of genocide could conceivably occur through environmental damage taking place in the context of development. The actus reus of genocide, according to the ICC’s Elements of Crimes, requires (i) the

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11 Ibid para 33.
12 Ibid.
13 Ibid.
14 Ibid.
17 ICC Statute, art 6.
19 Ibid.
perpetrator to inflict certain conditions of life upon one or more persons (ii) that such person or persons belonged to a particular national, ethnical, racial or religious group and (iii) that the conduct took place in the context of a manifest pattern of similar conduct directed against that group or was conduct that could itself effect such destruction. However the *mens rea* elements of genocide – the intention to destroy the group and in furtherance of this, the calculated infliction of conditions of life that would result in the group’s destruction - would not be satisfied where the intent of the individual was to engage in development. Therefore, while environmental damage caused in the context of development could conceivably cause genocide by proxy in line with the *actus reus* requirements of genocide,

A country which causes fatal environmental degradation while exercising its right to development now has the conceptual basis for contending that its actions were justified by the greater good of the country as a whole. In the light of this potential, the prospects for proving a specific ‘intent to destroy’ become increasingly small.\(^{21}\)

While the case of the Aché Indians remains relevant to this discussion, the most poignant example of the development justification is illustrated by the situation of the ‘Marsh Arabs’, those native Shi’a Muslims living in the Mesopotamian Marshes in Southern Iraq. Following their participation in an unsuccessful attempt to topple the Hussein government in 1991, the Marsh Arabs were met with sustained attempts by the State to destroy their group. This was done by direct killings, but also by targeting and destroying the very environment upon which the group had traditionally survived for thousands of years.\(^{22}\) The Iraqi Government drained the Mesopotamian Marshes to such an extent that only 7 per cent of those wetlands remain today. The destruction of this ecosystem has resulted in the deaths of large numbers of Marsh Arabs and the dispersal of many more.\(^{23}\) The Iraqi government justified the building of dams and canals on the Tigris and Euphrates rivers – actions which directly led to the draining of the marshes – by arguing that it was all done in the name of development and progress. In other words, the stated intent was to effect development; the intent was not to destroy the group. Therefore genocidal intent does not seem to be immediately present. Regardless of how much the act in question seems to satisfy the *actus reus* elements of genocide, without concurrent genocidal intent, the crime of genocide cannot be proved.

However, even in the absence of such justifications, genocidal intent still remains a problem. In Sudan there has been notable evidence of a scorched earth

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\(^{21}\) Sharp (n 16) 234.

\(^{22}\) For a fuller account see A Schwabach, ‘Ecocide and Genocide in Iraq: International Law, the Marsh Arabs, and Environmental Damage in Non-International Conflicts’ (2004) 15 *Colorado J of Int’l Environmental L and Pol* 1 and Weinstein (n 4).

\(^{23}\) Schwabach (n 22) 4.
The policy employed by Government forces. To this end, the Sudanese president, Omar Al Bashir, allegedly stated that he ‘did not want any villages or prisoners, only scorched earth’ to remain in the Darfur region. The International Criminal Court decided in its first arrest warrant for Al Bashir in 2009 that this did not amount to proof of genocidal intent, but rather constituted war crimes or crimes against humanity instead. However, there is some promise that this policy and its environmental effects will be addressed in any subsequent prosecution as genocide in light of the Court’s revised arrest warrant issued in July 2010.

Although these examples are mere snapshots of much more complex situations, they nonetheless illustrate the ways in which environmental destruction may be the primary tool or indeed a ‘major accelerator’ of genocide. Because of the terms of the Genocide Convention and article 6(c) of the Rome Statute, there is scope to prosecute environmentally destructive acts as genocide under the current framework of laws. The chances of this occurring, however, remain quite slight because of the difficult mens rea requirement associated with the crime of genocide. Perhaps a much stronger case may be made for individual criminal responsibility for environmental damage within the context of crimes against humanity and so it is to this category of crimes that the discussion now turns.

B. Environmental Crimes against Humanity

The Whitaker Report, discussed above, recorded alternative opinions of the Sub-Commission on Prevention of Discrimination and Protection of Minorities to the effect that environmental destruction would more comfortably fit the description of crimes against humanity than genocide. The first attempt to codify crimes against humanity as a separate category of international crimes was made in Article 7 of the Rome Statute in 1998. The four most relevant aspects of this article from an environmental perspective are contained in Article 7(1) and include the prohibitions on extermination, forcible transfer of population, persecution and

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25 Situation in Darfur, Sudan: Prosecutor v al Bashir (Decision on the Prosecution’s Application for a Warrant of Arrest against Omar Hassan Ahmad Al Bashir) ICC-02/05-01/09 (4 March 2009) para 170.
26 Ibid para 172.
27 Situation in Darfur, Sudan: Prosecutor v al Bashir (Second Warrant of Arrest for Omar Hassan Ahmad Al Bashir) ICC-02/05-01/09 (12 July 2010) 7.
28 Weinstein (n 4) 719.
29 Whitaker Report (n.10), para 33.
30 ICC Statute, art 7(1)(b).
31 ICC Statute, art 7(1)(d).
32 ICC Statute, art 7(1)(h).
other inhumane acts which are ‘committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack’. 

Through these four crimes against humanity, environmental damage which may fall short of the threshold for genocide could potentially be caught in the crimes against humanity safety net. Crimes against humanity do not need to satisfy the challenging genocidal intent requirement. However, any environmental damage which results in extermination, persecution, forcible transfer or other inhumane acts still remains subject to the mens rea requirement that the act be committed with the knowledge that it amounts to a widespread and systematic attack on the civilian population. This mens rea requirement element is far less elusive than genocidal intent as far as environmental damage is concerned because ‘if the foreseeable result of state, individual, or organisational action is to cause severe environmental degradation that destroys or harms civilians, a policy to continue such conduct may be deemed a policy to carry out that action – or “attack” as defined by the [ICC] Statute’.

Going into a little detail on the relevant crimes against humanity identified above, firstly, according to Article 7(2)(b), ‘extermination’ includes the mass killing of civilians through ‘the intentional infliction of conditions of life … calculated to bring about the destruction of part of a population’. This provision is strikingly similar to the crime of genocide discussed earlier in this chapter, but there is no requirement to provide genocidal intent in this instance. The evidence would suggest that the situation of the Marsh Arabs in Iraq could very easily amount to the crime against humanity of extermination since the actus reus of the crime is largely the same as described above in the context of genocide, but the mens rea requirement of this crime against humanity is somewhat less onerous. According to the Rome Statute’s ‘Elements of Crimes’ the mens rea for the crime of extermination is the knowledge that the act was or was intended to be part of a widespread or systematic attack against the civilian population. The difference between this level of intent and that required for genocide is that as long as the alleged perpetrator knew that the act amounted to a systematic attack against the civilian population, they may be guilty of this crime against humanity. Therefore where development policies are pursued aggressively and result in the widespread killing of civilians as a result of serious environmental damage, for example, it may be easier to pursue an alleged perpetrator for the crime against humanity of extermination rather than genocide.

Secondly, the crime against humanity of deportation or forcible transfer of a population amounts to the ‘forced displacement of the persons concerned by expulsion or other coercive acts from the area in which they are lawfully

33 ICC Statute, art 7(1)(k).
34 ICC Statute, art 7.
36 ICC Statute, art 7(2)(b).
present’. The situation in Southern Sudan, where the water supply and land of rural communities was targeted, forcing their exodus from the area to allow oil companies to take advantage of the natural resources there, is exemplary of how environmental damage may be the means by which this crime against humanity is committed. Clearly, the forced displacement of the Marsh Arabs in Southern Iraq could also amount to a crime under Article 7(1)(d) of the Rome Statute.

Thirdly, persecution involves the ‘intentional and severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity’. Where the natural environment is damaged to such an extent that the fundamental rights of a group are affected, this could amount to a crime against humanity. Fourthly, ‘other inhumane acts’, enumerated as a crime against humanity in Article 7(1)(k) means acts of ‘a similar character [to those listed above] intentionally causing great suffering, or serious injury to body or to mental or physical health’. Detailed examination of the environmental conditions inflicted on the habitat of the Aché Indians in Paraguay reveals circumstances that are possibly beyond the proscribed limits of this crime against humanity.

Under the rubric of crimes against humanity, many actions which cause serious environmental damage in the name of development could result in individual criminal responsibility. There are numerous examples of indigenous populations or other vulnerable groups that have been killed or has their way of life destroyed as a result of damage to the natural environment upon which they depended simply because the land had some alternative value or more profitable use: oil, gas or minerals may have been located there; the land may have been particularly lucrative for the growing of certain crops such as biofuels; or the area may have been attractive as a surreptitious waste disposal area. Like genocide, crimes against humanity respond to acts of environmental damage as a result of its impact on the human population.

C. Environmental War Crimes

Criminal liability for environmental damage in armed conflict is, on paper, a reality. In fact, the environmental war crimes provision in the Rome Statute – Article 8(2)(b)(iv) - is the only example of a direct and explicit environmental crime in the entire framework of international criminal law. However, on closer inspection,
Article 8(2)(b)(iv) and its companion provisions in Additional Protocol I have been an ineffective and inadequate response to a persistent and growing problem in contemporary warfare. A successful prosecution for environmental war crimes seems impossible under the current incarnation of the law.

During the Nuremberg Trials that followed World War II, three significant prosecutions interpreted the laws that then existed to attempt to indirectly prosecute individuals for environmental damage caused during the war. Firstly, charges were brought against General Lothar Rendulic for the implementation of a scorched earth policy in the German retreat from Finnmark. The scorched earth policy was ordered by General Rendulic to avoid annihilation by a superior Russian side that he felt were pursuing the German Army in their retreat. In reality, this belief was unfounded as the Russian Army were not in pursuit of the retreating German Army. However, General Rendulic’s sincere but mistaken beliefs were enough to satisfy the Court that the actions he took were justified by military necessity. Lothar Redulic was therefore acquitted of the environmental damage charges, though he was found guilty on all other charges and sentenced to 20 years imprisonment.

Secondly, Alfred Jodl was found guilty of implementing a scorched earth policy in retreat from Norway in 1941. Some 30,000 houses were destroyed in this way and while no human deaths were reported as a result of this method of warfare, the environment was clearly impacted as a result of this destruction. Unlike Lothar Rendulic, General Jodl was found guilty of this charge and as a cumulative result of being found guilty of numerous other serious charges, he was sentenced to death by hanging. Thirdly, natural resource exploitation during World War II was also pursued in post-War prosecutions. In Polish Forestry Case No. 7150, the United Nations War Crimes Commission ‘determined that nine of ten German civil administrators could be considered war criminals for cutting down Polish timber.’ Each of these cases set landmark precedents for the interpretation of international law to indirectly protect the environment in armed conflict. However, this precedent has not been capitalised on since ‘no tribunal since Nuremberg has prosecuted individuals for war-related environmental damage.”

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45 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977, 1125 UNTS 3

46 Wilhelm List and Others (The Hostages Trial) (1949) Law Reports of Trials of War Criminals Selected and Prepared by the United Nations War Crimes Committee Vol VIII 34, 45

47 ibid 67-69

48 ibid 76

49 Trial of Alfred Jodl (1948) Trial of the Major War Criminals before The International Military Tribunal “Blue Series” Vol XXII , 570-571

50 Weinstein (n 4), 704

Environmental damage became explicitly prohibited in international armed conflict in 1977, as it was included in Additional Protocol I to the 1949 Geneva Conventions. This was almost entirely in response to the means and methods of warfare employed by the US Army in the Vietnam War. Practices of cloud seeding and the use of Agent Orange and other defoliants were strongly condemned due to their long- and short-term effects on the natural environment and human health. Although the provisions in Protocol I could not be retroactively applied, the prohibition of ‘methods and means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment’ was expected to prevent this level of environmental damage taking place in future international conflicts. No such provision was included in Protocol II covering non-international armed conflicts.

Despite this explicit prohibition in international humanitarian law, such limitations on environmental harm were not incorporated into international criminal law until 1998. At this point, it was included as a specific war crime in Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court. The inclusion of this provision in the Rome Statute was probably more in response to the extreme environmental damage witnessed during the Iraqi retreat from Kuwait in 1991 than as a result of any compelling argument made by the efficacy of the provisions contained in Protocol I. However, Protocol I was clearly drawn upon for textual inspiration as the construction of the environmental war crime in the Rome Statute is almost identical to the humanitarian prohibition in the 1977 instrument. No provision was made for individual criminal liability for environmental damage in non-international armed conflict.

While environmental humanitarian law provisions did not make it into the statutes of any of the ad hoc criminal tribunals established in the 1990s, provisions of this kind have begun to appear in the statutes of tribunals established since the adoption of the Rome Statute in 1998. The Statutes of the Special Panels for Serious

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52 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) 1125 UNTS 3, 8 June 1977, entered into force 7 December 1979, arts 35(3) and 55.

53 Protocol I to the Geneva Conventions art 35(3). The text of the ICC Statute reads ‘long-lasting’ instead of ‘long-term’, but there is no significant divergence in meaning between these two terms.

54 Art 8(2)(b)(iv) prohibits: ‘Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.’

55 Where more than 700 oil rigs were set on fire and copious amounts of oil polluted the entire Persian Gulf region. For more information see MA Ross, ‘Environmental Warfare and the Persian Gulf War: Possible Remedies to Combat Intentional Destruction of the Environment’ (1992) 10 Dickinson J of Int’l L 515.
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Crimes (Dili District Court of East Timor)\(^{56}\) and of the Iraqi Special Tribunal\(^{57}\) contain transcribed versions of the International Criminal Court’s environmental war crimes clause.

At present, the levels of damage contemplated by Additional Protocol I and The Rome Statute are extraordinarily high. No prosecutions have been pursued to date under these provisions and as a result no judicial precedent has been set to clarify the levels of environmental harm that need to occur to trigger criminal liability. The prevailing understanding, arrived at through academic examination and discussion, is that an extremely high level of damage is required to trigger individual criminal liability in the Rome Statute. An attack which results in ‘widespread, long-term and severe damage to the natural environment’\(^{58}\) will only be considered criminal under international law if it is intentionally launched with the knowledge that this degree of environmental damage will be caused as a result. In addition, the damage must be disproportionate and ‘clearly excessive in relation to the concrete and direct overall military advantage anticipated’.\(^{59}\) By all standards, this clause imposes impossible conditions for the prosecution of environmental war crimes and it certainly does ‘not reflect preventive theories of environmental law’.\(^{60}\)

Such is the level of environmental damage needed to result in individual criminal responsibility that it may seem as though there is no actual prohibition in international criminal law on environmental damage in times of armed conflict, since no environmental damage since 1977 has reached the required threshold (even though significant environmental damage has indeed occurred in international conflicts). It would appear that the terms of Additional Protocol I (and by association, Article 8(2)(b)(iv) of the Rome Statute place ‘the prohibition of ecological warfare incomprehensively higher than what modern weapons could possibly achieve…thus having no limiting or protective effect’.\(^{61}\) For example, the Committee that was established by the Office of the Prosecutor at the ICTY to review the NATO bombing campaign of the former Yugoslavia in 1999\(^{62}\) did identify some

\(^{56}\) ‘United Nations Transitional Administration in East Timor, on the Establishment of Panels with Exclusive Jurisdiction over Serious Criminal Offences’ UNTAET Reg. 2000/15, 6 June 2000, s. 6(1)(b)(iv).

\(^{57}\) Statute of the Iraqi Special Tribunal for Crimes Against Humanity (10 December 2003) art 13(b)(5).

\(^{58}\) ICC Statute, art 8(2)(b)(4).

\(^{59}\) Ibid.


serious environmental damage that was caused by NATO forces, particularly as a result of the bombing of chemical plants, inadvertently or otherwise. However, the Committee felt that the damage did not cross the Additional Protocol I threshold and therefore should not be pursued as a violation of the laws of armed conflict.63

Further limiting the efficacy of Article 8(2)(b)(iv) is the situation created by international law whereby any post-conflict remediation carried out on environmental damage could jeopardise an environmental war crimes prosecution because it would prevent the harm from reaching the required thresholds in the long term. Post-conflict remediation should not be discouraged in this way, but neither should it absolve an individual of criminal responsibility for causing environmental harm in the first place.

Moreover, the terms of the threshold clause in Article 8(2)(b)(iv) are impractical and ambiguous: there is no indication of exactly what constitutes widespread, what length of time constitutes long-term and what amounts to severe damage within the context of the Rome Statute. Points of clarification which were applied to previous treaties with similar terms64 are explicitly not applicable to the Rome Statute. Karen Hulme has attempted to shed some light on the vagueness of these terms. According to her analysis, widespread could amount to several tens of thousands of kilometers, long-term could amount to decades – 20 to 30 years at a minimum, and severe might amount to significant interference with human life or human utilities.65 Clearly the level of damage required to breach Article 8(2)(b)(iv) is far too high and provides no real limitation on the amount of environmental damage that can be caused in armed conflict.

It has been argued that even had there been jurisdiction over the environmental damage caused during the 1991 Iraqi retreat from Kuwait, the thresholds of harm in Protocol I and the Rome Statute may still not have been breached – and this is probably the most extreme and deliberate environmental damage that has occurred since the Second World War. Even if this damage could have triggered liability under the Rome Statute, there is always the possibility that the environmental

63 ibid para 25
64 Specifically the Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques, opened for signature on 18 May 1977, entered into force on, 5 October 1978 UNTS 17119 (‘ENMOD Convention’) where an Understanding Regarding Article I of ENMOD drafted at the Conference of the Committee on Disarmament advanced guidelines for the interpretation of these three terms. ‘Widespread’ was thought to mean an area of about several hundred square kilometres, ‘long lasting’ meant a period of months, approximately a season, while ‘severe’ referred to serious or significant disruption or harm to human life, natural and economic resources or other assets. See Hulme (n 65), 67.
66 Hulme (n 65) 94.
67 Ibid 96.
68 Hulme (n 65) 70.
damage could be considered to be proportionate collateral damage or required and therefore justified by the demands of military necessity – or military advantage, as contained in the latter part of the Article 8(2)(b)(iv). Precedent exists for the defence of military necessity to wartime environmental damage since charges against German General Rendulic for his scorched earth policy in Norway, done also in retreat, were dropped on grounds of military necessity.

Of course, like other crimes in international criminal law, environmental damage could be indirectly prohibited through international criminal law by non-environment specific provisions. However, the focus of the discussion in this section has deliberately remained predominantly on the enumerated environmental war crimes provisions as they are the only ‘green’ crimes to exist under international criminal law to date.

D. Aggression and the Environment

It is difficult to see how the crime of aggression as it stands could be perpetrated by any means of environmental damage falling short of the use of nuclear weapons, or extreme biological or chemical attacks. Clearly the invasion, attack or bombardment of one state by the armed forces of another, as envisaged by Article 8bis\(^69\) will cause a certain amount of environmental damage. Given the weakened state of the global environment at present, the environmental consequences of a transboundary attack may become the main purpose of future acts of aggression. However, such acts could easily be transformed into an armed conflict, at which point the relationship between the armed forces and the environment becomes governed by Article 8(2)(b)(iv) of the Rome Statute or Articles 35(3) and 55(1) of Additional Protocol I if the conflict is international in nature. Given the lack of ambition to incorporate direct and enforceable environmental crimes into international criminal law to date, and given the unfinished status of the crime of aggression,\(^70\) it would be unrealistic to read too much into Article 8bis as being a feasible route for the prosecution of environmental crimes at the International Criminal Court.

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\(^69\) ICC Statute, art 8bis.

II. Developing Environmental Crimes within International Criminal Law

All four crimes in the Statute of the International Criminal Court discussed above could be amended to include effective environment-specific offences if the desire for such change is acted upon by States when next given the opportunity. The addition of new and distinct environmental crimes in addition to the four enumerated International Criminal Court crimes is also a possibility. In this section, both the modification of existing crimes and the enumeration of a new environmental crime will be considered. In discussing the former, war crimes will be taken as an illustrative case study of the ways in which existing crimes can be moulded to create effective criminal sanctions for environmental damage. Discussion of the latter issue will specifically look at calls for the establishment of ‘ecocide’ as an environment-specific and independent international crime.

A. The Amelioration of Environmental War Crimes

There have been many proposals put forth to solve the current environmental deficiencies in the laws of armed conflict.71 At the radical end of the spectrum are suggestions for the creation of a Fifth Geneva Convention72 or the establishment of an International Environmental Criminal Court.73 Lingering at the conservative end of the scale are those who suggest minor textual changes or mere clarifications of existing terms. The discussion below focuses on two suggestions for developing pragmatic and enforceable war crimes with individual criminal responsibility for environmental damage caused in armed conflict.

i. Lower the thresholds of harm

The degree of environmental damage that must be caused in armed conflict before an individual becomes criminally responsible under international law is prohibitively high. Regrettably, the thresholds of harm contained in Protocol I and

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Article 8(2)(b)(iv) of the Rome Statute may be having a greater deterrent effect on prosecutors to pursue environmental war crimes charges against an individual than to individuals engaged in armed conflict on the battlefield. As already discussed, the magnitude of environmental damage required for the war crime that currently exists is ‘widespread, long-term and severe’ damage, in addition to the knowledge requirements and an absence of military advantage.

One of the major issues in the current environmental war crime is the conjunctive nature of the thresholds of harm in both Additional Protocol I and the Rome Statute. Amending the cumulative requirement of widespread and long-term and severe damage is one small change that could make a big difference. Lowering the threshold by simply making these terms disjunctive units of evidence – so that only one of the three elements would trigger criminal liability – would be a positive amendment to the current international criminal law framework. The standard would then be similar to that contained in the 1976 Environmental Modification Convention.

Secondly, the precise meaning of the terms ‘widespread, long-term, and severe’ could be revised to define an environmental crime that is in line with contemporary expectations of environmental protection. This would go some way towards ensuring that the burden of proof is not ‘stacked heavily against the environment’.

\[\text{ii. Make provision for non-international armed conflict}\]

International criminal law currently has no environmental war crimes that apply to situations of non-international armed conflict. This is one of the most frequently cited faults of the existing framework of laws that apply in this category of armed conflict. All of the environmental provisions that exist within the laws of armed conflict apply exclusively to international armed conflict and so there is no option of prosecuting for environmental crimes in non-international armed conflict. Although the ICRC’s study on Customary International Humanitarian Law indicates that state practice to date has arguably created customary rules of environmental protection in non-international armed conflict, this remains a contestable issue. The fact remains that non-international armed conflicts vastly outnumber international conflicts in the present day and the environment is just as vulnerable to methods and means of warfare that could result in unacceptable levels of harm. Non-international armed conflict is frequently connected with

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74 This is equated with the concept of military necessity in Additional Protocol I art 35(3).
75 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, 10 December 1976, 1108 UNTS 151
76 Sharp (n 16) 241.
77 J Kellenberger, ‘Strengthening Legal Protection for Victims of Armed Conflicts’ (Address by President of the ICRC: The ICRC Study on the Current State of International Humanitarian Law, 21 September 2010).
environmental damage to natural resources and so an international crime in this regard would be very appropriate.

There is the option to interpret existing non-international crimes in the Rome Statute in ways that result in individual criminal liability indirectly for environmental damage. A ‘green’ interpretation of, Articles 8(2)(c)–(f) of the Statute of the International Criminal Court – not to mention the customary law concepts of proportionality, distinction, humanity and military necessity – may provide a certain level of indirect environmental accountability in the absence of specific provisions. However, the potential for existing laws to provide adequate environmental protection in non-international armed conflict is extremely limited. However, to model any changes on existing provisions within the international criminal laws that apply to international conflicts would be a mistake. As discussed above, the existing environmental war crime in the Rome Statute needs thorough revision in its own right.

B. A New Crime against the Environment?

The term ‘ecocide’ was coined in the late 1960s as a result of large-scale wartime environmental damage taking place at the time. However it has since come to carry connotations of extensive or excessive environmental damage occurring in times of peace also – the word itself is an obvious play on the term ‘genocide’, and literally means ‘the killing of ecology’. Under the current framework of international criminal law, apart from the environmental war crime in Article 8(2)(b)(iv) of the Rome Statute, environmental damage would not be pursued as a crime in itself - it is instead considered to be a means of committing the crimes of genocide, crimes against humanity or other war crimes. To remedy this lacuna there have been calls for the creation of ecocide as a separate international crime within the jurisdiction of the International Criminal Court.

The very essence of ecocide would be the criminalisation of serious environmental damage that is intentionally, recklessly or negligently caused, so that those most responsible for this damage can be held criminally accountable in an effort to deter

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82 J Jowit, ‘British Campaigner Urges UN to Accept “Ecocide” as International Crime’ Guardian (London 9 April 2010). In this campaign, the proposed definition of ecocide is ‘the extensive destruction, damage to or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished’.

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such behaviour in the future. Criminalising environmental damage is not a new concept. Yet as far as international criminal law is concerned, the extent to which pure environmental damage (without any direct or immediate adverse impacts on the human population) could be appropriately responded to by criminal sanctions is questionable. The International Law Commission has recognised that severe environmental damage ought to carry heavy penalties. However, criminal law is not really equipped with the most appropriate penalties to provide redress for harm caused to the environment: in the case of a damaged environment, it is argued here that repairing the damage should be the absolute priority. This would not be possible through international criminal law, as its sanctions focus almost exclusively on penalising the individual perpetrator through a period of incarceration.

Though the term carries no legal meaning or effect in international law at present, ecocide does exist as a crime in the criminal codes of Armenia and Belarus. As to possible definitions of a crime of ecocide, in its Draft Code on State Responsibility, the International Law Commission equates ‘serious acts of environmental degradation with crimes such as aggression … slavery, genocide and apartheid’. Yet, as a result of competing interests and different standards of environmental integrity across the globe it has been ‘a little difficult to decide upon the precise limits of ecocide’. Some definitions rely heavily on the right to a healthy environment, a concept which is still in gestation in international human rights law. Other proposals see ecocide as an extension to the Genocide Convention, though the association of ecocide so closely with genocide could weaken the Genocide Convention and its associated provisions. Perhaps a more useful definition could be modelled on the existing limitations of environmental harm in international criminal law’s war crimes provisions. While the ‘long-term,
widespread and severe’ requirements are too high a threshold of harm to be of any real use in preventing environmental damage in the theatre of war, they may be just the right standard by which to judge the magnitude of environmental damage understood to amount to ecocide. Widespread, long-term and severe damage caused recklessly might be something that the international community would accept as being an international crime.

The value of enumerating a single crime against the environment is certainly apparent. International criminal law could offer a satisfactory means of holding individuals criminally liable for extensive environmental damage,92 thereby potentially removing some of the political or corporate shields that have prevented accountability in the past. However, it is not plainly obvious that the crime of ecocide would be a success. At the most fundamental level, the types of remedy required by environmental damage are not to be found in the mechanisms of accountability offered by international criminal law93 and this is something to be borne in mind throughout future discussion on this issue.

Conclusion

There is no greater challenge facing the world than that of climate change and environmental degradation. As our global climate continues to increase in temperature, and as the effects of this change begin to manifest in more extreme weather patterns and more frequent sudden onset and slow onset environmental disasters, it seems inevitable that environmental concerns will be reflected in almost every aspect of international law in the future. In this regard, international criminal law will most certainly eventually evolve to recognise specific environmental crimes. However, the time for that kind of progress has not yet arrived. Environmental international criminal law will continue to develop incrementally as the environmental dimension of existing crimes becomes more frequently raised in international criminal prosecutions of the future. Big gestures, such as the development of a stand-alone crime against the environment, will not exist for some time yet. While international criminal law may not be the right mechanism to respond to all instances of serious environmental damage, the outlook for it to become a strong and integral part of the developing jigsaw of environmental protection is good.

92 Berat (n 91) 345.