2

Environmental Harm as a Crime under the Rome Statute

The ICC is designed to address the most serious crimes to humankind. Specific and detailed parameters govern the application of the ICC's framework. This chapter inquires if environmental harm could constitute one of the enumerated crimes under the Rome Statute: whether as genocide, a crime against humanity, a war crime, or aggression. In doing so, it first looks to the parameters governing jurisdiction and admissibility at the ICC. It then assesses the substantive provisions of the Rome Statute of the ICC, including their contextual requirements, the underlying acts, and the mental elements required to establish them. It reviews the elements of the most applicable crimes[1] and takes into account

[1] There are other crimes under international law that may potentially have some relevance to environmental harm but are not included in the ICC's jurisdiction. For example, terrorism is not a crime per se under the Rome Statute. If terrorism were to be included, it may provide a vehicle to prosecute environmental harm. While the difficulty in reaching consensus on a universal definition of terrorism committed in peacetime has often been referred to as one of the major hurdles detracting from its inclusion in the Rome Statute, the various definitions of terrorism in sectoral treaties are illustrative of its relevance for prosecuting environmental harm resulting from or committed in connection with terrorism. For example, the definition of terrorism in the Arab Convention for the Suppression of Terrorism explicitly refers to damaging the environment as an underlying act of terrorism. Article 1(2) of the Arab Convention for the Suppression of Terrorism, of 22 April 1998, defines terrorism as 'Any act or threat of violence, whatever its motives or purposes, that occurs in the advancement of an individual or collective criminal agenda and seeking to sow panic among people, causing fear by harming them, or placing their lives, liberty or security in danger, or seeking to cause damage to the environment or to public or private installations or property, or to [sic] occupying to seizing them, or seeking to jeopardize a natural resources'; Cassese (2008), p. 164. See also article 1(2) of the Convention of the Organization of the Islamic Conference on Combating International Terrorism, of 1 July 1999 (referring to 'exposing the environment or any facility or public or private property to hazards or occupying or seizing them, or endangering a national resource, or international facilities, or threatening the stability, territorial integrity, political unity or sovereignty of independent States'). See further, article 1(3) of the Organization of the African Union Convention on the Prevention and Combating of Terrorism, of 14 July 1999 ('(a) any act which is a violation of the criminal laws of a State Party and which may endanger the life, physical integrity or freedom of, or cause serious

accompanying jurisprudence in order to project how these crimes would apply to serious environmental harm.

While the analysis is focused on the provisions of the Rome Statute, other instruments and principles of international law are referenced where relevant for the interpretation and potential application of these crimes. In this respect, the approach reflects the hierarchy of sources of law set out in article 21 of the Rome Statute, as discussed in Chapter 1. The one prohibition in the Rome Statute that explicitly mentions the environment, the war crime set out in article 8(2)(b)(iv), is analysed in detail. However, this book also looks to other war crimes, crimes against humanity, forms of genocide, and aggression, in order to provide a broad cross-section of potential liability for environmental harm under the Rome Statute.

2.1 Preambular Guidance

Before addressing the specific crimes set out in the Rome Statute (as well as its procedures and jurisdictional framework), it is instructive to look to its Preamble to discern the object and purpose of the Treaty. In addition to indicating the aspirations underlying the Court's creation, the Preamble may also be used to interpret the provisions of the Rome Statute.[2]

injury or death to, any person, any number or group of persons or causes or may cause damage to public or private property, natural resources, environmental or cultural heritage'). Additionally, articles 2(1)(a)(ii) and 2(1)(b)(ii) of the International Convention for the Suppression of Acts of Nuclear Terrorism, 13 April 2015, consider as an offence the intentional causation of 'substantial damage to property or to the environment', including by way of using radioactive material or devices, respectively.

[2] Though the Rome Statute Preamble is not per se an applicable part of the Statute under article 21, it may be used as context to interpret the Statute's provisions; Vienna Convention on the Law of Treaties, 1969, article 31(2). The Appeals Chamber has stated that the Rome Statute may be interpreted in light of its purposes as 'gathered from its preamble and general tenor of the treaty'; *Situation in Democratic Republic of the Congo*, Judgment on the Prosecutor's Application for Extraordinary Review of Pre-Trial Chamber I's 31 March 2006 Decision Denying Leave to Appeal, ICC-01/04–168, 13 July 2006, para. 33; *Katanga* Trial Judgment, paras. 55, 1122 (the latter recalling – in the context of interpreting the term 'organizational policy' under article 7(2)(a) of the Rome Statute – that the object and purpose of a treaty impact upon its interpretation, in accordance with the Vienna Convention on the Law of Treaties. The former underscoring that consideration to the object and purpose of a treaty should not be used as a justification to create new law beyond the scope and terms of the treaty). See also Max Hulme, 'Preambles in Treaty Interpretation' (2016) 164 *University of Pennsylvania Law Review* 1281–343, pp. 1282, 1300.

Although there is no direct reference to environmental harm in the Preamble of the Rome Statute, it does refer to ending impunity for atrocity crimes, 'for the sake of present and future generations'.[3] This reference, albeit indirect, provides a potential justification for the application of the Court's processes to serious environmental harm, and it echoes the sentiment expressed in several international instruments providing environmental protections,[4] as well as the ICJ's observation that '[t]he environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn'.[5] The indirect reference in the Rome Statute Preamble to the principle of intergenerational equity, which is central to the notion of sustainable development, also signals a bridge between international criminal law and international environmental law.[6]

Paragraph 3 of the Preamble refers to how 'grave crimes threaten the peace, security and well-being of the world'. The term 'world' can be read as extending beyond the human species and encompassing their habitat, namely planet Earth.[7] However, its meaning encompasses human society, and thereby does not provide a basis indicating that the Statute is designed to independently protect nature irrespective of any human interests.[8]

[3] Rome Statute, Preamble, para. 9.

[4] UN General Assembly, Resolution 37/7, A/RES/37/7, 28 October 1982, Annex: World Charter for Nature, Preamble. See also UN General Assembly Resolution 69/314, Tackling Illicit Trafficking in Wildlife, Preamble, para. 1 ('*Reaffirming* the intrinsic value of biological diversity and its various contributions to sustainable development and human well-being, and recognizing that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the Earth which must be protected for this and the generations to come'). See also World Heritage Convention 1972, article 4.

[5] ICJ: Nuclear Weapons Advisory Opinion, para. 29.

[6] See Report of the World Commission on Environment and Development: Our Common Future, 20 March 1987, 3. Sustainable Development, para. 27 (underscoring that sustainable development aims at ensuring that humanity can meet 'the needs of the present without compromising the ability of future generations to meet their own needs').

[7] Triffterer and Ambos (2016), pp. 8–9.

[8] The Independent Expert Panel, which proposed a definition of ecocide in 2021, also recommended the addition of a preambular paragraph referring to the environment explicitly ('[c]oncerned that the environment is daily threatened by severe destruction and deterioration, gravely endangering natural and human systems worldwide'), indicating that the existing reference to the 'world' is not synonymous with the natural environment. See Independent Expert Panel for the Legal Definition of Ecocide, *Commentary and Core Text*, June 2021 (available at: www.stopecocide.earth/expert-drafting-panel).

Ultimately, the absence of any explicit reference to the natural environment per se in the Preamble, which contrasts with its explicit references to children, women, and men, is indicative of the anthropocentric orientation of the Court. The environment is only given value to the extent that it directly concerns human interests, whether current or future. In this respect, the Court's preamble indicates a similar institutional disposition to that of the European Court of Human Rights, which can also only address environmental harm to the extent that it directly impacts on the human rights set out in the European Convention on Human Rights.[9]

2.2 Gateway Considerations

Before addressing the substantive crimes within the Court's jurisdiction (*ratione materiae*), the temporal (*ratione temporis*), geographic (*ratione loci*), and personal jurisdictional (*ratione personae*) parameters are first set out. Then the rules governing admissibility are addressed, including the principle of complementarity and the requirement of gravity.

2.2.1 Jurisdiction

Looking to temporal jurisdiction (*ratione temporis*), the Court has an absolute temporal start date of 1 July 2002. This is the date on which the Rome Statute entered into force and the Court began to operate.[10] In respect of States that join the Court after July 2002, the Court can only exercise its jurisdiction after the entry into force of the Rome Statute for the relevant State, unless the State makes a declaration of ad hoc acceptance of the Court's jurisdiction under article 12(3) or the UNSC refers a situation to the Court, in which case the jurisdiction may extend back to 1 July 2002.[11]

The Court's temporal jurisdictional parameters limit the possibility of prosecuting environmental harm in the same manner as they limit the prosecution of other crimes in the Rome Statute.[12] Acts that began before

[9] See, e.g., ECtHR: *Atanasov v. Bulgaria*, App. No. 12853/03, 2 December 2010, paras. 66, 78.
[10] Rome Statute, article 11(1); article 24(1).
[11] Rome Statute, article 11(2).
[12] If the conduct were charged as aggression, then different temporal jurisdictional parameters would apply in line with the Aggression Amendments; see Resolution

2002 but continued to be perpetrated after 2002 could potentially be addressed by the Court, subject to the other jurisdictional requirements being met. On the other hand, if environmental harm occurred entirely prior to the entry into force of the Statute and only the effects of the conduct continued to be felt, the Court would be unlikely to be able to assert jurisdiction. Indeed, article 24(1) of the Rome Statute provides that 'no person shall be criminally responsible under this Statute for conduct prior to the entry into force of the Statute'.

Practice indicates that a strict approach to the temporal jurisdiction of the Court will be maintained. For example, in the context of complaints about pollution and environmental harm arising from Chevron's (originally under the corporate identity of Texaco) oil exploration and extraction in Ecuador from the 1960s through to the 1990s, the plaintiff group attempted to overcome the Court's temporal limit by arguing that the effects after 2002 continued and that Chevron's post-2002 efforts to avoid responsibility drew its conduct within the Court's jurisdiction.[13] However, these arguments were dismissed by the ICC Prosecution on the basis of the temporal and subject-matter jurisdiction of the Court (but without any detailed treatment of the possible existence of a 'continuing crime'[14]). Likewise, the Court is likely to adhere to a strict approach whereby the substantive conduct alleged

RC/Res.5, Amendments to Article 8 of the Rome Statute, adopted at the 12th plenary meeting, on 10 June 2010. Contrast Chiarini (2021), pp. 15–16 (arguing that the Court's temporal jurisdiction would be undermined in cases of environmental harm due to the one-year withdrawal time period under article 127) with ICC: *Situation in the Republic of Burundi*, ICC-01/17-X-9-US-Exp, Decision Pursuant to Article 15 of the Rome Statute on the Authorization of an Investigation into the Situation in the Republic of Burundi, 25 October 2017, paras. 24, 192 (noting that the Court would retain jurisdiction to investigate and prosecute any crimes up to and including the date one year after the State's notification of its withdrawal from the Rome Statute, and that, 'in the light of the continuous nature of certain crimes, the Prosecutor may also extend her investigation to crimes even if they continue after [the date one year after the withdrawal]').

[13] Caitlin Lambert, 'Environmental Destruction in Ecuador: Crimes Against Humanity under the Rome Statute?' (2017) 30 *Leiden Journal of International Law* 707–29 ('Lambert (2017)'), p. 713 (Positing that '[t]he victims could have argued, as some commentators have, that Chevron's alleged acts were part of a continuing crime that began with Texaco's dumping of toxic waste').

[14] See Alan Nissel, 'Continuing Crimes in the Rome Statute' (2004) 25 *Michigan Journal of International Law* 653, pp. 654–8, 661–2, 664, 680–1, 687. See further ICTR: *Prosecutor v. Nahimana et al.*, ICTR-99–52-A, Judgment, 28 November 2007, para. 721 ('*Nahimana* Appeal Judgment').

to violate the Rome Statute must occur, at least in part, within the Court's temporal jurisdiction.[15]

With regards to geographic jurisdiction (*ratione loci*), in the case of a State Party referral or a *proprio motu* initiation of an investigation by the Prosecution, the Court's jurisdiction is limited to acts on the territory of a State Party or on a vessel or aircraft registered to a State Party (the Court would also have jurisdiction if the crime were committed by a national of a State Party).[16] However, the Court can exercise its powers with respect to acts occurring anywhere if the case is referred by the UNSC to the Court.[17]

Serious environmental harm typically impacts multiple territories.[18] This raises the question of the applicability of the effects doctrine, whereby jurisdiction is asserted based on the effects of the acts in question being felt inside the territorial jurisdictional limits of a court even if the causative acts occur outside these limits.[19] Views diverge on the applicability of this doctrine at the ICC.[20] The issue largely focusses on the terms of article 12(2)(a) and, specifically, whether the effects of an act perpetrated in a non-State Party causing environmental harm in the territory of a State Party (or a State accepting the jurisdiction of the ICC) could be interpreted as falling within the 'conduct' referred to in article 12(2)(a). The phrasing of article 12(2)(a) (specifically 'the Court may exercise its jurisdiction if one or more of the following States are Parties to this Statute or have accepted the jurisdiction of the Court . . . [t]he State on the territory of which the conduct in question occurred') suggests that at least part of the conduct in question would have to occur on

[15] See Lambert (2017), p. 713.
[16] Rome Statute, article 12.
[17] Rome Statute, articles 12 and 13. The UNSC also has the power to defer investigations for periods of a year under article 16.
[18] This is evident in the case of greenhouse gas emissions with effects abroad irrespective of where they are emitted; by emitting or allowing greenhouse gas emissions, States 'exacerbate climate-induced harms on persons in other countries', therefore transcending national boundaries, see Jenny Sandvig, Peter Dawson, and Marit Tjelmeland, 'Can the European Court of Human Rights Encompass the Transnational and Intertemporal Dimensions of Climate Harm?', *EJIL: Talk!*, 23 June 2021. Also, implicitly recognizing the transboundary nature of environmental harm, see ICJ: Nuclear Weapons Advisory Opinion, para. 29.
[19] See generally, Michail Vagias, *The Territorial Jurisdiction of the International Criminal Court: Certain Contested Issues* (Cambridge University Press, 2014), 'Chapter 6: The Effects Doctrine', referring to the United States Anti-trust case of *U.S. v. Nippon Paper Industries Co. Ltd.*, 109 F.3d 1, 8 (1997) as an example of the effects doctrine being applied.
[20] Schabas (2011), p. 82.

the territory of a State Party (or on board a vessel or aircraft registered to a State Party).

In 2018, Pre-Trial Chamber I of the ICC focussed on the occurrence of an element of a crime on a State Party's territory as the jurisdictional link, rather than the effects per se of the alleged crimes. It ruled that the Court may exercise jurisdiction over the alleged deportation of the Rohingya people from Myanmar, since an element of this crime (the crossing of a border) occurred on the territory of Bangladesh (which is a State party to the Statute).[21] It further found that the Court may also exercise its jurisdiction with regard to any other crimes set out in the Statute, such as the crimes against humanity of persecution and/or other inhumane acts, which occurred in connection with the deportation of the Rohingya victims to Bangladesh.[22] In light of the typically cross-border nature of environmental harm, the Pre-Trial Chamber's approach bears considerable potential. Victims of environmental harm constituting or contributing to a crime under the Statute, who are located in States that are not party to the ICC, may still avail themselves of the Court's jurisdiction if they are forced across frontiers into the territory of a State Party.[23]

The Court's personal jurisdiction (*ratione personae*) is limited to natural persons, indicating that it cannot prosecute States or other organizations.[24] This precludes the possibility of punishing corporate entities, as such, for serious environmental harm.[25] The gap in personal jurisdiction is a significant one, as companies are widely recognized as playing a key role in serious environmental harm. The gap also conflicts with the approaches of various domestic[26] and regional[27] approaches,

[21] ICC: Case No. ICC-RoC46(3)-01/18, Decision on the 'Prosecution's Request for a Ruling on Jurisdiction under Article 19(3) of the Statute', 6 September 2018 (concerning the Court's jurisdictional basis to address crimes against Rohingya persons), para. 73.

[22] ICC: Case No. ICC-RoC46(3)-01/18, Decision on the 'Prosecution's Request for a Ruling on Jurisdiction under Article 19(3) of the Statute', paras. 74–8.

[23] See also below, discussion of the crime against humanity of deportation and forced transfer under article 7(1)(d) (Chapter 2, Section 2.3.2.2).

[24] Rome Statute, article 25(1).

[25] Cusato (2018), p. 505.

[26] McLaughlin (2000), p. 399; Van den Herik (2010), p. 365.

[27] See, e.g. EU Directive 2008/99/EC on the protection of the environment through criminal law, article 6 (extending liability for the offences listed therein to legal persons 'where such offences have been committed for their benefit by any person who has a leading position within the legal person, acting either individually or as part of an organ of the legal person, based on: (a) a power of representation of the legal person; (b) an authority to take decisions on behalf of the legal person; or (c) an authority to exercise control within the legal person' or where a lack of supervision or control by such a person has made such offences possible for the legal person's benefit). The Council of Europe's Convention on

which encompass corporate liability for environmental crime. Whilst individual company directors and other representatives can be prosecuted before the ICC in their personal capacity,[28] difficulties could arise in linking crimes to individual natural persons, who may only have been responsible for a limited aspect of the environmental harm caused by a corporation.[29]

In relation to State responsibility for crimes, the ICC's lack of direct jurisdiction is broadly in line with the current state of international law. Under international law, there is no well-established precedent for States being criminally charged for atrocities.[30] Whereas States can be held responsible for wrongful acts in certain respects, for example under the Genocide Convention,[31] this does not amount to criminal responsibility.[32]

As set out later in this book, the limitation of the ICC's personal jurisdiction to natural persons, and its lack of jurisdiction to hold to account corporations (and potentially even States) is one significant reason auguring in favour of a bespoke international court for the environment with coverage of corporate acts built into its jurisdiction.[33]

Closely related to personal jurisdiction is the topic of immunities, such as head of State immunity or official capacity immunity. Under article 27 of the Rome Statute, these immunities cannot operate to exempt persons

the Protection of the Environment through Criminal Law 1998 in article 9(1) binds member states to provide for corporate criminal liability in relation to some environmental offences contemplated in article 2(1), in a non-exclusive way of individual criminal responsibility, subject to the right to declare a partial or complete reservation to article 9(1).

[28] Cusato (2018), p. 505. See also, McLaughlin (2000), p. 399.

[29] See Larissa van den Herik, 'Corporations as Future Subjects of the International Criminal Court: An Exploration of the Counterarguments and Consequences' in Carsten Stahn and Larissa van den Herik (eds.), *Future Perspectives in International Criminal Justice* (T. M.C. Asser Press, 2010) ('van den Herik (2010)'), pp. 350–68. See further Gerry Simpson noting that 'with ... ecological crimes, the dispersion of culpability, the continuing legality of much structural behaviour, the sheer ubiquity of the offence, and the difficulties in teasing individual responsibility from collective action are likely to be particularly acute'; Gerry Simpson, 'Crime, Structure, Harm' in Jodoin et al. (2013), p. 48.

[30] See Freeland (2015), pp. 37–43; ICTY: *Prosecutor v. Tihomir Blaškič*, IT-95–14-AR, Judgment on the Request of the Republic of Croatia for Review of the Decision of Trial Chamber II of 18 July 1997, Appeals Chamber, 29 October 1997, para. 25.

[31] Convention for the Prevention and Punishment of the Crime of Genocide (signed 9 December 1948, entered into force 12 January 1951) 78 UNTS 277 ('1948 Genocide Convention').

[32] See Freeland (2015), pp. 37–43.

[33] See Drumbl (2000), p. 327.

from criminal responsibility for the acts within the Court's jurisdiction.[34] In the case of serious environmental harm, there is the distinct possibility that an accused person may occupy a position in the top echelons of a State structure. Indeed, historic incidents of harm to the environment have sometimes involved groups of people using States or organizations, as was the case with the burning of the Kuwaiti oil wells by Saddam Hussein's forces in 1990–1.[35]

The long-term, typically cross-border, and multi-perpetrator nature of serious environmental harm means such conduct could potentially fall within the Court's temporal, geographic, and personal jurisdiction. As new jurisprudence emerges clarifying the scope of the Court's jurisdictional reach, such as in the Pre-Trial Chamber's decision concerning the Rohingya victims allegedly deported to Bangladesh cited in Section 2.2.1, the possibility of environmental harm falling within the Court's geographic competence is growing. However, the Court's temporal jurisdiction will prevent historic events pre-dating 2002 from being addressed, and its personal jurisdiction will prevent the direct liability of organizations such as corporations and States. These are significant restrictions to the Court's ability to redress serious environmental harm, as discussed in the overall conclusions in Chapter 6. Given the major role such entities play in anthropocentric environmental degradation, these jurisdictional restrictions would, if left unaltered, considerably reduce the symbolic impact of addressing environmental harm before the ICC.

2.2.2 Trigger Mechanisms

For the Court to address allegations of crimes, its jurisdiction needs to be engaged. Situations can be initiated before the ICC in three primary ways. First, State Parties can refer situations involving the commission of an ICC crime on the territory (or on board a vessel or aircraft registered in a State Party) or by a national of a State Party to the

[34] See, e.g., Rome Statute, article 27 (excluding Head of State immunity or official capacity as a basis for avoiding liability). See also ICC: *Prosecutor v. Omar Hassan Ahmad Al-Bashir*, ICC-02/05–01/09–309, Decision under Article 87(7) of the Rome Statute on the Non-Compliance by Jordan with the Request by the Court for the Arrest and Surrender of Omar Al-Bashir, PTCI, 11 December 2017, paras. 32, 39, 44; ICC: *Prosecutor v. Omar Hassan Ahmad Al-Bashir*, ICC-02/05–01/09-OA2, Judgment in the Jordan Referral re Al-Bashir Appeal, 6 May 2019 ('Al-Bashir Appeal Decision on Immunity'), paras. 103, 115, 130, 133, 141, 143–9.

[35] See case study of burning of Kuwaiti oil wells below (Chapter 5, Section 5.1).

Court.[36] Second, the UNSC can refer situations involving ICC crimes occurring anywhere and committed by any person over eighteen years of age to the Court.[37] Third, the Prosecutor may *proprio motu* open investigations involving ICC crimes committed on the territory or by a national of a State Party (or on board a vessel or aircraft registered in a State Party).[38]

Looking to the first trigger mechanism, referrals by State Parties (or self-referrals by non-State Parties that accept the Court's jurisdiction under article 12(3)) concerning environmental harm will generally operate in the same manner as referrals concerning other crimes under the Rome Statute. However, where environmental harm occurs across multiple States, a State Party may consider referring the whole of the affected area for the Court's consideration, rather than limiting its referral to the borders of a specific national territory.[39] The prospect of regional referrals has been touted, particularly in relation to the actions of groups such as the so-called Islamic State.[40] However, to date, there have been no successful referrals of a region or group as such to the ICC, unbounded by one State's territorial boundaries.

The second trigger mechanism, by way of United Nations Security Council referral, has special relevance to environmental harm because the parameters of such a referral would not be limited to the territory of States' Parties or perpetration by the nationals of States' Parties.[41] Serious environmental harm could occur in areas outside of the territory of any State Party. For example, areas like Antarctica,[42] the high seas, or

[36] Rome Statute, articles 12–14, particularly article 13(a). This jurisdictional avenue would also cover situations in which the State in question has accepted the Court's jurisdiction with respect to the crime(s) in question, as provided for in article 12(3).
[37] Rome Statute, articles 12–14, particularly article 13(b).
[38] Rome Statute, articles 12–15, particularly article 13I.
[39] See, by analogy, Cóman Kenny, 'Prosecuting Crimes of International Concern: Islamic State at the ICC?' (2017) 33 *Utrecht Journal of International and European Law* 120 ('Kenny (2017)'), pp. 127–9 (arguing that the ICC could exercise territorial jurisdiction over the IS with respect to attacks that took place in 2015 and 2016 in France, Belgium, and Nigeria –State Parties – if regarded as constituent elements or effects of offences originated in Syria, Libya, or Iraq where the IS holds territory but which are non-state parties to the Rome Statute, and that those State Parties could refer a situation presenting the attacks committed in their territories as constituent elements or effects of broader criminal activity originating even in non-State Parties).
[40] See Kenny (2017), pp. 120–45.
[41] See Rome Statute, articles 12(2) and 13(b).
[42] Most States consider that Antarctica is part of the global commons and not subject to the exclusive jurisdiction of any State; Sands (2018), p. 632. Conversely, the arctic region is subject to the jurisdiction of certain States, which have established the Arctic Council – a high-level

potentially even outer space,[43] could be referred to the Court by the Security Council.[44] Given that these areas are vulnerable to man-made environmental harm, it is important for the Court to potentially be able to exercise its jurisdiction thereover.

Antarctica has immense significance from an ecological viewpoint. It constitutes '26 percent of the world's wilderness area, representing 90 percent of all terrestrial ice and 70 percent of planetary fresh water'.[45] The possibility of humans engaging in environmentally damaging practices in Antarctica is growing with the ongoing search for resources to extract. Equally, the prospect of oil pollution in the high seas and the dumping of radioactive materials presents a significant risk, as recognized by the adoption of the 1958 High Seas Fishing and Conservation Convention,[46] and the 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties.[47] Damage and the spoliation of outer space from human activities is also a distinct and growing possibility, particularly with private actors increasingly accessing outer space.[48]

In order to refer a situation of environmental harm to the Court, the UNSC would have to act under Chapter VII of the UN Charter. This would require it to determine that the environmental harm constituted or formed part of a threat to international peace, a breach of international peace, or an act of aggression.[49] To date, the UNSC has not specifically

inter-governmental forum – to address the common concerns facing Arctic governments and affecting the peoples of the Arctic; Sands (2018), pp. 632–3.

[43] See the IEP definition of ecocide in Chapter 6, Section 6.3.2.3, which defines the environment as including outer space.

[44] See Rome Statute articles 12, 13; Schabas (2016), p. 261; Cherif Bassiouni, *International Extradition: United States Law and Practice* (6th ed.) (Oxford University Press, 2014), pp. 426–7. See further Deborah Ruiz Verduzco, 'The Relationship between the ICC and the Security Council' in Stahn (2015), p. 35 ('Article 13(b) allows the Council to refer a situation to the Court, activating its jurisdiction regardless of the consent of the State of territory or nationality, which is otherwise constrained to the territories and the nationals of States Parties'). But see, Schabas (2011), p. 82 (arguing that the Court cannot exercise jurisdiction in these circumstances other than on the basis of the nationality of the perpetrator).

[45] Sands (2018), p. 633.

[46] Sands (2018), p. 460.

[47] OECD, High Seas Task Force: *Closing the Net: Stopping Illegal Fishing on the High Seas* (2006), p. 38; Sands (2018), pp. 230–1.

[48] Sands (2018), pp. 290–3; With respect to orbital space debris, see Chelsea Muñoz-Patchen, 'Regulating the Space Commons: Treating Space Debris as Abandoned Property in Violation of the Outer Space Treaty' (2018) 19 *Chicago Journal of International Law* 233–59.

[49] United Nations Charter, article 39.

found environmental harm per se to constitute a threat to international peace and security.[50] However, in 2018, the UNSC, acting under Chapter VII, issued a resolution in which it recognized 'the adverse effects of climate change, ecological changes and natural disasters, among other factors, on the situation in Darfur, including through drought, desertification, land degradation and food insecurity'.[51] In other resolutions, it has recognized environmental factors as a root cause contributing to regional insecurity,[52] as well as 'the linkage between the illegal exploitation of natural resources, illicit trade in such resources and the proliferation and trafficking of arms as one of the major factors fuelling and exacerbating conflicts'.[53] The Security Council has also referred to environmental damage in resolutions in relation to Iraq's invasion of Kuwait in 1990–1,[54] the conflict in the Democratic Republic of Congo,[55] and on the Central African Republic.[56]

Moreover, in recent years the UNSC has shown an openness to addressing issues not traditionally considered as part of the peace and security paradigm. It has passed resolutions dealing with matters going beyond its typical remit of situations of armed conflict.[57] The 'new' measures that the Security Council is increasingly favouring include counter-terrorism measures,[58] and international

[50] See Sir Michael Wood, 'The UN Security Council and International Law. Second Lecture: The Security Council's Powers and Their Limits' (Lecture delivered at Hersch Lauterpacht Memorial Lectures, Lauterpacht Centre for International Law, Cambridge, UK, 8 November 2006), paras. 66, 55, respectively.

[51] UNSC Resolution 2429 (2018), 13 July 2018, p. 3.

[52] UNSC Resolution 2349 (2017), 31 March 2017, para. 22 (concerning the Lake Chad Basin region).

[53] UNSC Resolution 1857 (2008), 22 December 2008, p. 2 (concerning the Great Lakes region of Africa).

[54] See UNSC Resolution 687 (1991), 3 April 1991, para. 9. See also UNEP Study (2009), p. 27.

[55] See UNSC Resolution 1376 (2001), 9 November 2001, para. 8; UNSC Resolution 2136 (2014), 30 January 2014, para. 24.

[56] UNSC Resolution 2127 (2013), 5 December 2013 (noting in the preamble the condemnation of the Security Council 'of the devastation of natural heritage and noting that poaching and trafficking of wildlife are among the factors that fuel the crisis in the CAR').

[57] See Alexandra Knight, 'Global Environmental Threats: Can the Security Council Save Our Earth?' (2005) 80 *New York University Law Review* 1549–85, p. 1565; Shirley Scott, 'Climate Change and Peak Oil as Threats to International Peace and Security: Is It Time for the Security Council to Legislate?' (2008) 9 *Melbourne Journal of International Law* 495, text accompanying footnote 93.

[58] See, e.g., UNSC Resolution 1373 (2001), 28 September 2001 (establishing the Counter-Terrorism Committee (CTC)). See also UNSC Resolution 1465 (2003), 13 February 2003 (condemning the bomb attack in Bogotá, Colombia, of 7 February 2003 and determining that it constituted, as any other act of terrorism, a threat to international peace and

courts.[59] If the UNSC determined that the environmental harm constituted a threat to international peace and security, it would then need to establish the parameters of its referral, which could potentially extend beyond the borders of a single State, as noted above.[60]

As for the third trigger mechanism, investigations initiated *proprio motu*, the Prosecutor's discretion in this respect may serve as a significant factor in prioritizing the redress of crimes involving large-scale environmental harm. As set out above,[61] the Prosecution's 2016 guidelines on case selection place emphasis on addressing crimes that result in or are perpetrated by means of the destruction of the environment, and thus expand on its 2013 policy paper on preliminary examinations which mentioned environmental harm as one measure of the impact of crimes.[62] In accordance with its guidelines, the Prosecutor is likely to pay particular attention to situations involving such environmental harm.[63] At the same time, the Prosecutor, and the Pre-Trial Judges who review the Prosecutor's determination under article 15, must be convinced there is a reasonable basis to believe crimes under the ICC's jurisdiction have been committed. Given the human-centred orientation of most of the crimes in the Rome Statute, human suffering is likely to continue to be the yardstick by which the merits of opening a situation are measured, particularly given the sensitivity of situations opened *proprio motu*.[64]

2.2.3 *Admissibility and Complementarity*

The legal concept of admissibility concerns possible impediments to the Court hearing a case that falls within its jurisdiction. Admissibility challenges typically arise due to the case having been heard already in

security); UNSC Resolution 1526 (2004), 30 June 2004 (furthering the implementation of measures against Usama bin Laden, Al-Qaida and the Taliban).

[59] UNSC Resolution 827 (1992), 25 May 1993 (Establishing an International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia).

[60] See (with reference to a referral extending beyond a single State's borders) Kenny (2017), pp. 120–45.

[61] Chapter 1 (on Prosecution's 2016 Case Selection Paper).

[62] OTP 2016 Case Selection Paper, para. 41.

[63] In this respect, note the Office of the Prosecutor's Policy on Cultural Heritage, June 2021, para. 95 (stating that in considering the victims' suffering when assessing the gravity of alleged crimes against or affecting cultural heritage, a relevant factor would be the 'environmental damage inflicted on the affected communities').

[64] See Cryer et al. (2010), pp. 164–5.

another jurisdiction,[65] or falling below the minimum level of gravity required for the Court to address the case.[66]

The admissibility of cases before the ICC is inherently linked to the concept of complementarity. The principle of 'complementarity' is an important 'cornerstone' principle at the ICC.[67] According to this principle, the genuine efforts of a State that would normally exercise jurisdiction to domestically investigate or prosecute crimes are given preference over the ICC proceedings.[68] The principle is based on respect for the primary jurisdiction of States and on considerations of efficiency and effectiveness, particularly given States' more ready access to evidence and witnesses relating to crimes committed in their territories.[69] Cases of environmental harm are prosecuted and litigated in domestic courts around the world each year.[70] The widespread potential availability of judicial *fora* to address environmental harm contrasts with the restricted capacity of the international courts that can be directed towards redressing environmental harm.

Admissibility of cases before the ICC is controlled by article 17. Under this provision, a case is inadmissible where: (1) the case is being investigated or prosecuted by a State that has jurisdiction over it; (2) the case has been investigated by a State that has jurisdiction over it and the State has decided not to prosecute the person concerned;[71] or (3) the person concerned has already been tried for conduct that is the subject of the complaint and a trial by the Court would not be permitted under article 20(3) of the Statute.[72]

[65] Cryer et al. (2010), p. 156 ('Article 17(1) renders a case inadmissible before the ICC if a State is investigating or prosecuting the case, unless the Prosecutor can show that the State is in reality "unwilling" or "unable" to carry out the ostensible proceedings genuinely').

[66] ICC: *The Prosecutor v. Al Hassan Ag Abdoul Aziz Ag Mohamed Ag Mahmoud*, ICC-01/12–01/18–601-Red, Judgment on the appeal of Mr Al Hassan against the decision of Pre-Trial Chamber I entitled 'Décision relative à l'exception d'irrecevabilité pour insuffisance degravité de l'affaire soulevée par la défense', para. 53 (the 'purpose of this requirement is to exclude from the purview of the Court those rather unusual cases when conduct that technically fulfils all the elements of a crime under the Court's jurisdiction is nevertheless of marginal gravity only').

[67] Broomhall et al., Informal Expert Paper: Fact-finding and investigative functions of the office of the Prosecutor, including international co-operation, 2003 ('Broomhall et al. (2003)'), para. 35.

[68] Stephens (2009), p. 56.

[69] On the distinction between efficiency and effectiveness, see Stahn (2016), p. 5.

[70] Basel Convention Manual (2012), p. 7.

[71] Cryer et al. (2010), p. 156.

[72] See also Schabas (2011), pp. 187–8.

The principle of complementarity will prevent proceedings being undertaken before the ICC where there is sufficient overlap (or 'sameness') between the national case and the case before the ICC.[73] To assert primacy of domestic proceedings, the domestic authorities must show that the national investigation or prosecution covers the same individual and substantially the same conduct as alleged in the proceedings before the ICC.[74] However, the domestic State does not need to show that the conduct has been legally characterized in the same way as it would be characterized at the ICC in order to fulfil the complementarity test.[75]

The bars to admissibility before the ICC set out in article 17 will not apply if the domestic lack of investigation or decision not to prosecute is due to the State's unwillingness or inability to genuinely carry out the investigation or prosecution. The notion of unwillingness arises where:

(i) 'the proceedings were or are being undertaken or the national decision was made for the purpose of shielding the person concerned from criminal responsibility';[76]
(ii) 'there has been an unjustified delay in the proceedings which in the circumstances is inconsistent with an intent to bring the person concerned to justice';[77] or
(iii) '[t]he proceedings were not or are not being conducted independently or impartially, and they were or are being conducted in a manner which, in the circumstances, is inconsistent with an intent to bring the person concerned to justice'.[78]

[73] ICC: *Prosecutor v. Saif Al-Islam Gaddafi*, ICC-01/11–01/11–547, Judgment on the appeal of Libya against the decision of Pre-Trial Chamber I of 31 May 2013 entitled 'Decision on the admissibility of the case against Saif Al-Islam Gaddafi', 21 May 2014, paras. 71–2. See also ICC: *Prosecutor v. Saif Al-Islam Gaddafi*, ICC-01/11–01/11–695, Judgment on the appeal of Mr Saif Al-Islam Gaddafi against the decision of Pre-Trial Chamber I entitled 'Decision on the "Admissibility Challenge by Dr. Saif Al-Islam Gadafi pursuant to Articles 17(1)(c), 19 and 20(3) of the Rome Statute"' of 5 April 2019 (adding that a decision issued by a national jurisdiction must be final before a case can be declared inadmissible before the ICC on this basis).

[74] Also adhering to the 'substantially the same conduct' test, see ICC: *Prosecutor v. Francis Kirimi Muthaura et al.*, ICC-01/09–02/11-OA-274, Judgment on the appeal of the Republic of Kenya against the decision of Pre-Trial Chamber II of 30 May 2011 entitled 'Decision on the Application by the Government of Kenya Challenging the Admissibility of the Case Pursuant to Article 19(2)(b) of the Statute', 30 August 2011, para. 39.

[75] ICC: *Prosecutor v. Saif Al-Islam Gaddafi*, ICC-01/11–01/11-344, Decision on the admissibility of the case against Saif Al-Islam Gaddafi, 31 May 2013, paras. 85–6.

[76] Rome Statute, article 17(2)(a).

[77] Rome Statute, article 17(2)(b).

[78] Rome Statute, article 17(2)(c).

The notion of 'inability' concerns circumstances where, 'due to a total or a substantial collapse or unavailability of its national judicial system, the State is unable to obtain the accused or the necessary evidence and testimony or otherwise unable to carry out its proceedings'.[79] In those circumstances, the ICC may continue to investigate or prosecute a case notwithstanding the existence of domestic proceedings for substantially the same conduct.

Applying these principles and provisions to situations of serious environmental harm is likely to produce mixed results in terms of admissibility depending on where the harmful conduct occurred and whether it is being or has been addressed in domestic proceedings. This is for several reasons. First, States have divergent regulatory regimes in relation to the protection of the environment. Although there is a growing domestic recognition of the severity of environmental harm,[80] legislation and/or enforcement mechanisms are lacking in various areas of the world,[81] particularly jurisdictions subject to armed or societal conflict.[82] Admissibility challenges concerning environmental harm in these States are likely to be rejected, on the basis that the national systems are unable to address the environmental harm.[83]

Conversely, in many domestic jurisdictions, the environmental protections are far more developed and rigorously applied than the international laws protecting the environment.[84] The principle of complementarity is

[79] Rome Statute, article 17(3).

[80] See, e.g., *R. v. Sissen* (2000) All ER (D) 2193 (8 December 2000, UK Court of Appeal), para. 51 (a case in which the defendant, who had been convicted of four counts of fraudulent evasion of a restriction on the importation of goods, trade in endangered species, was imprisoned for thirty months for the illegal import into the EC of the Lear's macaw bird of which only approximately 150 remained in the wild; though the sentence was reduced to eighteen months on appeal); WWF Report, 'Sentencing Wildlife Trade Offences in England and Wales Consistency, Appropriateness and the Role of Sentencing Guidelines', September 2016, pp. 25–6.

[81] Christian Nellemann et al. (eds.), *The Environmental Crime Crisis. Threats to Sustainable Development from Illegal Exploitation and Trade in Wildlife and Forest Resources* (UNEP, 2014) ('UNEP (2014)'), p. 17.

[82] Even in war-ravaged States, some arrests for poaching have been reported, although this comes with great risks to the life and limb of the park rangers: UNEP (2014), p. 10 ('Operation Wildcat in East Africa involved wildlife enforcement officers, forest authorities, park rangers, police and customs officers from five countries – Mozambique, South Africa, Swaziland, Tanzania and Zimbabwe, resulting in 240 kg of elephant ivory seized and 660 arrests').

[83] Rome Statute, article 17.

[84] For example, concerning the US legal system, it has been suggested that 'criminal prosecution of environmental crimes may eventually predominate among all

likely to see the ICC defer to domestic proceedings for environmental harm in these States. However, even in those States only certain environmental offences, such as polluting and harming native animals, are covered by legislation, whereas other conduct is not subject to frequent prosecutions. Domestic prosecutions for environmental harm caused by military strikes are rare; there are very few, if any, instances of such prosecutions at the national level.[85]

Given that most of the crimes set out in the Rome Statute are anthropocentrically framed, so long as the domestic system addressed the anthropocentric aspects of the crimes charged against an accused, the principle of complementarity would likely require that the ICC cede to any genuine domestic proceedings.[86] In this respect, the admissibility test reinforces the anthropocentric focus of the Court's cases and jurisprudence.

2.2.4 Gravity

Another key element of proceedings at the ICC is gravity. Gravity is a central consideration when deciding whether to proceed with an investigation or prosecution.[87] To date, anthropocentric interests have been the primary focus of gravity assessments (which accords with the fact that the cases to date have concerned anthropocentric harms). For example, in its decision not to proceed with opening a situation in relation to Iraq, the Office of the Prosecutor noted that 'a key consideration is the number of victims of particularly serious crimes, such as wilful killing or rape'.[88] In the *Comoros* proceedings, which concerned the flotilla incident in which Israeli forces allegedly killed ten persons and

environmental enforcement approaches'. See Daniel Riesel, *Environmental Enforcement: Civil and Criminal* (Law Journal Press, 2006), section 1.07, 1–29.

[85] ICRC Study, p. 848, para. 28, p. 861, para. 83, p. 872, para. 130, p. 887, para. 221, p. 907, para. 306 (noting that no practice was found in the national case law for the rules concerning environmental harm in hostilities).

[86] ICC: *Prosecutor v. Saif Al-Islam Gaddafi*, ICC-01/11–01/11–547, Judgment on the appeal of Libya against the decision of Pre-Trial Chamber I of 31 May 2013 entitled 'Decision on the admissibility of the case against Saif Al-Islam Gaddafi', 21 May 2014, paras. 71–2.

[87] See, e.g., Rome Statute, article 17(1)(d), article 53(1)(c); article 53(2)(c). See further ICC Office of the Prosecutor, letter of 9 February 2006, p. 9.

[88] ICC-OTP, Response to Communications Received Concerning Iraq (9 February 2006), p. 9 (further considering that '4 to 12 victims of wilful killing and a limited number of victims of inhuman treatment– was of a different order than the number of victims found in other situations under investigation or analysis by the Office').

injured over fifty more, the judges also focused on anthropocentric harm.[89]

Looking to the specific test that it applied in determining gravity, the Prosecutor will consider four factors: 'the scale, nature, manner of commission of the crimes, and their impact',[90] as stipulated in Regulation 29(2) of the Regulations of the Office of the Prosecutor.[91] It is unclear how environmental harm per se would be measured in terms of gravity, given that environmental harm will not necessarily involve individual human victims. Nonetheless, environmental harm meeting the widespread, long-term, and severe standards set out in the war crime under article 8(2)(b)(iv) of the Rome Statute, as discussed in Section 2.3.3.2, would inherently rank highly in terms of scale and impact based on its widespread and severe nature.[92] Moreover, principles of international environmental law, such as the precautionary and preventive principles, and intergenerational equity, could inform the assessment of the egregiousness of the nature and impact of the alleged criminal conduct.

At the same time, environmental harm is unlikely to occur in isolation, and additional anthropocentric crimes will typically be perpetrated in connection with the environmental destruction. For example, in relation to the crimes of ISIS in Iraq, these include murders, torture, and other violent acts against civilians, and have been accompanied by reports that ISIS has engaged in extensive environmental destruction through burning and destroying arable land and oil installations.[93] This combination of anthropocentric and ecocentric harms is likely to be considered

[89] Comoros Article 53(1) Report, para. 142. But see Trial Chamber decision requesting the Prosecution to reconsider; Decision on the request of the Union of the Comoros to review the Prosecutor's decision not to initiate an investigation, ICC-01/13–34, 16 July 2015.

[90] ICC: *Situation on Registered Vessels of Comoros, Greece and Cambodia*, Article 53(1) Report, 6 November 2014, para. 136 (with further references) ('Comoros Article 53(1) Report'); ICC: Final decision of the Prosecutor concerning the 'Article 53(1) Report' (ICC-01/13–6-AnxA), dated 6 November 2014, as revised and refiled in accordance with the Pre-Trial Chamber's request of 15 November 2018 and the Appeals Chamber's judgment of 2 September 2019, 2 December 2019 (ICC-01/13–99-Anx) ('Final Decision of the Prosecutor concerning the Flotilla Incident').

[91] Regulations of the Office of the Prosecutor, entered into force 23 April 2009, article 29(2), Initiation of an Investigation or Prosecution.

[92] See also Chiarini (2021), pp. 24–6.

[93] See Chapter 5 of this book on case studies. See also Peter Schwartzstein, 'The Islamic State's Scorched-Earth Strategy. As the Jihadi Group Loses Ground in Northern Iraq, It Is Leaving Poisoned Wells and Burnt Farms in Its Wake', 6 April 2016 ('Schwartzstein (2016)'); UNOCHA Iraq report 2016.

together when assessing gravity for the purposes of admissibility before the ICC.

On the relationship between anthropocentric harm and gravity, the *Al-Mahdi* case is instructive. This was the first case focussed exclusively on destruction of cultural heritage at the ICC.[94] In seeking to explain the seriousness of the underlying conduct,[95] the Prosecution ostensibly appeared to see gravity as inherently interlinked with the suffering of human beings, stating about the Rome Statute crimes that '(t)hese crimes can be perpetrated in various forms, but they all have one common denominator: they inflict irreparable damage to the human persons in his or her body, mind, soul and identity'.[96] If this link to anthropocentric harm is indeed a necessary component for a gravity finding, it will be difficult for environmental harm per se to meet the gravity threshold. Even for seemingly irremediable environmental harms, such as the extinction of a species or destruction of a natural world heritage site, identifying specific human victims, and linking the harm they suffer to the environmental event may be challenging. An emphasis on the primacy of human suffering to establish gravity will inherently subordinate ecocentric interests and potentially prejudice environmental harm per se from meeting the gravity threshold except in the most extreme cases. While this is unlikely to arise under the present formulation of the Statute (because of the extremely high threshold in article 8(2)(b)(iv)), it will become relevant if the Statute is amended to encompass other forms of environmental harm.

2.3 Substantive Crimes

Assessing which substantive crimes under the Rome Statute may encompass environmental damage is critically important in order to assess the merits of utilizing the ICC as a forum for redress for harm to the natural environment. The following exegesis sets out the key parameters and nature of each of the primary crimes set out in the Rome Statute

[94] Marina Lostal, 'The First of Its Kind: the ICC Opens a Case Against Ahmad Al Faqi Al Mahdi for the Destruction of Cultural Heritage in Mali', *Global Policy*, 2 October 2015 (available at https://archive.globalpolicy.org).

[95] ICC: *Prosecutor v. Al-Mahdi*, Case No ICC-01/12–01/15, Prosecutor Fatou Bensouda, 'Arguments for Prosecution at Confirmation Hearing in case of Prosecutor v. Al Mahdi', 1 March 2016, T.13–14.

[96] ICC: *Prosecutor v. Al-Mahdi*, Case No ICC-01/12–01/15, Prosecutor Fatou Bensouda, 'Arguments for Prosecution at Confirmation Hearing in case of Prosecutor v. Al Mahdi', 1 March 2016, T.12.

(genocide; crimes against humanity; war crimes; and aggression) and then assesses how these crimes would apply to instances of environmental harm. The analysis is necessarily hypothetical in light of the lack of cases in which environmental harm has featured but draws comparison with existing provisions and precedents in order to establish the likely interpretation and application of the substantive crimes.

2.3.1 Genocide

Genocide is a crime that consists of one or more prohibited underlying acts, as detailed in this section, committed against members of a national, ethnic, racial, or religious group, with the intent to destroy, in whole or in part, the group, as such.[97] The definition of genocide was first authoritatively set out in the Genocide Convention of 1948, and the definition has not changed significantly from that instrument until the present day.[98]

At the ICTR, judges have called genocide 'the crime of crimes'.[99] At the ICTY it has been noted that genocide is 'singled out for special condemnation and opprobrium'.[100] Genocide is clearly anthropocentric in a broad sense, as it concerns the suffering of groups of human beings.[101] However, genocide could more precisely be labelled as genus-centric, because the core value that it seeks to protect is the existence of groups of people rather than specific individuals.[102] Despite its

[97] Rome Statute, article 6; Genocide Convention, article 2.

[98] *Convention on the Prevention and Punishment of the Crime of Genocide*, 1948, 78 UNTS, 22 (entered into force 12 January 1951). See also Freeland (2015), p. 191.

[99] ICTR: *Prosecutor v. Jean Kambanda*, ICTR 97–23-S, Judgment and Sentence, 4 September 1998, para. 16; adopting the same wording, see ICTR: *Prosecutor v. George Rutaganda*, ICTR-96–3-T, Trial Judgment and Sentence, 6 December 1999, para. 451; ICTR: *Prosecutor v. Omar Serushago*, ICTR-98–39-S, Trial Sentence, 5 February 1999, para. 15.

[100] In *Krstić,* the ICTY Appeals Chamber noted that '[a]mong the grievous crimes this Tribunal has the duty to punish, the crime of genocide is singled out for special condemnation and opprobrium … This is a crime against all humankind, its harm being felt not only by the group being targeted for destruction, but by all of humanity'. ICTY: *Prosecutor v. Radislav Krstić*, Case No. IT-98–33- A, Appeal Judgment, paras. 266 and 275 (19 April 2004), para. 36.

[101] See Pereira (2015), p. 125.

[102] The term genus-centric is original to this thesis as far as the author is aware. According to Lemkin, 'the actions involved are directed against individuals, not in their individual capacity, but as members of a national group'. See, Raphaël Lemkin, *Axis Rule in Occupied Europe* (Carnegie Endowment for International Peace, 1944), p. 79, quoted in Nasour Koursami, 'The Contextual Elements of the Crime of Genocide' in

anthropocentric focus, genocide is not per se inapplicable to instances of environmental harm.[103] Indeed, environmental harm has been used in the past as a means to target human groups in circumstances that arguably amount to genocide.[104]

2.3.1.1 Underlying Acts

There are five underlying acts of genocide enumerated in the Rome Statute:

(1) Killing members of the group;
(2) Causing serious bodily or mental harm to members of the group;
(3) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
(4) Imposing measures intended to prevent births within the group;
(5) Forcibly transferring children of the group to another group.[105]

Environmental harm could potentially meet the elements of various underlying acts of genocide.[106] Environmental harm is particularly relevant to article 6(b) and 6(c).

In relation to the 6(b), the destruction of the environment may cause serious harm to members of groups whose lifestyles, culture, and livelihoods are inherently connected to their natural surroundings, such as certain indigenous groups as instantiated in Section 2.3.2.2 in the discussion of the crimes against humanity of persecution and other inhumane acts.

In relation to article 6(c), the ICC Elements of Crimes provide that inflicting conditions of life calculated to bring about the physical destruction of a group in whole or in part 'may include, but is not necessarily restricted to, deliberate deprivation of resources indispensable for survival, such as food or medical services, or systematic expulsion from homes'.[107] Accordingly, efforts to impose 'slow-death' genocide could involve environmental destruction, such as for example where the group's existence is inextricably intertwined with its environmental surroundings, and it uses the natural environment for food, medicines, and shelter, and that habitat is intentionally destroyed.

Gerhard Werle and Moritz Vormbaum (eds.), *17 International Criminal Justice Series* (T. M.C. Asser Press, 2018), p. 48.

[103] See Freeland (2015), pp. 194–5; Pereira (2015), p. 124.

[104] Schwabach (2004), pp. 2, 7 (referring to Saddam Hussein's draining of the marshlands in Southern Iraq in order to target the marsh Arabs who had rebelled against his rule).

[105] Rome Statute, article 6.

[106] Pereira (2015), p. 124.

[107] ICC Elements of Crimes, article 6(c), footnote 4.

Examples of attacks on the environment designed to target human groups include that of Saddam Hussein. In response to the attempted uprising by the Marsh Arabs in 1991,[108] Hussein ordered the draining of the marshlands of Southern Iraq at the confluence of the Tigris and Euphrates.[109] For many centuries, this natural habitat had formed the homelands of the Marsh Arabs, who were heavily dependent on its reeds, flora and fauna for their sustenance and cultural practices.[110] Given that some of the Marsh Arabs were killed and many more were expelled from their homes, these actions could amount to the underlying genocidal acts of killing members of the group; in addition to causing serious bodily or mental harm to members of the group; or deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part.[111]

Whilst the commission of genocide through environmental destruction is untested before the international criminal institutions, human rights institutions have noted that environmental destruction can threaten the physical survival of groups, particularly in relation to tribal and indigenous peoples whose lives and livelihoods are closely intertwined with the well-being of the natural environment. In the *Saramaka v. Suriname* case, which is discussed in more detail in relation to the crime of persecution in Section 2.3.2.2, the Inter-American Court of Human Rights stated that 'members of tribal and indigenous communities have the right to own the natural resources they have traditionally used within their territory for the same reasons that they have a right to own the land they have traditionally used and occupied for centuries' and that '[w]ithout them, the very physical and cultural survival of such peoples is at stake'.[112]

An environmentally destructive practice that features in large-scale conflicts, including armed conflicts, is the use of scorched earth tactics.[113] Such tactics could potentially be charged as genocide if they resulted in large-scale death or serious harm among the targeted population and were accompanied by the requisite specific intent or *dolus*

[108] Schwabach (2004), p. 7.
[109] See discussion of Hussein's crimes in the Middle East below for more details (Chapter 5).
[110] Schwabach (2004), p. 3.
[111] Rome Statute, article 6(a), (b), (c), and Genocide Convention, article 4(a), (b), (c); Schwabach (2004), pp. 7–8.
[112] *Case of the Saramaka People v. Suriname*, Judgment, Preliminary Objections, Merits, Reparations, and Costs (Series C no. 172) (IACHR, 28 November 2007), para. 121 (official translation).
[113] See Cohan (2003), p. 500.

specialis.[114] However, if the scorched earth tactics were merely seen as a defensive manoeuvre undertaken without thought as to the fate of the civilian population, then it would be unlikely to result in a genocide conviction, no matter how ill-judged.

In the *Hostages* case from the United States V Military Tribunal for Germany following World War Two, the accused Rendulić was acquitted of the war crime of wanton destruction of public and private property on grounds of military necessity.[115] Conversely, in the trial of the major war criminals, the International Military Commission convicted Alfred Jödl in part for his involvement in the widespread destruction inflicted by the German army's scorched earth tactics in Norway.[116] However, it has been argued that if Jödl had averred military necessity instead of superior orders, he might have been acquitted of the charge of wanton destruction of cities, towns, or villages, or devastation not justified by military necessity.[117]

Another difficult element to establish in this context would be causation.[118] Causation frequently is problematic to establish in cases of serious and large-scale crimes, and can be particularly challenging in cases of environmental harm.[119] Many intervening factors, including the weather and economic fluctuations, would affect the impact on a human population of environmental degradation and potentially break the causal chain between the perpetrators' conduct and the resulting harm or death to members of the victim group. Judges have shown a reluctance to convict on genocide charges in relation to harm where the causal chain between the perpetrators' acts and the harm to the victim group is complicated by intervening factors.[120]

[114] See Rome Statute, article 6.

[115] See US Military Tribunal V for Germany: *Hostage Case, United States v. List et al.*, Trial Judgment, Case No. 7, (1948), 8 LRTWC 34, 19 February 1948 ('*Hostages* Trial'), paras. 188, 191, 193–4.

[116] The findings on individual criminal responsibility mentioned his responsibility for burning 30,000 houses but did not refer specifically to harming the environment per se.

[117] See Ryan Gilman, 'Expanding Environmental Justice after War: The Need for Universal Jurisdiction over Environmental War Crimes' (2011) 22 *Colorado Journal of International Environmental Law and Policy* 447 ('Gilman (2011)'), pp. 451–2.

[118] Mégret (2011), pp. 222–3.

[119] See Michael Karnavas, 'Ecocide: The Environmental Crime of Crimes or Ill-Conceived Concept?', 28 July 2021 (http://michaelgkarnavas.net/blog/2021/07/28/ecocide/) ('Karnavas (2021)') citing Guilherme Lotufo, Gunther Rosen, William Wild, and Geoffrey Carton, 'Summary Review of the Aquatic Toxicology of Munitions Constituents, US Army Corps of Engineers' (U.S. Army Engineer Research and Development Center, 2013), p. 7.

[120] See 'The Trial of German Major War Criminals' (1950) 22 *Proceedings of the International Military Tribunal Sitting at Nuremberg, Germany* 517. See Gilman (2011), pp. 451–2.

2.3.1.2 Specific Intent (*Dolus Specialis*)

Genocide is distinguished from crimes such as extermination or murder by the requirement of showing the specific intent (*dolus specialis*) to destroy, in whole or in part, the targeted group as such.

Because of the requirement of proving specific genocidal intent, convictions for genocide have been difficult to obtain.[121] At the ICC there have been no convictions for this charge to date.[122] At the ICTY, only five of 161 indictees have received confirmed convictions for the commission of genocide; all pertaining to the mass killings and related crimes in Srebrenica in July 1995.[123] Conversely, at the ICTR, where the occurrence of genocide was a fact of judicial notice,[124] many of the indictees were convicted for participating in the genocide.[125]

Direct evidence of genocidal intent is rare. Instead, this specific intent (*dolus specialis*) is usually shown by the accretion of circumstantial and indirect evidence, 'such as the general context, the perpetration of other culpable acts systematically directed against the same group, or the repetition of destructive and discriminatory acts'.[126] Direct genocidal intent has only been inferred on the basis of *inter alia* large-scale killings or other serious violence targeting a racial, religious, national, or ethnic group, as such.[127]

In the case of pure environmental harm, with no accompanying violent attacks on human beings, it would be difficult to convince the judges of the

[121] See, e.g., Freeland (2015), p. 192.

[122] The only person charged with genocide before the ICC to date is the Sudanese President, Omar Al-Bashir: ICC: *Prosecutor v. Omar Hassan Ahmad Al Bashir*, Case No. ICC-02/05–01–09, Second Warrant of Arrest for Omar Hassan Ahmad Al Bashir, 12 July 2010 ('Second Bashir Arrest Warrant').

[123] Ljubiša Beara, Vujadin Popović, Ždravko Tolimir, Radovan Karadžić, and Ratko Mladić. Two other persons – Radislav Krstić and Drago Nikolić – were convicted for aiding and abetting genocide.

[124] ICTR: *Prosecutor v. Karemera et al.*, ICTR-98–44-AI(C), Decision on Prosecutor's Interlocutory Appeal of Decision on Judicial Notice, 16 June 2006, paras. 35, 57.

[125] Of the sixty-one indictees convicted by the ICTR, the large majority were convicted for some form of genocide; see United Nations Mechanism for the International Criminal Tribunals, key figures (available at http://unictr.unmict.org/en/cases/key-figures-cases).

[126] See *Jelisić* Appeal Judgment, para. 47.

[127] Genocide was charged in many cases before the ICTR, where the occurrence of genocide was considered a fact of common knowledge that did not need to be proved anew for each case. At the ICTY, genocide was charged in relation to the mass killings and related violence of the Bosnian Muslims of Srebrenica in July 1995, and in relation to the broader ethnic cleansing campaign throughout several municipalities in Bosnia, particularly Prijedor. At the ECCC, genocide was charged in relation to the Cham people in Cambodia. To date, genocide has only been charged before the ICC in relation to the large-scale attacks on the Fur, Masalit, and Zaghawa people in Darfur.

requisite genocidal intent.[128] However, where environmental harm featured as one of a range of measures taken as part of a campaign against a targeted group, this may assist to build a basis from which genocidal intent could be inferred. At the ICC, Sudanese President Omar Al-Bashir is charged with crimes, including genocide, that relate to, but do not centrally focus on, environmental harm, and also include many alleged killings, the systematic pillaging, and destruction of villages and civilian property across a large area.[129] The Prosecution alleges that the intent was to 'destroy all the target[ed] groups' means of survival, poison sources of water including communal wells, destroy water pumps, steal livestock and strip the towns and villages of household and community assets',[130] and that Al-Bashir's forces would surround a village or town, enter into it, and attack the civilian inhabitants, causing the forcible displacement of a substantial part of the targeted ethnic groups into deserts where people were killed or left to die.[131]

Because of the exacting requirements to prove genocide, if environmental harm were ever to form part of a genocide conviction, it would most likely feature as one of several means used to harm members of the group by inflicting conditions on them designed to jeopardize their ongoing existence. Environmental harm in and of itself, without any accompanying direct attacks on humans, would be unlikely to provide a sufficient basis to charge genocide.

2.3.2 *Crimes Against Humanity*

Crimes against humanity are acts committed during a widespread or systematic attack on a civilian population, which can occur during peacetime or during armed conflict.[132] The term crimes against

[128] See Pereira (2015), p. 124; Freeland (2015), pp. 197–8; Jessica Durney, 'Crafting a Standard: Environmental Crimes as Crimes Against Humanity under the International Criminal Court' (2018) 24 (2) *Hastings Environmental Law Journal* 414 ('Durney (2018)'), p. 417.

[129] ICC: *Prosecutor v. Omar Hassan Ahmad Al Bashir*, Case No. ICC-02/05–01–09, Warrant of Arrest for Omar Hassan Ahmad Al Bashir, 4 March 2009, pp. 5–7 ('Bashir Arrest Warrant'); Second Bashir Arrest Warrant.

[130] ICC, *Situation in Darfur, The Sudan*, Case No. ICC-02/05, Public Redacted Version of the Prosecutor's Application under Article 58, 14 July 2008, paras. 14, 31.

[131] Prosecutor's Application under Article 58, paras. 14–15.

[132] At the ICTY a link to armed conflict was required to establish crimes against humanity, although this was a jurisdictional matter, and not part of the inherent definition of crimes against humanity under customary international law; ICTY Statute, article 5; ICTY: *Prosecutor v. Dusko Tadić,* Decision on the Defence Motion for Interlocutory

humanity first appeared in international legal discourse in 1915 in relation to the massacres of the Armenian population in Turkey.[133] The category of offences called crimes against humanity were codified in the Nuremberg Charter, and were applied in the Judgment of the major Nazi leaders at the Nuremberg Military Tribunal.[134] Crimes against humanity have since been included in the statutes of all the major international criminal institutions, including the ICC,[135] the ICTY,[136] and the ICTR.[137] However, no underlying crime against humanity refers explicitly to the 'environment', and to date there has been no international trial focussed on environmental harm as a crime against humanity.

2.3.2.1 Contextual Elements

To show any crime against humanity, it is necessary to demonstrate several generally applicable contextual elements as a baseline requirement. Crimes against humanity consist of underlying acts listed in article 7 of the Rome Statute, committed as part of a widespread or systematic attack against a civilian population pursuant to or in furtherance of a State or organizational policy.[138]

Prosecuting environmental harm as a crime against humanity would first and foremost require the demonstration of an attack on a civilian population. The environmental harm could either constitute the attack in and of itself,[139] or occur as part of, or a foreseeable result of, an attack committed through other means, such as the typical anthropocentric violence seen in previous crimes against humanity cases under

Appeal on Jurisdiction, IT-94–1-AR72, 2 October 1995, paras. 140–2 ('*Tadić* Jurisdictional Decision').

133 *Declaration of France, Great Britain and Russia*, 24 May 1915, quoted in Egon Schwelb, 'Crimes Against Humanity' (1946) 23 *British Yearbook of International Law* 178, 181.

134 *Charter of the International Military Tribunal, annexed to the Agreement for the Prosecution and Punishment of the Major War Criminals of the European Axis (London Agreement)* ('Nuremberg or IMT Charter'), 8 August 1945, 58 Stat. 1544, E.A. S. No. 472, 82 U.N.T.S.280, article 6 (c); for an overview of the emergence and evolution of the notion of crimes against humanity and its implications for environmental harm, see Freeland (2015), pp. 199–204.

135 Rome Statute, article 7.

136 ICTY Statute, article 5.

137 ICTR Statute, article 3.

138 Rome Statute, article 7.

139 See Luigi Prospieri and Jacobo Terrosi, 'Embracing the Human Factor. Is There New Impetus for Conceiving and Prioritising Intentional Environmental Harms as Crimes against Humanity' (2017) 15 *Journal of International Criminal Justice* 509 ('Prospieri and Jacobo Terrosi (2017)'), p. 510.

international law. Pereira posits that the policy requirement could be shown in connection with environmental harm, for example 'when the continuous and foreseeable result of the extraction of natural resources produces severe environmental damage which kills or damages the health of local populations'.[140] He considers that a policy was evident in the *Ogoniland* case, concerning 'the negative health and environmental impacts of oil exploration in Ogoniland due to the contamination of water on indigenous land with lead and mercury affecting the community's health, particularly that of the children'.[141] The most likely scenario in which crimes against humanity charges could involve significant environmental harm would be where the environmental harm predictably resulted in serious harm to local human populations.[142]

The anthropocentric focus of this category of offence is self-evident in the label 'crimes against humanity'. Similarly, the contextual requirement of a State or organizational policy is anthropocentrically framed, as it refers to an attack on a civilian population, rather than an attack on the natural environment. Accordingly, environmental harm will be made contingent on the showing of anthropocentric harm if prosecuted as crimes against humanity.[143] By implication this would subordinate the environmental aspect of the case to the anthropocentric harm caused.[144] Putting aside this symbolic de-prioritization, there are several underlying crimes against humanity that could be committed by or through environmental harm, notwithstanding the inherently anthropocentric focus of prosecutions for crimes against humanity.

2.3.2.2 Key Underlying Crimes Against Humanity

Murder Murder, under article 7(1)(a), could be committed through, or in connection with, environmental harm. Such environmental harm could be the direct means by which culpable homicides are committed, for instance if the forest habitat of a tribe were intentionally burned down in order to threaten or harm members of that tribe and deaths occurred as a result.

[140] Pereira (2015), p. 123. See also Sharp (1999), p. 239.
[141] Pereira (2015), p. 123 referring to African Commission on Human and Peoples' Rights, *Communication No. 155/96: Social and Economic Rights Action Center v. Nigeria (Ogoniland Case)*, Decision ('Ogoniland Decision').
[142] Pereira (2015), p. 123. See also Sharp (1999), p. 239.
[143] See Lambert (2017), p. 726; Marcos Orellana, 'Criminal Punishment for Environmental Damage: Individual and State Responsibility at a Crossroad' (2005) 17 *Georgetown International Environmental Law Review* 673, p. 693; Cusato Scorched Earth (2017).
[144] See Pereira (2015), pp. 125–6.

Environmental harm could also provide the context against which more traditional murders are committed. For example, there are allegations that, in January 2009, members of Joseph Kony's Lord's Resistance Army (LRA) attacked the Garamba National Park headquarters in the Democratic Republic of Congo, killing fifteen African Parks staff members who assisted the elephants and other wildlife species that live in the park, and taking other people hostage.[145] The LRA members were reportedly seen taking ivory from the location.[146] More recently, in August 2017, Mai Mai rebels were reported to have killed multiple park rangers in the Virunga National Park in the Democratic Republic of Congo – the latest in a series of attacks targeting the protectors of the endangered Virunga mountain gorillas.[147]

Environmental harm could incidentally result in human deaths. For example, unlawful chemical usage or improper storage may result in deaths.[148] If it could be shown that the spillage contributed to the death, it would be necessary to show that the perpetrator acted with intent and knowledge.[149] An inadvertent spill would not typically be sufficient to establish liability as an international crime, irrespective of whether it may implicate some other form of responsibility.[150] As set out previously herein, intent has been defined to included awareness that the

[145] African Parks, 'LRA Attack Threatens Headquarters at Garamba', 11 June 2012 (available at www.africanparks.org/newsroom/press-releases/lra-attack-threatens-headquarters-garamba).

[146] African Conservation Foundation, 'DRC: LRA Attack at Garamba National Park – African Parks Report', 24 May 2013 (available at https://africanconservation.org/drc-lra-attack-at-garamba-national-park-african-parks-report). See also Bryan Christy, 'Poachers Slaughter Dozens of Elephants in Key African Park', *National Geographic*, 13 May 2014 (available at www.nationalgeographic.com/animals/article/140513-democratic-republic-congo-garamba-elephants-poaching-world).

[147] Naomi Larsson, 'Three Wildlife Rangers Killed in Attack by Violent Militia in DRC', *The Guardian*, 16 August 2017, (available at www.theguardian.com/environment/2017/aug/16/three-wildlife-rangers-killed-in-attack-by-violent-militia-in-drc). See also Rose (2014), p. 17 (noting reports that rebels in DRC are involved in the illegal ivory trade).

[148] UN Human Rights Committee, *Portillo Cáceres et al. v. Paraguay*, UN Doc. CCPR/C/126/D/2751/2016, Communication No. 2751/2016, Views of 25 July 2019. The Committee had found violations of family members' rights to life, to privacy, family, and home, as well as to an effective remedy, noting that the State had failed to enforce environmental regulations and adequately redress the resulting harms. The petition was concerned with the use of agrotoxins by agrobusiness, which had poisoned many local residents, leading to the death of Ruben Portillo Cáceres.

[149] Rome Statute, article 30.

[150] International Law Commission, *Yearbook of the International Law Commission* (1987) (vol. 1 – Summary records of the meetings of the thirty-ninth session 4 May–17 July 1987), at 40, para. 38.

harm will result in the ordinary course of events, which has been interpreted as requiring virtual certainty that the result will eventuate.[151] It would require particularly egregious misconduct to meet this exacting standard, particularly if there was no evident motive behind the killing.

Extermination Extermination, under article 7(1)(b), essentially concerns the large-scale killing of people.[152] It can be committed through the infliction of conditions of life calculated to bring about the destruction of part of a population. This could be perpetrated through environmental destruction.[153] Such conditions include depriving the victims of access to food or medicine, which could occur as a result of an attack on the environmental habitat of a people.[154] In this respect, it is notable that murder and extermination are both charged against Sudanese President Omar Al-Bashir, with the charged underlying conduct including attacks and pillaging of towns and villages and poisoning of wells, which constitutes a form of environmental harm.[155] These types of acts can result in a form of slow-motion extermination (or genocide, if specific intent to destroy the group as such is present, as discussed in Section 2.3.1.2). However, in cases of drawn-out extermination, there is an increasing likelihood of additional factors, such as droughts and other conflicts, breaking the causal chain (at least from an evidentiary perspective), which would render it more difficult to attribute the killings to the specific perpetrators of the environmental harm.

Deportation and Forcible Transfer The crimes against humanity of deportation and forcible transfer (forcible displacement),[156] under article 7(1)(d) of the Rome Statute, can be perpetrated by or through serious

[151] See *Lubanga* Appeal Judgment, para. 447.
[152] ICTR: *Athanase Seromba v. Prosecutor*, Case No. ICTR-2001–66-A, Appeal Judgement, 12 March 2008, para. 189.
[153] See Lambert (2017), p. 726; Durney (2018), p. 417.
[154] Rome Statute, article 7(2)(b); Elements of Crimes, fn. 9.
[155] Prosecutor's Application under article 58, para. 14. Count 3, charging genocide under article 6(c), was re-instated, along with the other charges of genocide, by virtue of the Appeals Chamber finding that Pre-Trial Chamber I, in its first decision on the application for an arrest warrant, had erroneously decided to exclude the charges on genocide by mis-applying the standard of proof and thereby incurring an error of law, see *Prosecutor v. Omar Al-Bashir*, ICC–02/05–01/09-OA, Judgment on the Appeal of the Prosecutor against Decision on the Prosecutor's Application for a Warrant of Arrest against Omar Hassan Ahmad Al-Bashir, 3 February 2010, paras. 30, 33, 39.
[156] See, e.g., Rome Statute, article 7(2)(d).

environmental damage.[157] These crimes involve the forcible expulsion or other coercive acts of displacement of persons from places where they are lawfully present without grounds permitted under international law. Charges of 'forcible displacement' have been laid before international courts in connection with environmental damage. For example, in the *Al-Bashir* case, attacks impacting on the victims' group's means of survival, including water wells, are charged as a means of displacing the population.[158] Additionally, a communication sent to the court asking the Prosecutor to open a situation in Cambodia *proprio motu* under article 15 referred to mass evictions of civilians from their lands as a consequence of land grabbing and 'associated deforestation' and alleged that these acts would constitute forcible transfer.[159]

On an analogous track, a case litigated before the African Court on Human and Peoples' Rights involved a form of forcible transfer. The *Mau Ogiek* case featured a 2017 decision in which the court found that the Kenyan Government had violated the rights of the Mau Ogiek people by evicting them from their ancestral lands in the Mau Forest complex.[160] The Ogiek community, which numbers around 20,000 people, and other settlers received an eviction notice in 2009, giving them thirty days to leave the East Mau Forest. The Court noted that there was evidence that the Government had granted logging concessions over areas of the Mau Forest.[161] Their eviction was found to constitute several human rights breaches, including discrimination.[162] Although these events have not come before the ICC, the involuntary nature of the evictions could potentially meet the elements of forced displacement (in the form of forcible transfer).[163]

In assessing the occurrence of displacement crimes through environmentally harmful activities such as illegal logging, a potential tension may

[157] See Lambert (2017), pp. 726–7.
[158] See citations to the proceedings against Al-Bashir (Section 2.3.1 on genocide).
[159] Global Diligence LLP, 'Communication under Article 15 of the Rome Statute of the International Criminal Court. The Commission of Crimes Against Humanity in Cambodia. July 2002 to present', executive summary of the original communication, paras. 8, 13 (summary available at www.fidh.org/IMG/pdf/executive_summary-2.pdf). See also Durney (2018), pp. 426–8.
[160] African Court on Human and Peoples' Rights: *African Commission on Human and Peoples' Rights v. Republic of Kenya*, Application No. 006/2012, Judgment, 26 May 2017 ('Mau Ogiek Judgment (2017)').
[161] Mau Ogiek Judgment (2017), para. 130.
[162] Mau Ogiek Judgment (2017), paras. 143–6.
[163] See Rome Statute, article 7(1)(d).

arise with the development and economic interests of a State permitting or participating in these activities. The Court would face the exacting task of applying the provisions of the Rome Statute in such a manner as to take account of the potential legality of these acts as a matter of domestic law or non-criminal public international law.[164] In this respect, the motivation behind the Government's efforts (or similar entity behind the destruction) would be a key factor, as would the existence of any indications of bad faith, improper personal, or other corrupt motive or interest on the part of the authorities in supporting the environmental harm.

Persecution Another underlying crime against humanity potentially applicable to environmental harm is persecution under article 7(1)(h) and 7(2)(g) of the Rome Statute.[165] Persecution is defined as the intentional and severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity committed 'on political, racial, national, ethnic, cultural, religious, gender as defined in paragraph 3, or other grounds that are universally recognised as impermissible under international law'.[166] The persecution must be committed 'in connection with any act referred to in this paragraph [article 7] or any crime within the jurisdiction of the Court'.[167]

Some institutions have provided support for the elevation of environmental health to a human right.[168] Recently the Human Rights Council has

[164] Prospieri and Terrosi (2017), p. 520. In this respect, see the Proposed Definition of Ecocide set out in the final chapter of this book, particularly Section 6.3.2.3, which addresses the impact of legality under domestic and international law in cases of serious environmental harm.
[165] See Lambert (2017), p. 727.
[166] Rome Statute, article 7(1)(h), 7(2)(g).
[167] Rome Statute, article 7(1)(h).
[168] The right to a healthy environment is recognized in varying formulations in some international human rights instruments, such as the African Charter on Human and Peoples' Rights, article 24 ('All peoples shall have the right to a general satisfactory environment favourable to their development') and the Arab Charter of Human Rights, article 38 (which protects the right of each person 'to a healthy environment') as well as the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social, and Cultural Rights 'Protocol of San Salvador' (recognizing the right of everyone to 'live in a healthy environment'). Article 12(2) of the International Covenant on Economic, Social and Cultural Rights also refers to the need to ensure a healthy environment, without necessarily enshrining it as a right: 'The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for . . . (b) The improvement of all aspects of environmental and industrial hygiene'. Additionally, see article 1 of the Rio Declaration of 1992

recognized that there is a human right to a clean, healthy and sustainable environment.[169] Although the recognition of a right to a healthy environment is not uniform,[170] it is well established that the commission of serious environmental harm can gravely impact on well-established fundamental rights, including the rights to life,[171] security, health,[172] private and family

('Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature') and article 1 of the Stockholm Declaration of 1972 ('Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations'). Further, many constitutions and laws recognize the right to a healthy environment; see, e.g., University of Minnesota, Human Rights Resource Center, 'Circle of Rights. Economic, Social, and Cultural Rights Activism: A Training Resource. Module 15: The Right to a Healthy Environment', http://hrlibrary.umn.edu/edumat/IHRIP/circle/modules/module15.htm; John Knox, Report of the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy, and Sustainable Environment. Compilation of Good Practices, submitted to the Human Rights Council, UNGA Document A/HRC/25/53, 30 December 2013, para. 18.

169 See Human Rights Council's Resolution 48/13 of 8 October 2021.

170 The European Court of Human Rights has noted that 'no right to nature preservation is as such included among the rights and freedoms guaranteed by the Convention', e.g., ECtHR: *Fadeyeva v. Russia*, App. No. 55723/00 (9 June 2005), para. 68; EctHR: *Atanasov v. Bulgaria*, App. No. 12853/03 (2 December 2010), para. 66.

171 ECHR: *Case of Öneryildiz v. Turkey* [GS], No. 48939/99 (30 November 2004), paras. 71, 89, 90, 118; ECHR: *Case of Budayeva and Others v. Russia*, No. 15339/02, 21166/02, 20058/02, 11673/02, and 15343/02. (20 March 2008), paras. 128 –30, 133, 159, and ECHR: *Case of M. Özel and Others v. Turkey*, No. 14350/05, 15245/05, and 16051/05 (17 November 2015), paras. 170, 171, 200. Ogoniland Decision, para. 67 ('The security forces were given the green light to decisively deal with the Ogonis, which was illustrated by the wide spread terrorisations [sic] and killings. The pollution and environmental degradation to a level humanly unacceptable has made it living in the Ogoni land a nightmare. The survival of the Ogonis depended on their land and farms that were destroyed by the direct involvement of the government. These and similar brutalities not only persecuted individuals in Ogoniland but also the whole of the Ogoni community as a whole. They affected the life of the Ogoni society as a whole.'); Inter-American Commission on Human Rights, Report on the situation of human rights in Ecuador, document OEA/Ser.L/V/II.96 doc. 10 rev. 1; Human Rights Committee, *Portillo Cáceres et al. v. Paraguay*, Communication No. 2751/2016, Views of 25 July 2019, UN Doc. CCPR/C/126/D/2751/2016. See further Council of Europe, *Manual on Human Rights and the Environment* (2nd ed.) (Council of Europe, 2012).

172 See, e.g., European Committee of Social Rights, complaint No. 30/2005, *Marangopoulos Foundation for Human Rights v. Greece*, para. 221; John Knox, Report of the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, United Nations General Assembly Document, A/HRC/22/43, 24 December 2012 ('Knox (2012)'), para. 34.

life and home,[173] property,[174] and the rights to adequate food and water.[175] Institutions that have determined that environmental harm could amount to violations of several of these fundamental rights including the African Commission on Human and Peoples' Rights, the European Court of Human Rights, the Inter-American Commission and Court of Human Rights, and the Human Rights Committee.[176]

The gravity of serious environmental harm, such as the spoliation of lands and ecosystems, is particularly acute for indigenous people who frequently have collective ownership and responsibility concerning natural resources and lands.[177] Cases in which environmental degradation has been found to violate the right to life and family and private life, for example, include a complaint against the Government of Paraguay for failing to control the emission of illegal chemicals by large agricultural businesses leading to the death of one community member and serious illnesses among others as well as the loss of crops and animal stock.[178] Persecution could also arise where certain animals species that play a key role in relation to a group's cultural or religious identity are harmed.[179] The ICTY has recognized the cultural and religious importance of animals for certain groups, stating that killing livestock such as cattle from Muslim families, for example, had an emotional, psychological, and cultural significance and 'in addition to their economic value, took on

[173] See, e.g., European Court of Human Rights, *Fadeyeva v. Russia*, App. No. 55723/00, judgment of 9 June 2005, para. 134; *Taşkin and Others v. Turkey*, App. No. 46117/99, judgment of 10 November 2004, para. 126; *López Ostra v. Spain*, App. No. 16798/90 judgment of 9 December 1994, para. 58; Human Rights Committee, *Portillo Cáceres v. Paraguay*, Communication No. 2751/2016, Views of 9 August 2019, UN Doc. CCPR/C/126/D/2751/2016. See also Stephens (2009), p. 318.

[174] See, e.g., Inter-American Court of Human Rights, *Saramaka People v. Suriname*, Series C No. 172, judgment of 28 November 2007, paras. 95, 158; ECHR, *Papastavrou and Others v. Greece*, No. 46372/99, Judgment of 10 April 2003, paras. 33 and 36–9; ECHR, *Case of Öneryildiz v. Turkey* [GS], No. 48939/99, judgment of 30 November 2004, paras. 124 –9, 134–6 and 138, and ECHR, *Turgut and Others v. Turkey*, No. 1411/03, judgment of 8 July 2008, paras. 86, 90–3.

[175] International Covenant on Economic, Social and Cultural Rights of 1996, articles 11 and 12; Freeland (2015), p. 201.

[176] See generally Knox (2012), para. 24.

[177] Prospieri and Terrosi (2017), p. 522 citing *Moiwana Community v. Suriname*, Series C, No. 124, judgment of 15 June 2005, Inter-American Court of Human Rights ('Moiwana Community Judgment'), para. 131.

[178] Human Rights Committee, *Portillo Cáceres et al. v. Paraguay*, Communication No. 2751/2016, Views of 25 July 2019, UN Doc. CCPR/C/126/D/2751/2016.

[179] See Marina Lostal, 'De-Objectifying Animals: Could They Qualify as Victims before the International Criminal Court?' (2021) 19 *Journal of International Criminal Justice* 583 ('Lostal (2021)'), p. 605.

a symbolic significance (for instance because Croats had pigs and Muslims did not)'.[180] Indigenous groups with special connections to their surrounding ecology may be acutely harmed by degradation to the natural environment, as discussed in the section 'Other Inhumane Acts'.

To establish persecution, the deprivation of a fundamental right would have to be committed with the intent to target the victim because of their membership of a collectivity or group.[181] This will be difficult in cases where there has been a failure to act to prevent environmental degradation, such as through chemical emissions, rather than active targeting. The Prosecution would have to show that the failure to act was motivated by a discriminatory intent, and not just due to negligence or incompetence. In circumstances where the environmental harm solely impacted one group this element would be more readily proved, such as in the case of the focussed destruction of a habitat used primarily by one group.[182] Additionally, the perpetration of other acts against the same victim group, such as murders, pillaging, or destruction of cultural heritage, would help show the requisite *mens rea*. However, if the environmental harm negatively impacted all people of all groups in a certain geographic area, it would be more difficult to establish that it was conducted with the intent to target members of one particular group.

Whereas the ICTY[183] and ICTR[184] do not require persecution to be committed in connection with a separate crime within their jurisdiction, at the ICC this is a requirement.[185] Consequently, not only would the breach of a fundamental right be required but also the commission of another crime against humanity, war crime, or genocide (or, potentially, aggression). Because of this, the independent utility of persecution as a means to address environmental harm before the ICC is particularly limited.[186]

[180] ICTY, *Prosecutor v. Zoran Kupreškić et al.*, Case No. IT-95–16-T Trial Judgment, 14 January 2000, para. 336; Lostal (2021), p. 605.
[181] Rome Statute, article 7(2)(g).
[182] See, e.g., Freeland (2015), p. 201.
[183] ICTY Statute, article 5(h); ICTY: *Prosecutor v. Tihomir Blaškić*, Case No. IT-95–14, Appeal Judgment, 29 July 2004, paras. 131, 139; ICTY: *Prosecutor v. Radoslav Brđanin*, Case No. 99–36, Appeal Judgment, 3 April 2007, para. 296; ICTY: *Prosecutor v. Vujadin Popović et al.*, Case No. 05–88, Appeal Judgment, 30 January 2015, para. 738.
[184] ICTR Statute, article 3(h); *Nahimana* Appeal Judgment, para. 985.
[185] See Rome Statute, article 7(1)(h).
[186] See Lambert (2017), p. 727.

Other Inhumane Acts The underlying crime against humanity that appears most applicable to environmental harm is article 7(1)(k), 'other inhumane acts'.[187] Specifically, other inhumane acts under the Rome Statute are those 'of a similar character [as the crimes against humanity listed under article 7] intentionally causing great suffering, or serious injury to body or to mental or physical health'. Accordingly, in addition to the general elements discussed in this chapter, the elements of crimes of other inhumane acts require that the perpetrator caused the victims great suffering or serious physical or mental harm.[188] Equally, the crime requires a demonstration of intent under the article 30 standard. The features that may establish the 'similar character' of other inhumane acts to the listed crimes against humanity are the nature and seriousness of the acts, the context in which they occurred, the personal circumstances of the victim(s), and the impact on the victim(s).[189]

Environmental harm could potentially constitute inhumane acts if it caused the requisite great suffering or harm.[190] For example, were a feature of the natural environment of special significance to a people and if the perpetrator were aware of the harm that would likely result from its destruction, this could conceivably lead to great suffering and thereby to a conviction.[191] In this respect, it has been argued that 'employing such [modern] technologies and industrial methods to exploit or destroy the environment in which such [indigenous and rural] people live, or to dispossess them of their land (either directly or indirectly), might cause serious mental suffering'.[192] The Inter-American Court has recognized the special link between indigenous people and the lands they inhabit, holding

[187] Rome Statute, article 7(1)(k); Statute of the ICTY, article 5(i); Statute of the ICTR, article 3(i).
[188] Elements of Crimes, article 7(1)(k). See also Wattad (2009), p. 282.
[189] See ICTY: *Prosecutor v. Dario Kordić and Mario Čerkez*, Case No. IT-95-14/2-T, Trial Judgment, 26 February 2001; ICTR: *Prosecutor v. Kayishema*, Case No. ICTR-95-1, Trial Judgment, 21 May 1999, paras. 148–51.
[190] See Lambert (2017), pp. 727–8.
[191] For example, the African Court on Human and Peoples' Rights found that the Mau Ogiek people were ordered to be evicted from the East Mau Forest by the Kenyan Government, and argued that this constituted a violation of their human rights. An expert witness testifying for the Mau Ogiek people, Dr. Liz Alden Wily, asserted that the livelihoods of hunter-gatherer communities are dependent on a social ecology whereby their spiritual life and whole existence depends on the forest; African Court on Human and Peoples' Rights, *African Commission on Human and Peoples' Rights v. Republic of Kenya*, App. No. 006/2012, Judgment, 26 May 2017 ('Mau Ogiek Judgment (2017)'), para. 160.
[192] See Prospieri and Terrosi (2017), p. 524.

for example that 'the close ties of indigenous people with the land must be recognised and understood as the fundamental basis of their cultures, their spiritual life, their integrity, and their economic survival. For indigenous communities, [their relationship with] the land is not merely a matter of possession and production but a material and spiritual element, which they must fully enjoy ... to preserve their cultural legacy and transmit it to future generations'.[193] More broadly, the High Court of Uttarakhand in India recognized the special significance of the Ganges and Yamuna rivers for 'all the Hindus' and the support that these rivers provide for the life, natural resources, health and well-being of the 'entire community'.[194]

Alternatively, even in the absence of some special significance of the environmental feature, the use of activities that harm the environment, such as toxic emissions, could cause sufficient harm to constitute other inhumane acts. For example, in the case of *Portillo Cáceres v. Paraguay* the United Nations Human Rights Committee found human rights violations where the use of illegal chemicals by agribusinesses resulted in the death of one community member, and serious illnesses among others including 'nausea, dizziness, headaches, fever, stomach pains, vomiting, diarrhoea, coughing and skin lesions', and also destroyed fruit trees, crops, and farm animals.[195] Although the Human Rights Committee was not required to establish great suffering or physical or mental harm in a formal sense, its findings suggest that this type of harm could be considered as great suffering or harm sufficient to constitute the crime of other inhumane acts, subject to the requisite *mens rea* being shown.

Fundamentally, the crime of other inhumane acts is self-evidently an anthropocentric provision, with human suffering being the core element. Even in the case of the most severe environmental harm, the suffering or harm to human beings would remain at the core of the crime, with the environmental harm merely constituting a means of causing the harm.

Additional Crimes Against Humanity Although the remaining crimes against humanity are more attenuated from the notion of environmental

[193] *Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, Merits, Reparations and Costs, Judgment of 31 August 2001. Series C No. 79, para. 149.
[194] *Mohd. Salim v. State of Uttarakhand and Others*, para. 17 (the judgment is under appeal to the Supreme Court).
[195] Human Rights Committee, *Portillo Cáceres et al. v. Paraguay*, Communication No. 2751/2016, Views of 25 July 2019, UN Doc. CCPR/C/126/D/2751/2016, 2.5–2.6.

harm, humankind's ability to concoct new forms of cruelty should not be underestimated and it is possible they could be committed through or in connection with damage to the natural environment.

The crime of apartheid, for example, could conceivably be perpetrated in part through the destruction of the natural habitat in which the subjugated race lives in order to maintain a regime of systematic oppression against that race.[196] The crime against humanity of enslavement could be conducted on a similar basis.[197] While it is hard to envisage how crimes like imprisonment, torture, and sexual violence could be committed through environmental harm, they could constitute part of a group of practices directed against a group that include environmental destruction and deprivation.[198] Cases that are brought before the international courts often feature a broad array of interconnected crimes unleashed against the victim population(s), particularly in leadership cases.[199] In this respect, attacking the victims' natural environment may constitute a form of repression akin to attacking their towns and villages in order to make life unbearable and jeopardize their peaceful existence.

The preceding survey shows that several underlying crimes against humanity could be used to prosecute environmental harm, with environmental harm potentially constituting the *actus reus* of some of these crimes, such as the case of other inhumane acts and deportation/forcible transfer. However, the use of any crimes against humanity remains an indirect manner of addressing environmental harm per se. In keeping with the name, crimes against humanity are necessarily anthropocentric, and require showing harm to humans and their property. Using these provisions to substitute for the direct prosecution of environmental harm may eventually result in convictions but would not signal the full weight of the international community's condemnation of environmental harm itself. While laudable in practical effect, this manner of proceeding would lessen the declaratory impact and potential deterrent effect of any resulting conviction for environmental harm, which are important functions of international criminal law.

[196] See Rome Statute, article 7(1)(j) and 7(2)(h).
[197] See Rome Statute, article 7(1)(c) and 7(2)(c).
[198] See Rome Statute, article 7(1)(e), 7(1)(f), and 7(1)(g).
[199] See, e.g., Bashir Arrest Warrant and Second Bashir Arrest Warrant; *Prosecutor v. Omar Hassan Ahmad Al Bashir*, Case No. ICC-02/05–01–09, Case Information Sheet, updated April 2018, ICC-PIDS-CIS-SUD-02–006/18_Eng.

2.3.3 War Crimes

Anthropogenic harm has been caused to the environment in numerous wars throughout history.[200] Reports of harm to the environment during armed conflict stretch back millennia.[201] For example, the Book of Kings of the Old Testament of the Bible recounts that, during the Ninth Century before Christ, the Israelites engaged in tactics of altering the local environment in an attack against the Moabites.[202] The Old Testament also refers to the salting of the soil of a conquered city.[203]

Modern times have seen even more severe environmental harm caused by humans during armed conflict. From scorched earth tactics during World War Two,[204] to large-scale deforestation through chemical defoliants in Vietnam,[205] to the spilling of over two million tonnes of oil into

[200] For an overview of prominent examples, see Dieter Fleck, Chapter 9, 'Legal Protection of the Environment: The Double Challenge of Non-International Armed Conflict and Post-Conflict Peacebuilding' in Carsten Stahn, Jens Iverson, and Jennifer Easterday (eds.), *Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles, and Practices* (Oxford University Press, 2017) ('Fleck 2017'), pp. 206–7; Gilman (2011), p. 448.

[201] For example, both the Bible and teachings related to the Koran contain references to environmental destruction conducted in connection with armed conflict: See *Bible*, Revised Standard Version, Old Testament ('Bible RSV'), 2 Kings 3:24–25 ('the Israelites rose and attacked the Moabites . . . And they overthrew the cities, and on every good piece of land every man threw a stone until it was covered; they stopped every spring of water, and felled all the good trees till only its stones were left in Kir-har'eseth, and the slingers surrounded and conquered it'); Yousuf Aboul-Enein and Sherifa Zuhur, *Islamic Rulings on Warfare*, Strategic Studies Institute, US Army War College (Diane Publishing Co., 2004), p. 22 (citing the following passage from Islamic teachings '[s]top, O people, that I may give you ten rules for your guidance in the battlefield. Do not commit treachery or deviate from the right path. You must not mutilate dead bodies. Neither kill a child, nor a woman, nor an aged man. Bring no harm to the trees, nor burn them with fire, especially those which are fruitful. Slay not any of the enemy's flock, save for your food. You are likely to pass by people who have devoted their lives to monastic services; leave them alone').

[202] See Bible: Revised Standard Version, 2 Kings 3:24–25.

[203] Gilman (2011), p. 451 referring to Judges 9:45.

[204] *Hostages* Trial, paras. 191, 194; Ensign Florencio J. Yuzon, 'Deliberate Environmental Modification Through the Use of Chemical and Biological Weapons: "Greening" the International Laws of Armed Conflict to Establish an Environmentally Protective Regime' (1996) 11 *American University Journal of International Law and Policy* 793 ('Yuzon (1996)'), p. 815, cited in Drumbl (1998–9), p. 134.

[205] Peterson (2009), pp. 331–2; Aaron Schwabach, 'Environmental Damage Resulting from the NATO Military Action Against Yugoslavia' (2000) 25 *Columbia Journal of Environmental Law* 117 ('Schwabach (2000)'), p. 126. Note that defoliants were also reportedly used by the British in the 1950s during the Malaya insurgency, Israel in 1972 for crop destruction in Jordan on at least one occasion, Portugal against insurgents in

the sea during the Iran-Iraq war of the 1980s,[206] to the incineration of approximately 600 oil wells in Kuwait[207] (and similar oil well fires reportedly conducted by ISIS in 2016), and the damage to oil installations along with resulting pollution in Lebanon in 2006,[208] as well as the destruction of industrial sites in Serbia in 1999,[209] warfare is typically accompanied by serious environmental degradation.

Despite the varied forms of environmental harm caused during armed conflicts throughout history, only one crime directly addressing environmental destruction is included in the Rome Statute (article 8(2)(b)(iv)). The analysis starts by looking to the contextual elements that generally apply to war crimes, then looks to the specific elements of article 8(2)(b)(iv), and then subsequently addresses other possible prohibitions under article 8 that could apply to military attacks causing excessive environmental harm.

2.3.3.1 Contextual Elements

In keeping with the name, war crimes are offences committed during times of armed conflict. These offences generally focus on acts targeting or harming persons and acts against property, and largely reflect the prohibitions set out in the Geneva Conventions of 1949, the Additional Protocols of 1977, and The Hague Regulations of 1899 and 1907. Under the Rome Statute of the ICC, war crimes are divided into those committed during international armed conflicts[210] and those committed during non-international armed conflicts.[211] For each war crime, the ICC Elements of Crimes include the requirements that '[t]he conduct took place in the context of and was associated with' an armed conflict.[212]

Angola during the 1970s, and the United States in its 'war on drugs' in Central America during the 1980s; Cusato (2018), p. 515.

206 Dinstein (2001), p. 524, fn. 3; Walker (2000), Chapter 6: The Tanker War and the Maritime Environment.

207 UNSC Resolution 687, adopted on 3 April 1991, para. 6; UNEP (2009), p. 8. See also Chapter 5 of this book on case studies.

208 See Marie G. Jacobsson (Former Special Rapporteur on Protection of the Environment during Armed Conflict), *Third Report on the Protection of the Environment in Relation to Armed Conflicts*, International Law Commission Doc. A/CN.4/700, 3 June 2016 ('Jacobsson (2016)'), para. 79 citing General Assembly resolution 69/212 Oil Slick on Lebanese Shores, A/69/468 and corr.1, 19 December 2014, paras. 4, 5.

209 See Press Release on Final Report on NATO (2000); Final Report on NATO (2000), paras. 14–16.

210 Rome Statute, article 8(2)(a), 8(2)(b)

211 Rome Statute, article 8(2)(c) and (e).

212 ICC: Elements of Crimes, article 8, War Crimes, Introduction.

Article 8 of the Rome Statute reflects the broader orientation of IHL towards anthropocentric, rather than ecocentric, interests.[213] For example, in 1993 the then-United Nations Secretary-General observed that article 3 common to the Geneva Conventions of 1949 (which is reflected in article 8(2)(c) of the Rome Statute applicable to non-international armed conflicts) 'does not say anything about protecting the environment during civil wars; it addresses only humanitarian issues in the strictest sense'.[214]

It also bears noting that the law governing armed conflict at sea differs from that on land, as foreshadowed in the general introduction to the war crimes section of the Elements of Crimes which refers to the law of armed conflict at sea.[215] In relation to environmental harm, rule 44 of the San Remo Manual on International Law Applicable to Armed Conflicts at Sea provides that '[m]ethods and means of warfare should be employed with due regard for the natural environment taking into account the relevant rules of international law. Damage to or destruction of the natural environment not justified by military necessity and carried out wantonly is prohibited'.[216] The specific rules applicable during maritime warfare are important, as considerable environmental harm can be caused during sea clashes, such as the broad spread of oil and other noxious chemicals from boats struck by munitions.[217]

The capacity of war crimes to address environmental harm may also be limited by the so-called 'non-threshold threshold'[218] 'chapeau' clause of article 8. This clause notes that the Court has 'jurisdiction in respect of war crimes in particular when committed as part of a plan or policy or as part of a large-scale commission of such crimes'. However, the Court has noted that this provision provides guidance only and is not an essential requirement for liability under the Statute.[219]

[213] See Freeland (2015), pp. 220–1.
[214] Secretary-General Report 1993, p. 8.
[215] ICC Elements of Crimes, p. 17.
[216] San Remo Manual on International Law Applicable to Armed Conflicts at Sea, 12 June 1994, rule 44.
[217] See, e.g., Walker (2000), Chapter 6: The Tanker War and the Maritime Environment.
[218] Hermann von Hebel and Daryl Robinson, 'Crimes within the Jurisdiction of the Court' in Roy S. Lee (ed.), *The International Criminal Court: The Making of the Rome Statute: Issues, Negotiations, Results* (Kluwer Law International, 1999), pp. 79, 124.
[219] *Bemba* Trial Judgment, para. 126; *Katanga* Trial Judgment, para. 896. But see Durney (2018), p. 416.

2.3.3.2 Launching an Attack with Knowledge It Will Result in Excessive Environmental Harm (Article 8(2)(b)(iv))

As noted, the only crime in the Rome Statute that refers to the natural environment is the war crime set out in article 8(2)(b)(iv). This constrained formulation, nestled within the war crimes provisions of the Rome Statute rather than as a crime per se (such as ecocide, as discussed in Chapter 6, Section 6.3.2.3), emerged as a result of the negotiations over the Draft Code of Crimes Against the Peace and Security of Mankind, which merged into the negotiations concerning the International Criminal Court in the 1990s.

The crime of wilful and severe damage to the environment was included in early versions of the Draft Code of Crimes Against the Peace and Security of Mankind,[220] which was an instrument that, to a certain degree, served as forerunner to the crimes included in the Rome Statute. In his 1996 report, ILC member Christian Tomuschat recommended that the ILC debate whether to retain environmental crimes as a distinct and separate provision; or include environmental crimes as an act of crimes against humanity; or include environmental crimes as a war crime. However, no debate was held on whether to include environmental crimes as a distinct and separate provision outside of the scope of the other crimes, and it was eventually included as a sub-provision of the war crimes article in the following terms: 'widespread, long-term and severe damage to the natural environment, resulting in grave prejudice to the health or survival of the population'.[221] Tomuschat stated that

> One cannot escape the impression that nuclear arms played a decisive role in the minds of many of those who opted for the final text which now has been emasculated to such an extent that its conditions of applicability will

[220] See Draft Code of Crimes against the Peace and Security of Mankind with commentaries, 1996, article 20(g) War Crimes: '[a]ny of the following war crimes constitutes a crime against the peace and security of mankind when committed in a systematic manner or on a large scale: (g): [i]n the case of armed conflict, using methods or means of warfare not justified by military necessity with the intent to cause widespread, long-term and severe damage to the natural environment and thereby gravely prejudice the health or survival of the population and such damage occurs'. See also Document on Crimes against the Environment – Draft Code against the Peace and Security of Mankind (Part II) including the Draft Statute for an International Criminal Court, prepared by Christian Tomuschat, member of the Commission, *Yearbook of the International Law Commission* (1996), vol. II(1) Document ILC(XLVIII)/DC/CRD.3, 27 March 1996, pp. 17–18, noting that it was originally proposed that serious environmental harm would constitute a crime against humanity but that it then was posited as an autonomous crime, whose wording borrowed mostly from article 55 of API ('Tomuschat (1996)').

[221] Draft Code of Crimes against the Peace and Security Mankind (1996), article 20(g); Gauger et al. (2012), p. 10.

> almost never be met even after humankind would have gone through disasters of the most atrocious kind as a consequence of conscious action by persons who were completely aware of the fatal consequences their decisions would entail.[222]

The crime in article 8(2)(b)(iv) of the Rome Statute adheres to this constricted formulation of environmental harm as a war crime and is closely aligned with articles 35(3) and 55(1) of Additional Protocol 1.[223] Article 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. [Emphasis added.]

Article 8(2)(b)(iv) has not yet been applied in a criminal case.[224] Accordingly, there is scope for the interpretation of the contours of the elements of this crime. Like many of the other provisions of the war crimes prohibitions, article 8(2)(b)(iv) is firmly rooted in IHL, and 'Protocol I [is] a natural exegetical source for article 8(2)(b)(iv).'[225]

Another source of international law that can be seen as a precursor to article 8(2)(b)(iv), and thus potentially relevant to its interpretation,[226] is ENMOD (the Environmental Modification Convention), which is designed to address the use of environmental modification techniques as a means of war.[227] The Convention prospectively prohibits activities

[222] Christian Tomuschat, 'Crimes Against the Environment' (1996) 26(6) *Environmental Policy and Law* 243. See also Gauger et al. (2012), p. 11.

[223] As noted above, there had also been a broader, albeit similar provision included as article 26 in the draft of the International Law Commission's Draft Code on Crimes against Peace and Security of Mankind, which provided as follows: '[a]n individual who wilfully causes or orders the causing of widespread, long-term and severe damage to the natural environment shall, on conviction thereof, be sentenced [to]'.

[224] Weinstein (2005), p. 698; UNEP Study (2009), p. 24.

[225] Jessica C. Lawrence and Kevin J. Heller, 'The First Ecocentric Environmental War Crime: The Limits of Article 8(2)(b)(iv) of the Rome Statute' (2007) 20 *Georgetown International Environmental Law Review* 61 ('Lawrence and Heller (2007)'), p. 15.

[226] However, the parties negotiating ENMOD confirmed that its definitions are 'intended exclusively for [the ENMOD Convention] and . . . not intended to prejudice the interpretation of the same or similar terms'; Understanding I of the Conference of the Committee of Disarmament ('ENMOD Memorandum of Understanding'), 31 United Nations General Assembly Official Records Sup. No. 27 (A/31/27), Annex I), reprinted in Adam Roberts and Richard Guelff (eds.), *Documents on the Law of War* (2nd ed.) (Clarendon Press, 1989).

[227] Weinstein (2005), p. 700.

that currently are not feasible due to technological constraints.[228] It does not directly impose individual criminal responsibility for breaches of its terms.[229] Instead, its enforcement is *post hoc* and political in nature.[230] Nonetheless, because it shares many of the terms of its core prohibition with article 8(2)(b)(iv) of the Rome Statute, it is an instructive source of interpretive guidance for this Rome Statute provision.[231]

Additional guidance is provided by ICRC customary international rule 45, which largely reflects the article 8(2)(b)(iv) prohibition, albeit with some more permissive formulations of its terms.[232]

Elements of Article 8(2)(b)(iv)

International Armed Conflict Article 8(2)(b)(iv) only applies to international armed conflict, and there is no comparative provision applicable to non-international armed conflicts in the Rome Statute.[233] Some commentators find the limitation of article 8(2)(b)(iv) to international armed conflict illogical and troubling,[234] particularly as many serious conflicts throughout the twentieth and twenty-first centuries have been non-international armed conflicts,[235] and environmental damage has been repeatedly reported in internal armed conflicts.[236] However, the primary precursor to article 8(2)(b)(iv) is found in Additional Protocol I, which applies to international armed conflicts (as well as certain self-determination struggles),[237] and Additional Protocol II contains no comparable provision. Nonetheless, the ICRC has stated that such conduct is banned under customary law (see rule 45, which reflects part of

[228] Jensen (2005), p. 154.
[229] Cohan (2003), p. 524.
[230] Weinstein (2005), p. 701.
[231] Gilman (2011), p. 454.
[232] Rule 45: '[t]he use of methods or means of warfare that are intended, or may be expected to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon'. ICRC Study, pp. 151–8.
[233] See Rome Statute, articles 8(2)(c) and (e).
[234] See, e.g., Wattad (2009), p. 268; Drumbl (1998–9), pp. 136–7, fn. 42.
[235] UNEP 2009, p. 11, listing various armed conflicts of a non-international character and situations of internal unrest fuelled by natural resources. See also *Tadić* Jurisdiction Decision, para. 97.
[236] See Drumbl (2000), pp. 313–14, fn. 36. A joint report by UNEP and INTERPOL in 2016 estimated that at least forty per cent of internal armed conflicts were linked to natural resources; INTERPOL-UNEP, *Strategic Report Environment, Peace and Security. A Convergence of Threats* (2016), p. 65.
[237] Additional Protocol I, article 1(3) and (4).

the wording of article 8(2)(b)(iv)),[238] and that this prohibition 'arguably' applies to non-international armed conflict.[239]

Attack Article 8(2)(b)(iv) requires that an 'attack' be launched. The term 'attack' in this context should not be confused with the broader notion of an 'attack' on a civilian population as required to demonstrate a crime against humanity under article 7 of the Rome Statute.[240] For the purposes of the war crime in article 8(2)(b)(iv), the attack envisaged would typically be a kinetic, military attack.[241] A military operation would amount to an attack for the purposes of article 8(2)(b)(iv) to the extent it involved the use of armed force against an opposing party. In this sense, the provision relates to actual hostilities. The conduct of military forces during armed conflict outside of active hostilities will be unlikely to meet the definition, no matter how environmentally detrimental it may be.[242]

Conversely, the conduct of members of an armed force incidental to an attack, such as exploiting natural resources to finance military activities, would not constitute an attack per se.[243] At the same time, the attack need not be directed exclusively at the environment. For example, the bombing and destruction of a large-scale dam, leading to severe flooding of an extended area would constitute the typical type of kinetic attack covered by this term. During the armed conflict in Croatia in the 1990s, the Serb forces allegedly placed charged explosives in the Peruca Dam, which was located in disputed territory, creating the potential for devastating

[238] ICRC Study, pp. 151–8.
[239] ICRC Study, pp. 156–7.
[240] As the Trial Chamber in *Kunarac et al.* explained, '[t]he term "attack" in the context of a crime against humanity carries a slightly different meaning than in the laws of war. [footnote omitted] In the context of a crime against humanity, "attack" is not limited to the conduct of hostilities. It may also encompass situations of mistreatment of persons taking no active part in hostilities, such as someone in detention'. ICTY: *Prosecutor v. Kunarac et al.*, IT-96–23-T and 96–23/1-T, Trial Judgment, 22 February 2001, para. 416.
[241] The wording of article 8(2)(b)(iv) could also potentially encompass other forms of attacks, such as cyber-attacks, see generally Michael N. Schmitt (ed.), *Tallinn Manual on the International Law Applicable to Cyber Warfare* (Cambridge University Press, 2013) ('Tallinn Manual'), pp. 231–3, rule 83 (Protection of the Natural Environment): (a) '[t]he natural environment is a civilian object and as such enjoys general protection from cyber attacks and their effects'. '(b) States Party to Additional Protocol I are prohibited from employing cyber methods or means of warfare which are intended, or may be expected, to cause widespread, long-term, and severe damage to the natural environment'.
[242] Drumbl (2000), pp. 313–14.
[243] Peterson (2009), p. 337.

consequences for downstream riparian areas.[244] As the explosives were reportedly activated, this operation would ostensibly qualify as an attack. It was reported that, had the workers of the hydropower plant not prevented the complete destruction of the dam that was attacked, an inundation that could have endangered the lives of more than 50,000 inhabitants of the towns of Sinj, Trijl, and Omis may have occurred.[245] Depending on the circumstances and knowledge of the perpetrators, the attack could have fulfilled the elements of severe, long-term, and widespread environmental harm that are now enshrined in article 8(2)(b)(iv).

Tactics used during an armed conflict, and operations to implement such tactics could potentially be considered 'attacks' for the purposes of article 8(2)(b)(iv). An example of an operation conducted during armed conflict that is frequently cited as the type of conduct that could constitute an 'attack' in this sense is the American defoliation campaign during the Vietnam War – 'Operation Ranch Hand'.[246] During Operation Ranch Hand, the United States (US) Army sprayed many millions of gallons of herbicides, including the infamous Agent Orange, on Vietnam and Laos and cleared lands with large 'Roman plows' in an effort to remove the forest cover being used effectively by the Viet Cong and North Vietnamese army.[247] Encompassing many individual strikes, this overarching campaign would also qualify as an 'attack' for the purposes of article 8(2)(b)(iv).[248]

However, in civil proceedings under the Alien Tort Statute (also known as the Alien Tort Claims Act) in the United States, the district court, as upheld on appeal, held that no violation of international law had been shown concerning the US deployment of Agent Orange in Vietnam, essentially on the basis that the Agent Orange was only used to defend US

[244] The motivation for laying mines on the site remains unclear. Criminal proceedings concerning the attacks on Peruca Dam were commenced in Croatia. Former military commander of the 221st motorized brigade of the 9th Knin corps of the Yugoslav People's Army (JNA), Borislav Djukić, was charged by Croatian authorities in connection with the mining of the Peruca Dam, near the Croatian town of Sinj, on 28 January 1993: Dusica Tomović, 'Montenegro Extradites Serbian Wartime General to Croatia', Balkan Insight, 9 March 2016, (available at www.balkaninsight.com/en/article/montenegro-extradited-serbian-wartime-general-to-croatia-03-08-2016) ('*Djukić* case').

[245] *Djukić* case, as reported in Balkan Insight.

[246] See Schwabach (2004), p. 7 ('the American campaign was intended to facilitate military manoeuvres'). See also Timothy Schofield, 'The Environment as an Ideological Weapon: A Proposal to Criminalise Environmental Terrorism' (1998–9) 26 *British Columbia Environmental Affairs Law Review* 635–6; Schmitt, 1997, pp. 9–10.

[247] See Schwabach (2000), p. 126; Cusato (2018), pp. 494–9.

[248] But see Peterson (2009), pp. 336, 338, 342–3.

forces and that the use of Agent Orange did not violate a 'well-defined and universally-accepted international norm'.[249] Under the Rome Statute, the fact that the tactic was used defensively would not necessarily preclude a finding of culpability. If the elements of the crime were fulfilled, then any question of self-defence would be governed by article 31(1)(c), which sets out grounds for excluding criminal responsibility including for a person who 'acts reasonably to defend himself or herself or another person or, in the case of war crimes, property which is essential for the survival of the person or another person or property which is essential for accomplishing a military mission, against an imminent and unlawful use of force in a manner proportionate to the degree of danger to the person or the other person or property protected'. Notably, the provision clarifies that 'the fact that the person was involved in a defensive operation conducted by forces shall not in itself constitute a ground for excluding criminal responsibility under this subparagraph'.

The use of a nuclear weapon during armed conflict would generally qualify as an 'attack'. Generally large-scale in impact, nuclear attacks would almost inevitably result in serious environmental harm and could potentially meet the circumstances in which the elements of article 8(2)(b)(iv) may be satisfied. However, it remains unsettled whether the impact on the environment could render the use of nuclear weapons a criminal act.[250] The ICRC has stated that rule 45, which is the customary international law rule corresponding to article 8(2)(b)(iv) of the Rome Statute, does not apply to nuclear weapons.[251] The United States, France, and the United Kingdom are all persistent objectors to article

[249] *Vietnam Association for Victims of Agent Orange/Dioxin v. Dow Chemical Co*., United States Court of Appeals for the Second Circuit, Judgment, 22 February 2008, 05–1953-cv ('Vietnam Victims' Case'). For headnotes and analysis of the decision on first instance and the judgment on appeal, see *Agent Orange Product Liability litigation, re Vietnam Association for Victims of Agent Orange/Dioxin and Others v Dow Chemical Co. and Others*, First Instance, 373 F.Supp.2d 7 (E.D.N.Y. 2005), ILC 123 (US 2005), 10 March 2005; *Vietnam Association for Victims of Agent Orange and Others v. Dow Chemical Co. and Others*, Appeal Judgment, 517 F.3d 104 (2nd Cir. 2008), ILDC 1040 (US 2008), 22 February 2008. See also Cusato (2018), p. 505.

[250] In its advisory opinion on the threat or use of nuclear weapons, the ICJ could not definitively conclude that the use or threat of use of nuclear weapons is per se prohibited under international law, ICJ: Nuclear Weapons Advisory Opinion, para. 95.

[251] Jean-Marie Henckaerts, 'Customary International Humanitarian Law: A Response to US Comments' (2007) 89 *Int'l Rev. Red Cross* 473, p. 482. Note that many treaties contain prohibitions against the use of nuclear weapons on specific vulnerable areas of the world; for example The 1959 Antarctic Treaty; 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere; 1967 Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco); 1971 Treaty on the Prohibition of the Emplacement of Nuclear

35(3) of Additional Protocol 1, which also largely reflects the terms of article 8(2)(b)(iv), particularly in relation to nuclear weapons.[252] Consequently, although the terms of article 8(2)(b)(iv) could readily apply to a nuclear attack, there would likely be considerable political resistance to any prosecution of the use of nuclear weapons under this provision.

Natural Environment Article 8(2)(b)(iv) applies to harm to the natural environment. As stated in Chapter 1, Section 1.2.1, an authoritative interpretation of the term 'natural environment' is that of the International Law Commission, which refers to the entirety of the natural environment of a given area as well as the usability of the environment.[253] In the context of attacks during an armed conflict, the 'natural environment' would extend beyond that part of the environment belonging to or under the control of an opposing party to a conflict, and also cover damage to a party's own territory from the same attack.[254]

Given that the harmed environmental feature does not need to be the property of an adversary or otherwise protected under IHL for a conviction to arise, the provision differs from several of the other most applicable war crimes provisions, and from the majority of the prohibitions relevant to environmental harm under IHL, which concern damage to another State's territory and not self-destruction by a State of its own territory.[255]

Widespread, Long-Term, and Severe Damage The core of article 8(2)(b)(iv) consists of the three terms – widespread, long-term, and severe. In article 8(2)(b)(iv) these terms are set out conjunctively, and so must all be met in order for criminal responsibility to arise.[256] At the same time, article 8(2)(b)(iv) and the corresponding portions of the Elements of Crimes do not explicitly require that the anticipated harm actually result.[257] In this sense, the wording of article 8(2)(b)(iv) indicates that

Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof; cited in Popović (1995–6), pp. 82–3.

[252] Major Jeremy Marsh, '*Lex Lata* or *Lex Ferenda*? Rule 45 of the ICRC Study on Customary International Humanitarian Law' (2008) 198 *Military Law Review* 116, p. 118.

[253] See Drumbl (2000), p. 318.

[254] Peterson (2009), p. 328.

[255] Secretary-General Report 1993, p. 15.

[256] Weinstein (2005), p. 706. But see Popović (1995–6), pp. 76–7.

[257] The preparatory Commission for the Elements of Crimes in 1999 debated whether article 8(2)(b)(iv) required a result and went with the majority, which said no;

it is a partially inchoate offence (it is only partially inchoate as it does require that the attack be launched).[258] This presents the possible scenario of a conviction arising for an attack that was launched and which would normally have caused widespread, long-term, and severe environmental harm but for unforeseeable reasons did not result in the anticipated harm. In such circumstances, gravity would likely become a contentious issue given that no actual harm to the environment would have eventuated.[259]

Widespread The term 'widespread' refers to the required geographical scope of the environmental damage. The specific threshold in terms of square kilometres remains undefined. In accordance with article 21 of the Rome Statute, the Court could have resort to applicable treaties and principles and rules of international law to interpret this provision.[260] The ENMOD Convention defines 'widespread' as several hundred square kilometres.[261] Other minimum requirements suggested by commentators rise to thousands of square kilometres.[262] By way of comparison, during the Vietnam War, American forces sprayed an estimated 72 million litres of herbicides over 20,000 square kilometres of forests and fields,[263] which amounts to over ten per cent of South Vietnam.[264] However, imposing a high minimum threshold for 'widespread' would result in an asymmetrical situation whereby some States would be precluded from applying the provision even if the damage extended across their whole geographic territory. For example, the State Parties to the Rome Statute include the world's second largest country in terms of size – Canada (nearly 10,000,000 square kilometres) – alongside minute countries such as Liechtenstein (160 square kilometres) and the Cook Islands (240 square kilometres). These small countries are unlikely to have intended a definition of 'widespread' that would exclude the destruction

Knut Dörmann, *Elements of War Crimes under the Rome Statute of the International Criminal Court*, ICRC (Cambridge University Press, 2003), p. 162 ('Dörmann (2003)').

258 See *Nahimana* Appeal Judgment, para. 720.

259 See above discussion of gravity and environmental harm (Chapter 2, Section 2.2.4).

260 Rome Statute, article 21(1)(b).

261 Understanding I, ENMOD Memorandum of Understanding.

262 Peterson (2009), pp. 331–2.

263 UNEP (2009), p. 15.

264 UNEP (2009 Matthew, Brown, and Jensen), p. 15; Cusato (2018), p. 499 citing R. Scott Frey, 'Agent Orange and America at War in Vietnam and Southeast Asia' (2013) 20 *Human Ecology Review* 1, 3; T. T. Nguyen, 'Vietnam and the Environment: Problems and Solutions' (2009) 66(1) *Int. J. Environ. Stud.* 1–8.

of their entire natural habitat from consideration.[265] Accordingly, for the purposes of article 8(2)(b)(iv) the determination of a single absolute standard of 'widespread' may not be possible.

Long-Term The notion 'long-term' refers to the temporal duration of the environmental harm.[266] Like the term 'widespread', the specific minimum duration of 'long-term' remains undefined. The parties to ENMOD agreed that the corresponding term used in that convention ('long-lasting' in Article 1) refers to a period of several months or a season.[267] However, the 'long-term' duration required in articles 35(3) and 55 of Additional Protocol I has been interpreted to mean a period of years, or even decades.[268] The assessment carried out by a Committee from the Office of the Prosecutor of the ICTY into the applicability of article 35(3) to the NATO actions during its bombing campaign against the Federal Republic of Yugoslavia (FRY) in 1999 stated that it is thought that the notion of "long-term" damage in Additional Protocol I would need to be measured in years rather than months'.[269]

Because most apparent aspects of the harm caused by Saddam Hussein's lighting of the Kuwaiti oil wells lasted a shorter time than expected, some commentators consider this inadequate to meet the long-term requirement of Additional Protocol I.[270] The United States Department of Defence reviewed the First Gulf War and concluding that while the damage caused by Iraq was widespread and severe, it could not meet the long-term criterion.[271] However, interpreting long-term to require damage lasting decades would virtually render these provisions nugatory and would beg the question of why they were enacted in the first place. As noted by the Secretary-General of the

[265] But see Peterson (2009), p. 331.
[266] Weinstein (2005), p. 708.
[267] See Understanding relating to article 1, ENMOD Memorandum of Understanding.
[268] Secretary-General Report 1993, p. 7; Schmitt (1997), pp. 71, 107. See also, e.g., Australia, The Manual of the Law of Armed Conflict, Australian Defence Doctrine Publication, 06.4, Australian Defence Headquarters, 11 May 2006, para. 7.14 (noting that long-term had been interpreted to mean a period of decades).
[269] Final Report on NATO (2000), para. 15.
[270] See, e.g., Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict* (Cambridge University Press, 2004), p. 194, cited in Peterson (2009), p. 342.
[271] United States, Department of Defense, 'Final Report to Congress on the Conduct of the Persian Gulf War, Appendix O, The Role of the Law in War', 10 April 1992, ILM, Vol. 31, pp. 636–7; Dinstein (2001), p. 546; Schmitt (1997), pp. 71, 107.

United Nations 'it is not easy to know in advance exactly what the scope and duration of some environmentally damaging acts will be'.[272]

Requiring environmental harm to perdure for decades before criminal procedures could be initiated would undermine the prospect of efficient criminal proceedings. If an essential element of the crime could not be established by definition until tens of years after the crimes, then no trial could occur until after that point in time. This is not in keeping with the aim of expeditious proceedings and potentially would result in adjudicative incoherence in light of the right of an accused to receive a trial without undue delay.

Severe The term 'severe' refers to the intensity of the harm caused to the environment, independent of the harm's geographic ambit or temporal duration. Severe environmental harm denotes damage going beyond typical battlefield damage.[273] It is suggested by UNEP that this element should be interpreted as 'serious or significant disruption or harm to human life, natural economic resources or other assets'.[274] However, measuring severity in terms of human suffering would render article 8(2)(b)(iv) an anthropocentric provision, which would undermine the potential expressive value of having a provision referring to the natural environment in the Rome Statute, and would potentially exclude areas of the global commons that have not been assigned financial value or listed as assets for human utilization.[275]

The threshold for widespread, long-term, and severe damage is high. Typical battlefield damage is not likely to reach the threshold.[276] Some commentators consider that Saddam Hussein's intentional burning of over 600 Kuwaiti oil wells during the Gulf War would not reach the threshold, despite the serious and lasting damage that was caused by this malicious act.[277] While a strong argument could be made that the article 8(2)(b)(iv) criteria were satisfied, the fact that this point is debated

[272] United Nations Secretary-General Report (1993), p. 7.
[273] See *travaux préparatoires* to Article 35(3) of Additional Protocol I CDDH/215/Rev.1, para. 27.
[274] See UNEP Study (2009), p. 5.
[275] See Drumbl (2000), p. 317.
[276] See *travaux préparatoires* to article 35(3) of Additional Protocol I CDDH/215/Rev.1, para. 27, in fifteen Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflict, Geneva 1974–7, at pp. 268–9 (Federal Political Department, Bern, 1978), cited in Cohan (2003), p. 503. See also Peterson (2009), p. 336.
[277] See Peterson (2009), p. 342; Schmitt (1997), pp. 19, 75.

demonstrates the difficulty of satisfying the terms of widespread, long-term, and severe. This has caused at least one commentator to lament that article 8(2)(b)(iv) 'merely pays lip-service to environmental concerns, without creating that risk that anyone will be prosecuted for this particular offence'.[278]

Examples of environmental harm that reportedly caused extensive environmental damage include the release of thousands of tons of fuel oil into the Mediterranean Sea after the bombing of the Jiyeh power station during the conflict between Israel and Lebanon in 2006.[279] Similarly, the current armed conflict in Syria is alleged to be having a deleterious environmental impact in Syria and Lebanon, including through increased pollution and degradation of surface, ground, and marine water.[280]

In assessing the severity of the harm, the analysis may encompass the direct environmental harm caused by the attack as well as its secondary effects. For example, when detailing the harm caused by Saddam Hussein's forces setting fire to the Kuwaiti oil wells, the United Nations Compensation Commission ('UNCC') for Iraq took into account a range of factors going beyond the immediate incineration of the oil.[281] Additional environmental harm included the release of airborne pollutants and the formation of oil rivers and lakes from unignited oil.[282] At the same time, it will be important that such assessments exclude damage that pre-dated the specific attack in question. When examining the harm caused by NATO's bombing raids on Serbia and Serbian assets in Kosovo, the Balkans Task Force, which was established by then Executive Director of UNEP, Dr. Klaus Töpfer, concluded that the environment in and around Pančevo had been contaminated, but that

[278] Peterson (2009), p. 343.
[279] UNEP Study (2009), p. 8.
[280] Economic and Social Impact Assessment of the Syrian Conflict, World Bank Report, September 2013, paras. 257–61 (available at www.undp.org/content/dam/rbas/doc/SyriaResponse/Lebanon%20Economic%20and%20Social%20Impact%20Assessment%20of%20the%20Syrian%20Conflict.pdf).
[281] See Cymie Payne, 'Developments in the Law of Environmental Reparations: A Case Study of the UN Compensation Commission' in Carsten Stahn, Jens Iverson, and Jennifer S. Easterday (eds.), *Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles, and Practices* (Oxford University Press, 2017), pp. 329–66.
[282] United Nations Compensation Commission Governing Council, *Report and Recommendations Made by the Panel of Commissioners Concerning the First Instalment of 'F4' Claims*, S/AC.26/2001/16, 22 June 2001 ('UNCC Recommendations First Instalment (2001)'), para. 13. See also para. 31(b).

the harm did not amount to an 'environmental catastrophe' and that 'some of the contamination identified at various sites clearly pre-dated the Kosovo conflict'.[283]

Mens Rea On close examination, the most confounding aspect of article 8(2)(b)(iv) concerns the required *mens rea* of the perpetrator. On its face, article 8(2)(b)(iv) contains a triple *mens rea* test. It first requires that the attack be launched 'intentionally'; second, that the perpetrator know that the anticipated environmental harm will be widespread, long-term, and severe; and third, that this damage be clearly excessive in relation to the concrete and direct overall military advantage anticipated from the information known to the perpetrator at the time (this last *mens rea* aspect is incorporated into the discussion of the proportionality test in the following section). Demonstrating that a perpetrator met these *mens rea* requirements will be extremely difficult in almost all circumstances.[284]

The first aspect of intentionality appears to simply indicate that the attack must be a volitional act. This is a direct test of volition; it would not be sufficient if military force was accidentally unleashed, or accidentally directed at the wrong target.

The second aspect – knowledge – may prove a difficult element to show. As discussed in Section 2.3.3.2, the widespread, long-term, and severe elements are potentially highly exacting and are conjunctive.[285] Despite the work of international organizations to educate military commanders on potential environmental harm,[286] these standards remain opaque and largely untested under international criminal law.[287] In the Gulf War, Saddam Hussein warned that he would destroy the Kuwaiti oil wells if the coalition forced the Iraqi army out of Kuwait.[288] Despite this malice aforethought, prosecuting Hussein under article 8(2)(b)(iv) would have been complicated (in the hypothetical scenario whereby article 8(2)(b)(iv) was in operation in 1991). For example, it may have been difficult to prove that he was aware of the extent of the possible harm to the environment, or that he might have

[283] UNEP (2009 Matthew, Brown, and Jensen), p. 16.
[284] See Drumbl (2000), p. 322.
[285] See Drumbl (2000), p. 341.
[286] See Report of UN Secretary-General, A/49/323, 19 August 1994, Annex Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict, submitted by the ICRC upon consultation with a group of international experts; Schmitt (1997), pp. 101, 104–5.
[287] Weinstein (2005), p. 708.
[288] See Schmitt (1997), pp. 15, 54.

thought, albeit mistakenly, that the military gain outweighed the harm to the environment.[289] This demonstrates the potentially highly restrictive nature of the terms of article 8(2)(b)(iv).[290]

Moreover, article 8(2)(b)(iv) requires a demonstration that the commander launched the attack knowing that it 'will cause' the long-term, widespread, and severe environmental harm. The term 'will' implies certainty. However, certainty is extremely difficult to prove in an anticipatory setting, particularly where the environmental harm is likely not the intended purpose of the attack. Indeed, it is unclear whether even Hussein knew that the oil wells fires in Kuwait in 1990–1 would lead to widespread, long-term, and severe environmental harm.[291] Nonetheless, the wording of article 8(2)(b)(iv) in this respect appears to exclude *mens rea* standards of negligence, wilful blindness, or recklessness.[292]

An indication of the difficulty of proving responsibility for military tactics incorporating widespread environmental harm is the use of Agent Orange by US forces in Vietnam in a defoliation campaign from 1962–71. Despite the fact that herbicides were sprayed over a huge expanse of Vietnamese territory, estimated up to ten per cent of South Vietnam, and despite the fact that severe human conditions linked to such herbicides continue to be evident in the Vietnamese population decades later,[293] the US District Court for the Eastern District of New York dismissed the claim on the basis that the chemicals were simply used to defend US forces from ambushes, and therefore no violation of international law had been shown.[294] The US Court of Appeal for the second District confirmed the District Court's finding, arguing that:

> Although the herbicide campaign may have been controversial, the record before us supports the conclusion that Agent Orange was used as

[289] Weinstein (2005), pp. 705–7.
[290] See generally Lawrence and Heller (2007).
[291] Weinstein, pp. 707–8.
[292] Drumbl (2000), pp. 322, 330; Cusato (2018), p. 497.
[293] Cusato (2018), pp. 499–500; *Vietnam Association for Victims of Agent Orange v. Dow Chemical Co.*, United States Court of Appeals for the Second District, United States, 05–1953-cv, 22 February 2008, p. 14.
[294] US District Court for the Eastern District of New York, Memorandum, Order, and Judgment, 28 March 2005, MDL No. 381, 04-CV-400, in re Agent Orange, Product Liability litigation, class action brought by Vietnamese nationals under, *inter alia*, the Alien Tort Claims Act, 28 U.S.C § 1350. It was held, *inter alia*, that '[n]o treaty or agreement, express or implied, of the United States operated to make use of herbicides in Vietnam a violation of the laws of war or any other form of international law until at the earliest April of 1975', p. 223.

> a defoliant and not as a poison designed for or targeting human populations. Inasmuch as Agent Orange was intended for defoliation and for destruction of crops only, its use did not violate the international norms relied upon here, since those norms would not necessarily prohibit the deployment of materials that are only secondarily, and not intentionally, harmful to humans.[295]

Here the courts leaned heavily on the lack of a direct intent to harm humans as a basis to avoid holding the US forces responsible for the effects of using chemical pesticides such as Agent Orange in large-scale spraying operations on areas inhabited by humans.

Proportionality The third *mens rea* aspect of article 8(2)(b)(iv), and perhaps the most challenging, is its final clause, requiring that the expected harm 'would be clearly excessive in relation to the concrete and direct overall military advantage anticipated'. This introduces a proportionality-type balancing test into the evaluation of environmental harm caused by armed conflict.

The ICC Elements of Crimes for article 8(2)(b)(iv) state that the '"concrete and direct overall military advantage" refers to a military advantage that is foreseeable by the perpetrator at the relevant time'.[296] They further require showing that the 'perpetrator knew that the attack would cause . . . widespread, long-term and severe damage to the natural environment and that such . . . damage would be of such an extent as to be clearly excessive in relation to the concrete and direct overall military advantage anticipated'.[297] The footnotes to the Elements of Crimes specify that 'this knowledge element requires that the perpetrator make the value judgement as described therein' and that '[a]n evaluation of that value judgement must be based on the requisite information available to the perpetrator at the time'.[298] The proportionality assessment distinguishes article 8(2)(b)(iv) from genocide, crimes against humanity, and some war crimes such as intentionally directing attacks against civilians

[295] *Vietnam Association for Victims of Agent Orange/Dioxin v. Dow Chemical Co.*, United States Court of Appeals for the Second District, United States, 05–1953-cv, 22 February 2008, pp. 26–7; Cusato, p. 506. The Supreme Court declined to hear the case.
[296] ICC Elements of Crimes, article 8(2)(b)(iv), element 2, fn. 36.
[297] ICC Elements of Crimes, article 8(2)(b)(iv), element 3. See Dörmann (2003), pp. 165–6, pointing out that '[t]he meaning of the term "at the time" in fn.37 was intentionally left without further precision, so that the judges would determine whether the moment of launching or directing the attack would be the appropriate time, or some earlier moment'.
[298] ICC Elements of Crimes, article 8(2)(b)(iv), element 3, fn. 37.

or civilian objects, which are forbidden irrespective of any anticipated military advantage.[299]

The final draft of the provision that became article 8(2)(b)(iv) which was considered at Rome had three options, only one of which included a proportionality test. The formulation of the proportionality test was phrased in broader terms ('not justified by military necessity') than the wording ultimately adopted.[300] Both formulations of the proportionality test allowed military interests to trump environmental protection,[301] and the formulation ultimately adopted is particularly exacting on the Prosecution due to the requirement of showing that the harm would be 'clearly' excessive.[302]

As a preliminary step, it must be assessed whether the object of the attack was military in nature. If the attack was launched against an environmental feature that was not being used for military purposes at the time, then the target of the attack may be considered civilian in nature, and there would be no anticipated military advantage to weigh against the potential environmental harm.[303] The only issue in such a case would revolve around whether the perpetrator knew that the target was not serving any military purpose.

A similar antecedent question would arise as to whether there were non-military motives behind the environmental destruction. For example, when Saddam Hussein ordered the destruction and burning of oil wells in Kuwait during the first Gulf War, his actions followed his threats that he would turn Kuwait into a graveyard if anyone came to Kuwait's assistance, which undermined a genuine claim of military necessity.[304] The destruction appears to have exceeded any possible military motivations, as his forces also destroyed twenty-six 'gathering

[299] See, e.g., Drumbl (1998–9), p. 135 (referring to genocide and torture); ICTY: *Prosecutor v. Kordić and Čerkez*, IT-95–14/2-A, Corrigendum to Judgment of 17 December 2004, p. 2 (referring to the absolute prohibition on directing attacks against civilian objects, which may not be derogated from because of military necessity).

[300] Drumbl (2000), p. 312.

[301] Drumbl (2000), p. 312; Phoebe Okowa, 'Environmental Justice in Situations of Armed Conflict' in Jonas Ebbesson and Phoebe Okowa (eds.), *Environmental Law and Justice in Context* (Cambridge University Press, 2009), 231, p. 248.

[302] Freeland (2015), pp. 207–8.

[303] See below for the analysis of the crimes of intentionally targeting civilians and civilian objects (Chapter 2, Section 2.3.3.3).

[304] Walter G. Sr. Sharp, 'The Effective Deterrence of Environmental Damage during Armed Conflict: A Case Analysis of the Persian Gulf War' (1992) 137 *Military Law Review* 1 ('Sharp (1992)'), p. 44 citing 'Iraq Invades Kuwait, Soldiers Surge into Oilfields', *Boston Globe*, 3 August 1990, at 1.

centres', which were designed to separate oil, gas, and water, and destroyed the technical specifications for each well. This additional destruction had no significant military justification.[305] However, in many cases there may not be evidence of non-military motivations behind the attack. Environmental damage in armed conflict is typically an effect rather than a purpose of military attacks.[306] Applying the proportionality test in article 8(2)(b)(iv) will be complex in such circumstances.

Looking to the Elements of Crimes of article 8(2)(b)(iv) as they relate to the proportionality test, the concrete and direct overall military advantage 'may or may not be temporally or geographically related to the object of the attack'.[307] At the same time, established principles of IHL, which form the framework for the interpretation of crimes listed in article 8 of the Rome Statute, require that the overall military advantage 'must be definite and cannot in any way be indeterminate or potential',[308] or should be 'substantial and relatively close'.[309] Additionally, the ad hoc Committee established by the Office of the Prosecutor of the ICTY to review the NATO bombing campaign against the FRY,[310] noted that, where an attack constituted a grave threat to the environment, it would have to confer *a very substantial military* advantage in order to be considered legitimate.[311] The Committee further observed that '[i]f there is a choice of weapons or methods of attack available, a commander should select those which are most likely to avoid, or at least minimize, incidental damage'.[312]

Establishing that the perpetrator knew that the attack would cause widespread, long-term, and severe damage to the natural environment that would be clearly excessive in relation to the concrete and direct overall military advantage anticipated requires (i) that the perpetrator made the value judgement, and (ii) that any evaluation of that value

[305] Sharp (1992), p. 45.
[306] Kevin John Heller, 'Skeptical Thoughts on the Proposed Crime of "Ecocide" (That Isn't)', *Opinio Juris*, 23 June 2021 ('Heller (2021(a))') (available at https://opiniojuris.org/2021/06/23/skeptical-thoughts-on-the-proposed-crime-of-ecocide-that-isnt/).
[307] Elements of Crimes, article 8(2)(b)(iv), element 2, fn. 36.
[308] *Katanga* Trial Judgment, para. 893 citing International Committee of the Red Cross, Yves Sandoz *et al.* (eds.), *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (Martinus Nijhoff, 1987), paras. 2024, 2028.
[309] Triffterer and Ambos (2016), pp. 377, para. 248.
[310] Final Report on NATO (2000), para. 15.
[311] Final Report on NATO (2000), paras. 20–2.
[312] Final Report on NATO (2000), paras. 21, 24. The Committee added that '[i]n doing so, however, he is entitled to take account of factors such as stocks of different weapons and likely future demands, the timeliness of attack and risks to his own forces'.

judgement be based on the requisite information available to the perpetrator at the time.[313]

The reference to 'an evaluation' shows that an assessment of the perpetrator's value judgement is required, albeit on the basis of the information available to the perpetrator at the time. A critical question in this respect is whether the judges' evaluation simply concerns the genuineness of the perpetrator's value judgement (a purely subjective approach) or whether it also concerns the reasonableness of the perpetrator's value judgement (a mixed subjective-objective approach).[314]

Certain commentators argue in favour of an objective approach, whereby '[t]he assessment is to be made by the Court on an objective basis from the perspective of a reasonable commander'.[315] However, that view is hard to reconcile with the explicit language of the Elements of Crimes, which require showing that the perpetrator knew that the harm resulting from the attack would be clearly excessive in relation to the concrete and direct overall military advantage anticipated. Moreover, the footnotes to the Elements of Crimes specify that the value judgement must be made by the perpetrator and note that this is an exception from the usual rule of such value judgements forming part of crimes under the Rome Statute.

Conversely, if a purely subjective approach is adopted, the assessment will be limited to the genuineness of the perpetrator's claim that they considered that the attack would not result in clearly excessive damage. On this approach, a completely unreasonable value judgement, such as seeing the destruction of a famed and unique natural habitat as justified by the need to deter an enemy from attacking, would result in an acquittal under article 8(2)(b)(iv) unless the Prosecution could show that it was ingenuine. Given the commitment of military commanders and political leaders to their military objectives,[316] it would be very difficult to prove

[313] ICC Elements of Crimes, article 8(2)(b)(iv), element 3, fn. 37.

[314] For an account of the divergent views of the delegations to the Preparatory Committee concerning the evaluation required from the perpetrator with regard to the excessiveness of the damage and pointing out that 'the court must decide such matters on the basis of the information available to the perpetrator at the time', see Dörmann (2003), pp. 164–5.

[315] Triffterer and Ambos (2016), p. 377 citing Dörmann (2003), pp. 164–5. See also Drumbl (2000), pp. 321, 323 (arguing that it will be important to establish some objective standards as to when military advantage justifies such environmental harm to avoid commanders misusing the proportionality test).

[316] See, e.g., Garrett (1996), pp. 45–6.

that such leaders did not believe the environmental harm was justified, no matter how absurd their assessment.[317]

The prospect of such unreasonable conduct resulting in impunity is not purely theoretical. As noted in Section 2.3.1.1, a similar outcome occurred in the World War Two prosecution of the German General Rendulić for excessive harm caused by his scorched-earth tactics in Norway.[318] Although the Tribunal did not accept that his decision to use scorched-earth tactics was reasonable, it accepted that he genuinely perceived it to be militarily justified at the time.[319] If this approach were adhered to for article 8(2)(b)(iv), it would effectively provide military commanders with a license to inflict grave environmental harm, so long as it was undertaken with some sort of military motive in mind.[320] The criminal prohibition in article 8(2)(b)(iv) would largely be a nullity, since all operations during an armed conflict would presumably have some military motive.[321]

One factor, which may assist in the assessment, is the extent to which unnecessary collateral damage to the environment was minimized. The need to minimize collateral damage is reflected in a number of provisions of IHL, including article 57(2) and (3) of Additional Protocol I.[322] The Secretary-General has noted that this has an 'important bearing on the protection of the environment in armed conflict'.[323] Consequently, it can be surmised that, if other such means were available but not taken, this will weigh in favour of the attacks being disproportionate.[324] For

[317] By analogy, see Heller (2021(c)) (discussing the likelihood that a CEO would not see environmental harm arising from his creation of a coal mine as 'clearly excessive' to its social and economic benefits).

[318] *Hostages* Trial, United Nations War Crimes Commission, *Law Reports of Trials of War Criminals*, vol. III (1949), pp. 66–9; Yuzon (1996), p. 815. Rendulić was also charged and convicted for issuing 'reprisal' orders including to kill fifty hostages for any German killed and sentenced to twenty years' imprisonment.

[319] *Hostages* Trial, United Nations War Crimes Commission, *Law Reports of Trials of War Criminals*, vol. III (1949), pp. 66–9; Yuzon (1996), p. 815.

[320] See Freeland (2015), p. 210.

[321] In this respect, the principle of effectiveness also known as *effet utile*, requires that a good faith interpretation of the provision in question, according to its terms their ordinary meaning in the context and in the light of the object and purpose of the treaty, would render it useful for the purposes the treaty had come into being. See *Draft Articles on the Law of Treaties with Commentaries* (1966), adopted at the International Law Commission's eighteenth session. Report of the International Law Commission to the General Assembly, *Yearbook of the International Law Commission 1966*, vol. II, p. 219, para. 6.

[322] API, article 57 (2).

[323] Secretary-General Report 1993, p. 7.

[324] See Michael Schmitt, 'Humanitarian Law and the Environment' (1999–2000) 28 *Denver Journal of International Law and Policy* 265 ('Schmitt (1999–2000)'), p. 313: ICTY:

example, if a commander has a choice between precision weapons and carpet bombing an area in which a force is located including the surrounding flora and fauna, then the latter approach would arguably be excessive as it would not be indispensable to secure the objective at hand.[325]

Whatever interpretive approach is taken, the determination of the proportionality of environmental harm as compared to the counter-veiling military advantage sought involves counter-factual predictions and probabilistic assessments, and will accordingly be difficult to conduct.[326] For example, the dropping of atomic bombs on Nagasaki and Hiroshima during World War Two caused massive and predictable environmental damage.[327] There is no doubt that these attacks would satisfy the widespread, long-term, and severe requirements of article 8(2)(b)(iv). However, there is also no doubt that the attacks entailed a major military advantage, arguably hastening the end of the war in the East. Debates have raged ever since as to whether the harm was excessive in relation to the military advantage gained.[328] Thus, even the clearest cases of environmental harm will be difficult to assess under the framework of the proportionality test.

In relation to the assessment of proportionality, the prohibition of attacks against the natural environment by way of reprisals, enshrined under article 55(2) of Additional Protocol I, is potentially relevant. Article 55(2) is broadly framed, without any explicit qualification, providing:

> Attacks against the natural environment by way of reprisals are prohibited.

Although this prohibition is not per se reflected in a crime under the Rome Statute, it reflects one of several prohibitions of reprisals under IHL.[329] As

Prosecutor v. Dario Kordić and Mario Čerkez, IT-95–14/2-A, *Corrigendum* to Judgment of 17 December 2004, 26 January 2005 ('*Kordić* Appeal Judgment'), para. 686, where the ICTY Appeals Chamber had relied on the definition of military necessity as provided for in article 14 of the Instructions for the Government of Armies of the United States in the Field ('Lieber Code'), 24 April 1863; *Katanga* Trial Judgment, para. 894.

325 Military necessity has been defined by the Trial Chamber in *Katanga* in accordance with the Lieber Code of 1863, and the Appeals Chamber of the ICTY as covering 'those measures which are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war'; *Kordić* Appeal Judgment, para. 686; *Katanga* Trial Judgment, para. 894 citing 8 Instructions for the Government of Armies of the United States in the Field (1863) ('Lieber Code'), article 14.

326 Cohan (2003), p. 494; see also Schmitt (1997), p. 56.

327 See Schmitt (1997), p. 8.

328 See, e.g., Bernard Brown, 'The Proportionality Principle in the Humanitarian Law of Warfare: Recent Efforts at Codification' (1976) 10 *Cornell International Law Journal* 141.

329 ICRC Commentary of 1987, 'Protection of the Natural Environment', para. 2140.

noted by the ICRC Commentary of 1987 of Additional Protocol I in relation to the general prohibition of reprisals under article 51(6): '[t]he prohibition contained in this article is not subject to any conditions and it therefore has a peremptory character; in particular it leaves out the possibility of derogating from this rule by invoking military necessity'.[330]

Given that reprisals against the natural environment are categorically prohibited and cannot be justified by military necessity, it would be contradictory to argue, in the context of the proportionality assessment under article 8(2)(b)(iv), that such reprisal attacks entail a legitimate concrete and direct military advantage that should be taken into account for the proportionality assessment. On this approach, such attacks would per se fail the proportionality test. In terms of investigation and prosecution, any evidence of such attacks being inflicted as a form of reprisal or punishment will therefore be particularly germane to establishing criminal liability for environmental harm.[331]

Article 55(2) is contained in Additional Protocol I, applicable to international armed conflicts, and has no analogue under Additional Protocol II, applicable in non-international armed conflicts. It has been argued that the prohibition simply does not exist in the context of non-international armed conflicts.[332] Nonetheless, the ICRC and the ILC have indicated that they consider this prohibition to apply in all types of armed conflicts, as set out in rule 148 of the ICRC rules on customary IHL[333] and article 12 of its Draft Principles on the Protection of the Environment in relation to Armed Conflicts,[334] respectively. Consequently, there is at least a normative basis for applying the prohibition to non-international armed conflicts.[335]

It has been proposed before the International Law Commission that military planners should undertake environmental impact assessments

[330] ICRC Commentary of 1987, 'Protection of the Civilian Population', para. 1984; in relation to the natural environment, see paras. 2140–1.

[331] In relation to potential evidence of a vindictive or vengeful motive for attacks on the environment, see the discussion of Saddam Hussein's torching of the Kuwait oil wells in Sharp (1992), pp. 44–8 cited therein.

[332] David Turns, 'Implementation and Compliance' in E. Wilmshurst and S. Breau (eds.), *Perspectives on the ICRC Study on Customary International Humanitarian Law* (Cambridge University Press, 2007), pp. 354, 372.

[333] ICRC Study, pp. 143–58, rule 148.

[334] International Law Commission (ILC), Protection of the Environment in relation to Armed Conflicts, Text and titles of the draft principles provisionally adopted by the Drafting Committee on first reading, seventy-first session of the ILC, 6 June 2019, A/CN.4/L.937.

[335] Stavros-Evdokimos Pantazopoulos, 'Protection of the Environment During Armed Conflicts: An Appraisal of the ILC's Work' (2016) 34 *Questions of International Law* 7–26, p. 21.

before launching operations.[336] The ICJ has confirmed that States have an obligation under general public international law to perform environmental impact assessments when undertaking industrial activities with potential transboundary effects.[337] State representatives have expressed support for this obligation also applying during armed conflict.[338] Such a requirement is reflected in the ICRC's customary rules of IHL.[339] Moreover, the ICRC has noted that 'lack of scientific certainty as to the effects on the environment of certain military operations does not absolve a party to the conflict from taking such precautions'.[340] This language dovetails with the precautionary principle, under international environmental law, which seeks to prevent and limit environmental damage by holding that where there is a serious risk of environmental harm, the lack of full scientific certainty should not be used as a reason to postpone any measures to prevent or redress such damage.[341]

Whether or not commanders would actually pay heed to any such IEA is another question. For example, when asked about the environmental risks inherent in the US-led coalition's bombing of ISIS positions in oil installations in Northern and Eastern Syria in 2014, Rear Admiral Kirby (US) stated:

> I'm not an environmental expert. I can't dispel the fact that in some of these targets there may still be some fires burning as a result of what was hit. Again, we're working our way through the analysis right now.[342]

[336] Report of the International Law Commission of its 66th Session, held between 5 May–6 June and 7 July–8 August 2014, A/69/10, para. 209 ('ILC Report 2014').

[337] See ICJ: *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, 20 April 2010, I.C.J. Reports 2010, p. 14, para. 204, cited in ILC Report 2014, para. 209.

[338] Jordan, Note verbale dated 5 July 1991 to the UN Secretary-General, UN Doc. A/46/141, 8 July 1991 Jordan, Explanatory memorandum, annexed to Note verbale dated 5 July 1991 to the UN Secretary-General, UN Doc. A/46/141, 8 July 1991, p. 2, para. 1.

[339] Rule 44 provides that 'methods and means of warfare must be employed with due regard to the protection and preservation of the natural environment. In the conduct of military operations, all feasible precautions must be taken to avoid, and in any event to minimise, incidental damage to the environment'.

[340] ICRC Study, rule 44, pp. 147–51. See also, ILC (2019), Protection of the Environment in relation to Armed Conflicts, Text and titles of the draft principles provisionally adopted by the Drafting Committee on first reading, seventy-first session of the ILC, 6 June 2019, A/CN.4/L.937, draft principle 14.

[341] See Secretary-General Report 1993, p. 17.

[342] Department of Defense Press Briefing by Rear Admiral John Kirby in the Pentagon Briefing Room, 25 September 2014 (available at www.defense.gov/Newsroom/

In the context of international criminal law, a precautionary obligation would be relevant to the assessment of a commander's decision to launch an attack potentially entailing significant environmental harm. The failure of a commander to undertake an environmental impact assessment, without good reason, before launching an attack could arguably be used to support a finding of willful blindness regarding the environmental harm and potentially assist to establish the *mens rea* required under article 8(2)(b)(iv).

Whatever interpretation of the finer details of the proportionality assessment in article 8(2)(b)(iv) is taken, it is indisputable that, by including the proportionality test, the drafters of the Rome Statute have reduced the coverage of the prohibition against serious environmental harm in comparison with the position applicable under IHL at least in its customary form.[343] The test provides belligerents 'a very great latitude' which, in the view of some commentators, potentially makes 'judicial scrutiny almost impossible',[344] and, along with the other restrictive elements of article 8(2)(b)(iv), makes its requirements 'virtually impossible to satisfy in practical terms'.[345]

Because of the proportionality clause, article 8(2)(b)(iv) cannot be seen as purely ecocentric in its orientation.[346] Even if the harm it seeks to prevent (harm to the environment) is ecocentric, the prohibition may be overridden where military interests, which are inherently anthropocentric in nature, require it.[347] In this respect, it features a 'balancing test stacked heavily against the environment'.[348] Consequently, some commentators argue that there is no environmental crime under international law.[349] In this respect, it is notable that rule 45 of the ICRC study on customary international law does not explicitly include this proportionality balancing test.[350]

Transcripts/Transcript/Article/606932/) (note that Rear Admiral John Kirby was the spokesperson – Pentagon Press Secretary – for the Navy at the time and was not the commander who ordered the attacks he was discussing).

[343] Under article 55 of Additional Protocol I, widespread, long-term, and severe environmental harm would be a violation of the law, even if it was 'clearly proportional', Dinstein (2001), p. 536.

[344] Cassese and Gaeta (2008), p. 96.

[345] Freeland (2015), p. 212.

[346] Heller (2021(b)). But see Gilman (2011), p. 453.

[347] Drumbl (2000), p. 312; Freeland (2015), p. 221.

[348] Sharp (1999), p. 241.

[349] See, e.g., Rose (2014), p. 7.

[350] ICRC Study, rule 45, pp. 151, 153.

2.3.3.3 Other Relevant War Crimes in the Rome Statute

War crimes under article 8 that are potentially relevant as possible means to repress environmental harm, are as follows:

- article 8(2)(a)(iv) (Extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly);[351]
- article 8(2)(a)(vii) (Unlawful deportation or transfer or unlawful confinement)/article 8(2)(b)(viii) (concerning situations of occupied territory; applicable in international armed conflict)/article 8(2)(e)(viii) (Ordering the displacement of the civilian population);[352]
- article 8(2)(b)(i)/8(2)(e)(i)[353] (Intentionally directing attacks against the civilian population as such or against individual civilians not taking direct part in hostilities);
- article 8(2)(b)(ii) (Intentionally directing attacks against civilian objects, that is, objects that are not military objectives);
- article 8(2)(b)(iv) (discussed in Section 2.3.3.2);
- articles 8(2)(b)(xiii)/8(2)(e)(xii)[354] (Destroying or seizing the enemy's property unless such destruction or seizure be imperatively demanded by the necessities of war);[355]

[351] See also Geneva Convention IV, articles 53 ('any destruction by the Occupying Power of real or personal property belonging individually or collectively to individuals, or to the State, or to other public authorities, or to social or cooperative organizations, is prohibited, except where such destruction is rendered absolutely necessary by military operations') (this is the concept of usufruct) and 147 (which lists 'extensive destruction and appropriation of property not justified by military necessity and carried out unlawfully and wantonly' among the acts constituting 'grave breaches' of the Convention); Hague Convention IV, articles 23(g) and 55.

[352] See also discussion of deportation and forcible transfer as crimes against humanity in Section 2.3.2.2.

[353] This provision mirrors article 8(2)(b)(i) but applies in non-international armed conflict.

[354] This provision mirrors article 8(2)(b)(xiii) but applies in non-international armed conflict. Given that the basis for this prohibition, article 23(g) of the Hague Regulations of 1907, only applied to international armed conflicts, the Rome Statute's extension of the prohibition to non-international armed conflicts is a step forward from the pre-existing conventional regime. See Dam-de Jong (2015), p. 215.

[355] It is required that the property was protected from destruction or seizure under the international law of armed conflict; ICC Elements of Crimes element 3, articles 8(2)(b)(xiii), 8(2)(e)(xii). Article 8(2)(e)(xii) uses the term 'adversary', as opposed to 'enemy' in article 8(2)(b)(xiii). 'Adversary' has been interpreted as 'any person, who is considered to belong to another party to the conflict, such as the government, insurgents or, as article 8 para. 2(f) of the Statute demonstrates, belongs to an opposing organized armed group'; Andreas Zimmerman and Robin Geiß, 'Article 8 – para. 2 (e)' in Otto Triffterer and Kai Ambos (eds.), *The Rome Statute of the International Criminal Court: A Commentary*

- article 8(2)(b)(xvi)/8(2)(e)(v)[356] (Pillaging a town or place, even when taken by assault);
- article 8(2)(b)(xvii)/8(2)(e)(xiii)[357] (Employing poison or poisoned weapons);
- article 8(2)(b)(xviii)/8(2)(e)(xiv)[358] (Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices);[359]
- article 8(2)(b)(xxv) (Intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including wilfully impeding relief supplies as provided for under the Geneva Conventions).[360]

There are several additional war crimes in the Rome Statute that are less directly relevant but still potentially applicable to environmental harm. Prohibitions, like willful killing[361] and murder,[362] inhuman treatment,[363] willfully causing great suffering, or serious injury to body or health,[364] and cruel treatment,[365] could potentially encompass aspects of environmental harm. These offences are not discussed in extensive detail here as they largely overlap with corresponding underlying crimes against humanity, which have been discussed in Section 2.3.2.

Aside from the contextual requirements for crimes against humanity (demonstrating a widespread or systematic attack on a civilian population

(C.H. Beck/Hart/Nomos, 2016), p. 568, para. 969 ('Zimmerman and Geiß (2016)'). The property may include animals; Lostal (2021), pp. 598–9.

[356] This provision mirrors article 8(2)(b)(xvi) but applies in non-international armed conflict.

[357] This provision mirrors article 8(2)(b)(xvii) but applies in non-international armed conflict.

[358] This provision mirrors article 8(2)(b)(xviii) but applies in non-international armed conflict.

[359] This provision is based on The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925).

[360] See also Additional Protocol I, article 54 (prohibiting attacks against 'objects indispensable to the survival of the civilian population', meaning objects that are of basic importance to the population's livelihood); Additional Protocol II, article 14, which applies the prohibition to non-international armed conflict (prohibiting attacks on objects indispensable to civilian populations, including foodstuffs, agricultural land, crops, livestock, drinking water installations, and irrigation works); Schmitt (1999–2000), pp. 301–2; Schwabach (2004), pp. 25, 29, 32.

[361] Rome Statute, article 8(2)(a)(i) (applicable in international armed conflict).

[362] Rome Statute, article 8(2)(c)(i) (applicable in non-international armed conflict).

[363] Rome Statute, article 8(2)(a)(ii) (applicable in international armed conflict).

[364] Rome Statute, article 8(2)(a)(iii) (applicable in international armed conflict).

[365] Rome Statute, article 8(2)(c)(i) (applicable in non-international armed conflict).

pursuant to a State or organizational policy vs demonstrating an armed conflict for war crimes purposes),[366] these war crimes would raise similar issues to the related underlying crimes against humanity (murder;[367] deportation and forcible transfer;[368] and other inhumane acts[369]). The major difference for war crimes as opposed to other crimes is the requirement of showing a sufficient connection to the applicable form of armed conflict.[370]

Pillage The crime of pillage is often mentioned in relation to environmental harm.[371] Though pillage was originally applied to acts of theft, and was designed to deter the practice of permitting soldiers to reward themselves by looting villages and towns,[372] pillage has been used as a basis to prosecute illegal exploitation of natural resources during armed conflict.[373] While the term pillage bears connotations of widespread destruction and spoliation in everyday parlance, it has a highly circumscribed definition under article 8(2)(b)(xvi) and (e)(v) of the Rome Statute, namely 'pillaging a town or place, even when taken by assault'.[374] The accompanying Elements of Crimes provide more guidance, defining pillage as the intentional appropriation of property for private or personal use, in connection with an armed conflict.[375]

[366] Rome Statute, article 7(1) and 7(2)(a).
[367] Rome Statute, article 7(1)(a).
[368] Rome Statute, article 7(1)(d).
[369] Rome Statute, article 7(1)(k).
[370] Cryer et al. (2010), p. 267 ('For war crimes law, it is the situation of armed conflict that justifies international concern').
[371] See, e.g., Van den Herik and Dam-de Jong (2011), pp. 237–73.
[372] Van den Herik and Dam-de Jong (2011), pp. 237–73; Dam-de Jong (2015), pp. 218–9.
[373] Dam-de Jong and Stewart (2017), p. 593 citing, e.g., Trials of War Criminals before the Nuremberg Tribunals under Control Council Law No. 10, Vol. IX, the *Krupp* case (Washington: Government Printing Office, 1950), pp. 1344–5; Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10, Vol. XIV, *France v. Roechling* (Washington: Government Printing Office 1949), pp. 1113, 1124. Dam-de Jong and Stewart also refer to modern instances of the pillage of natural resources, and at p. 604, refer to the International Court of Justice holding the Ugandan State responsible for the looting by Ugandan soldiers of the natural resources of the DRC: ICJ, *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, 19 December 2005, *I.C.J. Reports* (2005), para. 245.
[374] The prohibition against pillage and plunder is found in several instruments of international humanitarian law, including articles 28 and 47 of the 1907 Hague Regulations, article 33(2) of the Fourth Geneva Convention of 1949 and article 4(2)(g) of 1977 Additional Protocol II.
[375] Elements of Crimes, article 8(2)(b)(xvi). Aside from the nature of the conflict, the elements of pillage in non-international armed conflict match those in international armed conflict.

Environmental harm fits awkwardly under the ICC definition of pillage in three ways. First, the focus on appropriation, as opposed to destruction or spoliation,[376] would exclude a significant portion of the harm done to the environment during armed conflict, which is not always conducted with a view to exercising ownership rights over environmental features.

Second, the idea of the environment constituting property is a contested notion.[377] For example, if an attack involved the contamination of a wild area through radiation, it would be difficult to analyse the area per se as property. Similarly, it is unclear whether nature reserves, or common areas such as Antarctica, could be considered property, yet there is widespread support for the use of international law to protect these important environmental spaces.[378] Classifying the environment as property also risks devaluing its status; equating it to just one form of property is likely to propagate the message that the environment only merits value to the extent it serves human interests.

Third, the limitation to appropriation for *private or personal use* is more broadly problematic as it excludes many forms of misappropriation that occur during armed conflict, including any appropriation undertaken for the use of the military force or group rather than private use. The experience of the ICTY (which did not have the private or personal use requirement) has demonstrated that much looting and pillage of property was carried out at least ostensibly in the name of group entities, such as regional boards and crisis staffs, based on ethnicity, rather than for purely personal ends.[379] Conversely, likely because of the restrictive definition of pillage under the Rome Statute, which refers specifically to appropriation,[380] the cases in which it has been charged thus far at the ICC have tended to place emphasis on the stealing of goods such as

[376] Appropriation is used to mean depriving the owner of his or her property in the sense of stealing that property, rather than destroying that property; see *Katanga* Trial Judgment, paras. 950–4, 957.

[377] There are indisputably elements of the environment that can constitute 'property'; see for example van den Herik and Dam-de Jong (2011), pp. 237–73; Dam-de Jong (2015), p. 217.

[378] Secretary-General Report 1993, p. 14.

[379] See, e.g., *Prosecutor v. Mićo Stanisić and Stojan Župljanin*, Case No. IT-08–91-T, Trial Judgment, 27 March 2013, paras. 650–1; See, e.g., ICTY: *Prosecutor v. Dario Kordić and Mario Čerkez*, IT-95–14/2-T, Judgment, 26 February 2001, para. 808, where the TC found a pattern of plunder in all the places attacked by the HVO.

[380] Elements of Crimes, articles 8(2)(b)(xvi) and 8(2)(e)(v), element 1. In SCSL: *Prosecutor v. Fofana and Kondewa,* SCSL-04–14-A, Appeal Judgment, 28 May 2008, para. 409, it was held, following the ad hoc Tribunals' case law, that burning and other forms of

livestock, DVD players and fridges, rather than the illegal exploitation of parts of the environment, such as minerals and timber.[381]

Moreover, appropriation conducted by the Government will typically be internally legalized through legislative act or executive decree, or else justified as military requisitions. As such, these acts may not qualify as pillage under the ICC Elements of Crimes, which clarifies that pillage only applies to appropriations for private ends.[382] Consequently, the prohibition may result in the asymmetric repression of the environmentally harmful appropriations, where rebel groups are subject to restrictions that do not apply to government forces and agents.[383] Given that 'illicit exploitation is also a key component in kleptocratic governance' and 'endemic corruption',[384] the unequal application of the prohibition of pillage would foster resentment among the populations whose property is taken by government representatives and further exacerbate such governmental misfeasance.

Despite the limitations on pillage under the Rome Statute, there have been many calls to use this crime to address the unlawful extraction of natural resources during armed conflict.[385] Nonetheless, there have been no cases in the modern international tribunals that have confirmed that pillage under article 8 of the Rome Statute would apply to the exploitation of natural resources.[386]

Destruction of Property The crime of extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly, under article 8(2)(a)(iv), and the related prohibition against destroying or seizing the enemy's property under article 8(2)(b)(xiii) (for international armed conflicts) and 8(2)(e)(xii) (for non-international armed conflicts), potentially provide

destruction not amounting to unlawful appropriation of property, pillage's cornerstone element, did not qualify as pillage.

381 ICC: *The Prosecutor v. Bosco Ntaganda*, ICC-01/04–02/06, Decision Pursuant to article 61(7)(a) and (b) of the Rome Statute on the Charges of the Prosecutor Against Bosco Ntaganda, 9 June 2014, paras. 59–63. See also Dam-de Jong (2015), p. 220.

382 See ICC Elements of Crimes, article 8(2)(e)(v), element 2, fn. 62.

383 But see Dam-de Jong (2015), p. 221.

384 Dam-de Jong and Stewart (2017), p. 592.

385 See Michael Lundberg, 'The Plunder of Natural Resources During War' in Stewart (ed.), *Corporate War Crimes*, pp. 495–526 ; Larissa Van den Herik and Daniella Dam-de Jong, 'Re-Vitalizing the Antique War Crime of Pillage' in Stewart (ed.), *Corporate War Crimes* (Open Society Institute, 2011), pp. 237–73.

386 Dam-de Jong (2015), p. 220.

more scope to address environmental harm.[387] The analogous versions of the crime of destroying or seizing the enemy's property has been adjudicated before international courts, including the ICTY[388] and the SCSL.[389]

The crime of destruction or appropriation of property not justified by military necessity, punishable under article 8(2)(a)(iv) of the Rome Statute is based on one of the grave breaches to the Geneva Conventions (I, II, and IV).[390] Accordingly, the property in question must be protected under one or more of the conventions, meaning that it is property of an adverse party to the conflict that is subject to reciprocal obligations under the Geneva Conventions or else is property that is generally protected, such as hospitals.[391]

The elements of crimes also require that the crime under article 8(2)(a)(iv) is conducted wantonly and on an extensive basis.[392] These requirements could be fulfilled in relation to the severe environmental harm addressed in this analysis. For example, the burning of the Kuwaiti oil wells by Saddam Hussein's Iraqi forces in 1990–1 was widely considered militarily unjustified and motivated by malice rather than a genuine military strategy.[393]

For the crimes under article 8(2)(b)(xiii) and 8(2)(e)(xii), the property must have belonged to a hostile party ('enemy' or 'adversary', respectively) and have been 'protected from that destruction or seizure under the international law of armed conflict'.[394] These requirements may create complications when applying these prohibitions to environmental harm. For international armed conflicts, the enemy's property, on one view,

[387] Dam-de Jong (2015), pp. 221–2.
[388] See ICTY: *Prosecutor v. Dario Kordić and Mario Čerkez*, IT-95–14/2-T, Judgment, 26 February 2001, para. 205.
[389] See *Prosecutor v. Fofana and Kondewa*, SCSL-04–14-A, Appeal Judgment, 28 May 2008, para. 390.
[390] See articles 50, 51, and 147 of Geneva Conventions I, II, and IV, respectively: 'extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly'. Knut Dörmann, 'Paragraph 2(a)(iv) Extensive Destruction and Appropriation of Property' in Triffterer and Ambos (2016), pp. 339–42, paras. 112–26; Dörmann (2003), pp. 81–96.
[391] See, e.g., Rome Statute, article 8(2)(b)(ix) (prohibiting the direction of attacks against *inter alia* hospitals).
[392] Rome Statute, Elements of Crimes, article 8(2)(a)(iv), p. 15.
[393] See discussion of Hussein's destruction of Kuwait's oil wells below (Chapter 5, Section 5.1). The term 'wantonly' has not been definitively defined under jurisprudence relevant to the ICC to date. See also Sharp (1992), pp. 44–8 and references therein.
[394] Rome Statute, Elements of Crimes, pp. 25, 41 (element 3 of articles 8(2)(b)(xiii) and 8(2)(e)(xii)).

includes all property situated in the enemy State's territory, whilst in non-international armed conflicts the concept of property is regulated by national law.[395] The property in question 'whether moveable or immoveable, private or public – must belong to individuals or entities aligned with or with allegiance to a party to the conflict adverse or hostile to the perpetrator, which can be established in the light of the ethnicity or place of residence of such individuals or entities'.[396] To the extent environmental features can be considered property,[397] they are typically vested in the State.[398] As with pillage, in the context of non-international armed conflict, this may result in an asymmetric application of the prohibition, whereby forces opposing the State are prohibited from destroying or seizing the environmental feature, while the State's armed forces may benefit from it.[399] Moreover, the requirement that the property belong to an adverse party to the conflict would ostensibly exclude self-inflicted environmental harm, such as scorched-earth tactics to forestall advancing armed forces.[400]

The prohibition on destroying or seizing the enemy's property also has a significant limitation under the Rome Statute, as it exempts 'such destruction or seizure [as is] imperatively demanded by the necessities of war'. This exemption extends to military and civilian property.[401] Military necessity is defined with varying degrees of latitude, but all definitions indicate that ecocentric interests may yield to anthropocentric interests in securing military aims.[402]

Intentionally Directing Attacks Against Civilians and Civilian Objects

Intentionally directing attacks against civilians and civilian objects violates the core humanitarian law principle of distinction. It was observed

[395] Dam-de Jong (2015), p. 223.
[396] *Katanga* Trial Judgment, para. 892 (interpreting the elements of the war crime under article 8(2)(e)(xii)).
[397] See Chapter 1, noting that the natural environment is presumptively part of the global commons, though also subject to peoples' rights to dispose of their natural resources, as discussed herein.
[398] Pointing out that the ownership of natural resources is generally vested with the state, see Dam-de Jong (2015), p. 223.
[399] Dam-de Jong (2015), pp. 223–4.
[400] See Secretary-General Report 1993, p. 15. Destruction of a party's own property may lead to liability for the crime of starvation if it deprives civilians of objects indispensable to their survival; see the discussion of the crime of intentional use of starvation as a method of warfare (Chapter 2).
[401] Dam-de Jong (2015), pp. 223–4.
[402] *Hostages* Trial, para. 76. See also ICTY: *Kordić* Appeal Judgment, para. 686. This approach was explicitly followed in the *Katanga* Trial Judgment, para. 894.

at the ICTY that 'it is now a universally recognized principle . . . that deliberate attacks on civilians or civilian objects are absolutely prohibited by IHL'.[403] These prohibitions could be relevant to the prosecution of environmental harm in two ways. First, if harm to non-combatants or their property were achieved by means of harming the environment. Second, if the environment were considered a civilian object per se.[404]

Importantly, there is a distinction in the scope of applicability of these crimes. Whereas intentionally directing attacks on civilians is a crime under the Rome Statute in international and non-international armed conflict alike, intentionally directing attacks against civilian objects is only a crime in international armed conflicts.[405] For non-international armed conflicts, the closest analogue in this context would be 'destroying or seizing the property of an adversary unless such destruction or seizure be imperatively demanded by the necessities of the conflict',[406] which is discussed in Section 2.3.3.3.

Civilians and civilian objects are defined under IHL in contradistinction to combatants and military objectives. Under article 50 of Additional Protocol I to the Geneva Conventions:

> [a] civilian is any person who does not belong to one of the categories of persons referred to in Article 4(A)(1), (2), (3) and (6) of the Third Convention and in Article 43 of this Protocol. In case of doubt whether a person is a civilian, that person shall be considered to be a civilian.[407]

In relation to objects, article 52(1) of Additional Protocol I provides that civilian objects are all those objects that do not fall within the definition of military objects,[408] namely objects 'which by their nature, location,

[403] ICTY, *Prosecutor v. Zoran Kupreškić et al.*, Case No. IT-95–16-T Trial Judgment, 14 January 2000, para. 521; The absolute prohibition of attacking civilians under customary international law was later recalled in ICTY: *Prosecutor v. Blaškić*, IT-95–14-A, Judgment, 29 July 2004, para. 109. In *Kordić* Appeal Judgment, para. 54 was corrected to read: '[t]he Appeals Chamber clarifies that the prohibition against attacking civilians and civilian objects may not be derogated from because of military necessity'.

[404] In this respect, see discussion of the proportionality test under article 8(2)(b)(iv) (Section 2.3.3.2).

[405] This disparity in criminalization under the Rome Statute was noted in ICC: *Prosecutor v. Bosco Ntaganda*, ICC-01/04–02/06–2359, Judgment, 8 July 2019, para. 1147.

[406] Rome Statute, article 8(2)(e)(xii).

[407] Article 50(1) of API. Addressing relevant aspects of the notion of civilian population and civilians in the context of criminalization under the Rome Statute, with respect to articles 8(2)(b)(i) and 8(2)(e)(i), see Dörmann (2003), pp. 134–47 and 443–6, respectively.

[408] Additional Protocol 1, article 52(1) ('Civilian objects shall not be the object of attack or of reprisals. Civilian objects are all objects which are not military objectives as defined in paragraph 2').

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'.[409] According to the ICRC, the natural environment is, by default, generally considered to be of civilian character, insofar as it (or facets of it) have not become military objectives.[410]

Looking to attacks on civilians, this prohibition has been prosecuted in several cases under international criminal law, albeit focusing on anthropocentric harm.[411] The jurisprudence has clarified that this an absolute prohibition, which cannot be excused by military necessity; that 'attack' means 'acts of violence against the adversary, whether in offence or defence'; and added that, as long as an attack is launched targeting the civilian population or civilians not taking direct part in hostilities, no result need ensue from the attack.[412] Importantly, the crime may be established even if the military operation also targeted a legitimate military objective, as long as civilians were the primary target of the attack, and indiscriminate attacks or attacks with indiscriminate weapons can support an inference that the attack was directed at civilians.[413]

The war crime under article 8(2)(b)(i) and (e)(i) could apply to serious environmental harm if that were used as a means to target a civilian population during an armed conflict. For example, in the *Al-Bashir* case, one of the alleged means used to conduct the crime of intentionally directing attacks against civilians is the poisoning of wells and water sources, which potentially implicates environmental harm.[414] In a similar vein, Richard Falk argued that the targeting of crop fields with aerially sprayed chemical defoliants during the Vietnam War was a form of indiscriminate attack encompassing military and non-military targets alike.[415] It is notable in this respect that the Russell Tribunal, which was not a formal international tribunal but did consider international

[409] Additional Protocol 1, article 52(2); *Kordić* and *Čerkez* Appeal Judgment, paras. 52–3.
[410] See ICRC Study, Vol. 1, commentary on rule 43.A, p. 143. But see Wolff Heintschel von Heinegg and Michael Donner, 'New Developments in the Protection of the Natural Environment in Naval Armed Conflicts' (1994) 37 *German Yearbook of International Law* 289.
[411] See, e.g., *Katanga* Trial Judgment, p. 710, Disposition. See also ICC: *Prosecutor v. Bosco Ntaganda*, ICC-01/04–02/06–2359, Judgment, 8 July 2019.
[412] See, e.g., *Katanga* Trial Judgment, paras. 798–800.
[413] *Katanga* Trial Judgment, para. 802.
[414] ICC: *Situation in Darfur, The Sudan*, ICC-02/05, Public Redacted Version of Summary of the Prosecutor's Application under Article 58, 14 July 2008, para. 14.
[415] Falk (1973), pp. 1–2, 12, 17.

law in reaching its 'verdict', found that the American actions in Vietnam amounted to attacks on civilians.[416]

Looking to attacks on objects, article 52(1) of Additional Protocol I provides that '[c]ivilian objects shall not be the object of attack or of reprisals'. As set out in Section 2.3.3.3, the reference in article 52(1) to 'all' objects indicates a broad ambit, encompassing any facets of the natural environment that have not become military objectives. The ICRC study on customary international law provides that participants in an armed conflict must distinguish military targets from attacks on the environment per se.[417] Similarly, the International Law Commission's Draft Articles on the Protection of the Environment in relation to Armed Conflicts state that the natural environment must not be attacked unless it has become a military objective, thereby indicating that the environment is presumptively a civilian and not military object.[418]

A key question in this respect is when facets of the natural environment can become military objects. Clearly this can happen through their use for military purposes. For example, a cave being used by members of an armed group for shelter and weapons storage would constitute a legitimate military target even though it is also an environmental feature.[419] On the other hand, it is questionable whether facets of the environment can become military targets merely by virtue of their use to indirectly support military efforts. Natural resources such as minerals and rare metals could arguably constitute military objectives if used to finance an armed struggle. However, an ICRC draft list of objects, which was created during the drafting of the Additional Protocols, focussed on industries with a clear military link, such as those producing armaments, transport, and communication equipment of a military character, factories producing items of an essentially military character such as metallurgical, chemical and engineering industries, and installations providing energy mainly for military

[416] Reports from the sessions of the International War Crimes Tribunal founded by Bertrand Russell 1971 (available at https://big-lies.org/vietnam-war-crimes/russell-vietnam-war-crimes-tribunal-1967.html#v1119-verdict-sartre).
[417] ICRC Study, rule 43. But see Marsh (2008), pp. 133–4.
[418] ILC (2019), draft principle 13(3) 'General Protection of the Natural Environment during Armed Conflict', stipulating that '[n]o part of the natural environment may be attacked, unless it has become a military objective'. See also draft principle 17 'Protected Zones', restricting attacks in a protected zone of environmental and cultural importance, provided that it does not contain a military objective.
[419] Dam-de Jong (2015), pp. 232–4.

consumption.[420] Expanding the list of potential military objectives, so as to include any facet of the environment that could potentially assist the financing of the war effort, would virtually remove the line between civilian and military objectives in this respect.

Intentionally Using Starvation of Civilians as a Method of Warfare The crime of intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival could be committed through environmental harm.[421] This crime is designed to protect the civilian population during armed conflict by ensuring their access to basic items needed for survival.[422] In 2019, the Assembly of States Parties adopted an amendment to the Rome Statute extending the prohibition to also cover starvation in non-international armed conflicts.[423]

According to the elements of crimes, the perpetrator must intend to use the starvation 'as a method of warfare'. This requirement could be interpreted broadly, as merely requiring that a party imposes starvation on civilians during a situation of armed conflict, either directly or indirectly.[424] Alternatively, a more exacting interpretation could be given, requiring that the party used the starvation in order to secure a military advantage. It remains for the Court's judges to give the proper interpretation of this provision, but it is noted for present purposes that

[420] ICRC Commentary of 1987 to article 52 of API, p. 632, fn. 3, referring to a list drawn up by the ICRC with the help of military experts, as an annex to the 1956 ICRC Draft Rules for the Limitation of Dangers incurred by the Civilian Population in Time of War.

[421] Rome Statute, article 8(2)(b)(xxv). See the ICRC Commentary of 1987 to API, article 54(2), para. 101, pointing out that an attack, destruction, removal or rendering useless, by some other means, objects indispensable to the survival of the civilian population could be carried out by way of pollution, using chemicals or other agents, of water reservoirs, or by destruction of crops by defoliants.

[422] Dam-de Jong (2015), p. 234.

[423] See Resolution of the Assembly of State Parties adopted at the 9th plenary meeting, on 6 December 2019, Resolution ICC-ASP/18/Res.5, Resolution on Amendments to Article 8 of the Rome Statute of the International Criminal Court, Annex I inserting article 8(2)(e)(xix), Annex II incorporating the Elements of Crimes of article 8(2)(e)(xix). For the proposed amendment see: UN Doc. C.N.399.2019. TREATIES-XVIII.10, Switzerland: Proposal of Amendment, 30 August 2019. See also Federica D'Alessandra and Matthew Gillett, 'The War Crime of Starvation in Non-International Armed Conflicts' (2019) 17 *Journal of International Criminal Justice* 815 ('D'Alessandra and Gillett (2019)'), pp. 834–5.

[424] Michael Cottier and Emilia Richard, 'Article 8(2)(b)(xxv)' in K. Ambos and O. Triffterer (eds.), *The Rome Statute of the International Criminal Court: A Commentary* (C.H. Beck/Hart/Nomos, 2016), p. 518; ICRC Commentary on article 54(1) of API, para. 2097.

this exacting approach would, however, exclude starvation when used purely as a punishment against the civilian population of the opposing side to a conflict.[425]

There are various ways in which the destruction of the environment could result in starvation of civilians. The ICRC Commentary on article 14 of AP II provides that '[o]bjects indispensable to the survival of the civilian population' include '[items] such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works'.[426] Destroying such objects would typically also entail significant environmental harm. For example, during the Vietnam war, Operation Ranch Hand, conducted by the American army, saw noxious chemicals such as Agent Orange, sprayed aerially over large tracts of forested land.[427] This defoliation operation killed off foliage, many animals, and caused numerous health complaints in humans linked to herbicide exposure, such as leukaemia, non-Hodgkinson lymphoma and sarcoma, with high frequency among the Vietnamese population.[428] While the objectives and aims of Operation Ranch Hand (and therefore the *mens rea* of any crimes that it may have entailed) are disputed,[429] particularly regarding the starvation of civilians, it is clear that the 'systemic destruction of the environment in Vietnam was aimed at denying to the enemy food, cover and support from the population',[430] and that it objectively resulted in both environmental harm and the deprivation of foodstuffs from the civilian population, which contributed to famine and severe

[425] Cottier and Richard, p. 519, para. 79.
[426] ICRC Commentary of 1987 to article 14 of APII, at 1458, para. 4803.
[427] Cusato (2018), p. 499; see also Joel Hayward, 'Airpower and the Environment Some Ecological Implications of Modern Warfare' in Joel Hayward (ed.), *Airpower and the Environment: The Ecological Implications of Modern Air Warfare* (Air University Press Air Force Research Institute, Maxwell Air Force Base, 2013) ('Hayward (2013)'), p. 199.
[428] Lostal (2021), p. 602; Cusato (2018), pp. 499–500; Bernard K. Schafer, 'The Relationship between the International Laws of Armed Conflict and Environmental Protection: The Need to Re-evaluate What Types of Conduct Are Permissible During Hostilities' (1988–9) 19 *California Western International Law Journal* 287, 302; *Vietnam Association for Victims of Agent Orange v. Dow Chemical Co.*, United States Court of Appeals for the Second District, United States, 05–1953-cv, 22 February 2008.
[429] See Evelyn Frances Krache Morris, 'Into the Wind: The Kennedy Administration and the Use of Herbicides in South Vietnam', Georgetown University, 2012 ('Krache Morris (2012)'), p. 155; William A. Buckingham, Jr., 'Operation Ranch Hand: The Air Force and Herbicides in Southeast Asia 1961–1971', *Office of Air Force History*, 1982 (arguing that the defoliation program was intended to only destroy crops destined for Vietcong or North Vietnamese fighters).
[430] Cusato (2018), p. 515.

shortages.[431] There is evidence that the harm to the civilian population significantly exceeded any military impact on the opposing military forces, as most of the food destroyed by the crop destruction tactics was destined for civilians.[432]

Using Poisonous Weapons, or Asphyxiating, Poisonous or Other Gases, Liquids, Materials, or Devices The war crimes of using poison or poisonous weapons;[433] or asphyxiating, poisonous or other gases, and all analogous liquids, materials, or devices,[434] could be used to prosecute environmental harm where the substance caused serious damage to the environment and was of a nature 'such that it causes death or serious damage to health in the ordinary course of events, through its toxic properties'. These prohibitions apply in both international and non-international armed conflicts, following the amendments to article 8 proposed by Belgium and adopted at the Kampala Conference in 2010.[435]

These provisions are based on the 1925 Geneva Protocol on Gas, Chemical and Bacteriological Warfare. In its Resolution 2603, the General Assembly, prompted by the American use of herbicides during the Vietnam War, declared that the 1925 Protocol prohibited the use, in international armed conflicts, of '[a]ny chemical agents of warfare, chemical substances, whether gaseous, liquid or solid, which might be employed because of their direct toxic effects on man, animals, or plants'.[436] However, the United States has maintained that the use of herbicides to conduct military defoliation and crop destruction campaigns is not prohibited by the 1925 Geneva Convention, nor the Hague Regulations nor customary international law, 'provided that their use against crops does not cause such crops as food to be poisoned

[431] Krache Morris (2012), pp. 272, 278.
[432] Craig Johnstone, 'Ecocide and the Geneva Protocol' (1971) 49(4) *Foreign Affairs* 711, 719 cited in Falk (1973), p. 12.
[433] Rome Statute, articles 8(2)(b)(xvii) and 8(2)(e)(xiii) (applicable in an international and non-international armed conflict, respectively).
[434] Rome Statute, articles 8(2)(b)(xviii) and 8(2)(e)(xiv) (applicable in an international and non-international armed conflict, respectively).
[435] For the nuances as to the Belgian proposal of amendment and the approach at the Assembly of State Parties, see Robin Geiß, in Triffterer and Ambos (2016), p. 569.
[436] A/Res/2603, 'Question of Chemical and Bacteriological (biological) Weapons', 16 December 1969, clarifying the scope of the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, 17 June 1925, quoted in Cusato (2018), p. 503. See also Falk (1973), p. 12 (arguing that the US defoliation program was a violation of the 1925 Convention).

by direct contact, and such use must not cause unnecessary destruction of enemy property'.[437]

Under the ICC Elements of Crimes, these prohibitions are ostensibly framed in terms of harm to humans, as they require that the substance must be one that causes death or serious damage to health due to its toxic properties in the ordinary course of events (though the Elements of Crimes do not explicitly refer to 'human' health).[438] The prohibition on using poisonous weapons is partly based on article 23(a) of the Hague Regulations of 1907, which was conceived to address substances that are poisonous to humans, rather than to plants.[439] Nonetheless, if the environment were harmed in connection with the use of such substances during armed conflict, these prohibitions could potentially apply.

2.3.4 Aggression

In addition to genocide, crimes against humanity and war crimes, the ICC has jurisdiction over the crime of aggression.[440] Although aggression was referred to in article 5 of the Rome Statute in 1998, this was a placeholder so its definition could be agreed upon at that time. Over the ensuing years, the Special Working Group on the Crime of Aggression formulated a substantive definition and trigger mechanisms, which were eventually adopted in articles 8*bis*, 15*bis*, and 15*ter* of the Rome Statute during the review conference of the ICC in 2010.[441] Since then, these aggression amendments have received the necessary thirty ratifications by states parties and were activated in 2018.[442]

The definition of aggression set out in article 8*bis* of the Rome Statute involves a two-step assessment: first whether there has been an act of aggression, and then whether the additional requirements are established

[437] Letter from J. Fred Buzhardt, General Counsel to the Department of Defense to Senator J. William Fulbright, 5 April 1971, quoted in Falk (1973), pp. 10–11.
[438] Rome Statute, Elements of Crimes, element 2, articles 8(2)(b)(xvii), 8(2)(b)(xviii), 8(2)(e)(xiii), and 8(2)(e)(xiv), Pp. 26, 41.
[439] Schwabach (2004), pp. 9–10.
[440] Rome Statute, articles 5, 8*bis*.
[441] See Matthew Gillett, 'The Anatomy of an International Crime: Aggression at the International Criminal Court' (2013) 13 (4) *International Criminal Law Review* 829 ('Gillett Aggression (2013)').
[442] Resolution ICC-ASP/16/Res.5, 'Activation of the Jurisdiction of the Court over the Crime of Aggression', 14 December 2017, para. 1. The resolution had been proposed by the Assembly of States Parties, Draft resolution proposed by the Vice-Presidents of the Assembly, 'Activation of the Jurisdiction of the Court over the Crime of Aggression', 14 December 2017, ICC-ASP/16/L.10, para. 1.

to show that the act of aggression amounted to the crime of aggression. Whereas an act of aggression is a form of State conduct, the crime of aggression focusses on individual criminal responsibility.[443]

An act of aggression under this definition refers to the 'use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations'.[444] Article 8*bis* provides several enumerated examples of specific acts of aggression, ranging from direct invasions of other States to allowing territory to be used by other States to launch attacks on victim States.[445]

Some forms of environmental harm could conceivably qualify under the Rome Statute definition of aggression. First, harm to a State's environmental features could be considered an attack on its territory and therefore an attack on the State itself.[446] Second, an attack on an 'essential interest' of a State could potentially be considered an attack on the State itself. In the context of the doctrine of necessity, the International Law Commission has commented that 'safeguarding the ecological balance has come to be considered an "essential interest" of all States'.[447] The International Court of Justice relied on the International Law Commission's observations in this respect in the *Gabčikovo-Nagymaros project* case, recognizing that Hungary's environmental integrity in the region affected by the project would constitute an 'essential interest' for the purposes of the law of necessity.[448] Consequently, there are multiple bases on which a serious attack on a State's natural environment could be found to constitute an attack on the State itself.[449]

Looking to modalities by which environmental harm may constitute aggression, there are several scenarios that would potentially meet the

[443] Gillett Aggression (2013), p. 837
[444] Rome Statute, article 8*bis*.
[445] Rome Statute, article 8*bis*(2).
[446] See 1974 General Assembly Resolution 1803 on Permanent Sovereignty over Natural Resources.
[447] Yearbook of the International Law Commission, 1980, Vol. II, Part 2, Commentary to Art. 33 State of Necessity, p. 39, para. 14.
[448] ICJ: *Gabčikovo-Nagymaros Project, Hungary v. Slovakia* (Judgment, Merits), 25 September 1997, ICJ GL No 92, [1997] ICJ Rep 7, para. 53. See also Freeland (2015), p. 12.
[449] Correspondingly, States that allow environmentally deleterious impacts to emanate from their territory onto others' can be held liable under international law; see ICJ: Nuclear Weapons Advisory Opinion, para. 29.

definition under article 8*bis* of the Rome Statute. The *locus classicus* of an intertwined act of aggression and attack on the environment is the invasion of Kuwait and burning of its oil wells by Saddam Hussein's forces in 1990–1, as detailed in the case study in Chapter 5, Section 5.1.2. Additionally, for example, if a State sent its armed forces to poison the water supplies of another State (presuming there was no counter-veiling justification for the attack), it may constitute an invasion under article 8*bis*(2)(a) or the equivalent sending of forces under (2)(g). Equally, a nuclear attack on another State resulting in severe environmental harm would likely qualify as an armed attack, and, presuming there was no sufficient justification, aggression.[450] Moreover, sending planes to aerially spray forested areas and remove canopy cover in another State (typically a preparation for further bombing or aerial attacks) could potentially constitute an armed attack. If such acts were accompanied by the direct delivery of munitions against armed forces and/or the population of the victim State, it would clearly qualify as an act of aggression (subject to any considerations of self-defence and other such principles). In this respect, the Russell Tribunal, which was a form of 'people's court' rather than any type of formal international organization, found that the American actions in Vietnam amounted to an act of aggression. However, it grouped all of the American means of bombardment under this heading and did not specifically assess whether the environmentally harmful chemical spraying would, in and of itself, constitute an act of aggression.[451] A more clear-cut case is Saddam Hussein's invasion of Kuwait and subsequent commission of extensive environmental harm on its territory. These acts would constitute an example of aggression intertwined with environmental destruction, wrought on a sufficiently egregious scale as to justify international criminal condemnation.

A more contentious type of scenario would involve harm to another State's territory through pollution across waterways, air or land. Although States are under an obligation not to allow emissions from

[450] See ICJ: Nuclear Weapons Advisory Opinion, para. 35. Note that the ICJ could not definitively conclude that the use or threat of use of nuclear weapons is per se prohibited under international law, albeit indicating that it would be a violation in almost all conceivable circumstances; paras. 95, 193–5.

[451] Reports from the sessions of the International War Crimes Tribunal founded by Bertrand Russell 1971 (available at https://big-lies.org/vietnam-war-crimes/russell-vietnam-war-crimes-tribunal-1967.html#v1119-verdict-sartre).

their territory to harm the environment of other States, as discussed in this chapter in relation to the *Trail Smelter* arbitration among other sources, violations of these obligations would not per se constitute aggression due to the requirement of showing *armed force* in the definition of aggression under article 8*bis*.

2.4 Conclusion on the International Criminal Court's Substantive Crimes and Environmental Harm

The preceding survey shows that the Rome Statute's Preamble and the Court's substantive provisions are anthropocentrically oriented.[452] The subject-matter jurisdiction of the ICC does not directly address harm to the environment, apart from in article 8(2)(b)(iv). However, that provision only applies in international armed conflict, and is constricted by elements, particularly the proportionality test, which renders the likelihood of any conviction thereunder negligible. Moreover, it elevates anthropocentric interests in securing military advantage over ecocentric interests.[453] In this manner, the anthropocentric nature of the Rome Statute's orientation prejudices, and virtually excludes, the chances of direct convictions on charges of damaging the natural environment.[454] The substantive crimes indicate that the ICC is essentially a court designed to redress harm to humans and their property, rather than a court designed to address harm to the environment.

Nonetheless, there are several anthropocentric crimes under the Rome Statute, ranging from war crimes to crimes against humanity to genocide, which could be used to provide incidental protection to the environment. A number of commentators maintain that these anthropocentric provisions provide a viable and effective means to curb environmental damage.[455] Using the anthropocentric provisions would have the advantage of avoiding the restrictions of the ostensibly ecocentrically framed article 8(2)(b)(iv). However, prosecution under these provisions alone would leave the full extent of the harm to the environment per se unrecognized. It would result in environmental harm only being addressed and condemned indirectly as an offshoot of harm to human beings and their property, if at all.

[452] See, e.g., Durney (2018), p. 414; Freeland (2015), pp. 242, 277.
[453] See Gilman (2011), pp. 450, 457. See also Freeland (2015), p. 222.
[454] Durney (2018), p. 415; Freeland (2015), pp. 212–16.
[455] See, e.g., Weinstein (2005), pp. 698, 712–22; Cusato (2018), p. 499.

As noted in Chapter 1, Section 1.3.2.2, international criminal law has an important declaratory (expressivist) function; it records the human race's moral opprobrium against the most serious crimes of concern to the international community as a whole. In this sense, adding a criminal prohibition of environmental harm, such as that in the Proposed Definition in Chapter 6, Section 6.4, would serve not only the expressivist goal of criminal justice (social disapproval and reinforcement of norms),[456] but also the utilitarian goal (general and special prevention), through the increased awareness of the international condemnation of this conduct. It would additionally provide a basis for possible criminal cases which would serve the retributivist goal (the so-called 'just desserts' aim of criminal law).[457]

Regarding the adjudicative coherence of the Court's framework when applied to environmental harm, the substantive provisions do not per se demonstrate inherently unworkable contradictions in this respect. Although the war crime in article 8(2)(b)(iv) is extremely curtailed, it does not indicate adjudicative incoherence per se. Its terms could conceivably result in a conviction for harm to the environment, albeit in extremely rare circumstances. The limited possibility of such a conviction does not contradict or undermine any explicit goal set out in the Preamble to the Rome Statute, but rather reaffirms that environmental interests are subordinated to anthropocentric ones under the ICC framework. Similarly, the prosecution of environmental harm under the rubric of anthropocentric crimes like genocide, crimes against humanity, and other war crimes does not indicate adjudicative incoherence per se.

Notwithstanding the possibility of prosecuting environmental harm in this anthropocentric manner, the tension generated by squeezing environmental harm into provisions founded on anthropocentric values, and the resulting de-prioritization of environmental harm, will compound with the more intractable instances of adjudicative incoherence discussed below in relation to the investigation, fact-finding, and evidentiary standards as well as the approach to victim's participation and reparation in ICC proceedings involving environmental harm. To the extent the substantive elements of the crimes and the idiosyncratic procedures applicable at the ICC prove incompatible with effective prosecutions of

[456] Drumbl (2009), pp. 21–2.
[457] Kai Ambos, *Treatise on International Criminal Law, Vol.1: Foundations and General Part* (Oxford University Press, 2013), pp. 67–73.

environmental harm, any ecocentric symbolism of attempting such a case will be undermined and will potentially destabilize the Court's credibility in addressing its core crimes. Identifying areas of incompatibility in advance is critical in order to maximize the potential ecocentric message that the Court may convey while avoiding undermining its anthropocentric foundational aims.