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Prosecuting environmental harm before the International Criminal Court

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Prosecuting Environmental Harm before the International Criminal Court

Matthew Grant Gillett

Prosecuting Environmental Harm before the International Criminal Court

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	prof. dr. J.W. Ouwerkerk
	dr. J.C. Powderly

To my daughter Eloise, who inspired me to seek means to defend the natural environment for the sake of present and future generations

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I. OVERVIEW OF PROSECUTING ENVIRONMENTAL HARM BEFORE THE INTERNATIONAL CRIMINAL COURT

A. Introduction

In the seventeenth century, the eminent international law publicist Hugo Grotius recalled the maxim that "if trees could speak, they would cry out that since they are not the cause of war it is wrong for them to bear its penalties".[1] In the intervening centuries, anthropogenic harm to the environment has continued to occur, rising to potentially cataclysmic levels. Scientists have described the current era as "the sixth mass extinction" and "biological annihilation", at the same time warning that the anthropogenic extirpation and decimation of living species is even worse than previously thought.[2] This harm to the environment is inflicted by various means including deforestation, poaching, toxic dumping, fracking, unregulated mineral extraction, forest fires, military conflicts, carbon dioxide emissions, and myriad other sources. While it is increasingly documented and publicized, it has not been adequately addressed at the international level.

Environmental destruction is an all too foreseeable occurrence during times of societal upheaval, particularly during armed conflict. In violent circumstances, environmental protections are quickly forgotten as warring factions, profit-seeking corporations, and unscrupulous individuals scramble to control and exploit the natural environment, or even deliberately harm it for strategic purposes. Regulatory bodies that should be protecting the environment are either non-existent or non-functional, leaving environmental protections unenforced.[3] The vicious cycle of environmental destruction and armed conflict can be self-

[1] Hugo Grotius, *On the Law of War and Peace* (1646) (Francis W Kelsey trans, William S. Hein & Co., 1995), p.747 (under the heading "Concerning Moderation in regard to the spoiling the Country of our Enemies, and such other Things", Grotius attributes this to Josephus); *cited in* John Cohan, "Modes of Warfare and Evolving Standards of Environmental Protection Under the International Law of War", 15 *Fla. J. Int'l L.* 481 (2002-2003) ("Cohan (2002)"), p.500.

[2] Gerardo Ceballosa, Paul R. Ehrlich, and Rodolfo Dirzo, "Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines", *Proceedings of the National Academy of Sciences of the United States of America*, May 2017, p.1.

[3] See United Nations Office of Drugs and Crime, *Wildlife and Forest Crime Analytic Toolkit*, 2012 ("UNODC Toolkit (2012)"), p.3. United Nations Environment Program, *Environmental Issues in Areas Retaken from ISIL Mosul, Iraq Rapid Scoping Mission July - August 2017*, p.4 ("UNEP (2017)") (noting that in Iraq once ISIS took control of areas, environmental bodies and training were discontinued: e.g. "Niniveh Environment Directorate was immediately disbanded by ISIL and its offices, laboratories and assets confiscated. Ordered not to return to work, its 140 staff were jobless for three years.").

perpetuating,[4] "particularly in countries where laws and institutions have been weakened or have collapsed".[5]

The harmful effects of armed conflict on the environment are well documented.[6] While the history of harm to the environment stretches back millennia,[7] the issue was thrust to the forefront of public consciousness with the use of environmental destruction as a war tactic in the form of large-scale chemical defoliation operations (using Agent Orange) by America during the Vietnam War in the 1960s and 1970s.[8] During the Iran-Iraq war in the 1980s, hundreds of oil tankers were attacked on both sides, releasing over two million tonnes of oil into the sea.[9] Environmental harm returned to the limelight during the first Gulf War in 1991, when Saddam Hussein ordered the Iraqi army to ignite Kuwait's oil wells.[10] Over two decades

[4] See United Nations Security Council Resolution 1856 recognised this connection, stating that "the link between the illegal exploitation of natural resources, the illicit trade in such resources and the proliferation and trafficking of arms as one of the major factors fuelling and exacerbating conflicts in the Great Lakes region of Africa, and in particular in the Democratic Republic of Congo."; UNSC Resolution 1856, S/RES/1856 (2008), 22 December 2008, p.2. See further UN Environment Programme, *Sudan post-conflict environmental assessment*, (UNEP, Geneva), 2007 (noting that in Darfur the variability of the regional climate, water scarcity, and the reduction of fertile land have been, along with other factors, important underlying factors of the armed conflict).

[5] UNEP Study (2009), p.3-4, 8. See also Daniëlla Dam-de Jong, *International law and governance of natural resources in conflict and post-conflict situations,* Cambridge University Press (2015) ("Dam-de Jong (2015)"), pp.2-3, 200.

[6] In 1992, the United Nations General Assembly recognised the dangers of armed conflict for the environment, stating that "the use of certain means and methods of warfare may have dire effects on the environment", United Nations General Assembly Resolution on the Protection of the Environment in Times of Armed Conflict, A/RES/47/37, 25 November 1992. In 2009, after studying the impact of armed conflict on the environment, the United Nations Environment Program has concluded that "armed conflicts have continued to cause significant damage to the environment – directly, indirectly and as a result of a lack of governance and institutional collapse."; United Nations Environment Program, *Protecting the Environment During Armed Conflict, An Inventory and Analysis of International Law*, 2009 ("UNEP Study (2009)"), p.8.

[7] 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."); See Yousuf Aboul-Enein and Sherifa Zuhur, *Islamic Rulings on Warfare*, Strategic Studies Institute, US Army War College (Diane Publishing Co.: Darby Pennsylvania, 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.").

[8] Ines Peterson, "The Natural Environment in Times of Armed Conflict: A Concern for International War Crimes Law?", *Leiden Journal of International Law*, 22 (2009) ("Peterson (2009)"), p.325; Yoram Dinstein, Protection of the Environment in International Armed Conflict, 5 *Max Planck Y.B. U.N. L.* 523 2001 ("Dinstein (2001)"), p.538.

[9] Dinstein (2001), p.524, footnote 3.

[10] Peterson (2009), p.342; Michael Schmitt, "Green War: An Assessment of the Environmental Law of International Armed Conflict", 22 *Yale J. Int'l L.* 1 (1997), pp.19, 75. Sylvia Earle, "Persian Gulf Pollution: Assessing the Damage One Year Later", *Nat'l Geographic*, February 1992, p.122, *cited in* Schmitt (1997), p.19. See also Neil Popović, "Humanitarian Law, Protection of the Environment, and Human Rights", 8 *Geo. Int'l Envtl L. Rev*. 67 (1995-1996) ("Popović (1995-1996)"), p.70.

later, reports emerged in 2016 that Islamic State or associated forces have engaged in similar scorched earth type tactics – setting oil wells, forests, and other locations on fire in Iraq, releasing a heavy volume of pollutants into the atmosphere.[11] Similarly, the phenomenon of illicit exploitation of natural resources has been linked to several armed conflicts, both as a cause of the fighting and as a means of continuing the fighting.[12] After conducting over twenty post-conflict environmental impact assessments since 1999, the United Nations Environment Programme (UNEP) has found that armed conflict causes significant harm to the environment and to communities that depend on natural resources.[13]

Environmentally destructive practices also occur outside of armed conflict. In 1992, the President of the UNSC concluded that "[t]he absence of war and military conflicts amongst States does not in itself ensure international peace and security. The non-military sources of instability in the economic, social, humanitarian and ecological fields have become threats to international peace and security."[14] Toxic dumping,[15] wildlife exploitation,[16] and other

[11] See United Nations Office for the Coordination of Humanitarian Affairs, situation report of 19 October 2016: Mosul Humanitarian Response Situation Report number 1 (17 – 19 October 2016) [EN/AR/KU] ("UNOCHA Iraq report 2016") (noting that "In the rural areas south-east of Mosul, 19 oil wells have been set ablaze by retreating armed groups in the area south of Mosul, specifically around the town of Al Qayyarah. People arriving to Al Qayyarah seeking refuge face serious health risks. Burning crude oil produces a wide range of pollutants, including soot and gases."); Eliana Cusato, ISIL's Scorched Earth Policy in Iraq: Options for its Victims to be Recognised under International Law, 11 October 2017, (available at http://www.trwn.org/isils-scorched-earth-policy-in-iraq-international-law/) ("Cusato Scorched Earth"). See also Peter Schwartzstein, "The Islamic State's Scorched-Earth Strategy", *Foreign Policy*, 6 April 2016, http://foreignpolicy.com/2016/04/06/the-islamic-states-scorched-earth-strategy/ ("Schwartzstein (2016)").

[12] See, *e.g.*, Daniëlla Dam-de Jong and James Stewart, "Illicit Exploitation of Natural Resources", *The African Court of Human and Peoples' Rights* (C Jalloh and K Clarke eds.) (2017) ("Dam-de Jong and Stewart (2017)"), pp.2-3 ("In armed conflicts in Angola, Sierra Leone, Côte d'Ivoire, the DR Congo and the Central African Republic, natural resources did not necessarily provide the sole means or motivations for armed violence, but they were at least one of several important causal factors that helped sustain bloodshed.").

[13] UNEP Study (2009), pp.3-4, 8.

[14] Statement by the President of the United Nations Security Council (United Kingdom), 3046th meeting, 31 January 1992: http://www.un.org/en/sc/repertoire/89-92/Chapter%208/GENERAL%20ISSUES/Item%2028_SC%20respons%20in%20maint%20IPS.pdf (last checked 22 December 2017). See also United Nations Press Release of 17 April 2007, SC/9000, "Security Council Holds First-Ever Debate on Impact of Climate Change on Peace, Security, Hearing over 50 Speakers" (noting statement of UNSC President (United Kingdom) concerning climate change and its implications – finding that it is a threat multiplier, including in relation to armed conflict: (available at https://www.un.org/press/en/2007/sc9000.doc.htm) (last checked 22 December 2017); Statement of United Nations Secretary-General Ban-Ki Moon, *Remarks to Security Council Debate on Water, Peace and Security*, 22 November 2016: https://www.un.org/sg/en/content/sg/speeches/2016-11-22/remarks-security-council-debate-water-peace-and-security (last checked 22 December 2017).

[15] Skinnider, Victims of Environmental Crime – Mapping the Issues (2011), ("Skinnider (2011)"), p.30. Accusations have been submitted to the ICC that Chevron was responsible for toxic dumping and pollution in Ecuador from the 1960s through to the 1990s: Request to the Office of the Prosecutor of the ICC from the Legal Representatives of the Victims, "Communication: Situation in Ecuador", 23 October 2014, available at chevrontoxico.com/assets/ docs/2014-icc-complaint.pdf; N. Cely, 'Balancing Profit and Environmental Sustainability in Ecuador: Lessons Learned from the Chevron Case', (2014) 24 Duke Environmental Law & Policy Forum 353, at 354.

harmful practices are frequently perpetrated outside of armed conflict,[17] particularly in circumstances of regulatory breakdown or collapse.[18] Mégret argues that "[t]he devastation sown by some human activities under the cover of peace is occasionally far greater than that caused in war."[19]

In light of these demonstrated forms of harm to the environment, as well as emerging new threats, environmental protection is one of the core goals and challenges facing the international community in the twenty-first century.[20] Environmental harm is a cross-sectoral problem, implicating several legal domains, conventional regimes, and enforcement mechanisms.[21] International criminal law presents one potential means of addressing serious environmental harm, as part of a comprehensive approach also involving other non-penal frameworks. As a relatively new branch of international law, international criminal law seeks to deter harmful conduct by addressing large-scale atrocities and imposing "responsibilities directly on individuals and punishes violations through international mechanisms."[22] It focuses on the most serious crimes known to humanity, which tends to also be considered as *jus cogens*, such as the prohibitions of torture and genocide. Hence, a symbolic, or expressivist, function is served by condemning large-scale harm to the environment through criminal sanctions, as it signals the gravity of the international community's opprobrium concerning such conduct.[23]

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[16] European Union Action to Fight Environmental Crime, *The Illegal Wildlife Trade: A Case Study Report on the Illegal Wildlife Trade in the United Kingdom, Norway, Colombia and Brazil*, 2015 ("European Union Action to Fight Environmental Crime (2015)"), p.1.

[17] Frédéric Mégret, "The Problem of an International Criminal Law of the Environment", 36 *Colum. J. Envtl. L.* 195 (2011), pp.246-247.

[18] Skinnider (2011), pp.27-28; UNODC Toolkit (2012), p.3.

[19] Mégret (2011), pp.246-247.

[20] See*, e.g.*, the Sustainable Development Goals, which set the global agenda in the lead up to 2030, and many of which directly or indirectly concern environmental protection; e.g. Goal 6 (clean water and sanitation); Goal 7 (affordable and clean energy); Goal 11 (sustainable cities and communities); Goal 12 (responsible consumption and production); Goal 13 (climate action); Goal 14 (life below water); Goal 15 (life on land).

[21] Eliana Teresa Cusato, "Beyond Symbolism: Problems and Prospects with Prosecuting Environmental Destruction before the ICC", *Journal of International Criminal Justice*, Volume 15, Issue 3, 1 July 2017, ("Cusato 2017"), 491–507, p.492.

[22] Robert Cryer et. al., *An Introduction to International Criminal Law and Procedure*, 2nd ed., Cambridge University Press, 2010, ("Cryer et. al. (2010)"), p.3.

[23] See, e.g., United Nations Economic and Social Council, Resolution 1993/28, "The role of criminal law in the protection of the environment", Annex: Conclusions of the Seminar on the Policy of Criminal Law in the Protection of Nature and the Environment in a European Perspective, held at Lauchhammer, Germany, from 25 to 29 April 1992, para.4 ("criminal law can have a general and special preventive effect and may, by its moral stigma, heighten environmental awareness"). Cusato (2017), text accompanying footnote 64 (referring to the expressivist function of using international institutions to prosecute environmental harm and citing M. Drumbl, Accountability for Property Crimes and Environmental War Crimes: Prosecution, Litigation, and Development (International Center for Transitional Justice, November 2009), at 21-22. Condemnation of environmental harm in international judgements will assist to counter-balance the traditional view of crimes against the environment

Further practical and conceptual reasons augur in favour of applying international criminal law to environmental harm. Environmentally harmful practices usually do not end at national borders.[24] Instead, environmental harm typically has cross-frontier ramifications and so lends itself to international solutions.[25] In relation to natural heritage sites, meaning those environmental features of outstanding universal value, the World Heritage Convention notes the sovereignty of the States on whose territory the heritage is situated, but also recognizes that "such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate."[26] The recognition of the "common concern of mankind" provides the conceptual basis for international criminal law to be applied to cases of serious environmental harm.[27] On a more practical note, international law provides a residual framework to address the *lacunae* in the regulatory coverage, particularly in locations with weak or non-existent/enforced regulatory regimes,[28] where "the odds of getting caught are extremely low, and the possibility of being convicted is virtually non-existent."[29]

Calls for the use of international criminal law to address serious environmental harm, which the United Nations is increasingly echoing,[30] will increase in quantity and urgency over the

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as less serious than anthropocentric crimes, as epitomized by United Kingdom Viscount Dilhorne in his statements that pollution of a river is typical of "acts which "are not criminal in any real sense, but are acts which in the public interest are prohibited under a penalty."; *Alphacell Ltd v Woodward* [1972] AC 824 (Opinion of Viscount Dilhorne).

[24] OHCHR Report Analytical Study on the Relationship between Human Rights and the Environment, A/ HRC/ 19/ 34, para.65 ('One country's pollution can become another country's environmental and human rights problem, particularly where the polluting media, like air and water, are capable of easily crossing boundaries."); Philippe Sands, *Principles of International Environmental Law*, 2nd ed. (Cambridge University Press, 2003) ("Sands (2003)"), p.14 ("Many natural resources and their environmental components are ecologically shared. The use by one state of natural resources within its territory will invariably have consequences for the use of natural resources and their environmental components in another state.").

[25] Tim Stephens, *International Courts and Environmental Protection*, (Cambridge University Press), 2009, p.54 *citing* Ian Brownlie, "A Survey of International Customary Rules of Environmental Protection", (1973), 13 *Nat Res J* 179, 183. See also Mégret (2011), p.245.

[26] World Heritage Convention 1972, article 6.

[27] Mégret (2011), p.245.

[28] See Gregory Rose, Following the Proceeds of Environmental Crime: Fish, Forests and Filthy Lucre, Routledge (2014), ("Rose (2014)"), p.19 (noting that transnational environmental crime can erode good governance and the institutions of state). However, the lack of functioning authorities in areas suffering from serious conflict can also hamper international investigations; John Cooper et. al., "Wildlife crime scene investigation: techniques, tools and technology", *Endangered Species Research*, (2009) ("Cooper et. al. (2009)"), p.5-6. This is particularly problematic given that the ICC lacks any deployable police force or military of its own and must largely rely on domestic authorities for cooperation in order to conduct its investigations; Schabas (2011), p.261.

[29] UNODC Toolkit (2012), p.3.

[30] See, e.g., United Nations General Assembly Resolution 69/314, A/RES/69/314, "Tackling illicit trafficking in wildlife", 30 July 2015 ("illicit trafficking in protected species of wild fauna and flora is an increasingly sophisticated form of transnational organized crime…and therefore underlining the need to combat such crimes by strengthening international cooperation, capacity-building, criminal justice responses and law enforcement efforts.").

coming years.[31] The ICC Prosecution's 2016 guidelines on case selection state that it will prioritize cases involving significant harm to the environment, by giving "particular consideration to crimes that are committed by means of, or that result in, *inter alia*, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land."[32] In signaling a focus on both the destruction of the environment itself and the use of environmental destruction to perpetrate other crimes, the Prosecution's guidelines recognise the dual significance of the natural environment, both as a phenomenon of global value *per se* and as a potential vector for serious harm to human life and well-being. Against this backdrop, it is timely to examine the ICC's ability to redress environmental harm.

B. Research questions

This thesis examines the feasibility of prosecuting environmental harm under the Rome Statute and associated instruments that govern the jurisdiction and proceedings of the ICC. The assessment maps out the existing provisions and principles that could be used to prosecute environmental harm. At the same time, it identifies potential limitations inherent in the Court's governing instruments that could prejudice or undermine any attempt to prosecute environmental harm.

The central focus of the following analysis is on the ICC. As the only institution capable of applying international criminal with potentially unlimited geographic jurisdiction (*ratio loci*),[33] and potentially unlimited temporal jurisdiction from 1 July 2002 onwards, the ICC constitutes the most instructive framework to test the potential for prosecuting environmental harm under international law. The ICC also bears considerable potential for the prosecution of environmental harm due to its expansive reach over individuals; its modes of liability and

[31] Rose (2014), p.16 ("growing attention to transnational environmental crime as a problem of legality and criminality, rather than just environmental management and non-compliance, confirms that this is one of the fastest growing areas of criminal endeavour.").
[32] ICC, Office of the Prosecutor's Policy Paper on Case Selection and Prioritisation, 15 September 2016 ("OTP 2016 Case Selection Paper"), para.41. See also ICC, Office of the Prosecutor's Policy Paper on Preliminary Examinations, November 2013 ("OTP 2013 Preliminary Examination Policy Paper"), para.65 ("The impact of crimes may be assessed in light of, *inter alia*, the sufferings endured by the victims and their increased vulnerability; the terror subsequently instilled, or the social, economic and environmental damage inflicted on the affected communities.").
[33] Where the Security Council, acting under Chapter VII of the United Nations Charter, refers a situation to the ICC under article 13(b) of the Rome Statute, the usual geographic or personal jurisdictional link to a State Party is not required; meaning that the Court has potentially unlimited geographic reach in these circumstances: *Rome Statute of the International Criminal Court*, opened for signature 17 July 1998, 2187 UNTS 90 (entered into force 1 July 2002) ("Rome Statute"), article 13(b).

coverage of superior responsibility allow for proceedings against individuals who perpetrate or participate in serious crimes in a variety of ways including committing, ordering, inducing, soliciting, aiding and abetting, and otherwise contributing to criminal groups carrying out atrocities.[34]

In exploring the potential use of the Rome Statute and associated instruments (collectively termed the Rome System herein) to adjudicate environmental harm, the study focuses on the following research questions:

- To what extent are the legal framework and provisions of the ICC, particularly the substantive crimes, jurisdictional parameters, rules of procedure and evidence, and law governing victim status and reparations, conceived anthropocentrically,[35] as opposed to eco-centrically?[36];

- Does the orientation of the Court's substantive and procedural framework and its framework for victim redress preclude or significantly prejudice proceedings for environmental harm? This is tested by analyzing whether the substantive and procedural framework of the ICC results in *adjudicative incoherence*[37] when applied to environmental crimes, particularly military attacks resulting in excessive environmental harm, toxic dumping and wildlife offences?

A note of caution is due at the outset. International criminal law is no panacea for the environmentally harmful practices occurring throughout many areas of the world. Given the resources available at the ICC, it will only ever be able to address a minute fraction of the crimes that potentially fall within its jurisdiction.[38] For this reason, the use of international criminal law proceedings should not be seen as a replacement for other measures and mechanisms established to address environmental harm, whether legal or political,[39] but

[34] William Schabas, *An Introduction to the International Criminal Court*, (4th ed., Cambridge University Press 2011) ("Schabas (2011)"), p.225.
[35] Anthropocentric, or human-centered, values, are those designed to minimize unnecessary human suffering; see Schmitt (1997), pp.6, 56, 62. See Infra, Chapter I.D on Definitional Underpinnings.
[36] Eco-centric values are those that see the environment as having an intrinsic value, irrespective of whether human beings suffer as a result of its destruction; See *for example* Eric Jensen, "The International Law of Environmental Warfare: Active and Passive Damage During Armed Conflict, 38 *Vand. J. Transnat'l L.* 145 (2005). See infra, Chapter I(D) on Definitional Underpinnings.
[37] See infra, Chapter I(C)(3) on Adjudicative Coherence.
[38] This framework is narrow and will inevitably fall short of addressing the "full panoply of issues implicated in most environmental disputes", particularly in light of the "polycentric" nature of environmental harm, involving "a web of competing values and interests"; See Stephens (2009), p.95 and citations therein.
[39] See Council of Europe, *Convention on the Protection of the Environment through Criminal Law*, ETS No. 172, 4 November 1998, Preamble ("Recognising that, whilst the prevention of the impairment of the

instead is tested here as a potential complementary mechanism, used to reinforce those other primary mechanisms under international law designed to protect the environment.[40]

C. Approach

1. Sources of law

The use of international criminal law to address serious environmental harm is relatively untraversed territory. There is no specific or comprehensive regime that directly applies criminal sanctions to environmental harm under international law. Consequently, this analysis surveys the existing legal framework of the ICC for its applicability to environmental harm. Consistent with the approach within the ICC, the hierarchy of sources of law set out in article 21 of the Rome Statute is generally the framework for the assessment, albeit with complementary references to additional legal sources where relevant for illustrative purposes.[41] The framework set out in article 21 applies to both substantive and procedural aspects of the Rome Statute and accompanying instruments such as the Rules of Procedure and Evidence.

In accordance with article 21(1)(a), the analysis looks first to the Rome Statute of the ICC, the Rules of Procedure and Evidence, and the Elements of Crimes.[42] As part of the framework, it includes the Regulations of the Court, which are adopted by the Judges of the Court to govern its "routine functioning" pursuant to article 52 of the Statute.[43]

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environment must be achieved primarily through other measures, criminal law has an important part to play in protecting the environment."); United Nations Economic and Social Council, Resolution 1993/28, "The role of criminal law in the protection of the environment", Annex: Conclusions of the Seminar on the Policy of Criminal Law in the Protection of Nature and the Environment in a European Perspective, held at Lauchhammer, Germany, from 25 to 29 April 1992, para.3 ("In addition, criminal law should play a flanking and supporting and, where appropriate, independent role").

[40] Danai Papadopoulou, "The Role of French Environmental Associations in Civil Liability for Environmental Harm: Courtesy of Erika", *Journal of Environmental Law* 21:1 (2009), 87-112, p.95 (noting that environmental associations reported preferring the use of civil proceedings to criminal proceedings due to the more amenable standards and burdens in the civil jurisdiction.).

[41] Rome Statute of the International Criminal Court, adopted on 17 July 1998 (entry into force: 1 July 2002), *2187 UNTS 90* ("Rome Statute").

[42] Rome Statute, article 21(1)(a). It should be noted that the Elements of Crimes are not binding, but instead designed to "assist the Court in the interpretation and application of articles 6 (genocide), 7 (crimes against humanity) and 8 (war crimes)"; Rome Statute, article 9. Given its specific focus on the Elements of Crimes, article 9 appears to be *lex specialis* as compared to article 21(1); Knut Dormann et. al., *Elements of Crimes under the Rome Statute of the International Criminal Court: Sources and Commentary*, Cambridge University Press (2004), p.8. See also Gilbert Bitti, "Chapter 18: Article 21 and the Hierarchy of Sources of Law before the ICC", in Carsten Stahn, *The Law and Practice of the International Criminal Court*, (Oxford University Press, 2015) ("Stahn 2015"), p.411.

[43] Rome Statute, article 52. As to the significance of the Regulations, see Claus Kreß, 'The Procedural Texts of the International Criminal Court', (2007) 5 *Journal of International Criminal Justice*, p.537.

As a secondary source, the analysis looks to applicable treaties and rules and principles of international law, including customary international law.[44] This adheres to the approach mandated under article 21(1)(b) of the Rome Statute. Statutes and rules of other international courts and quasi-judicial bodies, as well as United Nations Security Council, and General Assembly resolutions, are discussed where relevant for the interpretation of the ICC's instruments and customary international law.[45]

Article 21(1)(b) makes explicit reference to the law of armed conflict.[46] The law of armed conflict is also known as international humanitarian law, and the law of war, and consists of

> "a set of rules which seek, for humanitarian reasons, to limit the effects of armed conflict. It protects persons who are not or are no longer participating in the hostilities and restricts the means and methods of warfare."[47]

In protecting non-combatants and restricting the means and methods of warfare, international humanitarian law also provides a measure of protection against environmental harm, both directly and indirectly.[48] In addition to the express prohibitions against environmental harm, the ICJ has confirmed that the underlying principles of necessity and proportionality require due regard for the environmental impact of military action, stating that "respect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality".[49]

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[44] Customary international law can be described as binding principles based on general practice accepted as law amongst the actors in public international law. It consists of state practice and *opinio juris*, the latter of which refers to the "subjective" or "psychological" acceptance of a sense of legal obligation. See Statute of the International Court of Justice, Article 38; International Court of Justice, *The North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, Judgment of 20 February 1969, I.C.J Reports 1969, p. 4, para. 77 ("[n]ot only must the acts concerned amount to a settled practice, but they must also be such, or to be carried out in such a way, as to be evidence of a belief that this practice is rendered obligatory by the existence of a rule requiring it. The need for such a belief, i.e., the existence of a subjective element, is implicit in the very notion of opinio juris sive necessitates.").

[45] Dam-de Jong (2015), section 4.2.2 (noting that "soft law processes play a major role in the development of rules in the field of international environmental law").

[46] Rome Statute, article 21(1)(b). Other explicit mentions of international humanitarian law are included, for example, in the war crimes under articles 8(2)(a) and 8(2)(b) of the Statute, which refer to language from the Geneva Conventions, the laws and customs applicable in armed conflict, and "the established framework of international law".

[47] ICRC, "What is International Humanitarian Law?", https://www.icrc.org/eng/assets/files/other/what_is_ihl.pdf, July 2004 (last accessed August 2017).

[48] Sands (2003), p.313.

[49] *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, 8 July 1996, *I.C.J. Reports* 1996, p. 242, para.30 ("States must take environmental considerations into account when assessing what is necessary and proportionate in pursuit of legitimate military objectives.").

Articles 8(b) and (e) of the Rome Statute, in particular, confirm that international humanitarian law must be considered in the interpretation and application of the listed war crimes, as the introductory phrasing refers to the provisions falling "within the established framework of international law".[50] International humanitarian law includes the Martens Clause, which provides that " in cases not included in the Regulations adopted by them, populations and belligerents remain under the protection and empire of the principles of international law, as they result from the usages established between civilized nations, from the laws of humanity and the requirements of the public conscience."[51] The Secretary-General has stated that the validity of this provision (in its original form), is "indisputable" in relation to environmental harm during armed conflict,[52] and Sands has argued that there is no reason why environmental protections should be excluded from its scope.[53] Closely associated with international humanitarian law is the UN Convention on Certain Conventional Weapons of 1980, which brings together a number of treaties containing prohibitions of certain uses of conventional weapons. The Preamble of the Convention states that 'it is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long- term and severe damage to the natural environment'.[54]

Another body of law that is potentially applicable under the Rome Statute is international environmental law.[55] The express terms of article 21(1)(b) provide that the treaties and customary international law that make up international environmental law may be applied by the Court, provided that they are not inconsistent with the Statute. However, given that the substantive prohibitions within the Court's jurisdiction are limited to genocide, crimes against humanity, war crimes, and aggression,[56] the Court could not simply pick prohibitions under environmental law and directly apply them. Instead, international environmental law will be used to interpret the substantive and procedural provisions in the Court's own instruments.[57] For example, the precautionary principle, which is set out *inter alia* in the *Rio Declaration,* at

[50] Rome Statute, article 8(b) and (e).
[51] See Hague Convention of 1899, Preamble; Hague Convention IV of 1907, Preamble; Additional Protocol I of 1977, article 1; Additional Protocol II of 1977, Preamble.
[52] Report of the Secretary-General on the Protection of the Environment in Times of Armed Conflict, *UN General Assembly Document A/48/269* of 29 July 1993 ("Secretary-General Report 1993"), p.15.
[53] Sands (2003), p.311.
[54] Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, 10 October 1980 ('Conventional Weapons Convention').
[55] See generally Sands (2003).
[56] Rome Statute article 5.
[57] See, e.g., Mark Drumbl, "Waging War Against the World: The Need to Move from War Crimes to Environmental Crimes", 22 Fordham Int'l L. J. 122 (1998-1999) ("Drumbl (1998-1999)"), pp.139-140 (listing environmental treaties that it will be "important" to "draw" into any environmental war crimes trial).

principle 15, directs that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."[58] The potential application of the precautionary principle during ICC proceedings is discussed herein, particularly in the chapter on jurisdiction and procedure.[59]

Importantly, obligations under international environmental treaties are not automatically suspended when armed conflict breaks out. Instead, the International Law Commission's Draft articles on the effects of armed conflicts on treaties provide a presumption in favour of the continued applicability of environmental obligations, as demonstrated by the inclusion of "Treaties relating to the international protection of the environment" in the indicative annex of treaties that generally remain in operation during armed conflict under article 7.[60] Reconciling the terms and interpretation of the relevant provisions with other widely accepted instruments of international law is advisable. It reduces the risk of a fragmentation of international law and corresponding loss of respect for this body of law. Already the deleterious potential of multiple legal standards applying to the same issue at the international level has been raised, particularly in relation to the issue of state control over non-State armed groups.[61]

As well as being directly applicable under article 21(1)(b) of the Rome Statute, the rules and principles of international law are also relevant to the interpretation of the Rome Statute and related instruments, in accordance with article 31(3) of the Vienna Convention on the Law of Treaties, which has been applied by several trial chambers and the appeals chamber,[62] and which provides that "any relevant rules of international law applicable in the relations

[58] Rio Declaration on Environment and Development, 13 June 1992, UN Doc. A/CONF.151/26, Vol. I ("Rio Declaration"), article 15.
[59] See below Chapter III on the Jurisdiction and Procedure.
[60] International Law Commission, Draft Articles on the Effects of Armed Conflicts on Treaties (2011), Annex - Indicative list of treaties referred to in article 7 ("The effect of such an indicative list is to create a set of rebuttable presumptions based on the subject matter of those treaties: the subject matter of the treaty implies that the treaty survives an armed conflict.").
[61] See Gideon Boas, James Bischoff, and Natalie Reid, *International Criminal Law Practitioner, Volume II*: *Elements of Crimes under International Law* (Cambridge University Press, 2008) ("Boas et. al. (2008)"), pp.245-247.
[62] See, e.g, *Katanga* article 74 Decision, para.47 (relying on the Vienna Convention on the Law of Treaties of 1969 along with article 21 of the Rome Statute for its approach to the applicable law); *Prosecutor v. Thomas Lubanga Dyilo*, ICC-01/04-01/06 A5, Judgment on the appeal of Mr Thomas Lubanga Dyilo against his conviction, 1 December 2014 ("*Lubanga* Appeal Judgment"), para.277 (relying on Vienna Convention on the Law of Treaties of 1969 to interpret war crimes provisions); *The Prosecutor v. Jean-Pierre Bemba Gombo*, ICC-01/05-01/08-3343, Judgment pursuant to Article 74 of the Statute, 21 March 2016, ("*Bemba* article 74 Decision"), para.70; Situation in the 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.

between the parties" should be taken into account, along with the context of the treaty for its interpretation.[63] The preparatory work of the Rome Statute and associated instruments and the circumstances of their conclusion are also relevant as subsidiary means of interpretation, where the primary means "leave the meaning ambiguous or obscure; or leads to a result which is manifestly absurd or unreasonable".[64]

Jurisprudence arising from ICC cases is cited where relevant, in accordance with article 21(2) of the Rome Statute.[65] Jurisprudence from other international tribunals is referred to where relevant to determine the specific contents of relevant treaty and customary international law under article 21(1)(b), as well as general principles of law under article 21(1)(c).[66] The Trial Chamber in *Katanga* noted that the jurisprudence of the *ad hoc* tribunals may be used to identify the content of relevant treaty law, customary international law, and general principles of law, though the *ad hoc* tribunals' interpretations are not binding on the ICC.[67] The jurisprudence of the *ad hoc* tribunals is particularly apposite vis-à-vis the law of armed conflict,[68] which has been addressed in detail before the International Criminal Tribunal for the former Yugoslavia, and genocide, which has been addressed in detail at both *ad hoc* tribunals. The provisions governing crimes against humanity differ in some significant respects between the ICC and the *ad hoc* tribunals, most notably in the policy requirement under the Rome Statute, which is not required at the *ad hoc* tribunals.[69] But these established bodies of jurisprudence nonetheless generally provide a useful guide to for the application of the underlying crimes against humanity in the Rome Statute.

Domestic laws and jurisprudence from national courts are cited where provided for under article 21(1)(c), in order to demonstrate general principles of law derived from national systems.[70] In this vein, aspects of domestic law that could be classified as transnational law

[63] Vienna Convention on the Law of Treaties, 1155 U.N.T.S. 331, article 31(3).
[64] *Katanga* article 74 Decision, para.49 citing Vienna Convention on the Law of Treaties of 1969, article 32.
[65] See Rome Statute, article 21(2).
[66] See Volker Nerlich, "The status of ICTY and ICTR precedent in proceedings before the ICC", in Carsten Stahn and Goran Sluiter, eds., *The Emerging Practice of the International Criminal Court*, (Martinus Nijhoff, 2009) ("Stahn and Sluiter (2009)"), p.305-325.
[67] *Prosecutor v. Germaine Katanga*, Decision Pursuant to Article 74, ICC-01/04-01/07, 7 March 2014, ("*Katanga* article 74 Decision"), para.47. See also *Bemba* article 74 Decision, para.78.
[68] The primary sources of the law of armed conflict that are referenced herein are The 1899 and 1907 Hague Regulations, the four Geneva Conventions of 1949, and the two Additional Protocols to the Geneva Conventions of 1977.
[69] See Rome Statute, article 7(2)(a).
[70] See in this respect article 21 of the Rome Statute, which permits recourse to "In the second place, where appropriate, applicable treaties and the principles and rules of international law, including the established principles of the international law of armed conflict" and "general principles of law derived by the Court from

are highlighted when relevant.[71] Article 21(1)(c) explicitly refers to general principles of law from the States that would normally exercise jurisdiction over the crime or crimes in question. In relation to environmental harm, this prioritization of principles of law from particular national states, albeit as a tertiary source of guiding law, may introduce a measure of variation in the applicable legal principles. For example, if environmental harm occurs in national territory with extensive and highly developed rules and jurisprudence on environmental offences the specific laws applicable by virtue of article 21(1)(c) would in theory be more exacting than if the harm occurred in a country with rudimentary or non-existent environmental protections.

Additionally, there are some references to national rules, jurisprudence, or practice which do not necessarily fit into the categories of guiding law set out in article 21 of the Rome Statute. This material is included for illustrative purposes in order to demonstrate legal approaches taken in other jurisdictions that may inform the ICC's interpretation of its legal framework and its practices.[72] In this respect, it is notable that the ICC judiciary makes reference on occasion to domestic laws and jurisprudence.[73] Domestic law may also assist to identify possible amendments to the Statute, Rules or other instruments, or simply through its practices.

In keeping with the Rome Statute's requirement that "the application and interpretation of the law [before the ICC] must be consistent with internationally recognized human rights",[74]

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national laws of legal systems of the world including, as appropriate, the national laws of States that would normally exercise jurisdiction over the crime", as applicable sources of law.

[71] Transnational law is described by as Cryer et. al. as follows: "Transnational criminal law includes the rules of national jurisdiction under which a State may enact and enforce its own criminal law where there is some transnational aspect of a crime. It also covers methods of cooperation among States to deal with domestic offences and offenders where there is a foreign element and the treaties which have been concluded to establish and encourage this inter-State cooperation."; Cryer et. al. (2010), p.6.

[72] Sands (2003), pp.11, 895-896.

[73] See, e.g., *Lubanga* Appeal Judgment, para.470 (rejecting claim that it was applying domestic law directly in applying article 25(3)(a) and stating "the Appeals Chamber considers it appropriate to seek guidance from approaches developed in other jurisdictions in order to reach a coherent and persuasive interpretation of the Court's legal texts. This Court is not administrating justice in a vacuum, but, in applying the law, needs to be aware of and can relate to concepts and ideas found in domestic jurisdictions."); *Prosecutor v. Germaine Katanga*, Order for Reparations pursuant to Article 75 of the Statute, ICC-01/04-01/07, 24 March 2017, fn.102 (referring to "By way of example, see the practice of the Chilean Commission on Political Imprisonment and Torture (Lisa Magarrell, "Reparations in Theory and Practice" in International Centre for Transitional Justice, Reparative Justice Series (2007), p. 8) and the practice of the Truth and Reconciliation Commission in Peru (Reglamento de inscripción en el Registro Único de Víctimas de la Violencia a cargo del Consejo de Reparaciones, article VI), and fn.231 referring to High Risk Tribunal A of Guatemala in the Sepur Zarco case (High Risk Tribunal A, Sepur Zarco case, Judgment C-01076-2012-00021 Of. 2, 26 February 2016, p. 5), para.230 ("The Chamber has reviewed the practice of France and Belgium in that regard, and that of the military courts in the DRC, the United Nations Compensation Commission and the Inter-American Court.").

[74] Rome Statute, article 21(3).

major international human rights instruments such as the Universal Declaration of Human Rights of 1948, the International Covenant on Civil and Political Rights of 1966, and the International Covenant on Economic, Social and Cultural Rights of 1996, are referenced where relevant. International human rights standards are relevant both substantially in determining the parameters of crimes,[75] and procedurally in determining the manner of conducting the cases before the Court.[76]

2. Structure of this study

The study is divided into this overview, then three substantive chapters, and a final concluding chapter. Chapter Two focuses on the substantive prohibitions falling within the jurisdiction of the Rome Statute of the ICC, known as its jurisdiction *rationae materiae*. It assesses which of those provisions may be used to address serious environmental harm, either directly or indirectly. Chapter Three focuses on the ICC's jurisdictional and procedural parameters, examining the issues that arise when the rules governing its proceedings are applied to cases of environmental harm. Chapter Four focuses on the status of victims before the ICC, as well as mechanisms for victims' reparations, and assesses how environmental harm fits under this victims' regime.

At the core of the analysis are two key theoretical perspectives – anthropocentrism and eco-centrism.[77] These perspectives are explained and used to highlight issues arising in connection with prosecuting environmental damage at the international level. Historic examples of environmental damage are analysed in order to show the issues likely to arise in connection with the prosecution of similar acts. The analysis assesses the extent to which the Rome Statute exhibits a bias towards anthropocentrically framed charges and the feasibility of adjudicating environmental harm before the Court.

3. Adjudicative coherence

To test the efficacy of the rules for the adjudication of environmental harm, a conceptual test of *adjudicative coherence* is used. The adjudicative coherence test examines whether the

[75] See the discussion of the crime against humanity of persecution under article 7(1)(h) and (2)(g), which centers on the denial of "fundamental rights contrary to international law".
[76] See, e.g, the discussion of the exclusion of evidence under article 69(7) of the Rome Statute, which provides a basis to exclude evidence obtained by means of a violation of the Rome Statute or internationally recognized human rights and the violation casts substantial doubt on the reliability of the evidence or else means that the admission of the evidence would seriously damage the integrity of the proceedings; infra Chapter III(C)(2)(a)(iv).
[77] See Infra, Chapter I(D) on Definitional Underpinnings.

specific ICC rules and procedures, when viewed in their context and applied to possible scenarios involving environmental harm, would result in an incoherent judicial process, which would see the feasibility of the proceedings seriously impaired or jeopardized. The adjudicative coherence test is unique to this study and novel.[78] It provides a feasible analytical tool for assessing legal frameworks, particularly in circumstances such as the present where there are no data pools of easily comparable procedures.

The international criminal trial as an adjudicative process involves the balancing of several factors, including the investigation and presentation of inculpatory and exculpatory evidence,[79] respect for fair trial rights of the accused and the protection of victims and witnesses,[80] the maintenance of efficient, expeditious and cost-effective proceedings,[81] and the entering of a well-reasoned verdict and sentence.[82] This means that an initial assessment can be made of the likely functionality or coherence of a legal framework in the abstract, at least in so far as pending problems may be evident due to clashes or contradictions in the applicable principles and rules affecting these core requirements for an international criminal procedure. Essentially, if the application of the rule would mean that any of the core factors identified above would be compromised *ab initio*, due to the nature of the phenomenon being

[78] A broadly analogous approach was implicitly signalled by Patrick Robinson in "Ensuring Fair and Expeditious Trials at the International Criminal Tribunal for the former Yugoslavia", *EJIL* (2000), pp.569-589, at 573 ("the Statute and the Rules should be seen as establishing a legal system that is self-contained and comprehensive, and capable of providing answers to any question that arises in the work of the Tribunal. This does not mean that it is not appropriate to examine domestic criminal law jurisdictions for purposes of comparison. But that comparative exercise must be completed by testing the solution it provides against the Tribunal system itself. Where the Statute and the Rules do not provide an answer in explicit terms, the testing is done by measuring the solution yielded by comparative analysis against the context in which the Tribunal operates and its object and purpose. The test is whether the solution is consistent with a fair and expeditious trial of persons charged with the most serious violations of international humanitarian law.").

[79] See, e.g., Rome Statute, article 54(1)(a) ("The Prosecutor shall… investigate incriminating and exonerating circumstances equally.").

[80] See, e.g., Rome Statute, article 64(2) ("The Trial Chamber shall ensure that a trial is fair and expeditious and is conducted with full respect for the rights of the accused and due regard for the protection of victims and witnesses."); article 67 (setting out the accused's fair trial rights).

[81] Rome Statute, article 64(2); International Bar Association, *Enhancing efficiency and effectiveness of ICC proceedings: a work in progress*, January 2011, p.8 ("Given the importance of this issue to the credibility and legitimacy of the Court, this ninth IBA/ ICC Monitoring Report will discuss steps that the ICC has taken to enhance its efficiency and maximise its effectiveness, and consider what challenges remain."); See International Bar Association, Evidence Matters in ICC Trials, August 2016, p.13 ("Efficiency is, first, a goal of the criminal process as an aspect of the right of the accused to be tried without undue delay, guaranteed by Rome Statute Article 67(1)(c), and as a consideration for victims' right to prompt access to justice and reparations before the ICC… Beyond the criminal process, efficiency is also an issue of institutional management. The Court has limited resources to respond to the varying needs and demands it faces, and the number of cases and situations that it will be able to address will, in part, depend on how efficiently it conducts legal proceedings.").

[82] See, e.g., Rome Statute, article 74(5) ("The decision shall be in writing and shall contain a full and reasoned statement of the Trial Chamber's findings on the evidence and conclusions."); article 76(1) ("In the event of a conviction, the Trial Chamber shall consider the appropriate sentence to be imposed and shall take into account the evidence presented and submissions made during the trial that are relevant to the sentence.").

tried, or the combination of these factors would be rendered impossible in relation to the type of offence being examined, then the legal framework would exhibit incoherence.

A postulated example demonstrates the adjudicative coherence analysis approach: if it were necessary under international criminal law to produce a body before murder charges would be entertained, then in many instances it would become unfeasible to have a trial without undue delay, as it often takes years for bodies, including those in mass graves, to be discovered and exhumed.[83] Consequently, the requirement to produce a body would result in adjudicative incoherence. It is for this reason that international courts have resisted imposing a requirement of producing a body in order to submit or prove murder charges.[84] An additional illustrative hypothetical example would be if a rule provided that an accused had the right of appeal and the right to free legal representation if indigent (as reflected in all major human rights instruments), but the provisions on legal aid only covered the trial proceedings. The incoherent mix of rules would demonstrate *ab initio* a significant problem for the conduct of proceedings or render them meaningless.

The adjudicative coherence test is an analytical tool that is conceptually distinct from the issue of whether the relevant framework is conceived of anthropocentrically or eco-centrically.[85] Whereas the anthropocentric vs eco-centric orientation issue concerns the character of the rules, provisions, and goals of international criminal law, the adjudicative coherence test concerns the functionality of this legal framework when applied to an area of human activity – in this case, environmental harm. Despite the different functions of these concepts, there is a relationship between them. The adjudicative coherence test provides insight into the character of the legal framework, which informs and substantiates the analysis of the nature of its character.

4. Three paradigmatic forms of harm to the environment

To examine the extent of the anthropocentric nature of the ICC's framework and to test adjudicative coherence of prosecuting environmental harm thereunder, it is illustrative to

[83] For example, in relation to the crimes committed during the 1990s in Bosnia, the bodies in the Tomasica mass grave were only found years later than the other mass graves containing bodies from the 1990s war and associated crimes; see *Prosecutor v. Ratko Mladić*, Case No.IT-09-92-T, Decision on Prosecution Motion to Re-Open its Case-in-Chief, 23 October 2014, para.9.

[84] See e.g., *Prosecutor v. Milan Lukić & Sredoje Lukić*, Case No. IT-98-32/1-A, App.Ch., Judgement, 4 December 2012.

[85] For detailed discussion of the anthropocentric or eco-centric concepts See Infra, Chapter I(D) on Definitional Underpinnings.

provide a concrete analysis of examples of environmental harm. In order to maintain a holistic approach, both substantive and procedural rules in the governing instruments and jurisprudence should be applied to the examples.

Human beings can cause serious harm to the environment in a multitude of ways. For example, UNEP notes that offences against the environment may encompass a range of persons and conduct, including "criminals who pollute the air, water and land and push commercially valuable wildlife species closer to extinction; it can also cover crimes that speed up climate change, destroy fish stocks, decimate forests and exhaust essential natural resources."[86] Moreover, the means by which humans may harm the environment are constantly evolving and proliferating.[87] An exhaustive approach seeking to identify and analyse all possible forms of environmental harm is not feasible or practicable within the ambit of this study. Instead, an illustrative approach is taken, whereby three paradigmatic types of environmental destruction are highlighted in order to explore the framework and practicalities of prosecuting environmental harm under international criminal law.

The three types of environmental harm addressed herein are: attacks anticipated to cause excessive harm to the environment during armed conflict,[88] toxic dumping,[89] and wildlife exploitation.[90] These are three types of environmental harm that frequently have cross-border impact and frequently involve the exploitation of areas or situations with weak or non-existent domestic regulatory systems.[91] These three types cover a broad spectrum of circumstances, with military attacks being inherently linked to armed conflicts, but toxic dumping and wildlife exploitation being possible inside and outside of armed conflict. They also impact on

[86] Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, *Instruction manual for the legal profession on the prosecution of illegal traffic*, UNEP/CHW.10/12/Add.1, 9 November 2011, para.7 ("Instruction Manual on Illegal Traffic").
[87] See Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 16 June 1972, UN Doc. A/CONF.48/14/Rev. 1 (1973) (Preamble: "in the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale.").
[88] This form of environmental harm could also be called "attacks anticipated to cause disproportionate harm to the environment during armed conflict", as the principle of proportionality defined in article 51(5)(b) of Additional Protocol I hinges on the harm being "excessive" (the provision proscribes "an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.").
[89] Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders (Havana, Cuba, 1990), Resolution on "The role of criminal law in the protection of nature and the environment" (endorsed in General Assembly in Resolution 45/121, (14 December 1990) at para.3).
[90] UNGA Resolution 69/314.
[91] As UNEP noted "exploitation and illegal trade of natural resources frequently fuel and prolong armed conflict, particularly in countries where laws and institutions have been weakened or have collapsed"; UNEP Study (2009), p.3-4, 8. See also Secretary-General Report 1993, p.11.

various types of potential victim entities, with military attacks and toxic dumping impacting humans, their property, and the environment *per se*, and wildlife exploitation primarily impacting on non-human animal and plant species. These three forms of environmental harm also vary in the extent to which they have been addressed by existing provisions and jurisprudence pursuant to international criminal law. Whereas attacks causing excessive harm to the environment during armed conflict are the subject of an express provision in the Rome Statute and are covered by multiple provisions in instruments of international humanitarian law, toxic dumping and wildlife offences are areas that are not expressly covered by the Rome Statute, and have primarily been dealt with as violations of domestic law.

Aside from these three forms of environmental harm, other activities that can damage the natural world include the unlawful extraction of minerals, metals and other natural resources, the improper disposal of waste in the oceans and in outer space, atmospheric pollution, and carbon emissions. These environmental threats have been extensively analysed under the rubric of international law elsewhere,[92] and are not focused on in detail herein. Nonetheless, they are mentioned where relevant by analogy to one of the three forms of environmental harm addressed in this study.

(a) Attacks causing excessive harm to the environment during armed conflict

Military operations and attacks frequently cause serious harm to the environment. In 1992, the United Nations General Assembly recognised that warfare can seriously harm the environment and urged Member States to take all measures to ensure compliance with existing international law on the protection of the environment during armed conflict.[93] In 1993, the Secretary-General of the United Nations observed that "the principle of the individual criminal responsibility of the perpetrator of certain breaches of international law, including those bearing on the environment in times of armed conflict, as well as of the person ordering the commission of such acts, is of critical importance."[94] While relatively few

[92] For the unlawful extraction of minerals and metals see Dam-de Jong (2015), p.24 ("The primary focus of this book is therefore on those natural resources that are relatively easy to obtain but are highly profitable, such as timber, minerals and rare metals."; p.217 "as soon as they have been extracted (*ex situ*), natural resources become tangible objects and therefore fall into the category of movable property. This means that the exploitation of natural resources is governed by the rules concerning immovable property, while the rules on movable property regulate the (il)legality of the appropriation of natural resources which have already been extracted"). For the redress of carbon emissions see United Nations Environment Program, *The Emissions Gap Report 2016: a UNEP Synthesis Report*, (November 2016).

[93] United Nations General Assembly Resolution on the Protection of the Environment in Times of Armed Conflict, A/RES/47/37, 25 November 1992.

[94] Secretary-General Report 1993, pp.9-10.

United Nations Security Council Resolutions directly addressed wartime damage to the environment, several touch on related issues, including reparations for environmental harm caused during armed conflict, targeting oil installations, and the exploitation of natural resources.[95]

Armed conflict between organized groups has frequently resulted in serious environmental harm, and often fueled a vicious cycle of warfare and illegal resource exploitation.[96] For example, when Saddam Hussein ordered the Iraqi army to ignite over 600 Kuwaiti oil wells during the first Gulf War,[97] the ensuing fires burned a million tons of oil for several months.[98] This produced huge amounts of sulphur dioxide and carbon dioxide, and polluted the atmosphere as far away as the Himalayas.[99] Surface oil pools covered with falling soot combined with sand and gravel to form a layer of "tarcrete" covering almost five percent of Kuwait's land area, threatening its fragile desert ecosystems.[100] Moreover, "heavy atmospheric pollution in Kuwait had adverse effects for a long time".[101] There is some indication that this attack was part of a military strategy, notwithstanding its profoundly deleterious impact on the environment,[102] but any minor military impact that could have motivated it pales in comparison with the major ecological impact it unleashed, particularly as the Iraqi army was already retreating.[103]

According to Iran, "Iraq's detonation of oil wells in Kuwait resulted in the release of more than 760,000 tons of smoke into the atmosphere", causing millions of people to inhale toxic chemicals.[104] The US reported that "a vast oil slick" of "at least 35 miles long and 10 miles wide" had been created in the northern Gulf due to the Iraqi forces opening oil pipelines and emptying oil tankers.[105] Similar reports of the damage were provided by the United Nations

[95] Marie G. Jacobsson, Special Rapporteur on Protection of the Environment during Armed Conflict, Second report, A/CN.4/685, 28 May 2015 ("Jacobsson (2015)"), paras. 83 and 84.
[96] Weinstein, p.700.
[97] Peterson (2009), p.342; Schmitt (1997), pp.19, 75.
[98] Dinstein (2001), p.543.
[99] Earle (1992) *cited in* Schmitt (1997), p.19. See also Popović (1995-1996), p.70.
[100] Five percent of Kuwait's total land (approximately 17, 800 square kilometres) is approximately 850 square kilometres. See Robert Block "Kuwaiti Oil Wells" in Anthony Dworkin et al (eds.), *Crimes of War 2.0: What the Public Should Know*, (W.W. Norton & Co.; Washington, 2007).
[101] Dinstein (2001), p.543.
[102] Some commentators dispute whether even this egregious example of an environmentally deleterious attack would qualify under article 8(2)(b)(iv); see Peterson (2009), p.342; Schmitt (1997), pp.19, 75.
[103] Dinstein (2001), p.543.
[104] 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.56.
[105] United States of America, *Letter dated 30 January 1991 to the President of the UN Security Council*, UN Doc. S/22173, 30 January 1991, pp.2–3.

Claims Commission, set up to address demands for damages arising from Iraq's invasion of Kuwait, which noted that even the effort to put out the fires created environmental harm.[106] These incidents were followed by the Secretary-General of the United Nations noting in 1993 that in the preceding years "certain conflicts had caused serious environmental damage due in particular to the large-scale and indiscriminate use of mines, the bombing and shelling of whole areas and attacks on oil-producing installations, resulting in severe pollution."[107]

In 2016, new reports of oil well incendiarism in Iraq emerged – this time attributed to ISIS forces.[108] ISIS is reported to have set fire to sulphur stockpiles at the Al-Mishraq production plant in 2016, as well as lighting oil wells, storage tanks, and a refinery in the preceding months,[109] as well as burning Iraq's second largest low-land forest.[110] A rapid scoping mission report from UNEP after Mosul was taken from ISIS in 2017 reported that the "18 oil wells set alight by ISIL in Qarrayah created such thick black smoke that locals refer to the darkened skies as the 'Daesh winter'".[111] Iraqis farmers, including Yazidis, have reported that along with pillaging farm equipment, ISIS forces have destroyed arable lands as they retreat.[112]

Another example of environmental harm potentially resulting from, or exacerbated by, military strikes is the 1999 bombing campaign undertaken by NATO against the Former Republic of Yugoslavia in response to events in Kosovo. NATO's bombing of military-industrial sites in Serbia caused significant environmental damage.[113] A Committee from the Office of the Prosecutor of the ICTY examined the applicability of articles 35(3) and 55(1) of Additional Protocol 1 to the Geneva Conventions to the NATO actions during its bombing campaign, ultimately concluding that the environmental destruction was not sufficiently

[106] United Nations Claims Commission, *Post-Conflict Environmental Restoration: The UNCC Follow-Up Programme For Environmental Awards*, 2012, p.10. See also UNCC Explanatory Text: http://www.uncc.ch/follow-programme-environmental-awards-0.
[107] Secretary-General Report 1993, p.11.
[108] UNOCHA Iraq report 2016.
[109] UNEP (2017), p.2; Cusato (2017).
[110] Schwartzstein (2016).
[111] UNEP 2017, p.2.
[112] Schwartzstein (2016).
[113] See International Criminal Tribunal for the former Yugoslavia Office of the Prosecutor, *Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia*, 2000 ("Final Report on NATO (2000)"), available at http://www.icty.org/sid/7846 (last accessed 4 October 2016). See also International Criminal Tribunal for the former Yugoslavia, *Office of the Prosecutor Press Release, Prosecutor's Report on the NATO Bombing Campaign*, 13 June 2000, PR/ P.I.S./ 510-e ("Press Release on Final Report on NATO (2000)"). Views on the final recommendations of the report are mixed. See, e.g., Paolo Benvenuti, "The ICTY Prosecutor and the Review of the NATO Bombing Campaign against the Federal Republic of Yugoslavia", *European Journal of International Law*, 12(3):503-530 (2001).

severe to be prosecuted, despite other findings that NATO's bombing of military-industrial sites in Serbia caused significant environmental damage.[114]

Military strikes have resulted in significant harm to the environment in other contexts. For example, when studying the effects of armed conflict on the environment, UNEP noted that "an estimated 12,000 to 15,000 tons of fuel oil were released into the Mediterranean Sea following the bombing of the Jiyeh power station during the conflict between Israel and Lebanon in 2006."[115] "the need to protect and preserve the marine environment in accordance with international law."[116] In 2009, the United Nations General Assembly issued Resolution 63/211 addressing the oil slick caused by the bombing of the El-Jiyeh power plant in Lebanon during the 2006 war. Subsequently, United Nations General Assembly Resolution 69/212 on the same issue noted that "the oil slick has heavily polluted the shores of Lebanon and partially polluted Syrian shores and consequently has had serious implications for livelihoods and the economy of Lebanon, owing to the adverse implications for natural resources, biodiversity, fisheries and tourism, and for human health in the country".[117] A 2014 United Nations Development Program study quantified the environmental damage caused by the oil spill off the coast of Lebanon at $856.4 million.[118]

(b) Unlawful transboundary movement and storage of hazardous substances (toxic dumping)

The disposal of toxic waste in an improper manner is a noxious practice that is growing in prevalence and causes serious harm to the environment.[119] It is typically motivated by economic concerns, as the proper disposal of toxic by-products and substances can be expensive and difficult.[120] Unlawful transboundary movement and storage of hazardous substances can occur both within and outside of the confines of armed conflict. These

[114] See Final Report on NATO (2000), part IV(1).
[115] UNEP Study (2009), p.8.
[116] UNGA Resolution G/RES/N63/211 Oil slick on Lebanese shores, Preamble (10 February 2009) in United Nations General Assembly, A/63/PV.72, 72nd plenary meeting, 19 December 2008.
[117] United Nations General Assembly resolution 69/212, A/RES/69/212, 19 December 2014, para. 3.
[118] United Nations Development Programme, *Report on the Measurement and Quantification of the Environmental Damage of the Oil Spill on Lebanon*, July 2014, ("UNDP Study (2014)"), para. 44; Marie G. Jacobsson (Special Rapporteur on Protection of the Environment during Armed Conflict), *Third Report on the Protection of the Environment in relation to Armed Conflicts*, ILC Doc. A/CN.4/700, 3 June 2016, ("Jacobsson (2016)"), paras.79-83.
[119] Europol, *Threat Assessment 2013 Environmental Crime in the EU*, November 2013, p.3 (available at file:///C:/Users/Matt/Downloads/4aenvironmental_crime_threatassessment_2013_-_public_version.pdf) (last checked 22 December 2017).
[120] Luigi Prosperi and Jacopo Terrosi, "Embracing the 'Human Factor': Is There New Impetus at the ICC for Conceiving and Prioritizing Intentional Environmental Harms as Crimes Against Humanity?", Journal of International Criminal Justice, Volume 15, Issue 3, 1 July 2017, Pages 509–525 ("Prospieri and Terrosi (2017)"), p.513.

activities are frequently conducted in areas with weak regulatory enforcement, and negatively impact the natural environment, animals and humans: "the covert and illegal dumping of hazardous and toxic wastes results in poisonous pollution of water tables, river systems and local ecosystems, which affects animal, plant and human health, sometimes resulting in death or extreme disability and often in the world's poorest countries."[121] Toxic contamination can harm humans directly by poisoning them and indirectly by entering the food chain and eventually be ingesting.[122]

Already in 1990, the United Nations called on States to utilize criminal law to protect "nature and the environment against the dumping of hazardous wastes or other materials which pose a risk of damaging the environment…"[123] In 1994, the Economic and Social Council of the United Nations (ECOSOC) declared that environmental criminal law should be directed "in particular, to the regulation, control and, where necessary, the complete prohibition of hazardous activities, including the establishment and operation of hazardous installations, and the illegal import, export, movement and disposal of hazardous materials and wastes."[124] Since then, incidents of unlawful toxic dumping have not abated, but rather have continued to surface in various locations around the world.[125]

Unlawful transport and dumping of toxic substances can harm the environment in multiple respects. For example, in Nigeria, inhabitants of Ogoniland lodged a complaint with the African Commission on Human and Peoples' Rights, alleging that "the State oil company, the Nigerian National Petroleum Company (NNPC), the majority shareholder in a consortium with Shell Petroleum Development Corporation (SPDC) […] have caused environmental degradation and health problems resulting from the contamination of the environment among the Ogoni People", including through "disposing toxic wastes into the environment and local waterways in violation of applicable international environmental standards."[126] The

[121] Rose (2014), p.19.
[122] Prospieri and Terrosi (2017), p.513.
[123] Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders (Havana, Cuba, 1990), Resolution on "The role of criminal law in the protection of nature and the environment" (endorsed in General Assembly in Resolution 45/121, (14 December 1990) at para.3).
[124] United Nations Economic and Social Council, Resolution 1994/15 "The role of criminal law in the protection of the environment", 25 July 1994, Annex "Recommendations Concerning The Role Of Criminal Law In Protecting The Environment", para.(c). Chlorofluorocarbons are banned under the Montreal Protocol of 1987.
[125] See for example infra, Chapter I(C)(4)(b) below referring to Trafigura toxic dumping incident.
[126] African Commission on Human and Peoples' Rights, *Communication No. 155/96: Social and Economic Rights Action Center* v. *Nigeria (Ogoniland Case)*, Decision ("Ogoniland Decision"), para.2 (The complainants also alleged that "The consortium also neglected and/or failed to maintain its facilities causing numerous avoidable spills in the proximity of villages. The resulting contamination of water, soil and air has had serious

Commission found that the Nigerian Government had violated the rights of the Ogoni complainants, including through the environmental degradation and that this amounted to a violation of *inter alia* the right to life.[127] In addition, these events in Ogoniland have provided the basis for proceedings in the Dutch courts, which are still under appeal.[128] The impact of improper storage and dumping of toxic chemicals can result in long-term environmental harm. A study by UNEP and the Nigerian Government found that contamination from an oil spill was present 40 years after the spill, despite clean-up attempts.[129]

In Ecuador, inhabitants complained for years of the pollution and improper storage of dangerous chemicals caused by Chevron (which merged with Texaco in 2001) during its oil exploration and extraction operations in the Ecuadorian Amazon from the 1960s to the 1990s. The effects of Chevron's activities reportedly included anthropocentric harm in the form of deaths from cancer, miscarriages and birth defects, threatening the survival of several rainforest tribes, and mixed anthropocentric/eco-centric harm such as the death of livestock and fish.[130] A recent attempt[131] to refer Chevron's conduct to the ICC was rejected by the Office of the Prosecutor on the basis that it did not reveal crimes falling within the Court's jurisdiction.[132]

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short and long-term health impacts, including skin infections, gastrointestinal and respiratory ailments, and increased risk of cancers, and neurological and reproductive problems.").

[127] 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.").

[128] See Dam-de Jong and Stewart (2017), p.21 *citing* District Court The Hague, *Oguru-Efanga/Shell*, Judgment of 30 January 2013, ECLI:NL:RBSGR:2013:BY9850; District Court The Hague, *Dooh/Shell*, Judgment of 30 January 2013, ECLI:NL:RBSGR:2013:BY9854; and District Court, *Akpan/Shell*, Judgment of The Hague 30 January 2013, ECLI:NL:RBSGR:2013:BY9854. All of the claims but one were dismissed due to the damage being caused by third parties and not being reasonably preventable: http://www.prakkendoliveira.nl/user/file/130130_press_relese_dc_the_haag_re_shell.pdf; Cees van Dam, "Preliminary judgments Dutch Court of Appeal in the Shell Nigeria case", available at http://www.ceesvandam.info/default.asp?fileid=643.

[129] United Nations Environment Program, *Environmental Assessment of Ogoniland*, 2011 (available at http://postconflict.unep.ch/publications/OEA/UNEP_OEA_ES.pdf).

[130] P. Radden Keefe, 'Reversal of Fortune: A crusading lawyer helped Ecuadorians secure a huge environmental judgment against Chevron. But did he go too far?', The New Yorker, 9 January 2012, available at www.newyorker.com/magazine/2012/01/09/reversal-of-fortune-patrick-radden-keefe; Caitlin Lambert, "Environmental Destruction in Ecuador: Crimes Against Humanity Under the Rome Statute?", Leiden Journal of International Law (2017), 30, pp. 707–729 ("Lambert (2017)"), p.729.

[131] Request to the Office of the Prosecutor of the ICC from the Legal Representatives of the Victims, 'Communication: Situation in Ecuador', 23 October 2014, available at chevrontoxico.com/assets/ docs/2014-icc-complaint.pdf.

[132] Letter from M.P. Dillon, Head of the Information and Evidence Unit of the OTP to R. Doak Bishop, Partner of King & Spalding LLP, Reference No. OTP2014/036752, 16 March 2015, available at freebeacon.com/wp-

An example of toxic dumping with grave effects on human health is demonstrated by the disturbing events in the Ivory Coast in August 2006, where several hundred tons of caustic soda and petroleum residues were reportedly dumped in open air public waste sites in Abidjan, Ivory Coast. The toxic fumes from the waste reportedly caused nosebleeds, nausea, and vomiting, and unresolved allegations[133] arose that this killed several people and causing illness to many more.[134] European, Korean, and Russian companies were involved, as well as a local company. Cleaning up the waste required the removal of thousands of tons of the waste itself, as well as contaminated soil, water and concrete.[135] The company, along with the Ukrainian captain of the boat, was prosecuted and convicted for the attempts to illegally dump the waste in the Netherlands but not for the actual dumping in Cote d'Ivoire, which was reportedly the subject of a settlement with the group of victims.[136]

Similar incidents had occurred previously and had provided the impetus for an international agreement to controls the movement of hazardous substances across frontiers, which resulted in the Basel Convention as discussed below.[137] For example, in 1986 a ship called the *Khian Sea* sought to dump its load of 15,000 tons of ash from Philadelphia in various countries. It managed to dump 3,000 tons in Haiti, and then ultimately dumped the remaining ash in the Indian Ocean after changing the name of the boat.[138] In 1988, an Italian owned ship called the

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content/uploads/2015/04/ICC-letter.pdf. See further Chapter III(B)(1) (discussing the lack of overlap between Chevron's alleged crimes and the ICC's temporal jurisdiction).

[133] The United Nations Disaster Assessment & Coordination (UNDAC) Commission noted that while there were reports that seven people had died, no autopsies had been performed to verify the cause of death and pre-existing pollution levels in the lagoon prior to the dumping was considered too high to allow for identification of the hazardous waste in question; United Nations Disaster Assessment & Coordination (UNDAC), *Cote d'Ivoire, Urban Hazardous Waste Dumping*, 11-19 September 2006 ("UNDAC (2006)"), p.10. See also Amnesty International and Greenpeace International, *The Toxic Truth: about a Company called Trafigura, a ship called the probo koala, and the dumping of toxic waste in Cote d'Ivoire* (2012) ("Amnesty Report on Cote d'Ivoire (2012)"), Annex 1, p.212 ("Predicting or detecting any mid and long-term implications for the environment arising from the dumping would be a speculative exercise and a near impossibility against a background of poor waste management practice, a huge variety of dumping places, poor baseline data on environmental pollution and unresolved issues around the exact composition of the waste.").

[134] See Amnesty Report on Cote d'Ivoire (2012); United Nations Human Rights Council, *Report of the Special Rapporteur on the adverse effects of the movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights, Okechukwu Ibeanu*, UN Doc. A/HRC/12/26, 15 July 2009, and UN Doc. A/HRC/12/26/Add.2, 3 September 2009, Add.2 ("Reports of Special Rapporteur on Toxic Dumping (2009)"); Rob White, *Crimes Against Nature: Environmental Criminology and Ecological Justice*, (Willan Publishing: Devon, 2008), p.119.

[135] See Amnesty Report on Cote d'Ivoire (2012); Reports of Special Rapporteur on Toxic Dumping (2009), para.6; White (2008), p.119.

[136] Robert Percival, *Washington Law Review*, vol.86:579, "Global Law and the Environment, No.2011-49" (2011) ("Percival (2011)"), p.622. The Captain was also given a suspended jail sentence of 5 months imprisonment for falsifying papers, and a junior employee of Trafigura received a 6 months suspended jail sentence and a fine of 25,000 euros.

[137] See infra Chapter I(C)(4)(b).

[138] Percival (2011), p.621 citing Jerry Schwartz, The Trash that Wouldn't be Thrown Away, Associated Press, 2 September 2000, Factiva Doc. No. aprs000020010803dw930i2bu.

Karin B, dumped 8,000 tons of toxic waste including PCBs in a Nigerian fishing village, causing an international incident.[139]

Other examples of toxic dumping and misuse and mis-storage of chemicals demonstrate the range of conduct in question. Notably, South-East Asia has become a major trade route for Chlorofluorocarbons and other ozone-depleting substances, despite the fact these are banned due to their harmful effect on the ozone layer, and in turn on global warming.[140] Legal cases analogous to toxic dumping include the improper storage of waste at a municipal rubbish tip in Turkey in the 1990s, which reportedly killed thirty-nine people and was held to be a violation of article 2, the right to life, by the European Court of Human Rights.[141] A family member of nine of the deceased brought a claim before the European Court of Human Rights, which found *inter alia* a violation of article 2, the right to life, noting that an expert had reported to the authorities on the danger of a methane explosion two years before the lethal event.[142] The first instance chamber of the European Court of Human Rights noted in this case that a violation of the right to life "can be envisaged in relation to environmental issues", and its finding of a violation of the right to life (as well as several other violations of rights) was upheld by the Grand Chamber.[143]

Along with the harm to the environment, toxic dumping can negatively impact human health and well-being, and many legal cases concerning toxic dumping arise due to this anthropocentric harm.[144] The Human Rights Council has declared that toxic dumping may jeopardize specific human rights. In particular, it noted that illicit traffic in, and improper management and disposal of, hazardous substances and wastes could violate, *inter alia*, the

[139] Percival (2011), p.621.
[140] Rose (2014), p.21.
[141] The Grand Chamber of the European Court of Human Rights held that the actions of the Turkish authorities constituted substantive and procedural violations of the right to life under article 2, a violation of the right to an effective remedy under article 13, as well as a violation of the right to enjoyment of possessions under article 1(1) of Protocol 1; Öneryıldız v. Turkey (48939/99) ECHR Grand Chamber, [30 November 2004], ("Öneryıldız v. Turkey [GC]"), p.59 (disposition). See also Council of Europe, *Manual on Human Rights and the Environment*, (second edition) (2012), p.36-37.
[142] Council of Europe, *Manual on Human Rights and the Environment*, (second edition) (2012), p.36-37 ("On the other hand, the Court found a violation of Article 2 in the case of Öneryıldız v. Turkey. In this case, an explosion occurred on a municipal rubbish tip, killing thirty-nine people who had illegally built their dwellings around it. Nine members of the applicant's family died in the accident. Although an expert report had drawn the attention of the municipal authorities to the danger of a methane explosion at the tip two years before the accident, the authorities had taken no action. The Court found that since the authorities knew – or ought to have known – that there was a real and immediate risk to the lives of people living near the rubbish tip, they had an obligation under Article 2 to take preventive measures to protect those people. The Court also criticised the authorities for not informing those living next to the tip of the risks they were running by living there. The regulatory framework in place was also considered to be defective.").
[143] Öneryıldız v. Turkey (48939/99) [2002] ECHR 491, para.64.
[144] See discussion of cases before human rights bodies, immediately above.

rights to life and health.[145] Other human rights that toxic dumping may implicate are the "right of peoples to self-determination and permanent sovereignty over natural resources, (and) the right to development".[146]

Internationally, toxic dumping and the movement of hazardous wastes is regulated by the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal of 1989 ("The Basel Convention"). The annexes to the Basel Convention provide a list of the controlled or prohibited substances, and the convention essentially requires authorization for any movement or storage of such materials if an international frontier is involved. Under the International Law Commission's Articles on the Prevention of Transboundary Harm from Hazardous Activities, where a dispute cannot be resolved through consultation or negotiation within 6 months, a party may engage compulsory fact-finding procedures by an impartial commission.[147]

Some domestic systems address toxic dumping and the consequent environmental harm on a regular basis and have developed sophisticated legal codes to curb the practice and condemn transgressors.[148] While these domestic legal proceedings do not constitute a form of public international law, they provide illustrations of the widespread occurrence of environmental harm and criminal proceedings to repress that harm, and can provide indications of state practice.[149]

However, many domestic systems are incapable of addressing such practices, particularly in countries torn by conflict or suffering from a lack of organized governance.[150] These locations are an attractive target, as toxic dumping can be a profitable enterprise for unscrupulous

[145] Commission on Human Rights, Resolution 2005/15, para.4 ("Reaffirms that illicit traffic in and dumping of toxic and dangerous products and wastes constitute a serious threat to human rights, including the right to life, the enjoyment of the highest attainable standard of physical and mental health and other human rights affected by the illicit movement and dumping of toxic and dangerous products, including the rights to clean water, food, adequate housing and work"). See also Human Rights Council Resolution 9/1, 12/18, 18/11.

[146] Special Rapporteur on Toxic Waste, Fatma-Zohra Ouhachi-Vesely, Report submitted by the Special Rapporteur on Toxic Waste on adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights, E/CN.4/2001/55, para. 58.

[147] International Law Commission, Articles on the Prevention of Transboundary Harm from Hazardous Activities (2001), article 19 (see also United Nations General Assembly Resolution 62/68, Annex, A/RES/62/68. 8 January 2008 (approving of the International Law Commission's work on these articles and approving them as contained in the annex to Resolution 62/68); Stephens (2009), p.76.

[148] See, e.g., Kathleen Brickey, Charging Practices in Hazardous Waste Crime Prosecutions, Ohio State Law Journal, vol.62: 1077 (2001), p.1088 ("The prosecution summaries show that in the first ten years of the government's efforts to establish a formal criminal enforcement program, the Justice Department prosecuted nearly 350 environmental cases referred to it by the EPA").

[149] See infra Chapter I(C)(i), setting out the sources of law section on domestic cases.

[150] Rose (2014), p.19. (noting that much of the toxic dumping is carried out in the World's poorest countries). See also Skinnider (2011), pp.27-28; UNODC Toolkit (2012), p.3.

individuals and organizations and can cause serious injury and even death to members of affected communities.

(c) Wildlife exploitation

A third prevalent form of environmental harm is that committed against animals and plants, known collectively as wildlife exploitation. The term wildlife crime has been described as encompassing "the illegal taking, possession, trade or movement of animals and plants or their derivatives in contravention of international, regional, or national legislation."[151] Typical wildlife offences including unlawful poaching and hunting,[152] exporting and importing, logging,[153] trafficking, possessing and consuming wild fauna and flora.[154] Rose explains how, for example, "animals, birds, insects, reptiles, and plants, and parts thereof, are taken illegally in response to demands from private collectors and zoos for rare and unusual species, from research facilities for laboratory animals and from niche consumer markets for traditional Asian and African medicines and exotic foods such as reef fish and bushmeat" and that demand for unusual pets and for fashion items also drives these criminal practices.[155]

Wildlife crime can be enabled and exacerbated by low-level corruption, but also by unlawful conduct by individuals at the highest levels of government.[156] Some of the most pernicious wildlife exploitation and illegal trading is perpetrated by organized networks of individuals, including companies, brokers and middlemen, and reports indicate that transboundary environmental crimes are becoming increasingly systematic and sophisticated, involving organized crime groups and complex trade routes with various techniques for concealment.[157]

The growing threat of illegal wildlife exploitation is reflected in United Nations General Assembly statements, such as in its 2015 Resolution on tackling illicit trafficking in wildlife.[158] The General Assembly expressed its concern over the "increasing scale of

[151] Cooper et. al. (2009), p.2.
[152] The hunting or poaching may be unlawful because it concerns a protected species, because the location of the hunting is protected, such as a nature reserve or national park, because unlawful hunting techniques or weaponry is used or because of exceeding quotas; UNODC Toolkit (2012), p.39.
[153] Illegal logging may include logging protected tree species, logging in protected areas, excessive logging, logging without permits, fraudulently using or obtaining permits, non-payment of logging taxes and other forest fees, and damaging forest eco-systems; UNODC Toolkit (2012), p.36.
[154] UNODC Toolkit (2012), 2012, p.34. Associated offences including document fraud, money-laundering, tax evasion, and corruption.
[155] Rose (2014), p.17.
[156] UNODC Toolkit (2012), p.54.
[157] See Rose (2014), p.16, and, in relation to illegal timber trade in Asia, Rose (2014), p.20.
[158] UNGA Resolution 69/314.

poaching and illegal trade in wildlife and wildlife products", which is threatening some species, including rhinoceros and elephants, with local and sometimes global extinction, and damages ecosystems, as well as anthropocentric interests in terms of livelihoods, rule of law, and national stability.[159] It called on member States to contribute to the "prevention, investigation and prosecution of such illegal trade as well as strengthening enforcement and criminal justice responses, in accordance with national legislation and international law", including through measures at the bilateral, regional and international levels.[160] The scale of the unlawful exploitation is indicated by estimated monetary value of illegal trade in flora and fauna at between 7 and 23 billion USD annually.[161]

Historically, the body of law covering wildlife exploitation developed in relation to competing claims to hunt, trap, and utilise wildlife.[162] However, harmful over-exploitation of vulnerable species has not dissipated despite the ever-growing awareness of the fragility of many animal and plant species and the impact of human activity on the survival of these species. This conduct is directly addressed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973) ("CITES"), which has over 170 State Parties.[163] The primary purpose of CITES is to ensure that the international trade of wild animals and plants does not threaten their survival. CITES would be an essential reference for any proceedings under international criminal law addressing wildlife exploitation, as it "captures on a global list the species about which, based on international consensus, there is reason to be concerned."[164]

CITES obliges States to require permits for any import, export, re-export, or introduction from the sea, and to designate management authorities to administer the licensing system with advice from scientific authorities. Trade in endangered species – listed in Annex 1, is limited to exceptional circumstances.[165] CITES obliges Parties to take measures to penalize trade in the protected specimens,[166] but does not require that unlawful trade be subject to criminal sanctions. States differ on the form or redress for these abuses, with only approximately a quarter having penalties of greater than four years imprisonment for violations of CITES-

[159] UNGA Resolution 69/314.
[160] UNGA Resolution 69/314, paras.3, 11.
[161] Christian Nellemann, Rune Henriksen, Patricia Raxter, Neville Ash, Elizabeth Mrema, (eds.), "The Environmental Crime Crisis – Threats to Sustainable Development from Illegal Exploitation and Trade in Wildlife and Forest Resources: A UNEP Rapid Response Assessment", 2014 ("UNEP (2014)"), p.7.
[162] See UNODC Toolkit (2012), p.25.
[163] United Nations Office of Drugs and Crime, World Wildlife Crime Report Trafficking in protected species, 2016 ("UNODC (2016)"), p.24.
[164] UNODC (2016), p.25.
[165] CITES, article 3; UNODC Toolkit (2012), p.14-15.
[166] CITES, article 8; UNODC Toolkit (2012), p.15.

related offences.[167] Moreover, CITES does not directly impose penal sanctions on individuals and therefore could not be used as a sole basis for prosecution. While CITES has had some success in curtailing the trade of endangered species, it may also inadvertently increase the threat to endangered species by advertising their rarity.[168]

Other international conventions designed to address species endangerment and exploitation include the Convention on the Conservation of Migratory Species of Wild Animals;[169] the Convention on Biological Diversity;[170] the Convention concerning the Protection of the World Cultural and Natural Heritage;[171] and the Convention on Wetlands of International Importance especially as Waterfowl Habitat.[172]

A nascent effort to regulate wildlife crime has been made with the adoption of the Malabo Protocol on Amendments to the Protocol on the Statute of the African Court of Justice and Human Rights ("Malabo Protocol"). Article 28A(1)(13) declares "Illicit exploitation of natural resources" to be a criminal offense within the Court's jurisdiction. Illicit exploitation is defined to encompass a broad range of conduct which may cause harm to natural resources.[173] On paper, this is a powerful provision, as it may apply in both peacetime and in armed conflict, and does not need to be part of a widespread or systematic campaign directed

[167] UNODC (2016), p.23.
[168] UNODC Toolkit (2012), p.16.
[169] United Nations, *Treaty Series*, vol. 1651, No. 28395. Adopted on 23 June 1979 and entered into force on 1 November 1983, in Bonn, Germany, the Convention on the Conservation of Migratory Species of Wild Animals is a "is a framework agreement which relies on appendices for expanding or changing its commitments over time." It revolves around its appendices: "Appendix I lists the migratory species which are endangered and hence subject to various restrictions, most notably the prohibition of their taking. Appendix II contains a list of species with an unfavourable conservation status, which require international agreements for their conservation and management, as well as those with a favourable conservation status which could nevertheless significantly benefit from international cooperation Over 120 states have ratified the treaty. However, Russian Federation, China, Japan, the United States and Canada are not parties to the treaty." Independent Analysis on Common Services and Synergies in CMS Family, UNEP/CMS/StC44/15.1, 14 October 2015, p.16.
[170] United Nations, *Treaty Series*, vol. 1760, No. 30619.
[171] United Nations, *Treaty Series*, vol. 1037, No. 15511.
[172] United Nations, *Treaty Series*, vol. 996, No. 14583.
[173] Article 28L Bis of the Protocol provides that 'For the purpose of this Statute, "Illicit exploitation of natural resources" means any of the following acts if they are of a serious nature affecting the stability of a state, region or the Union: a) Concluding an agreement to exploit resources, in violation of the principle of peoples' sovereignty over their natural resources; b) Concluding with state authorities an agreement to exploit natural resources, in violation of the legal and regulatory procedures of the State concerned; c) Concluding an agreement to exploit natural resources through corrupt practices; d) Concluding an agreement to exploit natural resources that is clearly one-sided; e) Exploiting natural resources without any agreement with the State concerned; f) Exploiting natural resources without complying with norms relating to the protection of the environment and the security of the people and the staff; and g) Violating the norms and standards established by the relevant natural resource certification mechanism." These prohibitions parallel those set out in the 2006 Protocol Against the Illegal Exploitation of Natural Resources of the International Conference on the Great Lakes Region. Indeed, the term "exploitation" itself is not defined in the Protocol to the Statute and instead arguably is meant to have the same definition as that in the 2006 Protocol of the ICGLR: "Exploitation" is defined as 'any exploration, development, acquisition, and disposition of natural resources'; see Dam-de Jong and Stewart (2017), p.11.

against a civilian population. However, only six states have ratified the Protocol to date,[174] well short of the 15 required for it to enter into force.[175]

The illegal poaching and trade of protected species is extensive. For example, the World wildlife seizure database operated by the CITES Secretariat and the World Customs Organization has recorded 380 tiger skin seizures between 2005 and 2014, worth about four million United States dollars. Considering that there are only approximately 3,000 wild tigers left alive, the catastrophic impact on the species' survival prospects caused by this illegal trade is manifest.[176] The extent of the market driving this exploitation of tigers is shown by a UNEP study in China in 2007, which found that 43 percent of respondents had consumed some form of tiger product.[177] In the area of Cambodia, Laos, and Vietnam, high volumes of illegal cross-border wildlife trade have been recorded.[178]

The trade and use of bushmeat from gorillas and other endangered animals has been documented by UNEP, and is on the increase.[179] The bushmeat is sometimes used as food for workers and militias engaged in pillage. The organized groups extracting natural resources have also killed gorillas as retaliation against authorities for interfering with their ongoing extraction of natural resources.[180] Gorilla trade and exploitation in the Congo Basin frequently crossed frontiers, taking advantage of areas of weak regulatory enforcement. The Eastern and Western species of gorillas are listed on Appendix I of CITES, which prohibits international trade (live or dead, including products and derivatives) for primarily commercial purposes.[181]

The United Nations General Assembly has expressed its serious concern about "the steady rise in the level of rhinoceros poaching and the alarmingly high levels of killings of elephants in Africa, which threaten those species with local extinction and, in some cases, with global extinction."[182] It was estimated that in 2011, around 37,000 African elephants were poached, which amounts to 7 percent of the African Elephant population rates. That is greater than the

[174] List of Countries which have Signed, Ratified/Acceded to the Protocol on the Statute of the African Court of Justice and Human Rights, https://au.int/sites/default/files/treaties/7792-sl-protocol_on_the_statute_of_the_african_court_of_justice_and_human_rights.pdf (last accessed 2 August 2017).
[175] The Malabo Protocol, article 9
[176] UNODC (2016), p.15.
[177] UNEP (2014), p.39.
[178] Rose (2014), p.21.
[179] Christian Nellemann, Ian Redmond, Johannes Refisch (eds), *The Last Stand of the Gorilla – Environmental Crime and Conflict in the Congo Basin. A Rapid Response Assessment,* 2009 ("UNEP Gorilla Study"), pp.6, 11, 24, 46.
[180] UNEP Gorilla Study, p.22.
[181] UNEP Gorilla Study, p.13.
[182] UNGA Resolution 69/314.

estimated rate at which African elephant populations increase (five percent), which in and of itself demonstrates the danger of this type of practice.[183] A UNEP study in 2014 found similarly disturbing results, with the forest elephant population estimated to have declined around 62 percent between 2002 and 2011.[184] From 2009 to 2014, 91 shipments of ivory were recorded, totalling 159 metric tons, but this is likely to only be a small proportion of the actual volume of illicit trades in these threatened animals.[185]

Concerning rhinoceros, "there are less than 28,000 rhinos of any species left in Africa and Asia" and less than 5,000 black rhinos in existence.[186] A study of the rhino populations in Kruger National Park in South Africa, which is home to approximately 20 percent of the world's black rhinos and 45 percent of its white rhinos, found that poaching continues at dangerous levels.[187] For many years, rhinoceros horn has been utilized as a treatment for fevers, cerebrovascular disease, and more recently cancers, in traditional medicine in Asia.[188] Seizures of rhinoceros horn have steadily increased in the last ten years. After trade in white rhinoceros was prohibited throughout its range except for South Africa and Swaziland in 2005, the number of applications for exceptions applicable in these two countries (for trade for zoos and hunting trophies) increased sharply.[189] Many of the applications for these exceptions came from persons with no hunting background, indicating that the hunts are being used as a cover to obtain the rhinoceros horn.[190] Rhino horn is traded across the border between China and Burma,[191] and other major destination countries for rhinoceros horn are listed as Vietnam, China, Ireland, Czech Republic, United States and Thailand.[192]

The Wildlife Justice Commission, which conducts investigations into the illegal trade of animals, obtained information including undercover video footage, indicating that a criminal network of over 50 individuals was operating transnationally from its base in Vietnam, trading in rhino, elephant, tiger and other endangered species both via shops and social media

[183] UNODC (2016), p.42-43.
[184] UNEP (2014), p.7.
[185] UNODC (2016), p.44.
[186] UNODC (2016), p.70. See also UNGA Resolution 69/314 (noting the "steady rise in the level of rhinoceros poaching").
[187] Sam Ferreira et. al., "Disruption of Rhino Demography by Poachers May Lead to Population Declines in Kruger National Park, South Africa", Public Library of Science, PLoS One. 2015; 10(6).
[188] UNODC (2016), p.70.
[189] UNODC (2016), p.70.
[190] UNODC (2016), p.70-71.
[191] Rose (2014), p.21.
[192] UNODC (2016), p.71.

platforms.[193] The ivory and rhino horn were identified as coming from Angola, South Africa, and Mozambique.[194] As the trade involved animals on appendices 1 and 2 to CITES, which Vietnam is a party to, it was considered to have an obligation to end this illegal trade.[195]

As noted above, the unlawful trade and movement of protected species constitutes a huge market internationally. Illegal logging and timber trade is particularly lucrative.[196] Seizures of illegally handled species indicate the breadth of supposedly protected species being traded and the depth of the trading occurring, as well as the huge value of these markets. For example, the largest ever seizure of rosewood, which is a tropical hardwood, often traded illegally, was conducted in 2014 by Singapore authorities (it involved some 3,000 tons of Malagasy rosewood).[197] From 2005 through to 2015, around 10,000 tons of protected rosewood was seized by customs.[198]

Confronting this lucrative and large-scale trade is complicated by several factors. Because of its transnational nature, the trade in illegal logging can escape the concerted attention of domestic law enforcement authorities. International bodies with a mandate to address illegal logging typically do not have an operational international police force exists and so primarily rely on assisting domestic enforcement efforts.[199] The successful international operations that occur provide a glimpse of the quantum of the illegal logging and trading occurring worldwide. In 2015, INTERPOL participated in Operation Log, which involved the seizure of illegally harvested woods such as kosso worth over 200 million United States dollars.[200] Because only some species of rosewood are specifically protected from unregulated trade, it can be difficult to ascertain the exact level of illegal trade occurring, and it is difficult for customs inspectors to rapidly differentiate between similar looking species of trees.[201] Illegal logging has a compounding impact on environmental harm as it contributes to carbon dioxide emissions (tropical deforestation is estimated by UNEP to account for 10 to 15 percent of

[193] Wildlife Justice Commission (Dr. Edgardo Buscaglia et. al.), *Accountability Panel Decision on the Map of Facts regarding Illegal Trade in Wildlife Products in Nhi Khe, Vietnam*, 15 November 2016 ("Wildlife Justice Commission (2016)"), p.2.
[194] Wildlife Justice Commission (2016), p.4, point 10.
[195] Wildlife Justice Commission (2016), p.5, point 13.
[196] UNEP (2014), p.8.
[197] UNODC (2016), p.35.
[198] UNODC (2016), p.38.
[199] Interpol and The World Bank, *Chainsaw Project: and Interpol perspective on law enforcement in illegal logging*, 2009 (Lyon and Washington DC), p.31.
[200] UNODC (2016), p.38.
[201] UNODC (2016), p.35, 39.

global carbon emissions),[202] as well as soil erosion, loss of water retention, and the destabilisation of local ecosystems.[203] Its anthropocentric impact is also multi-faceted, as it can remove the homes, livelihoods, and sources of sustenance for forest-dwelling peoples.[204]

Wildlife exploitation, and particularly illegal logging, can inflame armed conflict as it feeds resource wars and provides a source of revenue to illegal groups looking purchase weapons and finance other military activities. This is beginning to be reflected in the jurisprudence of the ICC. In *Lubanga*, the Court recognised that exploitation of natural resources in Ituri fuelled the protracted armed conflict.[205] In *Ntaganda*, the Office of the Prosecutor alleges that '[t]he district of Ituri is rich in natural resources, including gold, diamonds, coltan, timber and oil . . . Competition over these resources has, in many ways, fanned the flames of conflict in the area.'[206] UNEP has noted that unlawful exploitation of species provides a source of finance for not only armed non-state actors but also organized crime groups and terrorist groups.[207] It has specifically identified another ICC indictee, Joseph Kony of the Lord's Resistance Army, as directing his rebel force to hunt ivory in the Garamba National Park on the border between the Democratic Republic of Congo and South Sudan.[208] In this manner, wildlife exploitation, like other grave forms of environmental harm, compounds on societal problems such as armed conflict and further undermines efforts to establish peace, security and the rule of law.

D. Definitional, theoretical, and legal underpinnings

1. The natural environment

It is necessary at the outset to define the term "natural environment" (herein shortened to "environment") which is the subject of this analysis. As familiar as this term is, it is difficult

[202] UNEP (2014), p.14; Prospieri and Terrosi (2017), p.513 citing O. Edenhofer et al. (eds), Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Climate Change 2014: Mitigation of Climate Change, at 9, available online at https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_full.pdf.
[203] Rose (2014), p.19.
[204] Prospieri and Terrosi (2017), p.513.
[205] *Prosecutor v. Thomas Lubanga Dyilo*, ICC-01/04-01/06-2842, Judgment Pursuant to Article 74 of the Statute, Trial Chamber I, 14 March 2012 ("*Lubanga* Article 74 Decision"), paras.67, 71.
[206] *Prosecutor v. Ntaganda*, ICC-01/04-02/06-503-Conf-AnxA, Public redacted version of 'Prosecutor's Pre-Trial Brief', Trial Chamber VI, 9 March 2015, (1 September 2015, ICC- 01/ 04- 02/ 06- 503- AnxA- Red2), para.7.
[207] UNEP (2014), p.8.
[208] UNEP (2014), p.54.

to comprehensively delineate, and many definitions have been suggested.[209] The definition provided by the International Law Commission ("ILC") is used herein as the ILC is the principle non-judicial body charged with examining and distilling the rules of international law. The term "natural environment" under international law is that of the International Law Commission.

> the words 'natural environment' should be taken broadly to cover the environment of the human race and where the human race develops, as well as areas the preservation of which is of fundamental importance in protecting the environment. These words therefore cover the seas, the atmosphere, climate, forests, and other plant cover, fauna, flora and other biological elements.[210]

While most parties involved in international criminal law agree that humankind's detrimental impact on the environment must be curbed, the theoretical underpinnings for this ecologically protective accord are less united.[211]

2. Anthropocentricism

International criminal law is largely based on human-centred values and interests. Similarly, international humanitarian law (IHL) is founded on anthropocentric values, designed to minimize unnecessary human suffering resulting from armed conflict.[212] The environment has traditionally been viewed through an anthropocentric lens and characterised as a resource to be exploited for the benefit of humankind, particularly during times of armed conflict.[213] International criminal law incorporates many of the principles and provisions of IHL, and has accordingly focused on the principles of humanity and reducing human suffering. Similarly, many commentators adhere to the essentially utilitarian anthropocentric approach, valuing the

[209] Various jurisdictions formulate the definition in different ways. For example, the Environmental Protection Act of the State of Victoria in Australia contains the following definition: "'environment' means the physical factors of the surroundings of human beings including the land, waters, atmosphere, climate, sound, odours, tastes, the biological factors of animals and plants and the social factor of aesthetics." The reference to sound, tastes and aesthetic factors indicates an even broader conception of the environment than that set out by the International Law Commission; Environment Protection Act 1970 - Section 4 (available at http://www.austlii.edu.au/au/legis/vic/consol_act/epa1970284/s4.html) (last checked 29 May 2015). Dam-de Jong defines the environment as "The environment comprises the air, water, land, flora and fauna, which interact as part of different ecosystems"; Dam-de Jong (2015), p.25.

[210] International Law Commission, "Draft Code of Crimes Against the Peace and Security of Mankind", 43(2) *Yearbook of the International Law Commission* (1991), at 107, para.4; cited in Peterson (2009), pp.328-329. See also Schmitt (1997), p.5.

[211] The split between the anthropocentric and eco-centric views resulted in the inclusion of two separate provisions addressing "widespread, long-term, and severe" environmental damage in Additional Protocol I, article 55 from a more anthropocentric view and article 35(3) from a more eco-centric view, as discussed in more detail below; Schmitt (1997), pp.69-70.

[212] See Schmitt (1997), pp.6, 56, 62.

[213] Drumbl (1998-1999), pp.122-123.

environment to the extent it is able to serve the interests of humankind, but no further.[214] Because of this, the environment has not generally been afforded its own intrinsic value[215] and the provisions protecting the environment under international criminal law usually address destruction of the environment only insofar as this will harm human interests. However, the environment is a value which cannot sustain unchecked exploitation.

3. Eco-centricism

In 1949, with the devastation and wounds of the Second World War still fresh, Aldo Leopold's Land Ethic was published, in which he observed that "all ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. The land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals, or collectively the land."[216] This eco-centric view, which has become more prevalent in recent decades, seeks to ascribe the environment an intrinsic value, irrespective of whether human beings suffer as a result of environmental harm.[217] Adherents to the eco-centric approach seek not only the application of international criminal law to environmental damage *per se*, but also the development of new prohibitions criminalising damage to the environment irrespective of a state of armed conflict and irrespective of whether human beings are harmed by the offending actions.

Several significant instruments of international law attribute value to the environment *per se*, rather than only insofar as it directly serves human interests. For example, the 1972 World Heritage Convention defines natural heritage as natural features, geological or physiographical formations, and natural sites of "outstanding universal view" from the "point of view of science" and "conversation", as well as due to aesthetic value.[218] Similarly, the United Nations General Assembly has emphasized the "intrinsic value of biological diversity"

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[214] See, e.g., Brigadier-General Joseph G. Garrett III, US Army, "The Army and the Environment: Environmental Considerations during Army Operations" ("Garrett (1996)") in Richard Grunawalt, John King and Ronald McClain (eds.), *Protection of the Environment During Armed Conflict*, International Law Studies, Vol.69 (1996), p.46.

[215] However, see discussion below of cases from New Zealand and India in which environmental features have been given legal status, infra Chapter IV(D)(1)(a).

[216] Aldo Leopold, *1886-1948. A Sand County Almanac, and Sketches Here and There* (New York: Oxford University Press, 1949).

[217] See, e.g., Jensen (2005), pp.151-152.

[218] World Heritage Convention 1972, 1037 UNTS 151, article 2 (defining natural heritage as "natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.").

along with its importance for human well-being, and has declared 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."[219]

The environment's intrinsic value is increasingly being legally recognised. Experts assessing harm to the environment have highlighted the utility of criminal law to protect environmental interests as such, by qualifying them as "penally-protected interests".[220] Several constitutions recognise the intrinsic value of the environment, particularly in South America. For example, Ecuador's Constitution of 2008 recognises that nature "is entitled to full respect, existence, and the maintenance and regeneration of its vital cycles, structure, functions, and evolutionary processes.[221] The Bolivian Constitution of 2009 recognises that not only humans but also "other living things" have the right to live in a healthy, protected and balanced environment,[222] and requires the State and territorial authorities to "preserve, conserve and contribute to the protection of the environment and the wild fauna maintained in ecological equilibrium, and the control of environmental contamination."[223]

Specific cases have also generated supportive jurisprudence recognising the inherent value of the environment. In a 2008 Judgment concerning the Erika oil spill disaster, the *Tribunal Correctional de Paris* ascribed significance to non-commercial living beings, in other words, pure environmental harm independent of anthropocentric ownership.[224] In New Zealand, the Supreme Court noted in a 2017 decision concerning land administered by the Department of Conversation that it had to consider the measures appropriate to "protect the 'intrinsic values'

[219] UNGA Resolution 69/314 ("*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…").
[220] United Nations Economic and Social Council, Resolution 1994/15, "The role of criminal law in the protection of the environment", Annex: Conclusions of the Seminar on the Policy of Criminal Law in the Protection of Nature and the Environment in a European Perspective, held at Lauchhammer, Germany, from 25 to 29 April 1992, para.4.
[221] Ecuadorian Constitution 2008, article 71 ("Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes. All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature. To enforce and interpret these rights, the principles set forth in the Constitution shall be observed, as appropriate. The State shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem.").
[222] Bolivian Constitution of 2009, article 33 ("Everyone has the right to a healthy, protected, and balanced environment. The exercise of this right must be granted to individuals and collectives of present and future generations, as well as to other living things, so they may develop in a normal and permanent way.").
[223] Bolivian Constitution of 2009, article 299 (II)(1).
[224] T. Corr. Paris, 16 January 2008, n8 99-34-895010, cited in Papadopoulou (2009), p.88.

of the land concerned",[225] which is explicitly required under the applicable legislation.[226] Other cases recognising the environment's intrinsic value have begun to emerge in domestic jurisprudence in recent years.[227] The concept of an ecological, or environmental, point of view is also recognised in legal instruments under international law, including the Convention on the Conservation of Migratory Species.[228]

International criminal law has a limited field of application. Only the most serious harm to the environment is designated as criminal, meaning acts like burning oil wells in Iraq,[229] or the use of chemical agents to defoliate the Vietnamese forests in the 1970s,[230] would be addressed whereas less serious acts would be left for regulatory bodies to deal with. Proponents of the ecological perspective would seek to include other activities that result in massive damage to the environment, including large-scale commercial fishing with fishnets, clearing wilderness for property development, deforestation, and the construction of extensive motorway systems, often passing through or over fragile environmentally significant areas.[231] Extending the coverage of criminal prohibitions to explicitly cover these acts would be a significant development in the structures and ambit of international criminal law.

4. The historical development of international law relevant to prosecuting environmental harm

As there is no specific framework designed for the prosecution of environmental harm under international law, the most relevant existing rules and prohibitions under the Rome Statute of the ICC are assessed for their applicability to such proceedings. At the same time, article 21

[225] Hawke's Bay Regional Investment Company Limited v Royal Forest and Bird Protection Society of New Zealand Incorporated [2017] NZSC 106 ("Hawke's Bay Decision"), para.111.
[226] See New Zealand Conservation Act 1987, Section 2(1), ("Conservation" is defined to mean the "preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations". Additionally, "preservation" is defined in relation to a resource as "the maintenance, so far as is practicable, of its intrinsic values", while "protection" in relation to a resource is defined as "its maintenance, so far as is practicable, in its current state; but includes … its restoration, … augmentation, enhancement, or expansion").
[227] See infra Chapter IV(D)(1)(a).
[228] Convention on the Conservation of Migratory Species, United Nations, *Treaty Series*, vol. 1651, No. 28395, Preamble ("Conscious of the ever-growing value of wild animals from environmental, ecological, genetic, scientific, aesthetic, recreational, cultural, educational, social and economic points of view.")
[229] Peterson (2009), p.342; Schmitt (1997), pp.19, 75; Tara Weinstein, "Prosecuting Attacks that Destroy the Environment: Environmental Crimes or Humanitarian Atrocities?", 17 *Geo. Int'l Envtl. L. Rev*. 697 (2005), p.698, p.708 (all discussing whether the burning of the oil wells in Iraq qualified as a war crime under the existing provisions of international law).
[230] Peterson (2009), pp.331-332; Aaron Schwabach, "Environmental Damage Resulting from the NATO Military Action Against Yugoslavia", 25 Colum. J. Envtl. L. 117 (2000) ("Schwabach (2000)"), p.126 (all discussing operations carried out by the United States Army during the Vietnam War and international criminal law).
[231] See White (2008), p.11.

of the Rome Statute on the applicable sources of law allows for the treaties, customary rules, and general principles of international environmental law to be applied by the Court, which will be particularly apposite in guiding proceedings concerning environmental harm.

The provisions and rules of international law relevant to the prosecution of environmental harm as currently formulated do not exist in a vacuum. Understanding the origins of international environmental law and international criminal law (as well as the inter-related body of international humanitarian law) is important in order to understand the underlying aims and motivations of laws relevant to the prosecution of environmental harm under international criminal law. Both international environmental law and international criminal law have experienced dramatic development in the last few decades (international environmental law since the 1970s and international criminal law since the 1990s).[232] Although international humanitarian law is much older in terms of written provisions, it has also seen a surge in development due to its judicial application in many international criminal cases in the modern international tribunals. The major aspects of the developments of these bodies of law are set out forthwith.

(a) Development of Environmental Law

International environmental law is structured around prevention of serious harm to the environment. It traditionally centered on State obligations, and largely relied on cooperative negotiation. Enforcement has been sought through public opinion rather than any binding mechanisms.[233]

Although international environmental law in its modern form is only recognisable from the 1970s onwards, its roots go back to the second half of the nineteenth century, when bilateral fisheries treaties began to be formed.[234] Those early treaties, and the creation of international institutions such as the League of Nations in the 1920s and the United Nations in 1945, signalled a growing understanding of the interconnectedness of the world and the limits on the availability of natural resources.[235] In this early period, States concluded treaties on an *ad hoc*, sporadic, and limited basis, generally seeking to preserve wildlife and protect waterways and

[232] See, e.g., Hague Institute for the Internationalisation of Law, General Rules and Principles of International Criminal Procedure and Recommendations of the International Expert Framework, October 2011, p.4.
[233] See Robert McLaughlin, "Improving Compliance: Making Non-State International Actors Responsible for Environmental Crimes", 11 *Colo. J. Int'l Envtl. L. & Pol'y* 377 [2000] ("McLaughlin (2000)"), p.379-380.
[234] Sands (2003), p.25.
[235] Sands (2003), p.25.

seas.[236] The *Trail Smelter* arbitration concerning sulphur fumes emitted from a smelter in Canada generated the axiomatic principle that "no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."[237]

However, anthropocentric interests drove forward the major developments in international law during this period, and the United Nations Charter contains no provisions addressing environmental protection or the conservation of natural resources.[238] In the late 1940s some multilateral institutions and conventions were formed, such as the International Union for the Protection of Nature of 1947[239] and the 1949 United Nations Conference on the Conservation and Utilisation of Resources,[240] and in the 1950s and 1960s several significant environmental organizations and United Nations General Assembly resolutions were enacted, covering fisheries issues, pollution, the Antarctic, and wildlife conservation.[241]

The period of sporadic un-coordinated developments concluded in 1972 when the Stockholm Declaration on the Protection of the Environment was issued by 116 States in attendance.[242] It noted in the Preamble that "in the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale". Principle 1 recognised the right to live in an environment of sufficient quality for dignity and well-being, as well as the responsibility of humankind "to protect and improve the environment for present and future generations."[243] Among the most significant provisions are Principle 21, which affirmed states' responsibility to ensure that activities within their jurisdiction or control do not cause damage in another state or in outer space or on the high seas;[244] Principle 22 which required states to co-operate in the development of

[236] Sands (2003), p.26-27.
[237] *Trail Smelter Award*, 35 AJIL 716 (1941); 9 ILR 317. Michael Bothe, Carl Bruch, Jordan Diamond, and David Jensen, "International law protecting the environment during armed conflict: gaps and opportunities", *International Review of the Red Cross*, Volume 92 Number 879 September 2010 ("Bothe et. al. (2010)"), p.585.
[238] United Nations Charter 1945; Sands (2003), pp.26-31.
[239] McLaughlin (2000) citing 1977 Statutes, 18 IPE 8960. See also Sands (2003), p.31.
[240] Sands (2003), pp.31-32.
[241] Sands (2003), p.34.
[242] Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 16 June 1972, UN Doc. A/CONF.48/14/Rev. 1 (1973); Sands (2003), p.36.
[243] Stockholm Declaration, article 1 provided further that "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."
[244] Bothe et. al (2010), p.584.

international environmental law; Principle 23, which allowed states a certain margin of appreciation to develop national standards; and Principle 24, which called on states to cooperate 'to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all states'.[245] The Stockholm Declaration ushered in a new more organised period in the development of international environmental law, particularly by calling on states to cooperate in the development of international environmental law.[246] In the wake of the Stockholm Declaration, the United Nations Environment Program was created in 1972, and treaties were concluded concerning the dumping of waste at sea, the trade in endangered species (CITES), and the protection of cultural heritage,[247] as well as the UN Convention on the Law of the Sea (UNCLOS) of 1982.[248]

Prior to the Rio Conference on Environment and Development of 1992 (UNCED), treaties were concluded on environmental impact assessments, transboundary impacts of industrial accidents, and the protection and use of international watercourses,[249] and international organizations became more active in the environmental field, such as through the moratorium on commercial whaling issued by the International Whaling Commission, and the 1982 UNGA World Charter for Nature.[250]

The 1992 Rio Declaration on Environment and Development[251] reflects the central position of anthropocentric and development interests in the international regulation of interaction with the environment.[252] Article 1 places human beings "at the centre of concerns for sustainable

[245] Sands (2003), p.38.
[246] Stockholm Declaration, Principle 22.
[247] The World Heritage Committee maintains a World Heritage List of cultural heritage and natural heritage properties with 'outstanding universal value', which are subject to special protections during times of armed conflict; Bothe et. al. (2010), p.582.

[248] United Nations Convention on the Law of the Sea (UNCLOS), 10 December 1982, 1833 UNTS 3; Sands (2003), p.41. Under article 192 and 194 of UNCLOS, State Parties are required 'to protect and preserve the marine environment', and must take measures to prevent, reduce, and control marine pollution.
[249] Sands (2003), p.42.
[250] Sands (2003), pp.42-43.
[251] The United Nations Conference on the Environment and Development (UNCED) saw three non-binding instruments adopted: the Rio Declaration on Environment and Development (the Rio Declaration); a Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forest (the UNCED Forest Principles); and Agenda 21. At the conference, two treaties were opened for signature: the Convention on Biological Diversity; and the UN Framework Convention on Climate Change; Sands (2003), p.53. See also Marie G. Jacobsson, "Protection of the environment in relation to armed conflicts", Annex E of Report of International Law Commission Sixty-Third Session, General Assembly Official Records, 66th Session Supplement No. 10 (A/66/10) (2011) ("Jacobsson (2011)"), paras.10-13.
[252] Sands (2003), pp.54.

development", and notes that they are "entitled to a healthy and productive life in harmony with nature". Significantly, principle 24 states that: 'Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary'.[253] Other articles of the Rio Declaration repeat in part the ideals of the Stockholm Declaration, while linking these environmental obligations to the right to sustainable development. Significantly, the Rio Declaration reflects the 'precautionary approach' in Principle 15, and the polluter-pays principle (implicitly) in Principle 16.[254]

Following the 1992 UNCED, there have been many environmental treaties adopted, and many acts of international organizations directed towards the conversation of the environment. Most recently, huge political effort has been directed towards achieving a comprehensive climate change agreement, which was eventually managed in the form of the Paris Pact.[255] The United Nations Millennium Development Goals and Sustainable Development Goals have a major focus on environmental protection, alongside development and poverty reduction.[256]

International environmental agreements have proliferated in recent decades, seeking to address in particular carbon emissions, deforestation and other grave threats to the environment. Over 900 international treaties, applicable in times of war and peace, exist with environmental provisions in them.[257] However, most of these could not be used to directly prosecute crimes against the environment under international law *per se* as they do not incorporate individual criminal responsibility at the international level, and there is no international environmental court with jurisdiction to prosecute individuals for these activities. Instead, this body of law provides interpretive guidance when determining the

[253] Rio Declaration, Principle 24.
[254] Sands (2003), pp.56.
[255] Note that the current President of the United States has signalled his desire to withdraw from the Paris Pact, but this will not be effective for several years; Valerie Volcovici, "U.S. submits formal notice of withdrawal from Paris climate pact", Reuters, 4 August 2017, (https://www.reuters.com/article/us-un-climate-usa-paris/u-s-submits-formal-notice-of-withdrawal-from-paris-climate-pact-idUSKBN1AK2FM) (last checked 25 December 2017).
[256] See, *e.g.*, the Sustainable Development Goals, which set the global agenda in the lead up to 2030, and many of which directly or indirectly concern environmental protection; e.g. Goal 6 (clean water and sanitation); Goal 7 (affordable and clean energy); Goal 11 (sustainable cities and communities); Goal 12 (responsible consumption and production); Goal 13 (climate action); Goal 14 (life below water); Goal 15 (life on land).
[257] See Jensen (2005), p.155. See also Drumbl 1998-1999, p.139; Wattad 2009, p.280; Schwabach 2004, p.5, 13, 14-15. Byung-Sun Cho claims that the "vast majority" of the environmental treaties implicitly recognise the penal nature of the act by imposing duties to prohibit, prevent, prosecute or punish; Byung-Sun Cho, "Emergence of an International Environmental Criminal Law?", 19 *UCLA J. Envtl. L. & Pol'y* (2001), p.17-18. *Contra* Schmitt (1997), p.50.

applicability of the existing prohibitions under the Rome Statute, particularly in delineating lawful from unlawful conduct *vis-à-vis* the environment.[258]

(b) Development of International Criminal Law addressing Environmental Harm

There is a long history of environmental damage during armed conflict, both as a deliberate tactic of war and as an off-shoot of lawful military operations, as well as during times of social upheaval.[259] According to the Book of Kings in the Old Testament of the Bible, during the Ninth Century Before Christ, the Israelites engaged in tactics of altering the local environment in an attack against the Moabites.[260] Likewise, the prohibition of environmental damage has a long pedigree. Restrictions on harming the natural environment were set out in the Old Testament.[261] Similarly, Muhammad's companion, the first Caliph Abu Bakr, is said to have instructed his Muslim army to avoid burning or harming trees in the Seventh Century Anno Domini.[262]

Despite these early developments and examples of environmental harm being used as a tactic of war, international laws concerning environmental damage have been slow to develop. It was not until war broke out in Vietnam in the 1960s, that a greater awareness of the need to collectively take measures to protect the environment emerged, particular during times of armed conflict.[263] This fed the impetus for the development of treaties specifically protecting the environment, particularly under the rubric of international humanitarian law, and included calls for the fifth Geneva Convention on the protection of the environment.

The term ecocide was first widely used by a plant biologist, Arthur Galston, to encapsulate what he described as 'willful, permanent destruction of environments in which people can live

[258] Peacetime environmental law remains effective during times of armed conflict to extent that it is compatible with international humanitarian law; International Law Commission, Draft Articles on the Effects of Armed Conflicts on Treaties (2011), Annex - Indicative list of treaties referred to in article 7. See also Louise Doswald Beck "Le droit international humanitaire et l'avis consultatif de la Cour internationale de Justice sur la licéité de la menace ou de l'emploi d'armes nucléaires" (1997) 823 RICR 37; *cited in* Schmitt (1997), p.32, 37.
[259] Weinstein (2005), p.700.
[260] See Bible: Revised Standard Version, 2 Kings 3:24-25.
[261] Bible: Revised Standard Version, Deuteronomy 20:19 ("[i]f you besiege a town for a long time, making war against it in order to take it, you must not destroy its trees by wielding an axe against them. Although you may take food from them, you must not cut them down. Are trees in the field human beings that they should come under siege from you?"). See also Cohan (2002), p.500.
[262] See Aboul-Enein, H. Yousuf and Zuhur, Sherifa, *Islamic Rulings on Warfare*, Strategic Studies Institute, US Army War College (Diane Publishing Co.: Darby Pennsylvania, 2004), p.22 ("Stop, 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.")
[263] Jacobsson (2011), para.6.

in a manner of their choosing'.[264] Galston and others condemned the American operations in Vietnam, particularly Operation Ranch Hand, and sought to enshrine a prohibition against serious harm to the environment in the same way that genocide was prohibited by Convention after World War Two.[265] In 1973, Richard Falk sought the enactment of an International Convention on the Crime of Ecocide and a Draft Protocol on Environmental Warfare.[266] He defined ecocide as 'acts committed with intent to destroy, in whole or in part, a human ecosystem', committed in peacetime or wartime,[267] and suggested that conducting warfare in an environmentally deleterious way, such as through the use of chemicals, bulldozers, bombs, be prohibited in the Draft Protocol on Environmental Warfare.

Partly as a result of the events in Vietnam, the abstract ideals concerning environmental protection set forth in the Stockholm Declaration from 1972 were thereafter codified into specific prohibitions of international humanitarian law, which hitherto had featured prohibitions on certain means and methods of war in The Hague Regulations, but no prohibitions specifically protecting the environment. Most prominent were articles 35(3) and 55(1) of the 1977 Additional Protocols to the Geneva Conventions and the Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques (ENMOD).[268] These prohibitions would provide the basis for the subsequent introduction of provisions of international criminal law penalising destruction of the environment.[269]

The issue of environmental destruction and the need to protect the environment during armed conflict was brought to the forefront of international consciousness in 1990-1991, when Saddam Hussein set fire to Kuwaiti oil wells.[270] The UN Secretary-General issued reports on the protection of the environment in times of armed conflict in 1992 and 1993,[271] and the ICRC issued a report on the same subject in 1994.[272]

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[264] David Zierler, *Invention of Ecocide: Agent Orange, Vietnam, and the Scientists Who Changed the Way We Think About the Environment* (University of Georgia Press 2011), at 15.
[265] Bronwyn Leebaw, 'Scorched Earth: Environmental War Crimes and International Justice', 12(4) *Perspectives on Politics* (2014) 770, at 777.
[266] Richard Falk, 'Environmental Warfare and Ecocide: Facts, Appraisal and Proposals', 4(1) *Bulletin of Peace Proposals* (1973), ("Falk (1973)"), p.80.
[267] Falk (1973), p.93.
[268] See *infra* Chapter 2(D)(i)(a) (describing elements of articles 35 and 55 of AP1 in relation to article 8(2)(b)(iv) of the Rome Statute).
[269] Bothe et. al. (2010), pp.572-573.
[270] Secretary-General Report 1993, p.11.
[271] Secretary-General Report 1993.
[272] ICRC Guidelines for military manuals and instructions on the protection of the environment in times of armed conflict (1994) (30 April 1996 Article, International Review of the Red Cross, No. 311).

The possibility of international prosecutions for serious atrocity crimes, which had been dormant since the post-World War Two trials, became a reality with the creation of the modern international and hybrid courts in the 1990s and beyond. In 1993, the International Criminal Tribunal for the former Yugoslavia (ICTY) was established, with jurisdiction over genocide, crimes against humanity, and war crimes, the latter of which was broadly framed and could potentially encompass serious environmental harm caused during armed conflict. The International Criminal Tribunal for Rwanda (ICTR), set up in 1994, had essentially the same substantive jurisdiction. Whereas other international or quasi-international courts were set up for countries including Sierra Leone, Cambodia, Lebanon, and East Timor,[273] the most significant development was the creation of the Rome Statute of the ICC in 1998, which entered into force in 2002.[274] The Rome Statute has a provision that specifically refers to harm to the environment (the war crime in article 8(2)(b)(iv)),[275] along with several provisions that could indirectly address destruction of the environment.[276]

Despite the well-known examples of environmental damage during times of armed conflicts and in weak regulatory contexts, there has not yet been any conviction for environmental crimes (meaning eco-centrically framed crimes) before an international tribunal.[277] Although the crime of causing environmental harm during armed conflict was not explicitly listed in the ICTY statute, it may have fallen under article 3 as a law or custom of war.[278] However, aside from the ICTY Office of the Prosecutor's examination of the potential liability of NATO personnel in connection with the 1999 bombing of Serbian sites, and the ICC's occasional reference to environmental implications, there have been no cases concentrating on charges of environmental harm under modern international criminal law, and the ICTY Office of the

[273] The prohibition on military attacks causing excessive environmental harm under article 8(2)(b)(iv) of the Rome Statute is partly reflected in regulation 6(1)(b)(iv) of the provisions governing the work of the East Timor tribunals. United Nations Transitional Authority for East Timor Regulation No. 2000/15 establishes panels with exclusive jurisdiction over serious criminal offences, including war crimes. According to Section 6(1)(b)(iv), "[i]ntentionally launching an attack in the knowledge that such attack will cause … widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated" constitutes a war crime in international armed conflicts.
[274] The Rome Statute was signed in 1998 but only entered into force after the instruments of ratification, acceptance, approval or accession of 60 States had been submitted to the Secretary-General; in accordance with Article 126 of the Statute.
[275] The war crime set out in article 8(2)(b)(iv).
[276] See infra Chapter II(C).
[277] Weinstein (2005), p.698; Stephens (2009), p.55; UNEP Study (2009), p.24.
[278] ICTY Statute, article 3.

Prosecutor questioned whether the international humanitarian law prohibitions against excessive environmental harm would even apply before the Tribunal.[279]

The Iraqi Special Tribunal has jurisdiction over crimes of serious environmental harm but has not undertaken prosecutions for this provision.[280] The remaining major international tribunals (the ECCC, STL and SCSL) would not appear to have direct jurisdiction over crimes of serious environmental harm and so unsurprisingly have not undertaken prosecutions for these offences.[281]

The lack of provisions and prosecutions for environmental harm before the international criminal tribunals indicates the embryonic nature of the prosecution of environmental harm under international criminal law.

[279] Final Report on NATO (2000), para.15 ("Consequently, it would appear extremely difficult to develop a prima facie case upon the basis of these provisions, even assuming they were applicable.").
[280] Statute of the Iraqi Special Tribunal, Article 13(b)(5) ("Intentionally launching an attack in the knowledge that such attack will cause 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"); Weinstein (2005), p.705.
[281] See Statute of Special Court for Sierra Leone, Article 4 (limiting other war crimes to those enumerated); Law of the Extraordinary Criminal Chambers of Cambodia (only including grave breaches of the Geneva Conventions in its jurisdiction); Statute of the Special Tribunal for Lebanon, Article 2 (limiting crimes in the jurisdiction to terrorism and life and personal integrity).

II. ENVIRONMENTAL HARM AND THE ICC'S SUBSTANTIVE FRAMEWORK

A. Introduction

In this chapter, the substantive provisions of the Rome Statute of the ICC that could potentially be used to address serious environmental harm are assessed. Part B sets out the definitions of the core crimes (genocide, crimes against humanity, war crimes, and aggression),[282] and reviews how these crimes have been used in ICC proceedings, as well as other relevant settings, to address environmental harm. Part C then turns to three paradigmatic forms of environmental harm (military attacks resulting in harm to the environment, toxic dumping, and wildlife exploitation) and examines them from the inverse perspective, assessing whether these three specific forms of environmental harm could be prosecuted under any of the current crimes within the ICC's jurisdiction.

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, which provides that the Court shall apply in the first place the Rome Statute, Elements of Crimes and its Rules of Procedure and Evidence, in the second place, applicable treaties and the principles and rules of international law, including international humanitarian law, and third, "general principles of law derived by

[282] 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. 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. 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'; Antonio Cassese and Paola Gaeta, International Criminal Law, (Oxford: Oxford University Press, 2nd edn, 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 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 …").

the Court from national laws of legal systems of the world including, as appropriate, the national laws of States that would normally exercise jurisdiction over the crime".[283] 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, the study also looks to other war crimes, crimes against humanity, and forms of genocide, which could be used to prosecute environmental harm.

The focus in this Chapter is on substantive law, and not on procedural questions, which are dealt with in Chapter Three, nor on questions of victim status and participation, which are dealt with in Chapter Four. Applying the substantive provisions of the Rome Statute to environmental harm, including the three paradigmatic forms listed above, provides a guide to the feasibility of prosecuting environmental harm at the ICC and also permits an insight into whether the Court's framework is conceived anthropocentrically, as opposed to eco-centrically.

B. The Preamble of the Rome Statute and environmental harm

Before addressing the specific prohibitions set out in the Rome Statute, it is instructive to look to its Preamble to discern the tenor of the Court's object and purpose, and the underlying motivations for the creation of its jurisdiction. The Preamble not only provides a guide to the aims underlying the Court's foundation but also may be used to interpret the text of the Rome Statute.[284] Jurisprudence emerging from the ICC shows that the Preamble is frequently relied on for the interpretation of the provisions of the Rome Statute.[285]

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".[286] This reference, albeit oblique, may accommodate the Court's processes being applied to serious environmental harm. In the World Charter for Nature, the United Nations General Assembly reaffirmed the need to protect species and ecosystems "for the benefit of

[283] Rome Statute, article 21(1)(c) clarifies that general principles of law from national systems may only be relied on "provided that those principles are not inconsistent with this Statute and with international law and internationally recognized norms and standards." See also infra Chapter I(C)(1) (discussion of sources of law).
[284] See Vienna Convention on the Law of Treaties of 1969, article 31(1) ("A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose."). See also Max Hulme, "Preambles in Treaty Interpretation", *University of Pennsylvania Law Review*, 164 (2016), pp.1281-1343, p.1282.
[285] See, e.g., *Katanga* article 74 Decision, paras.55, 1122.
[286] Rome Statute, Preamble.

present and future generations",[287] and the World Heritage Convention recalls the duty of states to ensure "the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage…".[288] The International Court of Justice has also acknowledged the direct link between the environment and the health of human beings, including future generations, stating "(…) the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn."[289] The indirect reference in the Rome Statute Preamble to the principle of intergenerational equity forms a bridge to international environmental law, as this principle lies at the heart of the notion of sustainable development.[290]

However, the lack of any direct reference to the environment in the Preamble indicates that the accommodation for environmental harm only extends as far as human interests are impacted. Accordingly, from the outset of the ICC's founding document, the environment is accorded at most incidental coverage, conditional on the demonstration of harm to human interests. That anthropocentric orientation must be taken into account when interpreting the specific provisions of the Rome Statute, including the substantive prohibitions within the Court's jurisdiction, which are examined forthwith.

C. Prohibitions in the Rome statute relevant to environmental harm

1. Genocide

Genocide is a crime that consists of one or more of several prohibited underlying acts targeting members of a group,[291] committed with the intent to destroy, in whole or in part, a

[287] United Nations General Assembly, Resolution 37/7, A/RES/37/7, 28 October 1982, Annex: World Charter for Nature, Preamble ("Reaffirming that man must acquire the knowledge to maintain and enhance his ability to use natural resources in a manner which ensures the preservation of the species and ecosystems for the benefit of present and future generations…"). See also UNGA Resolution 69/314 ("*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…").

[288] World Heritage Convention 1972, article 4.

[289] *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, 8 July 1996, *I.C.J. Reports* 1996, p. 226 ("ICJ Nuclear Weapons Advisory Opinion (1996)").

[290] See Brundtland Commission, World Commission on Environment and Development 1990, Our Common Future, Australian edn, Oxford University Press, Melbourne, p.85 ("development that meets the needs of the present without compromising the ability of future generations to meet their own needs.").

[291] The underlying acts listed in the Genocide Convention, article 3 are: (a) Killing members of the group; (b) Causing serious bodily or mental harm to members of the group; (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; (d) Imposing measures intended to prevent births within the group; (e) Forcibly transferring children of the group to another group.

national, ethnical, racial or religious group, as such.[292] ICTR judgements have called genocide "the crime of crimes",[293] and at the ICTY it has been noted that genocide is "singled out for special condemnation and opprobrium" as it harms all of humanity.[294] While genocide is clearly anthropocentric in a broad sense, as it concerns the suffering of groups of human beings, it could more precisely be labeled as genus-centric, because the core value that it seeks to protect is the existence of groups of people, rather than specific individuals.[295]

Direct evidence of genocidal intent is rare. Instead, this specific intent (*dolus specialis*) is usually shown by the accretion of circumstantial and indirect evidence. Because of the difficulty of proving specific intent, genocide is typically only charged at the international courts where there is evidence of large-scale killings or other serious violence targeting a racial, religious, national or ethnic group *en masse*.[296]

Convictions for genocide under international criminal law can be difficult to obtain. At the ICC there have been no convictions for this charge to date.[297] At the ICTY, only 3 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.[298] Conversely, at the ICTR,

[292] Rome Statute, article 6.
[293] *Prosecutor v. Jean Kambanda*, Case No. ICTR 97-23-S, Trial Judgment and Sentence, para.16 (4 September 1998); *Prosecutor v. George Rutaganda*, Case No. ICTR-96-3-T, Trial Judgment and Sentence, para.451 (6 December 1999); *Prosecutor v. Omar Serushago*, Case No. ICTR-98-39-S, Trial Sentence, para.15 (2 February 1999).
[294] In *Krstić,* the 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." *Prosecutor v. Radislav Krstić*, Case No. IT-98-33- A, Appeal Judgment, paras.266 and 275 (19 April 2004), para.36.
[295] The term genus-centric is original to this thesis.
[296] 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 Fur, Masalit, and Zaghawa people in Darfur.
[297] The only person charged with genocide before the ICC to date is the Sudanese President, Omar Al-Bashir: *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").
[298] Ljubiša Beara, Vujadin Popović, and Ždravko Tolimir. Two other persons – Radislav Krstić and Drago Nikolić were convicted for aiding and abetting genocide. Radovan Karadžić and Ratko Mladić have been convicted of committing genocide and are currently appealing their convictions.

where the occurrence of genocide was a fact of judicial notice, many of the indictees were convicted for genocide.[299]

Environmental harm could potentially meet the elements of one of the underlying acts of genocide. For example, intentionally destroying a people's habitat or taking their land or resources could be classified as wilful killing if death ensued (article 6(a)), deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part (article 6 (c)); or as causing serious bodily or mental harm to members of the group (article 6(b)).

The critical element would be proving that the environmental harm was perpetrated with the specific intent (*dolus specialis*) to destroy, in whole or in part, the targeted group.[300] In the case of pure environmental harm, with no accompanying direct violent attacks on human victims, past practice suggests it would be difficult to convince the judges of the genocidal intent.[301] An additional difficulty would be causation, as many intervening factors, including the weather and economic fluctuations, would affect the impact on a human population of environmental degradation and break the causal chain between the perpetrators' conduct and the resulting harm or death to members of the victim group.

Conversely, 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 that relate to, but do not centrally focus on, environmental harm, and also include many alleged killings. These include the systematic pillaging and destruction of villages and civilian property across a large area,[302] "contaminat[ing] the wells and water pumps of the towns and villages primarily inhabited by members of the Fur, Masalit and Zaghawa groups that they attacked", and "deliberately inflicting on the Fur, Masalit and Zaghawa ethnic groups conditions of life calculated to bring about their physical destruction".[303] However,

[299] Of the 62 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).
[300] Rome Statute, article 6.
[301] In this respect, it is notable that the OTP of the ICTY has encountered considerable difficulty seeking to prove genocide charges in relation to areas of Bosnia other than Srebrenica.
[302] *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.
[303] Second Bashir Arrest Warrant, pp.5-8; Bashir Arrest Warrant, pp.5-7. *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7.

there is an insufficient basis in the materials and filings in the *Bashir* case submitted so far to tell whether harm to the natural environment will feature significantly during the trial.

Another means is to destroy the land that sustains the targeted people through so-called scorched earth tactics.[304] While such tactics have not specifically been charged as genocide, this tactic of war could potentially meet the definition of the crime if it involved large-scale death or serious harm among the targeted population and were accompanied by the requisite specific intent or *dolus specialis*.[305] However, if the scorched earth tactics were merely seen as a defensive manoeuvre then it would be unlikely to result in any conviction, no matter how ill-judged, as demonstrated by the Rendulić case from the United States Military Tribunal at Nuremberg following World War Two.[306]

Because of the exacting requirements to prove genocide, environmental harm would be most likely to feature in a genocide case as one of several means used to harm members of the group by inflicting conditions on them that jeopardize their ongoing existence. This would assist to demonstrate the necessary specific intent needed to establish genocide. 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. Crimes Against Humanity

(a) Contextual Elements

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.[307] No link to armed conflict is required to prove a crime against humanity, meaning that this category of offence could potentially be

[304] See Cohan (2002), p.500.
[305] See Rome Statute, article 6.
[306] See *The Hostages Trial (Wilhelm List and Others)*, 8 Law Reports of Trials of War Criminals 66, 66-69 (1948) ("*Hostages* Trial"). Note that in the context of article 8(2)(b)(iv), these circumstances would potentially preclude responsibility prior to getting to the issue of duress, as the required foresight of excessiveness would not be met.
[307] Rome Statute, article 7. The underlying acts are: (a) Murder; (b) Extermination; (c) Enslavement; (d) Deportation or forcible transfer of population; (e) Imprisonment or other severe deprivation of physical liberty in violation of fundamental rules of international law; (f) Torture; (g) Rape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization, or any other form of sexual violence of comparable gravity; (h) Persecution against any identifiable group or collectivity on political, racial, national, ethnic, cultural, religious, gender as defined in paragraph 3, or other grounds that are universally recognized as impermissible under international law, in connection with any act referred to in this paragraph or any crime within the jurisdiction of the Court; (i) Enforced disappearance of persons; (j) The crime of apartheid; (k) Other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health.

used to repress serious environmental harm committed during war or peace.[308] Prosecuting environmental harm under this framework 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,[309] or occur as part of an attack committed through other means, such as the typical anthropocentric violence seen in previous crimes against humanity cases under international law.[310]

The anthropocentric focus of crimes against humanity is evident from the reference to humanity in the name itself. For present purposes, it is important that the reference to environmental harm in order to show an attack on a civilian population would immediately subordinate the environmental aspect of the case to the anthropocentric harm in so far as the legal elements of the case are concerned. Similarly, the contextual requirement of a state or organisational 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 inevitably be de-prioritized and subordinated to the primary focus on anthropocentric harm if crimes against humanity are utilized in this manner.[311]

(b) Other inhumane acts

The most directly applicable specific crime against humanity is article 7(1)(k), "other inhumane acts".[312] In addition to the general elements discussed above, the elements of other inhumane acts require that the perpetrator caused the victims great suffering or physical or mental harm.[313]

Environmental harm could potentially constitute inhumane acts if it caused the requisite great suffering or harm.[314] For example, if an aspect of the natural environment were of special significance to a people and the perpetrator were aware of the harm that would likely result

[308] 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.
[309] See Prospieri and Terrosi (2017), pp.509–525, p.510.
[310] See, e.g., *Katanga* article 74 Decision, para.1137 (referring to multiple violent acts such as wounding and killing villagers escaping from Bogoro).
[311] See Lambert (2017), p.726; M.A. Orellana, 'Criminal Punishment for Environmental Damage: Individual and State Responsibility at a Crossroad', (2005) 17 Georgetown International Environmental Law Review 673, at 693; Cusato Scorched Earth.
[312] Rome Statute, article 7(1)(k); Statute of the ICTY, article 5(i); Statute of the ICTR, article 3(i).
[313] Elements of Crimes, article 7(1)(k). See also Wattad 2009, p.282.
[314] See Lambert (2017), pp.727-728.

from its destruction, this could conceivably lead to a conviction.[315] Accordingly, 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."[316]

Nonetheless, this 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. To date, there have been no convictions under international criminal law for other inhumane acts based on environmental harm.

(c) 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.[317] 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 recognized as impermissible under international law".[318] 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."[319]

Although it is debatable whether the right to a healthy environment is a fundamental right established under international law,[320] the commission of serious environmental harm can

[315] 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, Application Number 006/2012*, Judgment, 26 May 2017 ("Mau Ogiek Judgment (2017)"), para.160.
[316] See Prospieri and Terrosi (2017), p.524.
[317] See Lambert (2017), p.727.
[318] Rome Statute, article 7(1)(h), 7(2)(g).
[319] Rome Statute, article 7(1)(h).
[320] The right to a healthy environment is recognised 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."). Article 12(2) of the International Covenant on Economic and Social Rights also refers 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."). Article 1 of the Rio Declaration of 1992 ("Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony

gravely impact on well-established fundamental rights, including the right to life, security, health,[321] and private and family life and home.[322] There are decisions of institutions including the African Commission on Human and Peoples' Rights, the European Court of Human Rights, and the Inter-American Commission and Court of Human Rights that have determined that environmental harm could amount to violations[323] including of the rights to life,[324] health,[325] property[326] and privacy,[327] in addition to the right to a satisfactory environment.[328] The gravity of serious environmental harm such as the spoliation of lands and ecosystems is

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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.") point towards the development of a right to a healthy environment but were not intended to create binding legal obligations. The Office of the High Commissioner for Human Rights has emphasized that the right to health under *inter alia* the Universal Declaration of Human Rights, article 25(1), and the Convention on the Rights of the Child, article 24, implicitly includes the right to a safe, clean, healthy and sustainable environment: Chart of Human Rights corresponding to Sustainable Development Goals: http://www.ohchr.org/Documents/Issues/MDGs/Post2015/SDG_HR_Table.pdf
(Sustainable Development Goals 12, 13, 14, 15). Also, at least 45 states have the right to a healthy environment as part of their constitution: 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, UNGA Document A/HRC/25/53, 30 December 2013, para.18 (https://documents-dds-ny.un.org/doc/UNDOC/GEN/G13/192/11/PDF/G1319211.pdf?OpenElement). See further Council of Europe, *Manual on Human Rights and the Environment*, second edition (2012). However, the European Court of Human Rights has noted that "no right to nature preservation is as such included" in the provisions of the ECHR; e.g. *Fadeyeva v. Russia* [2005] ECHR 376 [68] cited in Stephens (2009), p.317.

[321] 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.

[322] Stephens (2009), p.318 noting *Lopez-Ostra v. Spain* (1995) 20 EHRR 277 ("severe environmental pollution may affect individuals' well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, without, however, seriously endangering their health").

[323] See generally Knox (2012), para.24 (also for following citations).

[324] See, *e.g.*, 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."); Öneryıldız v. Turkey [GC], para. 118; 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.

[325] See, *e.g.*, European Committee of Social Rights, complaint No. 30/2005, *Marangopoulos Foundation for Human Rights* v. *Greece*, para. 221.

[326] See, *e.g.*, Inter-American Court of Human Rights, *Saramaka People* v. *Suriname*, Series C No. 172, judgement of 28 November 2007, paras. 95, 158.

[327] See, *e.g.*, European Court of Human Rights, *Fadeyeva v. Russia* (application No. 55723/00), judgement of 9 June 2005, para. 134; *Taşkin and others* v. *Turkey* (application No. 46117/99), judgement of 10 November 2004, para. 126; *López Ostra* v. *Spain* (application No. 16798/90), judgement of 9 December 1994, para. 58.

[328] Ogoniland Decision, para.52 ("The right to a general satisfactory environment, as guaranteed under Article 24 of the African Charter or the right to a healthy environment, as it is widely known, therefore imposes clear obligations upon a government. It requires the state to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources.").

particularly acute for indigenous people who frequently have collective ownership and responsibility concerning natural resources and lands.[329]

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.[330] In circumstances where the environmental harm solely impacted one group this element would be more readily proved. However, if the environmental harm impacted all people of all groups in a certain 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[331] and ICTR[332] do not require persecution to be committed in connection with a separate crime within their jurisdiction, at the ICC this is a requirement.[333] 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. Because of this, the independent utility of persecution as a means to address environmental harm before the ICC must be characterized as limited.[334]

(d) Deportation and forcible transfer

The crimes against humanity of deportation and forcible transfer could also be perpetrated by or through serious environmental damage.[335] Deportation and forcible transfer are sometimes referred to under the term forcible displacement.[336] They involve the forcible expulsion of persons from places where they are lawfully present without grounds permitted under international law. These crimes have been charged before international courts in connection with environmental damage. For example, in the *Bashir* case attacks impacting on the victims' group's means of survival, including water wells, are charged as a means of

[329] Prospieri and Terrosi (2017), p.522 citing Judgment, Moiwana Community v. Suriname, (Series C, No. 124), Inter-American Court of Human Rights, 15 June 2005 ('Moiwana Community Judgment'), § 131.
[330] Rome Statute, article 7(2)(g) ("'Persecution' means the intentional and severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity").
[331] ICTY Statute, article 5(h); *Prosecutor v. Tihomir Blaškić*, Case No.IT-95-14, Appeal Judgement, 29 July 2004, paras.131, 139; *Prosecutor v. Radoslav Brđanin*, Case No.99-36, Appeal Judgement, 3 April 2007, para.296; *Prosecutor v. Vujadin Popović et al*., Case No.05-88, Appeal Judgement, 30 January 2015, para.738.
[332] ICTR Statute, article 3(h); *Ferdinand Nahimana et. al. v. Prosecutor*, Case No.ICTR-99-52, Appeal Judgement ("*Nahimana* AJ"), para.985.
[333] See Rome Statute, article 7(1)(h).
[334] See Lambert (2017), p.727.
[335] See Lambert (2017), pp.726-727.
[336] See, e.g., Rome Statute, article 7(2)(d). Technically, the term forcible displacement encompasses deportation or forcible transfer or both when charged as underlying forms of persecution; *Prosecutor v. Mladen Naletelić and Vinko Martinović*, Case No.IT-98-34-A, Appeals Chamber, Judgment, 3 May 2006, para. 154. However, at the ICC it is unclear if the same terminology will be followed.

displacing the population.[337] 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 and "associated deforestation" and alleged that these acts would constitute forcible transfer.[338]

On an analogous track, a case litigated before the African Court on Human and Peoples' Rights, saw a 2017 decision issued 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.[339] The Ogiek community, which numbers around 20,000 people, and other settlers received an eviction notice in 2009, giving them 30 days to leave the East Mau forest. The Court noted that there was evidence the Government had granted logging concessions over areas of the Mau forest.[340] Their eviction was found to constitute several human rights breaches, including discrimination.[341] Although it was not charged criminally, the involuntary nature of the evictions could potentially meet the elements of forced displacement (in the form of forcible transfer) under the Rome Statute.[342]

In assessing the occurrence of displacement crimes through environmentally harmful activities such as illegal logging, a potential tension may arise with the development and economic interests of a state permitting or participating in these activities. The Court would face the difficult 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.[343] In this respect, the genuineness of the Government's efforts would be a key factor, as would the existence of any indications of an *animus malus* on the part of the authorities in supporting the environmental harm.

(e) Murder and extermination

Other crimes against humanity could also encompass aspects of environmental harm. One example is murder, which could be committed through, or in connection with, environmental crimes. For example, there are allegations that, in January 2009, members of Joseph Kony's

[337] See above Chapter II(C)(1) (discussion of environmental harm charged as genocide).
[338] Global Diligence LLP, "Communication under Article 15 of the Rome Statute of the International Criminal Court. The Commission of Crimes Against Humanity in Cambodia", executive summary of the original communication, available online at https://www.fidh.org/IMG/pdf/executive_summary-2.pdf, para.8.
[339] Mau Ogiek Judgment (2017).
[340] Mau Ogiek Judgment (2017), para.130.
[341] Mau Ogiek Judgment (2017), para.146.
[342] See Rome Statute, article 7(1)(d).
[343] Prospieri and Terrosi (2017), p.520.

Lord's Resistance Army attacked the Garamba National Park headquarters in the Democratic Republic of Congo, killing 15 African Parks staff members who assist the elephants and other wildlife species that live in the park, and taking other people hostage. The LRA members were reportedly seen taking Ivory from the location.[344] More recently, in August 2017, Mai Mai rebels were reported to have killed two 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.[345]

Extermination, which essentially concerns large-scale killing of people,[346] 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.[347] 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.[348] 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,[349] which constitutes a form of environmental harm.

(f) Other crimes against humanity

Although the remaining crimes against humanity are more attenuated from the notion of environmental harm, mankind'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 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.[350] The crime against

[344] African Conservation Foundation, "Lord's Resistance Army Attack Threatens Headquarters At Garamba National Park, North-Eastern DRC, 7 June 2012 (https://www.africanconservation.org/wildlife-news/lords-resistance-army-attack-threatens-headquarters-at-garamba-national-park-north-eastern-drc-2). See also National Geographic (2014), "Poachers Slaughter Dozens of Elephants in Key African Park", 13 May 2014, http://news.nationalgeographic.com/news/2014/05/140513-democratic-republic-congo-garamba-elephants-poaching-world/.

[345] Guardian, "Three wildlife rangers killed in attack by violent militia in DRC", 16 August 2017, https://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).

[346] Athanase Seromba v. Prosecutor, Case No.ICTR-2001-66-A, Appeal Judgement, 12 March 2008, para.189.

[347] See Lambert (2017), p.726.

[348] Rome Statute, Elements of Crimes, footnote 9.

[349] Bashir Arrest Warrant, pp.5-7; Second Bashir Arrest Warrant, pp.5-8; *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7.

[350] See Rome Statute, article 7(1)(j) and 7(2)(h).

humanity of enslavement could be conducted on a similar basis.[351] Likewise, it is possible that a perpetrator group could target a victim group by destroying its natural environment while also committing crimes like imprisonment, torture, and sexual violence.[352] 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.[353] 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 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.

3. War Crimes

(a) 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

[351] See Rome Statute, article 7(1)(c) and 7(2)(c).
[352] See Rome Statute, article 7(1)(e), 7(1)(f), and 7(1)(g).
[353] 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, 6 April 2017, ICC-PIDS-CIS-SUD-02-005/17_Eng (noting that Al-Bashir is charged with Five counts of crimes against humanity: murder (article 7(1)(a)); extermination (article 7(1)(b)); forcible transfer (article 7(1)(d)); torture (article 7(1)(f)); and rape (article 7(1)(g)); Two counts of war crimes: intentionally directing attacks against a civilian population as such or against individual civilians not taking part in hostilities (article 8(2)(e)(i)); and pillaging (article 8(2)(e)(v)); and Three counts of genocide: genocide by killing (article 6-a), genocide by causing serious bodily or mental harm (article 6-b) and genocide by deliberately inflicting on each target group conditions of life calculated to bring about the group's physical destruction (article 6-c)).

the ICC, war crimes are divided into those committed during international armed conflicts and those committed during non-international armed conflicts.[354]

(b) Underlying crimes

The provisions on war crimes in the Rome Statute place little emphasis on protecting the environment. There is one war crime, set out in article 8(2)(b)(iv), which explicitly addresses harm to the environment, but that provision only applies in international armed conflicts, and is subject to highly restrictive requirements, as discussed in detail in a later section of this chapter.[355] In the context of non-international armed conflicts, the coverage is even sparser. There is no provision corresponding to article 8(2)(b)(iv) and no other mention of the environment in the war crimes provisions (or in the Statute for that matter).

In otherwise omitting to address the environment, article 8 of the Rome Statute reflects the broader orientation of international humanitarian law towards anthropocentric, rather than eco-centric, interests. For example, the 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".[356] Similarly, Additional Protocol II (which is the source of many of the prohibitions set out in article 8(2)(e) of the Rome Statute) "contains no provisions relating explicitly to the environment".[357]

Nonetheless, there are several war crimes prohibitions in the Rome Statute that are indirectly relevant to environmental harm. Several prohibitions, like wilful killing[358] and murder,[359] inhuman treatment,[360] wilfully causing great suffering, or serious injury to body or health,[361] cruel treatment,[362] and unlawful deportation or transfer,[363] largely overlap with underlying

[354] Rome Statute, article 8.
[355] See below, discussion of article 8(2)(b)(iv) at Chapter II(D)(1).
[356] Secretary-General Report 1993, p.8.
[357] Secretary-General Report 1993, p.8. The Secretary-General added that articles 14 and 15 of Additional Protocol II are indirectly relevant to the environment, as they deal with objects indispensable to the survival of the civilian population, and works and installations containing dangerous forces, respectively.
[358] Rome Statute, article 8(2)(a)(i) (applicable in international armed conflict).
[359] Rome Statute, article 8(2)(c)(i) (applicable in non-international armed conflict).
[360] Rome Statute, article 8(2)(a)(ii) (applicable in international armed conflict).
[361] Rome Statute, article 8(2)(a)(iii) (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)(vii) (applicable in international armed conflict); article 8(2)(b)(viii) (concerning situations of occupied territory; applicable in international armed conflict). Article 8(2)(e)(viii), which applies to

crimes against humanity, which have been discussed above. Aside from the contextual requirements for crimes against humanity (demonstrating a widespread or systematic attack on a civilian population pursuant to a State or organizational policy),[364] these war crimes would raise similar issues to the related underlying crimes against humanity (murder;[365] deportation and forcible transfer;[366] and other inhumane acts[367]). 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.[368]

Several other war crimes under article 8 are particularly relevant as possible means to repress environmental harm. These are:

- article 8(2)(a)(iv) (Extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly);[369]

- article 8(2)(b)(i) / 8(2)(e)(i)[370] (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 which are not military objectives);

- article 8(2)(b)(iv) (Intentionally launching an attack in the knowledge that such attack will cause … 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);

- articles 8(2)(b)(xiii) / 8(2)(e)(xii)[371] (Destroying or seizing the enemy's property unless such destruction or seizure be imperatively demanded by the necessities of war);[372]

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non-international armed conflict, prohibits "ordering the displacement of the civilian population for reasons related to the conflict, unless the security of the civilians involved or imperative military reasons so demand."

[364] Rome Statute, article 7(1) and 7(2)(a).

[365] Rome Statute, article 7(1)(a).

[366] Rome Statute, article 7(1)(d).

[367] Rome Statute, article 7(1)(k).

[368] Cryer et. al. (2010), p.267 ("For war crimes law, it is the situation of armed conflict that justifies international concern").

[369] 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.

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

- article 8(2)(b)(xvi) / 8(2)(e)(v)[373] (Pillaging a town or place, even when taken by assault);

- article 8(2)(b)(xvii) / 8(2)(e)(xiii)[374] (Employing poison or poisonous weapons);

- article 8(2)(b)(xviii) / 8(2)(e)(xiv)[375] (Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices).[376]

- 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).[377]

(i) Pillage

The crime of pillage deserves particular mention in relation to environmental harm.[378] 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,[379] pillage has been used as a basis to prosecute illegal exploitation of natural resources during armed conflict.[380]

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[371] 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.

[372] It is required that the property was protected from that destruction or seizure under the international law of armed conflict; ICC Elements of Crimes, pp.26, 44. 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, 'article 8 - para. 2 (e)', in O. Triffterer (ed.), *Commentary on the Rome Statute of the International Criminal Court: Observers' Notes, Article by Article* (1999), margin no.326-327, p.284.

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

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

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

[376] 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).

[377] 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); Michael Schmitt, "Humanitarian Law and the Environment", 28 *Denv. J. Int'l L. & Pol'y* 265 (1999-2000), (copy at end of article), ("Schmitt (1999-2000)"), pp.301-302; Schwabach 2004, p.25.

[378] See, e.g., Van den Herik and Dam-de Jong (2011), pp.237-273.

[379] Van den Herik and Dam-de Jong (2011), pp.237-273; Dam-de Jong (2015), pp.218-219.

[380] Dam-de Jong and Stewart (2017), p.3 citing See *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), at 1344-1345; Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No.

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, which word the prohibition vaguely as "pillaging a town or place, even when taken by assault".[381] 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.[382]

Environmental harm fits awkwardly under this definition in three ways. First, the focus on appropriation, as opposed to destruction or spoliation,[383] 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. Appropriation conducted by the Government will typically be internally legalised through legislative act or executive decree, or else justified as military requisitions, which are apparently exempted from the coverage of pillage under the ICC Elements of Crimes, which clarifies that pillage only applies to appropriations for private ends.[384] Consequently, the prohibition may result in the asymmetric repression of the environmentally harmful appropriations, where rebel groups are subject to restrictions which do not apply to government forces and agents.[385] Given that "illicit exploitation is also a key component in kleptocratic governance" and "endemic corruption",[386] the unequal application of the prohibition of pillage may foster resentment among the populations whose property is taken by government representatives and further exacerbate such governmental misfeasance.

Second, the idea of the environment constituting property is a contested notion.[387] For example, if an attack involved the contamination of an area through radiation, it would be

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10, Vol. XIV, *France v. Roechling* (Washington: Government Printing Office 1949), at 1113 and 1124 as well as modern instances of attempted prosecutions of exploitation of natural resources under the label of pillage.

[381] 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.

[382] 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.

[383] 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* article 74 Decision, paras.942, 950.

[384] See ICC Elements of Crimes, fn.62.

[385] Contra Dam-de Jong (2015), p.221 (arguing that the misappropriation of natural resources by state representatives could be prosecuted as pillage because the resources belong to the state and not its representatives).

[386] Dam-de Jong and Stewart (2017), p.3.

[387] There are indisputably elements of the environment that can constitute "property"; see for example Van den Herik and Dam-de Jong (2011), pp.237-273; Dam-de Jong (2015), pp.217 (noting that the term "property" is sufficiently broad to capture all types of natural resources as well as rights relating to the exploitation of natural resources and citing article 55 of the 1907 Hague Regulations, which defines forests as properties).

difficult to analyse the area *per se* as property. Similarly, it is unclear whether nature reserves could be considered property, yet there is widespread support for the use of international law to protect these important environmental spaces.[388] Classifying the environment as property also risks devaluing its status. A generally held view is that human life and limb are more important values to protect than property.[389] While views differ as to exactly where the environment should be placed in this regard, 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 a major restriction that would exclude 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. This restriction narrows the coverage of the crime of pillage beyond that which applied under the jurisprudence of the *ad hoc* tribunals. The experience of the ICTY 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, based on ethnicity, rather than for purely personal ends.[390] Conversely, likely because of the restrictive definition of pillage under the Rome Statute, which refers specifically to appropriation, 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 livestock, DVD players and fridges, rather than the illegal exploitation of parts of the environment, such as minerals and timber.[391]

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.[392]

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

[389] See Kai Ambos, "Defences in International Criminal Law", in Bertram S. Brown, ed., Research Handbook on International Criminal Law (Edward Elgar, 2011), p.308 ("the difference in value attached to life and physical injury, on the one hand, and property, on the other, justifies a clear distinction in the protection afforded to these legal interests.").

[390] See, e.g., *Prosecutor v. Mićo Stanisić and Stojan Župljanin*, Case No.IT-08-91-T, Judgment, 27 Mach 2003, paras.650-651 ("On 20 July, thousands of Muslims and Croats from Hambarine and Ljubija were removed from the municipality. Property of Muslims and Croats who had left the area was confiscated and assigned to Serbs…. Mevludin Sejmenović, a Muslim mining engineer and a former member for SDA of the Prijedor Municipal Assembly, confirmed that events on the ground corresponded to a proposed decision of the Prijedor Municipal Assembly to declare abandoned property and property belonging to those who participated in the "armed uprising" in Prijedor to be owned by the state.").

[391] *The Prosecutor v. Bosco Ntaganda*, Case No. 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, paras.59-63. See also Dam-de Jong (2015), p.220.

[392] See Michael Lundberg, "The Plunder of Natural Resources During War", in Stewart, ed., *Corporate War Crimes*, pp.495-526; Van den Herik and Dam-de Jong, "Re-Vitalizing the Antique War Crime of Pillage, in Stewart, ed., *Corporate War Crimes*, pp.237-273.

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.[393]

(ii) Destruction of property

Whereas the specific crime of pillage under the Rome Statute provides an unpromising basis to prosecute environmental harm, the crime of extensive destruction or appropriation of protected property 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), provide potentially more scope to address this type of harm.[394]

The crime of destruction or appropriation of protected property under article 8(2)(a)(iv) is based on the grave breach of the Geneva Conventions.[395] 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 who is subject to reciprocal obligations under the Geneva Conventions or else is property that is generally protected, such as hospitals.[396]

For the crimes under article 8(2)(b)(xiii) and 8(2)(e)(xii), the property must have belonged to a hostile party (or adversary) and have been "protected from that destruction or seizure under the international law of armed conflict".[397] This may create difficulties applying these prohibitions to environmental harm. For international armed conflicts, the enemy's property 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.[398] 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."[399] To the extent environmental features can be considered property, they are

[393] Dam-de Jong (2015), p.220.
[394] Dam-de Jong (2015), pp.221-222.
[395] This crime is based on the grave breach set out in article 147 of Geneva Convention IV ("extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly.").
[396] See, e.g., Rome Statute, article 8(2)(b)(ix) (prohibiting the direction of attacks against *inter alia* hospitals).
[397] Rome Statute, Elements of Crimes, pp.25, 41.
[398] Dam-de Jong (2015), p.223.
[399] *Katanga* article 74 Decision, para.892.

typically vested in the state.[400] This may result in an asymmetric application of the prohibition in relation to destruction or seizure of environmental resources, whereby forces opposing the state are prohibited from destroying or seizing the environmental feature, while the state's armed forces may benefit from it.

The requirement that the property belong to an adverse party to the conflict, excludes self-inflicted environmental harm, such as scorched earth tactics to forestall advancing armed forces.[401] 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". Military necessity was defined by the Nuremberg Tribunal in the following terms

> "[m]ilitary necessity permits a belligerent, subject to the laws of war, to apply any amount and kind of force to compel the complete submission of the enemy with the least possible expenditure of time, life and money. In general, it sanctions measures by an occupant necessary to protect the safety of his forces and to facilitate the success of his operations".[402]

Destruction and seizure that is militarily necessary, and thus excluded from the prohibition's coverage, extends to military and civilian property. In this sense, it acts as an exception to the general prohibition against targeting and attacking civilian objects, covering the situation of enemy property which is imperatively demanded by the necessities of war.[403]

The elements of crimes also require that the crime under article 8(2)(a)(iv) is conducted wantonly and on an extensive basis.[404] These requirements would typically be fulfilled in relation to the environmental harm addressed in this analysis. For example, the burning of the Kuwaiti oil wells by Saddam Hussein's Iraqi forces in 1990-1991 was militarily unjustified and malicious. However, to the extent the term wanton could imply a measure of disorderly or uncontrolled conduct, this would not necessarily be present, as environmental harm can be carried out in a planned and purposeful manner. The crime of destroying or seizing the

[400] Dam-de Jong (2015), p.223.
[401] See Secretary-General Report 1993, p.15.
[402] *Hostages* Trial, pp. 1253-1254.
[403] Dam-de Jong (2015), pp.223-224.
[404] Rome Statute, Elements of Crimes, article 8(2)(a)(iv), p.15.

enemy's property has been adjudicated before international courts, including the ICTY and the SCSL.[405]

(iii) Intentionally directing attacks against civilians and civilian objects

Intentionally directing attacks against civilians and civilian objects violates the core humanitarian law principle of distinction. These prohibitions could be relevant to the prosecution of environmental harm in two ways. First, if harm to non-combatants, their property, their dwellings or other materials or buildings were achieved by means of harming the environment. And, second, if the environment *per se* were considered a civilian object *per se*.

Looking first to attacks on civilians, this prohibition has been prosecuted in several cases under international criminal law, including at the ICC, where Germaine Katanga was convicted for attacking civilians in the context of a non-international armed conflict in the Democratic Republic of Congo.[406] While these cases generally focused on anthropocentric harm, the jurisprudence provides insight into the key principles that would govern a case involving environmental harm.

Relying on article 13 of Additional Protocol 1, the *Katanga* Trial Chamber recalled that this is an absolute prohibition, which cannot be exonerated by military necessity.[407] It clarified that "attack" means "acts of violence against the adversary, whether in offence or defence",[408] and added that as long as an attack is launched targeting civilians not taking direct part in hostilities; no result need ensue from the attack.[409] Importantly, it noted that 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 recalled that indiscriminate attacks or attacks with indiscriminate weapons provide a basis from which an inference may be drawn that the attack was directed at civilians.[410]

While the attack in the *Katanga* case was not environmental in nature, the prohibition could apply to serious environmental harm if that were used as a method to target a civilian

[405] See *Prosecutor v. Kordić and Čerkez*, Case No. IT-95-14/2, Trial Judgment, 26 February 2001, para. 205; *The Prosecutor vs. Moinina Fofana and Allieu Kondewa*, Case No.SCSL-14-44-A, Appeals Chamber Judgment, 28 May 2008, para. 390.
[406] *Katanga* article 74 Decision, p.558, Disposition.
[407] *Katanga* article 74 Decision, para.800.
[408] *Katanga* article 74 Decision, para.798.
[409] *Katanga* article 74 Decision, para.799.
[410] *Katanga* article 74 Decision, para.802.

population during an armed conflict. For example, the burning of a forest in order to target a civilian population could qualify as a violation of this prohibition. 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.[411]

Looking to the possibility of the environment constituting a civilian object *per se*, it should be noted that, under the Rome Statute, this prohibition only applies during international armed conflicts.[412] The exclusion of coverage of non-international armed conflicts, considerably limits the utility of the prohibition given the uncertainty surrounding the classification of conflicts as international and non-international.[413]

To date, the ICC has adhered to the traditional definitional approach whereby the term civilian is defined negatively in contradistinction to the term military.[414] Military objects are defined as those "which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage".[415] The ICRC has expressly stated that the natural environment qualifies *prima facie* as a civilian object,[416] meaning that the intentional targeting or destruction of environmental features would constitute a breach of the prohibition on targeting civilian objects.

(iv) 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 potentially be relevant to environmental harm. It is designed to protect the civilian population during armed conflict by ensuring that

[411] *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7.
[412] Rome Statute, article 8(2)(b)(ii).
[413] In the Court's first trial, *Lubanga*, the Pre-Trial Judge classified the conflict as international, only for the Trial Chamber, to classify it as non-international, as was upheld on appeal.
[414] See, e.g., *Bemba* article 74 Decision, para.152.
[415] Additional Protocol 1, article 52(1); *Katanga* article 74 Decision, para.893; *Prosecutor v. Dario Kordić & Mario Čerkez*, Case No. IT-95-14/2-A, Appeal Judgement, 17 December 2004 ("*Kordić* AJ"), para.52.
[416] International Committee of the Red Cross ("ICRC") study on customary international humanitarian law. Jean-Marie Henckaerts and Louise Doswald-Beck (eds.), *Customary International Humanitarian Law*, (ICRC: Geneva, 2005) ("ICRC Study"), Rule 9: Definition of Civilian Objects, Commentary and State Practice (referring to numerous examples where the natural environment is cited under the heading of civilian objects). See also 1994 Guidelines on the Protection of the Environment in Times of Armed Conflict, Principle 9 ("The general prohibition on destroying civilian objects, unless such destruction is justified by military necessity, also protects the environment.")

their access to basic items needed for survival is maintained.[417] Strangely, the prohibition is limited to international armed conflicts in the Rome Statute, despite the fact that article 14 of Additional Protocol II extends this prohibition to non-international armed conflicts as a matter of international humanitarian law.

The terms "intentionally" and "method of warfare" indicate that direct intent is required, and that reckless disregard, or negligence as to the likely starvation of civilians due to certain deleterious conduct would not be sufficient.[418] A key question concerning this crime is whether the objects in question need to be directly indispensable to the survival of the civilian population, such as water and food sources, or whether commodities, the sale of which generates income for the purchase of basic sustenance, would also be covered.[419] The most obvious example of environmental harm amounting to such destruction is the removal of forests, which may constitute both a direct and indirect means of survival for civilians during times of armed conflict. Article 54 of Additional Protocol 1 clarifies that food production or storage sites used by military forces for their sustenance will be excluded from the ambit of this prohibition unless the deprivation would "leave the civilian population with such inadequate food or water as to cause its starvation or force its movement".[420] Operation Ranch Hand in Vietnam provides a historical example of conduct potentially violating these prohibitions, although no prosecutions resulted with respect to this environmental harm.

(v) Using poisonous weapons, or asphyxiating, poisonous or other gases, liquids, materials or devices

The war crimes of using poisonous weapons, or asphyxiating, poisonous or other gases, liquids, materials or devices, could be used to prosecute environmental harm where the poisons caused serious damage to the environment as well as harming human beings. The United Nations Environmental Program has signaled concern that new technologies, such as depleted uranium munitions, are not explicitly included in the prohibitions of means and methods of warfare contained in the Rome Statute.[421]

[417] Dam-de Jong (2015), p.234.
[418] Cf. Dam-de Jong (2015), p.235-236 (arguing that reckless disregard should be a sufficient state of mind for the corresponding provisions of international humanitarian law prohibiting this conduct).
[419] See Dam-de Jong (2015), p.236-237.
[420] Additional Protocol 1 of 1977, article 54(3)(b).
[421] UNEP Study (2009), Executive Summary, p.16.

Under the Elements of Crimes, these prohibitions are 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.[422] Nonetheless, if the environmental were harmed in connection with the use of such substances during armed conflict, these prohibitions would apply. A potential example is provided in the *Bashir* case, wherein the Prosecution alleges that the perpetrators *inter alia* polluted or poisoned water wells.[423] However, it is unclear whether this conduct also caused serious environmental harm.

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 reads "The elements for war crimes under article 8, paragraph 2, of the Statute shall be interpreted within the established framework of the international law of armed conflict including, as appropriate, the international law of armed conflict applicable to armed conflict at sea."[424] In relation to environmental harm, Rule 44 of the San Remo Manual on International Law Applicable to Armed Conflicts at Sea provides that "Methods 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."[425]

4. Aggression

In addition to war crimes, crimes against humanity and genocide, the ICC has jurisdiction over the crime of aggression. Article 8*bis* of the Rome Statute has been agreed upon by the State Parties to the ICC and has been activated. Whilst the aggression amendments were adopted by consensus, they will not enter into force until July 2018 in line with the Assembly of States Parties decision to activate the amendments.[426]

Substantively, aggression generally 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'.[427] Article 8*bis* provides several

[422] Rome Statute, Elements of Crimes, pp.26, 41.
[423] *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7.
[424] ICC Elements of Crimes, p.12.
[425] San Remo Manual on International Law Applicable to Armed Conflicts at Sea, 12 June 1994, Rule 44.
[426] 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.
[427] Rome Statute, article 8*bis*.

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.[428]

Environmental harm could arguably qualify under this definition. For example, a state sending special forces to poison the water supplies of another state could potentially have conducted an act of aggression under article 8*bis*. Equally, a nuclear attack on another state would likely qualify as an armed attack,[429] and, depending on the circumstances, aggression. A nuclear attack would almost certainly cause large numbers of deaths and injuries as well as massive destruction of the environment.[430] Nonetheless, the ICJ did not conclude that the use or threat of use of nuclear weapons would in all circumstances be prohibited under international law, and thus would not necessarily constitute an unlawful armed attack amounting to a manifest violation of the United Nations Charter as required by the definition of aggression in the Rome Statute.[431]

However, environmental harm does not typically involve the use of armed force against another state or its forces. Because of this, it would not meet all the elements of aggression. Polluting overflow or other downstream impacts of environmentally harmful practices would be difficult to qualify as aggression, no matter how severe, because of the definition's implicit reference to the use of force by a state against another state.

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[428] Rome Statute, article 8*bis*(2).

[429] The term "armed attack" is usually used in international law to signify the first use of force between states, which justifies the attacked state acting in self-defence; see United Nations Charter, article 51: "Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defence shall be immediately reported to the Security Council." It is hard to imagine a nuclear attack not fulfilling the gravity requirement to qualify as an armed attack; see *Case Concerning Military and Paramilitary Activities In and Against Nicaragua (Nicaragua v. United States of America)*; Merits, International Court of Justice (ICJ), 27 June 1986, (available at http://www.refworld.org/cases,ICJ,4023a44d2.html) (last accessed 27 December 2017), paras.193-195.

[430] See ICJ Nuclear Weapons Advisory Opinion (1996), para.35 ("The destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy al1 civilization and the entire ecosystem of the planet. The radiation released by a nuclear explosion would affect health, agriculture, natural resources and demography over a very wide area. Further, the use of nuclear weapons would be a serious danger to future generations. Ionizing radiation has the potential to damage the future environment, food and marine ecosystem, and to cause genetic defects and illness in future generations.").

[431] 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, ICJ Nuclear Weapons Advisory Opinion (1996), para.95 ("In view of the unique characteristics of nuclear weapons, to which the Court has referred above, the use of such weapons in fact seems scarcely reconcilable with respect for such requirements. Nevertheless, the Court considers that it does not have sufficient elements to enable it to conclude with certainty that the use of nuclear weapons would necessarily be at variance with the principles and rules of law applicable in armed conflict in any circumstance.").

The value protected by the crime of aggression is state sovereignty. Environmental harm would be an additional harm but not the core of the criminality targeted by this prohibition. The notion of the state overlaps in several important respects with the notion of the environment, particularly in a legal sense as each state is typically sovereign over its territory and responsible for the environment therein. But the environment as an entity needs protection going beyond state territorial boundaries. There are areas outside of state boundaries, transitory cross-border environmental elements such as migrating birds, and aspects that are of common interest for future generations. This provides a justification for overriding state boundary jurisdictional limits where serious environmental harm threatens international peace and security. However, the crime of aggression is not the vehicle to address such extra-territorial environmental harm.

D. Applying the regulatory framework to three paradigmatic cases of environmental harm

Having addressed the categories of crimes potentially prosecutable under the Rome Statute, this analysis now applies the substantive legal framework to three paradigmatic types of environmental harm. These are attacks causing excessive harm to the environment during armed conflict, toxic dumping, and wildlife exploitation. The analysis is illustrative of crimes that could be sensibly applied to these forms of environmental harm, rather than exhaustive of every possible crime that could conceivably apply in the circumstances.

1. Attacks causing excessive harm to the environment during armed conflict

It is clear that severe harm has been caused to the environment in numerous wars throughout history.[432] From scorched earth tactics during World War Two,[433] to large-scale deforestation through chemical defoliants in Vietnam,[434] to the incineration of approximately 600 oil wells in Kuwait (and similar oil well fires reportedly conducted by ISIS in 2016),[435] and the damage

[432] Dieter Fleck, Chapter 9, "Legal Protection of the Environment: The Double Challenge of Non-International Armed Conflict and Post-Conflict Peacebuilding", in Stahn et. al., *Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles and Practices*, Oxford University Press 2017 ("Stahn et. al. (2017)"). See also Chapter I(A).
[433] *Hostages* Trial, pp.66-69; 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, 11 *Am. U. J. Int'l L. & Pol'y* 793, p.815 (1996) ("Yuzon (1996)"), *cited in* Drumbl (1998-1999), p.134.
[434] Peterson (2009), p.331-332; Aaron Schwabach, "Environmental Damage Resulting from the NATO Military Action Against Yugoslavia," (2000) 25 *Colum. J. Envtl. L*. 117, p.126.
[435] UNSC Resolution 687, adopted on 3 April 1991, para. 16; UNEP (2009), p.8.

to oil installations along with resulting pollution in Lebanon in 2006,[436] as well as the destruction of industrial sites in Serbia in 1999,[437] warfare typically sees the risk of serious environmental harm rise.

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 with that article, and then subsequently addresses other possible prohibitions that could apply to military attacks causing excessive environmental harm.

(a) Genesis and background of article 8(2)(b)(iv)

An early version of this provision on "widespread, long-term and severe damage" to the environment was first included in draft versions of the Rome Statute at the suggestion of New Zealand and Switzerland.[438] It was based on article 35(3) and 55(1) of Additional Protocol 1.[439] The formulation ultimately included in the Rome Statute, 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.[440] Accordingly, there is considerable scope for the interpretation of the contours of the elements of this crime. Because the majority of the Rome Statute's war crimes provisions are closely based on provisions of the Geneva Conventions and Additional Protocols, "Protocol I [is] a natural exegetical source for article 8(2)(b)(iv)."[441]

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[436] See Jacobsson (2016), para.79 citing General Assembly resolution 69/212, paras. 4 and 5.
[437] See Press Release on Final Report on NATO (2000); Final Report on NATO (2000), para.14-16.
[438] Working Paper submitted by the Delegations of New Zealand and Switzerland, Preparatory Committee on the Establishment of an International Criminal Court, A/AC.249/1997/WG.1/DP.2, 14 February 1997, p.3.
[439] There had also briefly been a similar prohibition included as article 26 of the International Law Commission's Draft Code on Crimes Against Peace and Security of Mankind, which stated 'Wilful and severe damage to the environment' ('[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 …'). However, article 26 was deleted from the final version of the Draft Code; Report of the International Law Commission on the Work of its Forty-Third Session, UN Doc. A/CN.4/SER.A/1991/Add.1 (Part 2) (1991).
[440] Weinstein (2005), p.698; UNEP Study (2009), p.24.
[441] Kevin Jon Heller and Jessica C. Lawrence, *The Limits of article 8(2)(b)(iv) of the Rome Statute, the First Eco-centric Environmental War Crime.* Georgetown International Environmental Law Review (GIELR), Vol. 20, 2007. ENMOD is also relevant as its terms closely mirror those in article 8(2)(b)(iv). However, the parties

Another source of international law which constitutes a precursor to article 8(2)(b)(iv), and which provides interpretive guidance, is the Convention on the Prohibition of Environmental Modification Techniques, known as ENMOD, which is designed to address the use of environmental modification techniques as a means of war.[442] It prohibits State Parties from using hostile environmental modification techniques that have "widespread, long-lasting or severe effects as the means of destruction, damage or injury to another State Party".[443] The terms of the ENMOD prohibition are not conjunctive. Consequently, ENMOD provides broad coverage against damage that is either widespread or long-term or severe (or any combination thereof). Furthermore, it prospectively prohibits activities that currently are not feasible due to technological constraints.[444]

This convention was largely a reaction to the use of large quantities of chemical defoliants, most notably Agent Orange, by the United States Army during the Vietnam War, which resulted in significant destruction of forests and wildlife as well as extreme human sickness and death.[445] It is designed to prohibit large-scale environmental modification techniques which have the ability to turn the environment into a weapon, such as unnaturally induced earthquakes, tsunamis, or changes in weather patterns.[446]

ENMOD does not directly impose individual criminal responsibility for breaches of its terms.[447] Instead, its enforcement is *post hoc* and political in nature.[448] 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.

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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 Supp. No. 27 (A/31/27), Annex I), reprinted in Adam Roberts & Richard Guelff eds., *Documents on the Law of War*, (Clarendon Press: Oxford, 2nd Ed., 1989).

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

[443] *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*, 18 May 1977, 31 U.S.T 333, T.I.A.S. No.9614 ("ENMOD"), Article 1.

[444] Jensen (2005), p.154.

[445] UNEP Study (2009), p.12; Vietnam Association for Victims of Agent Orange v. Dow Chemical Co., United States Court for the Second Circuit, Case Opinion, 22 February 2008 ("Vietnam Victims' Case").

[446] UNEP 2009, p.12.

[447] Cohan (2002), p.524.

[448] Weinstein (2005), p.701.

Additional guidance is provided by ICRC customary international rule number Rule 45, which largely reflects the article 8(2)(b)(iv) prohibition albeit with some more permissive formulations of its terms.[449]

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

(i) 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 included in the Rome Statute.[450] Some commentators find the limitation of article 8(2)(b)(iv) to international armed conflict illogical and troubling,[451] particularly as many serious conflicts throughout the twentieth and twenty-first centuries have been non-international armed conflicts.[452] 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).[453]

Decades before the introduction of the Rome Statute, States had already been alerted to the implications of limiting the coverage of the prohibition of environmental harm to international armed conflicts. During the negotiations on Additional Protocol II to the Geneva Conventions, Australia proposed the addition of a provision (article 28 *bis*) concerning the protection of the natural environment. Australia stressed that "destruction of the environment should be prohibited not only in international but also in non-international conflicts".[454] However, this was not successful and the position under international criminal law and international humanitarian law remains inadequate in relation to protections of environmental harm committed during non-international armed conflicts.[455]

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[449] Rule 45 of the ICRC study finds the following prohibited under customary international law: "The use of methods or means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon"; ICRC Study, p.151.
[450] See Rome Statute, articles 8(2)(c) and (e).
[451] See, e.g., Wattad (2009), p.268; Drumbl, 1998-1999, p.136.
[452] UNEP 2009, p.4 referring to Uppsala Conflict Data Program Database: http://www.pcr.uu.se/gpdatabase/search.php. See also *Prosecutor v. Duško Tadić*, Case No.IT-94-1-A, App.Ch., Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, 2 October 1995 ("*Tadić* Jurisdiction Decision"), para.97.
[453] Additional Protocol I, article 1(3) and (4).
[454] See Official Records, Vol. XV, CDDH/215/Rev.1, Report of Committee III, Geneva, 3 February-18 April 1975, p.324.
[455] See UNEP Study (2009), p.5.

Some subsidiary support exists in international law for the application of the prohibition of military attacks resulting excessive environmental harm to non-international armed conflicts.[456] The ICRC study of the status of customary international found that Rule 45, which in essence reflects the article 8(2)(b)(iv) prohibition,[457] "arguably" applies to non-international armed conflict.[458]

There is some basis for regulating environmental harm during non-international armed conflicts. For example, the United Nations Convention on Certain Conventional Weapons (1980)[459] states in its Preamble that "it is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment",[460] and since 2001, the provisions of the Conventional Weapons Convention apply to non-international and international armed conflicts.[461] However, the obligation to exercise criminal jurisdiction over its breaches is limited to cases of anthropocentric harm (wilful killing or serious injury to civilians), and so it provides mixed support for the notion of prosecuting environmentally harmful acts committed during non-international armed conflicts.

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[456] See Matthew Gillett, Chapter 10 "Eco- Struggles Using International Criminal Law to Protect the Environment During and After Non- International Armed Conflict", in Stahn et. al. (2017).

[457] Rule 45 of the ICRC study finds the following prohibited under customary international law: "The use of methods or means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon"; ICRC Study, p.151.

[458] ICRC Study, pp.156-157.

[459] ICRC Study, 154. See also Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, 10 October 1980 ("Conventional Weapons Convention"). The preamble to the convention recalls that "it is prohibited to employ methods and means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment". The prohibition on incendiary attacks on forests is arguably eco-centric in the subject it is protecting; Protocol III (Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons), Article 2(4) ("It is prohibited to make forests or other kinds of plant cover the object of attack by incendiary weapons except when such natural elements are used to cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives"); Schmitt (1997), p.89.

[460] Conventional Weapons Convention as amended on 21 December 2001, preamble, para. 4.

[461] Amended Article 1 (to date 82 States Parties have accepted this amendment, including the United States of America, the United Kingdom, the Russian Federation, France and China). In 2006, the States Parties decided that "[e]ach High Contracting Party will take all appropriate steps, including legislative and other measures, as required, to prevent and suppress violations of the Convention and any of its annexed Protocols by which it is bound by persons or on territory under its jurisdiction or control." It was further accorded that such other measures may include, where appropriate, penal sanctions, where in relation to an armed conflict a person violates one or more of the prohibitions of the Conventional Weapons Convention or its Protocols, and wilfully causes the death or serious injury to a civilian. At the Third Review Conference of the Convention, it was decided to establish a compliance mechanism. See Decision on a Compliance Mechanism Applicable to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be Deemed to be Excessively Injurious or to have Indiscriminate Effects (adopted on 17 November 2006), numerals 7 and 8.

(ii) 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.[462] For the purposes of the war crime in article 8(2)(b)(iv), the attack envisaged would typically be a kinetic, military attack.[463] A military operation would amount to an armed attack for the purposes of article 8(2)(b)(iv) to the extent it involved the use of armed force against an opposing party. 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*.[464] At the same time, the attack need not be directed exclusively or even primarily at the environment. It would be sufficient if the attack were launched with knowledge that it would cause damage to the environment of sufficient gravity, scale, and duration.

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 were reported to have placed charged explosives in the Peruca Dam, which was located in disputed territory, creating the potential for devastating consequences for downstream riparian areas.[465] Had the explosives been activated, this operation would have qualified as an attack and, depending on the consequences, could have fulfilled the elements that are now enshrined in article 8(2)(b)(iv).

Tactics used during an armed conflict, and operations to implement the tactics could be considered "attacks" for the purposes of article 8(2)(b)(iv). An example of an operation

[462] As the Trial Chamber in *Kunarac et. al.* explained "the term "attack" in the context of a crime against humanity carries a slightly different meaning than in the laws of war. 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."; *Prosecutor v. Kunarac et. al.*, Case No.IT-96-23 and 23/1, Trial Judgment, 8 July 2003, para.416.

[463] The wording of article 8(2)(b)(iv) could also potentially encompass other forms of attacks, such as cyber-attacks, if those attacks were capable of causing loss of life or injury to civilians or civilian objects. An example would be a cyber-attack designed to make a hydro dam malfunction and unleash damaging amounts of water on downstream civilians and civilian objects, also causing large-scale environmental damage. See generally Michael Schmitt et. al., *Tallinn Manual on the International Law Applicable to Cyber Warfare*, Cambridge University Press 2013 ("Tallinn Manual").

[464] Peterson (2009), p.337.

[465] The motivation for laying mines on the site remains unclear. Criminal proceedings concerning the attacks on Peruca Dam were commenced in Croatia. Former JNA military commander Borislav Djukić was charged by Croatian authorities in connection with the mining of the Peruca Dam: Balkan Insight, "Montenegro Extradites Serbian Wartime General to Croatia", 9 March 2016, http://www.balkaninsight.com/en/article/montenegro-extradited-serbian-wartime-general-to-croatia-03-08-2016.

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".[466] 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.[467] Encompassing many individual strikes, this overarching campaign would also qualify as an "attack" for the purposes of article 8(2)(b)(iv).[468] However, in civil proceedings under the Alien Tort Statute in the USA, the district court, as upheld on appeal, held no violation of international law had been shown concerning the US deployment of Agent Orange in Vietnam, because in the judge's view the Agent Orange was only used to defend US forces.[469]

Another type of military attack that could result in excessive harm to the environment, is nuclear attacks. 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, there has been ongoing dispute as to whether the impact on the environment could render the use of nuclear weapons a criminal act. The ICRC has stated that the customary international law comparator of article 8(2)(b)(iv) of the Rome Statute, Rule 45, does not apply to nuclear weapons.[470] The United States, France, and the United Kingdom are all persistent objectors to Article 35(3) of Additional Protocol 1, which also largely reflects the terms of article 8(2)(b)(iv), particularly in relation to nuclear weapons.[471]

(iii) Natural environment

[466] See Aaron Schwabach, "Ecocide and Genocide in Iraq: International Law, the Marsh Arabs, and Environmental Damage in Non-International Conflict", 15 *Colo. J. Int'l Envtl. L. & Pol'y* 1 (2004), p.7; see Timothy Schofield, "The Environment as an Ideological Weapon: A Proposal to Criminalise Environmental Terrorism", 26 *B. C. Envtl. Aff. L. Rev.* (1998-1999), pp.635-636; Schmitt, 1997, pp.9-10. Commentators are divided as to whether the defoliation operations conducted in Vietnam would qualify as an attack for the purposes of this prohibition.

[467] See Schwabach 2000, p.126

[468] *Contra* Peterson (2009), pp.336, 338, 342.

[469] Vietnam Victims' Case.

[470] Jean-Marie Henckaerts, "Customary International Humanitarian Law: A Response to US Comments", 89 Int'l Rev. Red Cross 473, (2007), 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 Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof; *cited in* Popović (1995-1996), pp.82-83.

[471] Major Jeremy Marsh, "*Lex Lata* or *Lex Ferenda*? Rule 45 of the ICRC Study on Customary International Humanitarian Law", 198 Mil. L. Rev. 116 (2008), p.118.

Article 8(2)(b)(iv) applies to harm to the natural environment. As stated above, the most 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. In the context of attacks during an armed conflict, the "natural environment' is not limited to that part of the environment belonging to or under the control an opposing party to a conflict, but also covers damage to a party's own territory.[472]

The eco-centric aspect of article 8(2)(b)(iv) is constituted by its capacity to result in a conviction for environmental harm irrespective of any harm to human beings or their interests. This aspect of article 8(2)(b)(iv) is partly reflected in regulation 6(1)(b)(iv) of the provisions governing the work of the East Timor tribunals,[473] and article 35(3) of API. These provisions prohibit causing widespread, long-term and severe damage to the natural environment, irrespective of whether human beings are harmed by the destruction of the environment. Similarly, prohibitions established in the Convention on the Prohibition of Environmental Modification Techniques (ENMOD) and under customary international law,[474] have eco-centric orientations, although these cannot form the sole basis of criminal prosecutions under international law.

Significantly, for the purposes of article 8(2)(b)(iv), the harmed environmental feature does not need to be the property of an adversary or otherwise protected under IHL. In this respect, 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 international humanitarian law, which concern damage to another state's territory and not self-destruction by a state of its own territory.[475] Moreover, the damage does not need to affect any other party to the conflict. Consequently, the prohibition does have a partly eco-centric orientation, in that it protects against environmental harm even if no humans or their property is harmed.

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[472] Peterson (2009), p.328. See also ICRC Commentary to Article 35(3) (the ENMOD "Convention does not prohibit environmental modifications which cause widespread, long-lasting or severe damage as such, but only to the extent that they are used to cause damage to another State, while the Protocol prohibits any means of a nature to cause widespread, long-term and severe damage to the natural environment.")

[473] United Nations Transitional Authority for East Timor Regulation No. 2000/15 establishes panels with exclusive jurisdiction over serious criminal offences, including war crimes. According to Section 6(1)(b)(iv), "[i]ntentionally launching an attack in the knowledge that such attack will cause … widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated" constitutes a war crime in international armed conflicts.

[474] See specifically Rules 43-45 of the ICRC Study.

[475] Secretary-General Report 1993, p.15 (noting that the basic rule in the case of damage inflicted by a state on its own territory is that internal law governs the matter in accordance with the principle of state sovereignty, but that this position is "undergoing gradual erosion").

(iv) Widespread, long-term, and severe damage

The core of article 8(2)(b)(iv) consists of the three terms - widespread, long-term and severe. These three terms are conjunctive in article 8(2)(b)(iv), and so must all be met in order for criminal responsibility to arise.[476] The terms of article 8(2)(b)(iv) and of the Elements of Crimes require anticipated harm meeting these three criteria of widespread, long-term and severe, but do not explicitly require that the harm actually result. This presents the unlikely but 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. While such conduct would still be reprehensible, it is questionable whether the gravity requirements for admissibility would be satisfied if the attack did not actually result in any harm.[477] Nonetheless, the strange wording of article 8(2)(b)(iv) leaves open the possibility that it is a partially inchoate offence,[478] in that the long-term, widespread, and severe harm to the environment is not explicitly required to manifest so long as it is present in the perpetrator's thinking.

The threshold for widespread, long-term and severe damage is high. Typical battlefield damage is not likely to reach the threshold.[479] 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.[480] While a strong argument could be made that the article 8(2)(b)(iv) criteria were satisfied, the fact that this point is debated 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."[481]

a. Widespread

[476] Weinstein (2005), p.706. *Contra* Popović (1995-1996), p.77 ("environmental damage that meets any one of the three elements is more than the international community should tolerate, even in times of war.")
[477] See infra Chapter III(B)(4) (discussion of gravity and environmental harm).
[478] See *Nahimana* AJ, para.720 ("An inchoate offence ("crime formel" in civil law) is consummated simply by the use of a means or process calculated to produce a harmful effect, irrespective of whether that effect is produced.").
[479] See *travaux préparatoires* to Article 35(3) of Additional Protocol I CDDH/215/Rev.1, para.27, in 15 Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflict, Geneva 1974-77, at pp.268-269 (Federal Political Department, Bern, 1978), *cited in* Cohan (2002), p.503. See also Peterson (2009), p.336.
[480] See Peterson (2009), p.342; Schmitt (1997), pp.19, 75.
[481] Peterson (2009), p.343.

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.[482] The ENMOD convention defines "widespread" as several hundred square kilometres.[483] Other minimum requirements suggested by commentators rise to thousands of square kilometres.[484] However, imposing a high minimum threshold for "widespread" kilometres 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).[485] These small countries are unlikely to have intended a definition of "widespread" that would exclude the destruction of their entire natural habitat from consideration.[486] Accordingly, for the purposes of article 8(2)(b)(iv) the determination of a single absolute standard of "widespread" may not be possible.

One possible manner of interpreting the term is a relative standard, defining "widespread" according to the size of the territory within which the harm occurs, and leaving it to the ICC judiciary to apply this standard in particular cases.[487] Following this approach, 100 square kilometres of environmental destruction in Liechtenstein may be considered sufficiently widespread, even if 100 square kilometres of environmental harm in Nunavut were not considered to reach the widespread threshold.

b. Long-term

The notion "long-term" refers to the temporal duration of the environmental harm.[488] 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.[489] However, the "long-term"

[482] Rome Statute, article 21(1)(b).
[483] Understanding I, ENMOD Memorandum of Understanding.
[484] Peterson (2009), pp.331-332.
[485] See UNEP Study (2009), p.5.
[486] *Contra* Peterson (2009), p.331.
[487] *Contra* Peterson (2009), p.331.
[488] Weinstein (2005), p.708.
[489] See ENMOD Memorandum of Understanding.

duration required in Articles 35(3) and 55 of Additional Protocol I has been interpreted to mean a period of years, or even decades,[490] including by the US Department of Defence in reviewing the First Gulf War.[491] 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".[492]

Because the most serious aspects of the harm caused by Saddam Hussein's lighting of the Kuwaiti oil wells lasted a shorter time than expected, some commentators considered this to fall short of the long-term requirement of Additional Protocol I.[493] The United States Department of Defense also took this position in its final report to Congress on the conduct of hostilities in the Gulf War.[494] 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 United Nations "it is not easy to know in advance exactly what the scope and duration of some environmentally damaging acts will be."[495]

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.

c. Severe

The term "severe" refers to the intensity of the harm caused to the environment, independent of its geographic ambit or temporal duration. Severe environmental harm denotes damage

[490] Secretary-General Report 1993, pp.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).
[491] Dinstein (2001), p.536.
[492] Final Report on NATO (2000), para.15.
[493] See *for example* Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict* (Cambridge University Press: Cambridge, 2004), p.194, *cited in* Peterson (2009), p.342.
[494] 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.636-637.
[495] Secretary-General Report 1993, p.7.

going beyond typical battlefield damage.[496] Examples of environmental harm that has been described as sufficiently severe include the "dam-buster" raids in World War II. The raids destroyed the Mohne and Eder dams in order to cut off water from the Ruhr industrial complex. They resulted in the death of more than 1300 civilians and cut off drinking water and energy to 4 million Germans.[497] UNEP suggests that this element should be interpreted as "serious or significant disruption or harm to human life, natural economic resources or other assets."[498] There are distinct examples in recent times of commanders launching attacks that resulted in serious environmental harm. For example, UNEP noted that thousands of tons of fuel oil were released into the Mediterranean Sea after the bombing of the Jiyeh power station during the conflict between Israel and Lebanon in 2006.[499] Similarly, the current armed conflict in Syria is having a deleterious environmental impact in Syria and Lebanon, including through increased pollution and degradation of surface, ground and marine water.[500]

In assessing the severity of the harm, the analysis should encompass the direct environmental harm caused by the attack as well as 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 for Iraq took into account a range of factors going beyond the immediate incineration of the oil. Additional environmental harm included the release of airborne pollutants and the formation of oil rivers and lakes from unignited oil.[501]

(v) Mens rea

Article 8(2)(b)(iv) appears to contain a triple *mens rea* test. It requires that the attack be launched "intentionally", that the perpetrator know that the anticipated environmental harm will be widespread, long-term and severe, and that this damage be clearly excessive in relation to the concrete and direct overall military advantage anticipated from the information known to the Accused at the time.

[496] See *travaux préparatoires* to Article 35(3) of Additional Protocol I CDDH/215/Rev.1, para.27.
[497] See Schmitt, 1997, p.8.
[498] See UNEP Study (2009), p.5.
[499] UNEP Study (2009), p.8.
[500] Economic and Social Impact Assessment of the Syrian Conflict, World Bank Report, September 2013, Para.261 (available http://www.undp.org/content/dam/rbas/doc/SyriaResponse/Lebanon%20Economic%20and%20Social%20Impact%20Assessment%20of%20the%20Syrian%20Conflict.pdf last checked April 2014).
[501] UNCC Recommendations First Instalment (2001), para.13. See also para.31(b).

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

The second aspect—knowledge—provides a difficult test to meet. As discussed above, the widespread, long-term and severe elements are potentially highly exacting and are conjunctive. Despite the work of international organizations to educate military commanders on potential environmental harm,[502] these standards remain opaque and largely untested under international criminal law.[503] 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.[504] 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 possible environmental harm.[505] This demonstrates the implications of interpreting the terms of article 8(2)(b)(iv) restrictively. For each increase in the thresholds of the harm elements (widespread, long-term, severe), the difficulty of proving that an accused had the requisite knowledge increases exponentially.[506]

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 a level of certainty that 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 1990-1991 would lead to widespread, long-term, and severe environmental harm.[507] Nonetheless, the wording of article 8(2)(b)(iv) in this respect appears to exclude *mens rea* standards of negligence, wilful blindness or recklessness being sufficient.[508]

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[502] In connection with this element, and in order to educate military decision-makers about the environmental consequences of military actions and related prohibitions of international law, the ICRC has started the publication and distribution of the Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict; Schmitt (1999-2000). Also available at http://www.icrc.org/web/eng/siteeng0.nsf/html/57JN38 (last accessed 16 October 2009).
[503] Weinstein (2005), p.708.
[504] See Schmitt (1997), pp.15, 54.
[505] Weinstein (2005), p.705.
[506] See *generally* Jessica Lawrence and Kevin Heller, "The First Eco-centric Environmental War Crime: The Limits of article 8(2)(b)(iv) of the Rome Statute", 20 *Geo. Int'l Envtl. L. Rev*. 61 (2007), pp.79-85.
[507] Weinstein, pp.707-708.
[508] Drumbl (1999-2000), p.322; Cusato (2017), text accompanying footnote 24.

In this respect, causation (linking the perpetrator's acts to the harm caused) also presents challenges. For example, if high winds fanned flames arising from an attack leading to far greater harm than caused by the initial impact of the attack, a question arises as to whether this would be attributable to an accused if they knew of the risk of such weather in the targeted area. Even more complex questions of causation would likely arise in relation to harm such as that resulting from the release of chemicals into the environment.[509]

(vi) Proportionality

The third *mens rea* aspect of article 8(2)(b)(iv) and perhaps the most challenging, is its final clause - "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 balancing test distinguishes article 8(2)(b)(iv) from genocide and crimes against humanity, which are forbidden irrespective of any anticipated military advantage.[510] The ICC Elements of Crimes for article 8(2)(b)(iv) state that the "military advantage anticipated" is assessed from the perspective of the perpetrator on the basis of the information available to him or her at the time of launching the attack.[511] Because of this clause, article 8(2)(b)(iv) cannot be seen as purely eco-centric. Even if the harm it seeks to prevent (harm to the environment) is eco-centric, the prohibition may be overridden where military interests, namely anthropocentric interests, require it. Because of this, some commentators argue that there is no environmental crime under international law.[512]

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.[513] The test provides belligerents 'a very great latitude' which, in the view of some commentators, makes 'judicial scrutiny almost impossible'.[514] In this respect, it is notable that Rule 45 of the ICRC study on customary international law does not

[509] See, e.g., Peterson (2009), p.335 (questioning whether article 8(2)(b)(iv) would apply if the damage were reversible).
[510] See Drumbl (1998-1999), p.135.
[511] Elements of Crimes of the Rome Statute of the International Criminal Court, fn.36. See also Weinstein 2005, p.708, fn.95.
[512] See, e.g., Rose (2014), p.7.
[513] 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 citing M.N. Schmitt, 'The Environmental Law of War: An Invitation to Critical Re-examination', *Rev. Dr. Mil. Dr. Guerre* 36 (1997), 11 et seq., (35).
[514] Cassese and Gaeta (2008), p.96.

explicitly include this proportionality balancing test.[515] Nonetheless, Rule 45 is anthropocentrically framed as it only bars such damage where it is likely to "prejudice the health or survival of the population".[516]

A necessary step in the proportionality analysis under article 8(2)(b)(iv) is whether the object being targeted in the attack or operation was military in nature. If the intended target were not military, and were not being used for military purposes, then there would be no anticipated concrete and direct military advantage to weigh against the anticipated environmental harm and the crime would be established (as long as the other elements were present). Military objects are defined as those "which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage".[517]

Given that article 8(2)(b)(iv) does not clarify how the term "military" applies to "the environment",[518] other sources of international law may be utilized for this purpose.[519] In relation to the natural environment, the ICRC study on customary international law provides that participants in an armed conflict distinguish military targets from attacks on the environment *per se*.[520] Facets of the environment may constitute military objects.[521] A cave being used by members of an armed group for shelter and weapons storage, for example, would constitute a legitimate military target even though it is also an environmental feature.

On the other hand, it is questionable whether the environmental or aspects thereof can become a military target merely by virtue of its use to finance military efforts. Arguments have been made that natural resources, in the sense of commodities that can be extracted and traded such as minerals and rare metals, may constitute military objects if they are used to finance an armed struggle. By analogy, "an 1870 international arbitral tribunal recognized that the destruction of cotton was justified during the American Civil War since the sale of cotton

[515] "The use of methods or means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon"; ICRC Study, p.151.
[516] See*, e.g.*, New Zealand, Interim Law of Armed Conflict Manual, DM112, New Zealand Defence Force Headquarters, Directorate of Legal Services, Wellington, November 1992, sections 505(1) and 614(1).
[517] Additional Protocol 1, article 52(1); *Kordić* AJ, para.52.
[518] See in this respect, Secretary-General Report 1993, p.7 (noting that article 52 has an "important bearing on the protection of the environment in armed conflict" but not explaining how).
[519] Rome Statute, article 21.
[520] ICRC Study, Marsh 2008, p.133; UNEP Study (2009), p.13.
[521] Dam-de Jong (2015), p.232.

provided funds for almost all Confederate arms and ammunition."[522] However, the ICRC list of objects that may meet this definition focuses 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 consumption.[523] Expanding the list of potential military objects 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 objects in this respect.

Additionally, the military advantage provided by destroying the object in question must be "must be definite and cannot in any way be indeterminate or potential."[524] The further removed the objects are from the direct, kinetic fighting, the less determine the advantage of destroying them. Nonetheless, it is clear that the destruction of the environment during hostilities in the absence of a military rationale would potentially violate international law, and potentially could be classified as criminal.[525]

Environmental damage in armed conflict is typically an effect rather than a purpose of military attacks.[526] In applying the proportionality test in article 8(2)(b)(iv) the next step would be to determine whether the attack was militarily necessary. If the attack were not necessary then it could not justify the environmental harm, even if the target was military in nature. For example, if the military command post of an opposing force had been definitively abandoned, then destroying it would not typically be necessary and would not provide a potential justification for widespread, long-term and severe environmental harm. 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,[527] as covering "those measures which

[522] New Zealand's Military Manual (1992) (Interim Law of Armed Conflict Manual, DM 112, New Zealand Defence Force, Headquarters, Directorate of Legal Services, Wellington, November 1992, para.516(5) cited in ICRC Study, Practice concerning Rule 8.
[523] ICRC Commentary to article 52 of Additional Protocol I, p.632, fn.3 (referring to a "the list drawn up by the ICRC with the help of military experts").
[524] *Katanga* article 74 Decision, 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, 1986, paras. 2024 and 2028.
[525] ICRC Study, Rule 43.
[526] Mégret (2011), p.223.
[527] *Kordić* AJ, para.686. It should be noted that the Appeals Chamber's statement was made in the context of a discussion of the commission of violent acts against people as reprisals for previous conduct.

are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war".[528]

The International Military Tribunal at Nuremberg found that breaching the principle of necessity constitutes a violation of international law

> The destruction of property to be lawful must be imperatively demanded by the necessities of war. Destruction as an end in itself is a violation of international law. There must be some reasonable connection between the destruction of property and the overcoming of the enemy forces.[529]

The Appeals Chamber of the ICTY has re-affirmed this prohibition.[530] However, if the Accused thought, albeit incorrectly, that the attack was militarily necessary, then the value of the target sought would have to be weighed against the environmental harm. At the same time, simply constituting a violation of international law does not necessarily mean that the proportionality test would be satisfied, as it would be necessary to assess the situation based on the information known to the perpetrator at the time they launched the attack.[531] 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 1962-1971. The district court hearing the claim dismissed it 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.[532]

Other instruments of international law could also inform the analyses of whether the attack caused disproportionate environmental harm and whether the perpetrator had sufficient knowledge of the excessive nature of the harm. For example, the Third Protocol to the 1980 Convention on Certain Conventional Weapons addresses incendiary weapons and prohibits "forests or other kinds of plant cover the object of attack by incendiary weapons".[533] However, this prohibition's coverage does not apply "when such natural elements are used to

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[528] *Katanga* article 74 Decision, para.894 citing 8 Instructions for the Government of Armies of the United States in the Field (1863), ("Lieber Code"), article 14.
[529] *Hostages* Trial, 759, 1253-1254 (*cited in* Schmitt (1997), p.52).
[530] *Kordić* AJ, para.686. It should be noted that the Appeals Chamber's statement was made in the context of a discussion of the commission of violent acts against people as reprisals for previous conduct.
[531] Rome Statute Elements of Crimes, fn.37.
[532] Vietnam Victims' Case.
[533] Protocol III to the 1980 Convention on Certain Conventional Weapons, article 2(4). The vast majority of States Parties to the 1980 Convention have accepted Protocol III: https://treaties.un.org/Pages/ShowMTDSGDetails.aspx?src=UNTSONLINE&tabid=3&mtdsg_no=XXVI-2&chapter=26&lang=en.

cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives."[534]

The application of the principles of necessity and proportionality in the context of environmental harm were considered by the ICTY Committee examining NATO's actions in the FRY.[535] The Committee 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.[536] The Committee further observed that "If 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".[537]

While the "military advantage anticipated" must be assessed from the perspective of the perpetrator on the basis of the information available to him or her at the time of launching the attack,[538] it is unclear whether the "clearly excessive" element is assessed from the perpetrator's subjective viewpoint or from an objective viewpoint based on the information available to the accused. The Elements of Crimes state that the perpetrator must make the "value judgement" inherent in the provision, which supports the subjective approach. However, the following sentence of the Elements of Crimes requires that "[a]n evaluation of that value judgement must be based on the requisite information available to the perpetrator at the time."[539] This qualification implies that an assessment of the perpetrator's judgement is required, albeit on the basis of the information available to the perpetrators, which supports the objective approach of assessing the proportionality according to a standard of reasonableness.

These apparently conflicting sentences can be reconciled. This approach would work as follows: in accordance with the first sentence of this proportionality test, the Court should satisfy itself as to whether the perpetrator carried out the value-judgement. If the perpetrator concluded that the environmental harm was not justified by the military objective then liability would arise. Conversely, if the perpetrator considered that the environmental harm

[534] Protocol III to the 1980 Convention on Certain Conventional Weapons, article 2(4).
[535] Final Report on NATO (2000), para.15.
[536] Final Report on NATO (2000), para.20.
[537] 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".
[538] Elements of Crimes of the Rome Statute of the International Criminal Court, fn.36. See also Weinstein 2005, p.708, fn.95.
[539] ICC Elements of Crimes, fn.37.

was justified in order to obtain the military advantage, then the Court would carry out the "evaluation" of the perpetrator's assessment, as referred to in the Elements of Crimes. A finding that the perpetrator's evaluation was a reasonable one would result in an acquittal. However, according to this approach, a patently unreasonable assessment by the perpetrator would not be grounds to escape liability if it could be shown that the commander, aware of the risk of environmental harm, nonetheless acted recklessly[540] by disregarding alternative available means which would have reduced the harm to the environment.[541]

The alternative approach is to accept the purely subjective approach, whereby the military commander's decision is accepted unless it can be shown that he thought that the environmental harm would be excessive but decided to go ahead with the attack anyway. The problem with taking a purely subjective approach is that every military commander or political leader accused under article 8(2)(b)(iv) will claim that they considered the environmental harm justified, as occurred in the World War II prosecution of the German General Rendulić for excessive harm caused by his scorched earth tactics in Norway.[542] Rendulić held a series of command positions in the German armed forces in 1943 and 1944. In accordance with his orders, German troops burnt and destroyed villages and surrounding facilities in the Norwegian province of Finmark when retreating from the advancing Russian army. His troops' slash and burn strategy destroyed thousands of buildings and resulted in serious harm to the environment. Rendulić was ultimately acquitted of the charge of wanton destruction of property. 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.[543] Given the regularity of scorched earth tactics during armed conflicts, which stretches back to the Peloponnesian Wars in written histories and has continued to feature in reports of conflicts such as the Boer war, the First World War, and in World War Two, it is inevitable that the issue of scorched earth tactics will arise in future

[540] International criminal law has not incorporated a negligence standard for its *mens rea* for the substantive offences that it addresses; *Prosecutor v. Mučić et. al.,* Case No.96-21, Appeal Judgement, 20 February 2001, para.241.

[541] In this respect, the test would diverge from the approach to the assessment of the liability of Lothar Rendulić for his scorched earth tactics in Finland during World War Two, as described below; *Hostages Trial*.

[542] *Hostages* Trial, pp.66-69; Yuzon (1996), p.134. Rendulić was also charged with issuing vicious "reprisal" orders including to kill 50 hostages for any German killed and sentenced to 20 years' imprisonment.

[543] *Hostages* Trial, pp.66-69 ("It is our considered opinion that the conditions as they appeared to the defendant at the time were sufficient, upon which he could honestly conclude that urgent military necessity warranted the decision made. This being true, the defendant may have erred in the exercise of his judgment but he was guilty of no criminal act. We find the defendant not guilty on this portion of the charge."); Yuzon (1996), p.134. Another German military officer, Alfred Jodl was also prosecuted in part for scorched-earth practices in the north of Norway; Trials of War Criminals Before the Nuremberg Military Tribunals under Control Council Law No.10, Part XXII, November 1945-October 1946, 568-71 (1948).

conflicts.[544] Indeed, in 2016, reports emerged of ISIS burning oil installations in Iraq in the course of the ongoing conflict with the Iraqi Army and international forces.[545]

Given the complications and vagaries of measuring environmental harm, as well as the commitment of military commanders and political leaders to their military objectives[546] – it would be very difficult to prove that they did not believe the environmental harm was justified, no matter how absurd their assessment. It cannot be presumed that the States Parties decided to include a provision in the Rome Statute that would essentially never have any application.[547] In this respect, the Rendulić case, discussed above, marks a low point for the development of international environmental law. It indicated that commanders would not be criminally responsible for extremely serious and extensive environmental harm, as long as there was a claimed military justification for the acts that led to the harm.

Independent of which viewpoint is taken, determining the proportionality of environmental harm as compared to the counter-veiling military objectives will be difficult to carry out.[548] For example, the dropping of atomic bombs on Nagasaki and Hiroshima during World War II caused massive and predictable environmental damage.[549] 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 huge 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.[550] Thus, even the clearest cases of environmental harm will be difficult to assess under the balancing test.

The need to minimize collateral damage is reflected in a number of provisions of international humanitarian law, including Article 57(2) and (3) of Additional Protocol I.[551] The Secretary-General has noted that this has an "important bearing on the protection of the environment in

[544] See Cohan (2002), p.500.
[545] Cusato Scorched Earth.
[546] See *for example* Garrett (1996), p.45-46 ("environmental considerations should not obstruct the application of the principles of war during armed conflict").
[547] In this respect, the principle of effectiveness requires interpreting the provision to serve the purposes for which it was created as far as possible; "[w]hen a treaty is open to two interpretations one of which does and the other does not enable the treaty to have appropriate effects, good faith and the object and purpose of the treaty demand that the former interpretation should be adopted"; Report of the International Law Commission to the General Assembly, N6309/Rev.l, reprinted in [1966] 2 Y 8 Int'l L Comm'n 169, at 219.
[548] Cohan (2002), p.494.
[549] See Schmitt (1997), p.8.
[550] See, e.g., Bernard Brown "The Proportionality Principle in the Humanitarian Law of Warfare: Recent Efforts at Codification," Cornell International Law Journal: Vol. 10, 1976: Iss. 1, Article 5, p.141.
[551] Article 57 (2) Additional Protocol I.

armed conflict", without providing further specifics.[552] Nonetheless, it can be surmised that, if other such means were available but not taken, this will weigh in favour of the attacks being disproportionate.[553] This approach equates to the application of the precautionary principle as established under international environmental law, which, according to the ICRC, has been established as customary international law in relation to military attacks resulting in environmental harm.[554]

Some incidental protection for the environment is provided by article 56 of Additional Protocol I.[555] In weighing up the military necessity of attacking a certain location, for the purpose of article 8(2)(b)(iv) (or any other war crime for which proportionality or military necessity was a consideration), it would be important to note if the location fell within Article 56 of Additional Protocol I, which prohibits attacking dams, dikes, and nuclear electrical power stations if the release of "dangerous forces and consequent severe losses among the civilian population" might result. It also prohibits attacking any surrounding military objective that might result in the release of dangerous forces.[556] The fact that the dams, dikes, or power stations are military objectives does not remove this protection unless they provide regular, significant and direct support of military operations.[557] Article 15 of Additional Protocol II extends the protections contained in Article 56 of Protocol I to non-international armed conflicts.[558]

It has been proposed before the International Law Commission that military planners should undertake environmental impact assessments before launching operations.[559] The ICJ has confirmed that states have an obligation under general public international law to perform

[552] Secretary-General Report 1993, p.7.
[553] Schmitt, 1997, p.6; Schmitt (1999-2000), p.276, 313.
[554] ICRC study, Rule 43.
[555] Secretary-General Report 1993, p.7.
[556] Additional Protocol I, Article 56(1).
[557] In the case of dams, they must also be used other than in their normal manner; Additional Protocol I, Article 56(2).
[558] A similar prohibition is contained in Article 52 of the Berlin Rules on Water Resources, which states that "the Combatants shall not, for military purposes or as reprisals, destroy or divert waters, or destroy water installations, when such acts would cause widespread, long-term, and severe ecological damage prejudicial to the health or survival of the population or if such acts would fundamentally impair the ecological integrity of waters." Berlin Rules on Water Resources, 2004. This provision contains two prohibited consequences: an anthropocentrically-oriented reference to the health and survival of the population and an eco-centrically oriented reference to the ecological integrity of waters. The latter consequence is notable for its sole focus on environmental considerations. In this respect, it stands as the high water mark of environmental protections under international humanitarian law. However, the commentary to this rule indicates some doubt as to its status as customary international law. Because of this, only limited weight could be placed on Rule 52 as a prohibition of customary international law. Moreover, it is unclear which international tribunal, if any, could prosecute individuals for violating Rule 52.
[559] ILC Report on 66th Session, para.209.

environmental impact assessments when undertaking industrial activities with potential transboundary effects.[560] State representatives have expressed support this obligation also applying during armed conflict.[561] Such a requirement is reflected in the ICRC's customary rules of international humanitarian law. 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.[562] 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."[563] 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.[564]

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 which potentially entailed significant environmental harm. The failure of a commander to undertake an environmental impact assessment without good reason could arguably be used to support a finding of wilful blindness regarding the environmental harm and potentially assist to establish the *mens rea* required under article 8(2)(b)(iv).

In the context of non-international armed conflicts, the position is more complex. It is unclear whether the environmental impact assessment obligation confirmed by the ICJ in the Pulp Mills and other cases would apply to States and also to non-State entities, such as organized armed groups. It is also disputable whether non-State actors could even be expected to have the capacity to carry out environmental impact assessments. On the other hand, the ICRC has

[560] See *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010*, p. 14, at p. 83, para. 204.
[561] 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, § 1 ("The environment must be taken into consideration from the initial stages of conflict decision-making by both politicians and military decision makers.")
[562] Additional Protocol I of 1977, article 57.
[563] ICRC Study, Rule 44.
[564] See Secretary-General Report 1993, p.17.

set out the argument for the obligation to take measures to minimize environmental damage during military operations applies also in non-international armed conflicts.[565]

(c) Additional limitations on the ambit of article 8(2)(b)(iv)

The reach of article 8(2)(b)(iv) may also be limited by the so-called "non-threshold threshold"[566] "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.[567]

To the extent that the clause is addressed by chambers applying the Statute, in relation to the second clause, while it is clear that "such crimes" must be war crimes, it is unclear whether they must be the same specific type of war crimes as the charged ones. If it were necessary to show the large-scale commission of a specific type of war-crime, in this case attacks on the environment, then the circumstances in which the Court could act would be severely circumscribed. Given the highly restrictive nature of the elements of article 8(2)(b)(iv), it would be difficult to establish multiple breaches of this provision. Proving that the act was part of a plan or policy would depend on the nature of the acts. Centrally-ordered attacks on the environment, such as the lighting of the Kuwaiti oil fields, would fit squarely within the definition, but one-off strikes inflicting serious harm on the environment, such as a strike ordered by a rogue general, would not necessarily qualify as being part of a plan or policy. Consequently, the chapeau elements of Article 8 have the potential to exclude many human-caused environmental disasters from the ambit of article 8(2)(b)(iv).

(d) Additional provisions violated by excessive environmental harm during armed conflict

Alongside article 8(2)(b)(iv), there are several other war crimes in the Rome Statute that would potentially apply to the type of severe environmental harm committed as attacks during armed conflict. For example, the prohibitions against destroying or seizing the enemy's property unless such destruction or seizure be imperatively demanded by the necessities of war under articles 8(2)(b)(xiii) (international armed conflict) and 8(2)(e)(xii) (non-

[565] ICRC Study, pp.148-149.
[566] 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, and Results,* The Hague, Kluwer Law International, 1999, pp.79-126, 124.
[567] *Bemba* article 74 Decision, para.126.

international armed conflict) could apply if the destruction or appropriation was not imperatively necessary.[568] Depending on the manner in which the environmental destruction was conducted and whether any humans or property were harmed, the prohibitions against using poisonous weapons, and against murder, inhumane acts, and forcible displacement as war crimes could be engaged.[569]

In addition to war crimes, military attacks causing excessive environmental harm could also constitute crimes against humanity or genocide. For crimes against humanity, this would require demonstrating the contextual elements of a widespread or systematic attack against a civilian population pursuant to a state or organizational policy, as well as the elements of the specific underlying crime.[570]

For genocide, this would require demonstrating the specific intent to destroy a racial, religious, ethnic or national group in whole or in part, as well as the elements of the underlying form of genocide.[571] Additionally, a question remains as to whether there is a minimal threshold of genocidal acts required before the crime can be prosecuted. The *ad hoc* tribunals' jurisprudence evinces some support for the strict approach whereby a single underlying act listed in the genocide convention, such as killing or causing serious bodily or mental harm, as long as the specific genocidal intent were present.[572] However, the ICC Elements of Crimes indicate that it is necessary to show that "the conduct took place in the context of a manifest pattern of similar conduct directed against that group or was conduct that could itself effect such destruction."[573] While the Elements of Crimes are not strictly binding,[574] they are generally followed by the Judges when applying the crimes set out in the

[568] Dinstein (2001), p.544.

[569] For more detailed discussions of these crimes see above discussion of using war crimes to prosecute environmental harm; Chapter II(C).
[570] Rome Statute, article 7(1) and 7(2)(a). For more detailed discussions of these crimes see above discussion of using crimes against humanity to prosecute environmental harm, Chapter II(C).
[571] Rome Statute, article 6. For more detailed discussions of these crimes see above discussion of using genocide to prosecute environmental harm, Chapter II(C).
[572] *Prosecutor v. Jean-Paul Akayesu*, Case No.ICTR-96-4, Trial Judgement, 2 September 1998, para.497 ("contrary to popular belief, the crime of genocide does not imply the actual extermination of the group in its entirety, but it is understood as such once any one of the acts mentioned in Article 2(2)(a) through 2(2)(e) is committed with the specific intent to destroy "in whole or in part" a national, ethnical, racial or religious group").
[573] ICC Elements of Crimes, p.2.
[574] Rome Statute, article 9.

Rome Statute. Accordingly, genocide will likely only be charged where there is a substantial amount of genocidal activity occurring.[575]

For military attacks causing excessive harm to the environment, a key consideration will be the intent behind the attack. If the military aspect is secondary, and the primary aim is actually to strike civilians, or to strike indiscriminately, and people were harmed then crimes against humanity such as other inhumane acts would likely be established. Conversely, if military targets appeared to be the primary goal and the harm to the civilians were essentially collateral, it would be difficult to satisfy the requirement of showing an attack primarily directed against civilians. Similarly, for genocide the question of whether the harm to civilians was an intended consequence or merely a possible but unwanted consequence of the military attack would be at the core of the analysis. In this respect, two counter-veiling trends would impact that application of these prohibitions to environmental harm. On the one hand, harmful conduct in warfare is regulated and the jurisdiction of the international courts over war crimes offences are well-established. On the other hand, the use of the label "collateral damage" is increasing and typically allows the perpetrators to avoid criminal sanction.

2. Unlawful transboundary movement and storage of hazardous substances (toxic dumping)

Unlawful transboundary movement and (mis)storage of hazardous substances is a growing threat to the environment.[576] In an increasingly crowded world, where national regulatory frameworks often outright prohibit any storage or dumping of hazardous materials, there is a strong economic incentive to find cheap locations to deposit the harmful payload.[577]

This practice is often referred to as toxic dumping and encompasses conduct such as trafficking of hazardous substances and failing to ensure that toxic substances are properly disposed. Toxic dumping can occur both within and outside of armed conflict. The primary instrument regulating this conduct at the international level is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, which was adopted on 22 March 1989 and entered into force on 5 May 1992. There are over 175 parties

[575] See Chapter II(C) (noting that genocide is usually charged where there has been a large-scale killing).
[576] Since 1995 a Special Rapporteur on Toxic Dumping has been appointed to galvanise efforts to combat this scourge; Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes - http://www.ohchr.org/EN/Issues/Environment/ToxicWastes/Pages/SRToxicWastesIndex.aspx. In 2011, the United Nations Human Rights Council strengthened the mandate of the Special Rapporteur to cover the whole life-cycle of hazardous waste; Human Rights Council Resolution 18/11 2011.
[577] For more detailed discussions of these crimes see above discussion of using crimes against humanity to prosecute environmental harm, Chapter II(C).

to the Convention. However, the examples listed herein do not all necessarily feature in the annexes to that conviction. Nonetheless, the Basel Convention provides a useful reference to identify potentially harmful substances, which could potentially be incorporated into the analysis of international crimes concerning toxic dumping, as discussed below.

(a) Assessing the unlawfulness of toxic dumping

In order to be prosecuted before the ICC, the toxic dumping would have to be considered sufficiently grave unlawful conduct to merit ICC intervention.[578] In this respect, international law, particularly conventional law, provides a useful reference point to identify unlawful conduct.

(i) The Basel Convention

In order to demonstrate the gravity of the toxic dumping, it would be important to assess whether or not it was legal under the relevant domestic and international law.[579] The Basel Convention of 1989 provides a useful guide concerning the types of movement and storage of substances that States have considered harmful to the environment and unlawful.[580]

The hazardous wastes covered by the Basel Convention are set out in annexes, which provide a list of categories of waste that are included (Annex 1), unless they do not have problematic characteristics (Annex 3). The Convention also covers wastes that are defined as, or are considered to be, hazardous wastes by the domestic legislation of the party of export, import or transit.[581]

Under the Basel Convention, the following conduct is prohibited: transboundary movement (a) without notification pursuant to the provisions of the Basel Convention to all States concerned; or (b) without the consent pursuant to the provisions of the Basel Convention of a State concerned; or (c) with consent obtained from States concerned through falsification, misrepresentation or fraud; or (d) that does not conform in a material way with the documents; or (e) that results in deliberate disposal (e.g. dumping) of hazardous wastes or

[578] Rome Statute, articles 17(1)(d) and 53.
[579] See infra Chapter I(C)(1) (discussion of sources of law).
[580] The purposes of the Basel Convention are (a) to minimize the generation of hazardous wastes and other wastes (in terms both of quantity and potential hazard); (b) to treat and dispose of hazardous wastes and other wastes as close as possible to their source of generation in an environmentally sound manner; (c) to reduce transboundary movements of hazardous wastes and other wastes to a minimum consistent with their environmentally sound management
[581] Basel Convention, article 1(b).

other wastes in contravention of the Basel Convention and of general principles of international law.[582] Accordingly, the key elements that must be established to prosecute illegal transboundary movement are whether a substance is a "waste"; whether the waste is a "hazardous" or "other" waste according to the Convention (or is designated so in the State concerned); whether a "transboundary movement" occurred; and whether any of the elements (a)–(e) given in paragraph 1 of Article 9 to the Convention, as listed above, are deemed to have taken place.[583]

States that are party to the Basel Convention are required to criminalize the improper movement or disposal of chemical products which may seriously harm the environment.[584] An example is provided by Colombia which has prohibited the introduction into its territory of toxic wastes,[585] and penalised the illegal traffic of wastes covered by international treaties ratified by Colombia with sentences between 48 to 144 months imprisonment and fines between US$ 40,000 and US$10,000,000.[586] In the Netherlands, movement of hazardous waste is governed by the Economic Offences Act, which differentiates between intentional violations of the law (which are crimes) and non-intentional violations (which are misdemeanours).[587] Under Dutch law, illegal transboundary transport or dumping of hazardous waste can result in a natural person facing a custodial sentence of up to six years' imprisonment and a fine of 76,000 euros and legal persons facing a maximum fine of 760,000 euros per offence, as well as confiscation of illegal profits.[588] In Mexico, article 414 of the Federal Criminal Code provides for a penalty of between one and nine years in prison for a person who unlawfully, or without applying the necessary preventive or safety measures, engages in production, storage, traffic, import or export, transport, abandonment, disposal, discharge of, or any other activity with hazardous substances due to their corrosive, reactive, explosive, toxic, flammable, radioactive or similar characteristics, resulting in damage to natural resources, flora, fauna, ecosystems, water quality, soil, groundwater or the

[582] Basel Convention, article 9.
[583] United Nations Environment Program: Instruction Manual on the Prosecution of Illegal Traffic of Hazardous Wastes or Other Wastes (2012), ("Basel Convention Manual (2012)"), para.62.
[584] See, e.g., paragraph 3 of Article 4 of the Convention asserts that the parties consider that the illegal traffic in hazardous wastes is criminal, and paragraph 5 of Article 9 requires each party to introduce national/domestic legislation to prevent and punish illegal traffic.
[585] Colombia National Constitution (1991), article 8; Law No. 1252 of 2008.
[586] Colombia Criminal Code (Law 599 of 2000): Article 358.
[587] Basel Convention Manual (2012), para.125.
[588] Basel Convention Manual (2012), p.25.

environment. Domestic prosecution of illegal transport and dumping of hazardous and other controlled waste shows that the penalties imposed are almost always fines.[589]

Typically, unlawful transboundary movement and storage of hazardous substances is conducted by networks of individuals. There are many potential targets for investigation and prosecution including the generator, the exporter, the importer, the individuals completing the paperwork (freight forwarder, broker, shipping facilitator or coordinator) and the disposer.[590] International criminal law is well-suited to addressing organized crime involving multiple actors. The links between the crime and the high-level suspects responsible for its occurrence can result in criminal conviction if they meet the elements of modes of liability.[591]

While the Basel Convention may provide a useful guide as to the gravity of toxic dumping, and a means of distinguishing unlawful dumping from lawful industrial and commercial activities, it is not part of the legal framework of any international tribunal, let alone the ICC. Nonetheless, its terms could be formally incorporated as a benchmark if a jurisdiction were able to deal with toxic dumping as a matter of international criminal law. The Malabo Protocol on Amendments to the Protocol on the Statute of the African Court of Justice and Human Rights provides a potential model for the incorporation of international environmental law into the framework of an entity capable of adjudicating transnational and international crimes.[592] The Malabo Protocol incorporates a definition of the trafficking hazardous waste, which is intended to fall within the jurisdiction of the African Court of Justice and Human and Peoples Rights. To define hazardous waste and the illegal activities concerning this harmful type of product, the Protocol refers to the list of prohibited wastes contained in Annex 1 of the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa. The long list of prohibited wastes in the Bamako Convention is highly technical, including "waste substances and articles containing or contaminated with polychlorinated biphenyl (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyl (PBBs)", "congener[s] of

[589] Basel Convention Manual (2012), para.164.
[590] Basel Convention Manual (2012), para.68.
[591] Rome Statute, article 25.
[592] African Union Specialized Technical Committee on Justice and Legal Affairs, Protocol on Amendments to the Protocol on the Statute of the African Court of Justice and Human Rights, Doc.STC/Legal/Min/7(I) Rev. 1, 15 May 2014, p.28, Article 28L ("Malabo Protocol"). The AU Assembly adopted the Malabo Protocol on 30 June 2014 at its 23rd Ordinary Session. See, AU Doc. No. Assembly/AU/Dec.529 (XXIII). The Malabo Protocol is intended to extend the jurisdiction of the planned African Court of Justice and Human Rights (AFCJHR) to encompass crimes under international law (aggression, piracy, genocide, crimes against humanity, and war crimes) and transnational crimes (such as terrorism, money laundering, trafficking in persons, drugs, hazardous wastes, and illicit exploitation of natural resources).

polychlorinated dibenzo-furan", and "Organohalogen compounds".[593] In this manner, criminal sanctions for toxic dumping can be pegged to international environmental conventions, furthering the coherence of international law and avoiding further fragmentation.

(b) Prosecuting toxic dumping under the Rome Statute

Under the Rome Statute in its current form, there is no substantive provision that addresses unlawful transboundary movement and storage of hazardous substances.[594] This is not because toxic dumping is generally lawful. Toxic dumping in the form of trafficking of hazardous substances is included as a crime in the Malabo Protocol.[595] Moreover, States that are party to the Basel Convention on toxic dumping are required to criminalize within their domestic system acts that may result in severe damage to the environment.[596] Accordingly, it is apposite to examine whether such conduct could nonetheless potentially be prosecuted under existing prohibitions in the Court's jurisdiction.

(i) Toxic dumping as genocide

Though unlikely, it is conceivable that toxic dumping could form part of a genocidal campaign. Establishing liability would largely depend on the pivotal element of genocidal intent. It would also require proof that the dumping was one of the acts used to contribute to the genocidal conduct. Typically, this would be charged where there was a multitude of underlying acts targeting the victim group. The charges in the ICC proceedings against Omar Al-Bashir are broadly analogous as they include genocide allegations and claims that Bashir's forces used methods including poisoning of wells to target the victim communities (though it is not clear that this was done by any form of toxic dumping, particularly any form involving a transboundary transaction).[597]

(ii) Toxic dumping as crimes against humanity

[593] Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa, 30 January 1991, Annex I.
[594] Toxic dumping in the form of trafficking of hazardous substances is intended for inclusion as a crime before the African Court of Justice and Human and Peoples' Rights, see above the Malabo Protocol, article 28L.
[595] African Union Specialized Technical Committee on Justice and Legal Affairs, Draft Protocol on Amendments to the Protocol on the Statute of the African Court of Justice and Human Rights, Doc.STC/Legal/Min/7(I) Rev. 1, 15 May 2014, p.28, Article 28L.
[596] E.g. the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
[597] See *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7 (discussing the poisoning of wells as one of the crimes for which Bashir is charged).

Toxic dumping could potentially be prosecuted as crimes against humanity, depending on the specific circumstances in question and the context in which they occurred.[598] Under the Rome Statute crimes against humanity require a widespread or systematic attack against a civilian population pursuant to or in furtherance of a state or organisational policy.[599] It would not be necessary to show that the toxic dumping constituted such an attack in and of itself; the attack may comprise a variety of different acts amounting to underlying crimes against humanity under article 7.[600] Nonetheless, it would be necessary to show the link between the toxic dumping and the other acts committed as part of the attack on the civilian population. Mere simultaneity would not be sufficient. If toxic dumping were found to constitute an underlying crime against humanity such as other inhumane acts or persecution, then the repeated dumping of dangerous materials could constitute an attack under article 7 as it would meet the requirement of multiple commission of acts under article 7.[601]

The requirement of showing a policy would depend on the nature of the dumping. If it were conducted in an organized manner, it would be indicative of the presence of a policy, as required under article 7(2)(a) of the Rome Statute. This would include circumstances where the State or organisation in question repeatedly failed to respond to toxic dumping, despite its responsibility to do so, demonstrating the existence of a policy of tacit support. However, mere inaction by the State or organisation would not be sufficient in and of itself to infer such a policy, without some additional indication in the evidence demonstrating the existence of a policy.[602] Moreover, if the dumping was an unplanned and panicked reaction to potentially being caught with toxic substances, it would be less likely to satisfy the policy element.

Large-scale toxic dumping is likely to be motivated by financial incentives, in the quest to avoid regulatory costs of proper transportation and storage.[603] Whatever the motivation, if the

[598] Rome Statute, article 7(1)(k). See also Statute of the ICTY Article 5(i); Statute of the ICTR Article 3(i) (for the analogous provisions).
[599] Rome Statute, article 7(1) and (2).
[600] In the context of ongoing allegations by Ecuadoreans against Chevron for pollution committed while extracting oil, a representative of the victims submitted a request to the Office of the Prosecutor of the ICC arguing that Chevron's actions amounted to crimes against humanity, as they formed a "non-violent attack". The request was dismissed; Request to the Office of the Prosecutor of the ICC from the Legal Representatives of the Victims, 'Communication: Situation in Ecuador', 23 October 2014, available at chevrontoxico.com/assets/docs/2014-icc-complaint.pdf. See Lambert (2017), pp.707-729.
[601] See Lambert (2017), p.721.
[602] Rome Statute, Elements of Crimes, Introduction to Crimes Against Humanity, p.5 ("A policy which has a civilian population as the object of the attack would be implemented by State or organizational action. Such a policy may, in exceptional circumstances, be implemented by a deliberate failure to take action, which is consciously aimed at encouraging such attack. The existence of such a policy cannot be inferred solely from the absence of governmental or organizational action.").
[603] Prospieri and Terrosi (2017), p.513.

improper dumping of hazardous waste is conducted in an organized manner by a state or organization, and presuming that the dumping met the elements of one or more underlying crimes against humanity as discussed below, then it would qualify as a crime against humanity.[604] In the case of governmental approval, the question arises whether this would be unlawful at all. However, toxic dumping could not be prosecuted *per se*, and would have to be prosecuted in connection with a listed crime under the Rome Statute, which are acts that cannot be simply legalized by a government providing approval. At the same time, reliance on official assurances from a state that the conduct was not illegal could be raised as a defence under article 31(3) if it could be shown that reliance on official assurances constitutes a means of avoiding liability under international law or general principles of law, as applicable under article 21 of the Rome Statute.

Several crimes against humanity could be committed through toxic dumping. The most likely applicable crime against humanity is other inhumane acts under article 7(1)(k). The crime of other inhumane acts essentially requires a showing that the perpetrator inflicted great suffering, or serious injury to body or to mental or physical health on the victims.[605] In the incidents set out above, there were several casualties, with some extremely serious reported injuries.[606] The harm could also potentially be caused by the loss of access to particularly important areas or land. Because the toxic dumping can render the land inaccessible to the local inhabitants and peoples, an analogy can be made to cases concerning the dispossession of land. In this respect, the Inter-American Court case of *Sawhoyamaxa Indigenous Community v. Paraguay* which related to the division and sale of indigenous territories by Paraguay, noted that the Commission alleged that Paraguay violated the community's right to property in this case, as it deprived the indigenous Community 'not only of the material possession of their lands but also from the fundamental basis to develop their culture, their spiritual life, their integrity and their economic survival'.[607]

The crimes against humanity of murder and extermination could potentially be carried out through toxic dumping.[608] There have been allegations of deaths resulting from toxic

[604] See, e.g., Lambert (2017), p.723.
[605] ICC Elements of Crimes, p.12.
[606] See infra Chapter I(C)(4).
[607] Inter-American Court of Human Rights Case of the Sawhoyamaxa Indigenous Community v. Paraguay Judgment of March 29, 2006 (Merits, Reparations and Costs), para.113(a).
[608] See also Prospieri and Terrosi (2017), text accompanying footnote 31.

dumping, such as the 2006 toxic dumping in Côte d'Ivoire by the Trafigura company.[609] If the deaths were sufficiently large-scale, they could qualify as extermination.[610] Proving causation between the toxic dumping and the deaths, and proving the perpetrator's *mens rea*, would be the major variables necessary to establish liability.

For example, in the case of the dumping of chemicals in Abidjan, the United Nations Disaster Assessment & Coordination (UNDAC) Commission noted that while there were reports that seven people had died, no autopsies had been performed to verify the cause of death.[611] Moreover, although hazardous material was discharged into the Ebrie Lagoon and that diluted liquid had been running from the polluted sites into these waters, the pre-existing pollution levels in the lagoon prior to the dumping was considered too high to allow for identification of the hazardous waste in question.[612] With such high pre-existing levels of pollution, it was difficult to determine the number of deaths resulting from the illegal dumping, and would be particularly difficult to establish to the requisite level of certainty for criminal proceedings.[613]

Mass displacement can also be caused by toxic dumping and improper handling of hazardous materials. Based on this conduct, the crimes of forcible transfer, and, if the victims were displaced across a *de jure* or *de facto* border, deportation,[614] could be established, subject to the causation and *mens rea* standards being fulfilled.[615] An analogous example is provided by the charges against Omar Al-Bashir at the ICC. The Prosecution claims that "Militia/Janjaweed and the Armed Forces repeatedly destroyed, polluted or poisoned these wells so as to deprive the villagers of water needed for survival" and that "at least 2,700,000

[609] See Amnesty Report on Cote d'Ivoire (2012); Reports of Special Rapporteur on Toxic Dumping (2009), para.6; White (2008), p.119.
[610] According to *ad hoc* tribunal jurisprudence, there is no specific numeric minimum threshold for extermination; *Prosecutor v Lukić and Lukić*, Case NO.IT-98-32/1, Appeal Judgement, 4 December 2012, para. 537; Case Matrix Network, ICC Commentary (CLICC), Commentary Rome Statute: Part 2, Article 7(1)(b) by Matthew Gillett.
[611] UNDAC (2006), p.10. See also Prospieri and Terrosi (2017), p.518.
[612] UNDAC (2006), p.10.
[613] See also Amnesty Report on Cote d'Ivoire (2012), Annex 1, p.212 ("Predicting or detecting any mid and long-term implications for the environment arising from the dumping would be a speculative exercise and a near impossibility against a background of poor waste management practice, a huge variety of dumping places, poor baseline data on environmental pollution and unresolved issues around the exact composition of the waste.").
[614] For the distinction between deportation and forcible transfer see *Prosecutor v. Ruto et al*., ICC PT. Ch. II, ICC-01/09-01/11-373, 23 January 2012, para. 268.
[615] Case Matrix Network, ICC Commentary (CLICC), Commentary Rome Statute: Part 2, Article 7(1)(d) by Barbara Goy.

people, including a very substantial part of the target groups attacked in their villages, have been forcibly expelled from their homes."[616]

An additional crime against humanity potentially engaged by toxic dumping is persecution. Persecution must be committed in connection with another crime under the Rome Statute, making it a contingent crime.[617] Presuming that the requisite connection to another crime were established, the determining factor would be demonstrating that the severe deprivation of fundamental rights contrary to international law was committed by reason of the identity of the group or collectivity on a prohibited basis.[618] The States gathered at the World Conference on Human Rights in 1993 adopted by consensus the Vienna Declaration and Programme of Action, which recognised that toxic dumping potentially violates the human rights to life and health.[619]

For each of these crimes against humanity, a key consideration would be the *mens rea* – specifically whether the accused had sufficient intent and knowledge under article 30 of the Rome Statute to be convicted. For all crimes against humanity, it is required that the accused knows that their conduct forms part of a widespread or systematic attack against a civilian population, but it is not required to show that the perpetrator had knowledge of all characteristics of the attack or the precise details of the plan or policy of the State or organization.[620] For the underlying crimes against humanity, the intent requirement under article 30 of the Rome Statute applies in the absence of a more specific intent element for the crime in issue.[621] The requisite knowledge has been interpreted to mean knowledge that the resulting harm would occur as a virtual certainty of the *actus delictus* (in this case the dumping).[622] This will be a difficult standard to demonstrate in relation to toxic dumping, particularly in light of the multiple factors which can impact the level of environmental harm linked to the dumping of chemicals.

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[616] *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7.
[617] Rome Statute, article 7(1)(h).
[618] Persecution involves discrimination on a political, racial, national, ethnic, cultural, religious, gender as defined in paragraph 3, or other ground universally recognized as impermissible under international law; Rome Statute, article 7(1)(h), 7(2)(g).
[619] Vienna Declaration and Programme of Action, Adopted by the World Conference on Human Rights in Vienna on 25 June 1993 para.11 ("the World Conference on Human Rights recognizes that illicit dumping of toxic and dangerous substances and waste potentially constitutes a serious threat to the human rights to life and health of everyone.").
[620] Elements of Crimes, Overview for Crimes Against Humanity, para.2.
[621] Rome Statute, article 30(1); Elements of Crimes, General Introduction, para.2.
[622] See *Lubanga* Appeal Judgment, para.447.

(iii) Toxic dumping as a war crime

Looking to war crimes under article 8 of the Rome State, unlawful storage or dumping of hazardous materials could qualify as several war crimes if the dumping were conducted in connection with an armed conflict, and particularly if perpetrated as a tactic of war.[623] The ICC jurisdiction over war crimes where there is a showing of a sufficient connection to an applicable form of armed conflict.[624]

There are three main scenarios in which toxic dumping could occur during armed conflict. The first would be if the dumping were intentionally conducted as a method of war. In this case, it would also certainly constitute one of the war crimes discussed below. The second scenario would occur if the toxic dumping were perpetrated because the fog of war provided the cover to dispose of the toxic substances without adhering to the proper methods. If the perpetrators were shown to be taking advantage of the situation to conduct the dumping, this would satisfy the connection to an armed conflict, and the focus would then shift to whether a specific war crime was perpetrated. The third scenario would occur if the toxic dumping merely happened to occur at the same time as armed conflict, but without any substantive connection to the fighting or the circumstances created by the fighting. In this third scenario, the jurisdictional requirement of a link to an armed conflict would not be met.

The two most relevant war crimes under the Rome Statute include article 8(2)(b)(xvii) / 8(2)(e)(xiii) (employing poison or poisonous weapons), and article 8(2)(b)(xviii) / 8(2)(e)(xiv) (Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices). For these crimes, it must be shown that the perpetrator employed a substance or a weapon or gas or such-like that causes death or serious damage to health in the ordinary course of events, through its toxic or asphyxiating properties.[625] Presuming these elements were met, the prosecution of toxic dumping for these crimes would depend on establishing the

[623] The specific war crimes that would apply depend on which type of armed conflict is established; see Roe Statute, article 8.
[624] In this respect, see *Bemba* article 74 Decision, paras.128-130. See also *Kunarac* AJ, para. 58 ("What ultimately distinguishes a war crime from a purely domestic offence is that a war crime is shaped by or dependent upon the environment - the armed conflict - in which it is committed. It need not have been planned or supported by some form of policy. The armed conflict need not have been causal to the commission of the crime, but the existence of an armed conflict must, at a minimum, have played a substantial part in the perpetrator's ability to commit it, his decision to commit it, the manner in which it was committed or the purpose for which it was committed. Hence, if it can be established, as in the present case, that the perpetrator acted in furtherance of or under the guise of the armed conflict, it would be sufficient to conclude that his acts were closely related to the armed conflict.").
[625] Rome Statute, Elements of Crimes, pp.26, 41.

mens rea of the perpetrators to use the poison or similar substances that were of a nature to cause death or serious damage to health.[626]

To assist the delineation of lawful from unlawful storage and handling of chemical products for the purposes of these war crimes under the Rome Statute, resort could be made to the 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (BWC). This instrument prohibits the development, production, stockpiling or any other possession of microbial agents, toxins and weapons, as well as equipment or means of delivery designed to use these agents or toxins for hostile purposes or in armed conflict. No exceptions are made. Although the use of biological and toxin weapons is not expressly covered, the drafters took the view that the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925), would cover this conduct.[627]

Similarly, the 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC) indicates that the use of toxic chemicals as means of conducting warfare is prohibited.[628]

Another war crime potentially engaged by toxic dumping is 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). The ICRC commentary concerning article 54(2) of Additional Protocol I, which was a basis of the prohibition in article 8(2)(b)(xxv) of the Rome Statute, simply states that the objects referred to in this provision are those "of basic importance for the population from the point of view of providing the means of existence", but the reference to objects such as "foodstuffs, agricultural areas for the production of foodstuffs, crops and drinking water installations" in the provisions of international

[626] Rome Statute, article 30.
[627] Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, 1925; UNEP Study (2009), p.15.
[628] 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC), Preamble ("*Recognizing* the prohibition, embodied in the pertinent agreements and relevant principles of international law, of the use of herbicides as a method of warfare."); Dinstein (2001), p.539.

humanitarian law suggests that these would qualify.[629] Forests have also been mentioned as objects that destruction of which may lead to the starvation of the civilian population.[630]

Were toxic dumping used to deprive civilians of their means of survival, for example by poisoning water supplies for a besieged city's population, the elements of this crime could be demonstrated. The charges against Omar Al-Bashir are analogously instructive in this respect. He is charged with the systematic pillaging and destruction of villages and civilian property across a large area,[631] in which the attackers destroy all the targeted 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.[632]

Several other war crimes could be fulfilled by toxic dumping, including wilful killing / murder (on essentially the same basis as the underlying crime against humanity of murder set out above),[633] inhuman treatment / cruel treatment,[634] unlawful deportation or transfer (on essentially the same basis as the underlying crimes against humanity of deportation and forcible transfer),[635] and intentionally directing attacks against civilians and civilian objects.[636] Two significant issues concerning toxic dumping charged as war crimes would be (i) whether it would be necessary to show that the dumping itself constituted an attack or military strategy, and (ii) whether toxic dumping as a result of the production and/or use of legitimate military weapons and equipment would be covered.

Toxic dumping frequently affects water resources. There are other instruments of international law that would protect these natural resources of an occupied territory from toxic dumping. For example, the United Nations Watercourses Convention obliges State Parties to avoid causing significant harm to waterways that are shared between states in an equitable and reasonable manner, and to avoid causing significant harm to an international watercourse. Notably, the Watercourse Convention lists natural and ecological considerations as the first to

[629] Dam-de Jong (2015), pp.236-237.
[630] Dam-de Jong (2015), fn.100 citing Democratic Republic of Vietnam explicitly mentioned the destruction of forests "for the purpose of starving the civilian population and forcing them to become refugees". *Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts*, Geneva (1974-77), Vol. XIV, CDDH/III/SR.17, p.143.
[631] Bashir Arrest Warrant, pp.5-7; Second Bashir Arrest Warrant, pp.5-8.
[632] *Situation in Darfur, The Sudan,* Case No.ICC-02/05, Summary of Prosecution's Application under Article 58, 14 July 2008, pp.5-7.
[633] Rome Statute, article 8(2)(a)(i), 8(2)(c)(i).
[634] Rome Statute, article 8(2)(a)(ii), article 8(2)(c)(i).
[635] Rome Statute, article 8(2)(a)(vii). See also Rome Statute, article 8(2)(b)(viii), 8(2)(e)(viii).
[636] Rome Statute, article 8(2)(b)(i) and (ii), article 8(2)(e)(i) and (ii).

be taken into account when determining what use to make of an international watercourse.[637] Similarly, the Berlin Rules on Water Resources, which were approved by the International Law Association's Water Resources Law Committee in 2004, purport to set out rules of customary international law relating to fresh water resources. Article 54 requires that "an occupying State shall administer water resources in an occupied territory in a way that ensures the sustainable use of the water resources and that minimizes environmental harm." This accords with the established principles of the law of occupation whereby an occupying State is only the administrator of the occupied territory, acting as the usufructuary of State property.[638] However, this instrument does not directly relate to any of the crimes in the Rome Statute.

For the purposes of the present study, it can be seen that although there are no crimes under the Rome Statute directly addressing toxic dumping, there are several crimes which could be used to indirectly address this form of environmental harm. Nonetheless, even for indirect anthropocentric cases, it will be difficult to prove criminal charges concerning the use of chemicals harmful to the environment. For example, a civil case from the United States concerning an analogous form of harm concerns the use of Agent Orange and associated chemical defoliants during the Vietnam War. The heads of claims were brought by a collective of victims against DOW and other companies that provided carcinogenic chemicals, including the infamous Agent Orange, to the US Army to conduct a herbicide campaign in Vietnam from 1962-1971. The victims' claims were dismissed in their entirety, primarily on the basis that the use of Agent Orange was designed to protect American soldiers and was not intended to harm civilians.[639]

While it can be questioned whether a military motive is mutually exclusive of also having some form of intent or reckless responsibility for harm to civilians, of more significance to the potential criminalization of toxic dumping are the views of the Department of Defence of the United States concerning the use of Agent Orange. In a 1971 letter, the Office of General Counsel for the Department of Defense commented on the application of Articles 23(a) and (e) of the Hague Regulations of 1907—which had been incorporated into the Army Department Field Manual—stating that these international law sources did not prohibit the

[637] United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses of 1997 (entered into force 2014), Article 6 (requiring parties to take into account all relevant factors including "Geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character").
[638] International Law Association, Berlin Conference on Water Resources Law (2004), Fourth Report, Commentary to Article 54.
[639] Vietnam Victims' Case.

use of chemical defoliation "provided that their use against crops does not cause such crops as food to be poisoned nor cause human beings to be poisoned by direct contact, and such use must not cause unnecessary destruction of enemy property."[640] The opinion indicates that prior to the adoption of the Additional Protocol 1 of 1977, in which article 35(1) prohibited widespread, long-term and severe damage to the environment, there was little regard for the eco-centric impact of large-scale attacks on flora and fauna, and that it was the possible harm to anthropocentric interests that was of primary legal concern to military planners.

3. Wildlife exploitation

While there is no universally accepted definition of wildlife and forestry offences,[641] for the purposes of this analysis, the term wildlife crime describes "the illegal taking, possession, trade or movement of animals and plants or their derivatives in contravention of international, regional, or national legislation."[642] It also includes the destruction of animals and/or plants or their derivatives. Wildlife exploitation can occur within or outside of armed conflict. It is often perpetrated by armed criminal groups or non-state actors including rebel armed forces and criminal networks.

(a) Assessing the unlawfulness of wildlife exploitation

In order to be prosecuted before the ICC, the exploitation would have to be considered to be sufficiently grave unlawful conduct.[643] In this respect, international conventions provide reference points for the illegality of the wildlife exploitation.

(i) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

One of the difficulties in prosecuting wildlife exploitation is distinguishing unlawful conduct from lawful conduct. The bovine meat industry, for example, is reprehensible to some, but necessary and normal to others. Whatever the moral position, there is currently no general legal prohibition on the production and trade of cattle meat under international law. The various international standards and controls that are placed on the use and movement of

[640] See April 5, 1971 letter opinion of J. Fred Buzhardt ("Buzhardt Opinion") from the Office of General Counsel for the Department of Defense, in response to a request from Senator J.W. Fulbright, Chairman of the Senate Foreign Relations Committee.
[641] UNODC Toolkit (2012), p.4.
[642] Cooper et. al. (2009), p.2.
[643] Rome Statute, articles 17(1)(d) and 53.

animals will be significant to separate legal from illegal conduct, and are relevant to the gravity of the offences. By analogy, Dam and Stewart note that non-criminal international initiatives such as the Kimberly Process or the 2010 OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas may assist to distinguish unlawful extractive practices concerning minerals from lawful activities for the purposes of applying the crime of Illicit exploitation of natural resources under Article 28A(1)(13) of the Malabo Protocol.[644]

The lead public international law treaty on wildlife exploitation is the 1973 CITES Convention. The CITES treaty controls these processes and transactions to ensure that the international trade of wild animals and plants does not threaten their survival.[645] Under CITES, State Parties, which number over 170, must put in place a system of permits for any import, export, re-export, or introduction from the sea of any listed species, and to designate management authorities to administer the licensing system with advice from scientific authorities. Annex 1 of CITES listed the most endangered species and prevents their trade except in exceptional circumstances.[646] CITES obliges Parties to take measures to penalize trade in the protected specimens.[647] Under the CITES regime, trade in certain species, and sometimes in all species, from specific states have been suspended.[648]

(b) Prosecuting wildlife exploitation under the Rome Statute

At the ICC there is no provision directly or explicitly imposing individual criminal responsibility for wildlife exploitation. There is also essentially no precedent of wildlife exploitation being prosecuted before international courts. Proceedings in the wake of the Second World War saw nine German civilian officials in occupied Poland charged with environmental crimes, for the large-scale exploitation and profiting of Polish forestry. The Committee of the United Nations War Crimes Commission found that a *prima facie* case of pillage under article 53 of the Four Geneva Conventions was established and listed the

[644] Dam-de Jong and Stewart (2017), p.6.
[645] Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973), article 2.
[646] UNODC Toolkit (2012), p.14-15; https://www.cites.org/eng/disc/what.php.
[647] CITES, Article VIII; UNODC Toolkit (2012), p.15.
[648] See CITES, Countries currently subject to a recommendation to suspend trade https://cites.org/eng/resources/ref/suspend.php.

German officials as accused war criminals.[649] However, the officials were not tried before an international tribunal and so the case is of limited precedential significance.

(i) Wildlife exploitation as genocide

Given that genocide focuses on the biological destruction of human beings when committed with the specific intent to destroy a racial, religious, national or ethnic group in whole or in part,[650] it would be difficult to prosecute wildlife exploitation as genocide. Wildlife exploitation may well be committed in connection with genocide,[651] and could conceivably constitute a form of condition contributing to the destruction of the targeted group, but that would depend on the facts of the specific case.

(ii) Wildlife exploitation as crimes against humanity

Critical to prosecuting wildlife exploitation as crimes against humanity would be the context in which the offences occurred.[652] It would have to be demonstrated that the wildlife exploitation took place as part of a widespread or systematic attack against a civilian population pursuant to or in furtherance of a state or organisational policy. It would not be necessary to show that the wildlife exploitation was such an attack in and of itself, but a mere coincidence in time would not be sufficient.

Wildlife exploitation could be perpetrated pursuant to a policy if it were conducted in an organized manner, as required under article 7(2)(a) of the Rome Statute. This would include circumstances where the State or organisation in question repeatedly failed to respond to the wildlife exploitation, despite its responsibility to do so, demonstrating its tacit support for the illegal acts. At the same time, inaction by the State or organisation would not be sufficient in and of itself to infer such a policy, without some additional indication in the evidence demonstrating the existence of a policy.[653] Purely private poaching by unorganised

[649] History of the United Nations War Crimes Commission and the Development of the Laws of War 496 (Her Majesty's Stationary Office, 1948) (discussing Case No. 7150); *cited in* Schwabach 2004, p.17.
[650] Rome Statute, article 6.
[651] There are reports that the Janjaweed militia, which is allegedly used by Sudanese President Omar Al-Bashir to conduct genocide in Darfur, is involved in elephant poaching in Chad, though it is unclear if this is connected in any way with the facts giving rise to the ICC allegations; Rose (2014), p.17.
[652] Rome Statute, article 7(2)(a).
[653] Rome Statute, Elements of Crimes, Introduction to Crimes Against Humanity, p.5 ("A policy which has a civilian population as the object of the attack would be implemented by State or organizational action. Such a policy may, in exceptional circumstances, be implemented by a deliberate failure to take action, which is consciously aimed at encouraging such attack. The existence of such a policy cannot be inferred solely from the absence of governmental or organizational action.").

individuals or small bands of outlaws would be unlikely to meet the State or organisational policy requirement. Large-scale wildlife exploitation is likely to be motivated by financial incentives. That would not prevent it qualifying as a crime against humanity, as long as it was conducted in an organized manner by a state or organization, and met the elements of one or more underlying crimes against humanity as discussed below.

Wildlife exploitation could potentially be prosecuted as the crime against humanity of other inhumane acts under article 7(1)(k),[654] which requires a showing that the perpetrator inflicted great suffering, or serious injury to body or to mental or physical health on the victims.[655] The Prosecution would have to show that the species being harmed was of special significance to a people and the perpetrator was aware that by destroying and seriously damaging it s/he was causing that people great suffering or physical or mental harm.[656] Similarly, if an indigenous people relied on a specific animal or plant as a food or medicine source, the elements of inhumane acts could be established by the intentional damage or destruction of those species.[657] In the Mau Ogiek case, the African Court on Human and Peoples' Rights noted that the Mau Ogiek people's eviction from the Mau forest adversely affected their existence because they were "a hunter-gatherer population, the Ogieks have established their homes, collected and produced food, medicine and ensured other means of survival in the Mau Forest".[658]

[654] Rome Statute, Article 7(1)(k). See also Statute of the ICTY Article 5(i); Statute of the ICTR Article 3(i) (for the analogous provisions).
[655] ICC Elements of Crimes, p.12.
[656] Elements of Crimes, Article 7(1)(k). See also Wattad 2009, p.282.
[657] The concept of indigenous people has been defined by the United Nations Special Rapporteur on Minorities as ""Indigenous communities, peoples and nations which having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop, and transmit to future generations, their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems"; Report of the Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities E/CNA/Sub.2/1986/7/AddA, paragraph 379. The issue was also explored by the African Court on Human and Peoples' Rights, which identified several factors relevant to determining whether a people constitutes an indigenous people; Mau Ogiek Judgment (2017), para.107 ("the presence of priority in time with respect to the occupation and use of a specific territory; a voluntary perpetuation of cultural distinctiveness, which may include aspects of language, social organisation, religion and spiritual values, modes of production, laws and institutions; self-identification as well as recognition by other groups, or by State authorities that they are a distinct collectivity; and an experience of subjugation, marginalisation, dispossession, exclusion or discrimination, whether or not these conditions persist.").
[658] Mau Ogiek Judgment (2017), para.155.

Showing that suffering to persons arose due to the abuse or exploitation of a species would be a difficult task.[659] A broad interest in the health of the environment and biodiversity would likely be insufficient.[660] The deprivation of the livelihood or means of survival of a group has been considered to be sufficiently serious to constitute persecution, where it entails "inhumane consequences".[661] It is not inconceivable that such impact could arise where a species supports the livelihood and well-being of a people or tribe, which could potentially encompass economic, medical, and spiritual impact on a people due to the harm to a species. Dam and Stewart have observed that wildlife exploitation may undermine people's basic human rights while also jeopardizing their physical security and economic well-being.[662] Nonetheless, it remains unclear what type of connection and causation would suffice. For example, in the Mau Ogiek case, the African Court on Human and Peoples' Rights noted that while the Mau Ogiek's people's existence in the Mau forest had been adversely impacted by the Kenyan Government's decision to evict them, no causal connection between this decision

[659] Given that other inhumane acts must be of similar gravity to the other crimes against humanity e.g. ICC: article 7(1)(k). See also Kordić AJ, para. 102: ("[T]he acts underlying persecutions as a crime against humanity, whether considered in isolation or in conjunction with other acts, must constitute a crime of persecutions of gravity equal to the crimes listed in Article 5 of the Statute."), conduct that has been classified as either other inhumane acts or persecution can be relevant to the assessment of the gravity of the other. In the Brdjanin case, the Appeals Chamber dismissed the Accused's challenge that denial of access to judicial institutions was insufficiently serious to constitute the crime against humanity of persecution. However, the Appeals Chamber noted that the denial of access to justice could be considered in combination with other breaches of rights that Brdjanin contributed to, leaving open the question of whether the denial of access to justice could be sufficiently serious to constitute persecution in and of itself; *Brdjanin* AJ, paras.297, 302-303.

[660] For example in the ECtHR case of Kyrtatos v Greece, the Applications, who owned nearby property, objected that a tourist development on a wetland endangered an important natural habitat for several protected species and thereby adversely affected their rights, particularly the right to effective enjoyment of private and family life and the home under Article 8 of the ECHR. The ECtHR rejected the argument, finding that the ECHR "was not specifically designed to provide general protection of the environment as such"; Kyrtatos v. Greece [2003] ECHR 242 at 376.

[661] *Blaskić* AJ, para. 146: ("The destruction of property has been considered by various Trial Chambers of the International Tribunal to constitute persecutions as a crime against humanity. The Trial Chamber in Kupreskic considered that whether such attacks on property constitute persecutions may depend on the type of property involved, and that 'certain types of property whose destruction may not have a severe enough impact on the victim as to constitute a crime against humanity, even if such a destruction is perpetrated on discriminatory grounds: an example is the burning of someone's car (unless the car constitutes an indispensable and vital asset to the owner).' The Kupreskic Trial Chamber held, however, that in the circumstances of that case, which concerned the comprehensive destruction of homes and property, this constituted 'a destruction of the livelihood of a certain population,' and may have the 'same inhumane consequences as a forced transfer or deportation.' The Trial Chamber concluded that the act 'may constitute a gross or blatant denial of fundamental human rights, and, if committed on discriminatory grounds, it may constitute persecution.' The Appeals Chamber agrees with this assessment.")

[662] Dam-de Jong and Stewart (2017), p.2 ("The illicit exploitation of natural resources is associated with the financing of armed conflicts, which unsurprisingly, has very negative effects on local populations' enjoyment of basic human rights, physical security and economic wellbeing.").

and the deaths of some Mau Ogiek people had been established, and so an insufficient basis to claim a violation of the right to life.[663]

(iii) Wildlife exploitation as war crimes

As with the previously discussed forms of environmental harm, wildlife exploitation would have to be committed in connection with an armed conflict to be prosecuted under article 8 of the Rome Statute, requiring a sufficient connection to the applicable form of armed conflict. Wildlife offences are frequently committed in connection with armed conflict, both as a means of sustenance for armed groups, and as a means to obtain finances to purchase additional weapons and recruit additional personnel.

In terms of specific offences under article 8, it is possible that wildlife exploitation could be prosecuted as the war crime of pillage. The International Criminal Court's elements of crimes define pillage as the intentional appropriation of property for private or personal use, wildlife exploitation would be an awkward fit if directly prosecuted as pillage as it would require a showing that the species themselves constituted property.[664] Similarly, prosecuting wildlife exploitation as the crime of destruction or appropriation of protected property under article 8(2)(a)(iv) would require demonstrating the commodification of wildlife. One view holds that all wildlife forms either property of their territorial state[665] or else a shared resource (in the case of migratory species).[666] This builds on the concept of permanent sovereignty over natural resources.[667] However, prosecuting wildlife crime as pillage remains a prospective but untested possibility, with considerable uncertainty particularly given that there is no generally applicable convention or customary rule of international law holding that all wildlife throughout the world is property.

Nonetheless, if the wildlife in question did qualify as property that was protected under international humanitarian law, any appropriation of that wildlife would be unlikely to meet the exclusionary test of military necessity. Given that wildlife does not make a direct military contribution to armed conflict, any contribution through the provision of food or funding for

[663] Mau Ogiek Judgment (2017), para.155.
[664] 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.
[665] Dam-de Jong (2015), pp.217-218.
[666] Shared resources could fit with the notion of range states set out in the Bonn Convention: United Nations, Treaty Series, vol. 1651, No. 28395. Adopted on 23 June 1979 and entered into force on 1 November 1983, in Bonn, Germany, the Convention on the Conservation of Migratory Species of Wild Animals is a "is a framework agreement which relies on appendices for expanding or changing its commitments over time."
[667] See below, Chapter II(D)(3)(b) (section on permanent sovereignty over natural resources).

the war effort would be indirect, rendering its destruction less urgent than the destruction of weapons and other directly contributing material property of the adversary.[668]

The trade and use of bushmeat, including from gorillas and other endangered animals, as food for workers and militias engaged in pillage has been documented by UNEP, and is on the increase.[669] Pillagers of natural resources have also killed gorillas as retaliation against authorities for interfering with their ongoing extraction of natural resources.[670] Ivory is often used directly to finance conflicts and purchase arms for warring groups. If leaders and organisers of the pillage were aware that endangered species were killed as a matter of course by their subordinates when carrying out the pillage of natural resources, this could form a part of the criminal plans undertaken by the group, potentially leading to criminal liability.[671]

In *Ntaganda*, the Pre-Trial Chamber confirmed charges of pillage. However, the underlying conduct is concentrated more on the appropriation of private property, such as DVD players, computers and motorcycles, than on the destruction of the environment.[672] In *Katanga*, the Trial Chamber found that the charges under 8(2)(e)(xii) (Destroying or seizing the enemy's property unless such destruction or seizure be imperatively demanded by the necessities of war) and 8(2)(e)(v)[673] (Pillaging a town or place, even when taken by assault), were fulfilled based on the destruction of homes and the stealing of livestock and other material goods; though the accused were not ultimately convicted for these crimes.[674] In the Uganda situation, which focuses on members of Joseph Kony's Lord's Resistance Army, the charges of pillage focus on attacks on internally displaced persons' camps.[675] The charges against other accused are largely analogous in terms of concentrating on the theft, looting and destruction of people's property,[676] and so provide little direct guidance for the prosecution of environmental harm.

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[668] See, by analogy, Dam-de Jong (2015), pp.225-226.
[669] UNEP Gorilla Study, p.6, 11, 24, 46.
[670] UNEP Gorilla Study, p22.
[671] See Rome Statute, article 25(3).
[672] *The Prosecutor v. Bosco Ntaganda*, Case No. 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, paras.59-63.
[673] This provision mirrors article 8(2)(b)(xvi) but applies in non-international armed conflict.
[674] *Katanga* article 74 Decision, paras.917-932.
[675] See*, e.g.*, the Situation in Uganda, No. ICC-02/04-01/05, Warrant of Arrest for Joseph Kony issued on 8 July 2005 as Amended on 27 September 2005.
[676] Other ICC indictees facing charges of pillage and destruction of property include Germain "Simba" Katanga and Mathieu Ngudjolo for crimes committed during the armed conflict in the Democratic Republic of Congo, Jean-Pierre Bemba Gombo for crimes committed in the Central African Republic, Ahmad Muhammad Harun and Ali Muhammad Ali Abd-Al-Rahman for crimes committed in Darfur, Sudan, Bahr Idriss Abu Garda for

Relevant guidance can also be gleaned from the ICJ's judgment in the case of *Democratic Republic of the Congo v. Uganda*. The ICJ addressed questions concerning responsibility for the pillage and looting of the natural environment in a separate State, and the principle of permanent sovereignty over natural resources. It held that permanent sovereignty over natural resources is a "principle of customary international law".[677] DRC alleged that Uganda was responsible for widespread environmental harm and exploitation of natural resources[678] committed by Ugandan armed forces and also rebels supported by the Ugandans.[679] The ICJ found that the looting and plunder of natural resources in DRC by Ugandan forces was a violation of IHL, specifically Article 47 of The Hague Regulations of 1907,[680] and Article 33 of the Fourth Geneva Convention of 1949.[681] The ICJ stated that "whenever members of the [Ugandan People's Defence Force] were involved in the looting, plundering and exploitation of natural resources in the territory of the DRC", they were perpetrating pillage.[682] In Ituri, where Uganda was an occupying power,[683] Uganda's responsibility extended not only to its failure to prevent looting and pillage by its forces but also to looting and pillage by private persons (including rebel groups), and it found that Uganda's failings constituted a breach of the duties of an occupying power under article 43 of the Hague Regulations of 1907.[684] In light of these internationally wrongful acts, the ICJ found that Uganda was required to make reparations to DRC for the harm. The DRC requested that the specificities of the compensation be left for determination by the parties outside of court, but that the ICJ stand ready to determine the nature, amount and form of the reparations should the States be unable

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crimes committed in South Sudan, and Joseph Kony, Vincent Otti, Okot Odhiambo and Dominic Ongwen for crimes committed in Uganda.

[677] Case concerning armed activities on the territory of the Congo (Democratic Republic of the Congo v. Uganda), Judgment of 19 December 2005 ("*Armed Activities: DRC v Uganda*"), para.244.

[678] The ICJ found that the principle of permanent sovereignty over natural resources, which is expressed in General Assembly Resolution 1803 (XVII) of 14 December 1962 and related instruments, constitutes customary international law, but is not applicable to the looting and plunder of natural resources by members of an army of a State militarily intervening in another State. Consequently, the ICJ did not find that UNGA Resolution 1803 provided a basis for DRC's claim against Uganda; *Armed Activities: DRC v Uganda*, para.244.

[679] *Armed Activities: DRC v Uganda*, para.242.

[680] Article 47 reads "Pillage is formally forbidden."

[681] Article 33, in relevant part, reads "Pillage is prohibited."

[682] *Armed Activities: DRC v Uganda*, para.245.

[683] The ICJ found that the occupying power had the following duties under IHL: "This obligation comprised the duty to secure respect for the applicable rules of international human rights law and international humanitarian law, to protect the inhabitants of the occupied territory against acts of violence, and not to tolerate such violence by any third party."; *Armed Activities: DRC v Uganda*, para.178.

[684] *Armed Activities: DRC v Uganda*, paras.178, 248. Article 43 reads "Art. 43. The authority of the legitimate power having in fact passed into the hands of the occupant, the latter shall take all the measures in his power to restore, and ensure, as far as possible, public order and safety, while respecting, unless absolutely prevented, the laws in force in the country."

to reach an agreement. The ICJ has granted the parties several extensions to file their memorials on reparations, including in 2016.[685]

While sovereignty over natural resources is ascribed to both the "nation" (or "State") and the "people" (or "peoples"), the right to extract, utilize and benefit from these resources is exercised by the governmental authorities in a State.[686] The government must exercise this power for the State or people, and must do so in accordance with human rights law, environmental law, and in armed conflict, humanitarian law.[687] The *DRC v Uganda* case shows that environmental harm committed during armed conflict is justiciable between States and that responsibility for environmental harm extends beyond the direct perpetrators to also include occupying powers which fail to take measures to prevent such destruction in areas under their control.

In both the *DRC v Uganda* case and the polish forestry case[688] the wrong-doing parties were foreigners with no rights over the resources that they appropriated. In such cases, the unlawfulness of the resource extraction can be easily established, and the issue for pillage at the ICC would revolve around the issue of the personal or private use requirement under the elements of crimes.[689]

The legal position is less clear where the entity extracting the resources is indigenous to the territorial state, whether it be a rebel group, the State authorities, or a local population. In such cases, a key consideration is the application of the international law principle of permanent sovereignty over natural resources.[690] The right is typically framed as accruing to the "peoples" and "nations" of the states of the world.[691] Conventional approaches to international law designate the government of a State as the entity responsible for implementing the right of

[685] See update at http://www.toxicremnantsofwar.info/natural-resources-plunder-and-reparations-in-the-drc-how-the-icj-is-setting-precedents/.
[686] Dam-de Jong (2015), p.8.
[687] Dam-de Jong (2015), pp.8-9.
[688] History of the United Nations War Crimes Commission and the Development of the Laws of War 496 (Her Majesty's Stationary Office, 1948) (discussing Case No. 7150); *cited in* Schwabach 2004, p.17.
[689] The ICJ found violations of provisions of international humanitarian law, but declined to apply the principle of permanent sovereignty over natural resources to the circumstances of the Ugandan forces looting and pillaging the resources in DRC, as set out above.
[690] See, e.g., General Assembly Resolution 1803 (XVII) of 14 December 1962, "Permanent sovereignty over natural resources" ("UNGA Resolution 1803").
[691] See, e.g., UNGA Resolution 1803, article 1 ("The right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned.").

the nation and people to benefit from the State's natural resources.[692] However, the interpretation of these terms, particularly the term "peoples", is less clear and leaves room for debate.[693]

In the case of a rebel group extracting the resource, a conventional reading of international law indicates that this is unlawful and not protected by the right of permanent sovereignty over natural resources.[694] General Assembly Resolution 1803 on Permanent Sovereignty over Natural Resources recalls that "respect [for this principle] must be based on the recognition of the inalienable right of all States freely to dispose of their natural wealth and resources in accordance with their national interests, and on respect for the economic independence of States".[695] Arguments have been made that if a rebel group extracts the resource on behalf of the people of the area, it may be protected by the principle of permanent sovereignty over natural resources, at least at the level of international law.[696] However, several instruments of international law indicate that the right to permanent sovereignty over natural resources is held by States together with the peoples living within their borders.[697] Extending the right to rebel groups would be difficult to reconcile with the sources of international law that recognise States' right to permanent sovereignty over natural resources, and would almost inevitably clash with domestic law, under which the rebels' activities would almost always be unlawful.

In the case of an indigenous or local population extracting the natural resources, international law provides some support for the rights of indigenous peoples over lands and resources,[698]

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[692] See Daniella Dam-de Jong, 'Armed Opposition Groups and the Right to Exercise Control over Public Natural Resources: A Legal Analysis of the Cases of Libya and Syria', *Netherlands International Law Review* 62(1) 2015 ("Dam-de Jong *NILR* (2015)"), pp.8-9.

[693] See Dam and Stewart (2017), pp.11-13 (""peoples" can refer either to the population of a State, to specific groups in a State or to the State itself").

[694] See Dam-de Jong *NILR* (2015), p.4 ("international law does not formulate a clear-cut right for armed opposition groups to exploit natural resources."… "The previous sections showed that current international law does not provide a legal basis for granting armed opposition groups a right to exploit natural resources found within national jurisdiction." Note that Dam-de Jong argues that there may be an emerging basis for a right of armed non-state groups to dispose of resources, as long as this is done on behalf of the people).

[695] UNGA Resolution 1803, Preamble. See also Charter of Economic Rights and Duties of States, GA Res 3281 (XXIX), UN GAOR, 29th sess, 2315th plen mtg, Agenda Item 48, Supp No 31, UN Doc A/RES/3281(XXIX) (12 December 1974) annex ("Charter of Economic Rights and Duties of States").

[696] Dam-de Jong and Stewart (2017), pp.13 ("If, on the other hand, one adopts a more human rights oriented approach, the ultimate question would be whether the armed group concerned, in this case UNITA, would be considered a representative of the people.").

[697] See, e, g., Charter of Economic Rights and Duties, UN Doc A/RES/3281(XXIX), annex art 2(1).

[698] Ricardo Pereira and Orla Gough, "Permanent Sovereignty Over Natural Resources In The 21st Century: Natural Resource Governance and the Right to Self-Determination of Indigenous Peoples Under International Law", *Melbourne Journal of International Law*, 2007, p.473.

although the extent of these rights is controversial.[699] Several human rights instruments refer to the rights of "peoples" over natural resources, including the ICCPR[700] and the ICESCR,[701] and UNGA Resolution 1803 itself refers to the right of "peoples and nations" to permanent sovereignty over their natural wealth and resources.[702] Recognising indigenous people as benefiting from the right to dispose of natural resources is also in keeping with the United Nations Declaration on the Rights of Indigenous Peoples of 2007.[703]

In the case of the State itself exploiting or using the natural resources, this would typically fall within its prerogative rights of permanent sovereignty over its natural resources.[704] Given that the right "must be exercised in the interest of their national development and of the well-being of the people of the State concerned"[705] an argument could be made that agreements manifestly concluded for the personal gain of a ruler or ruling clique and to the detriment of the people would not fall within the parameters of the right.[706] However, established international law does not provide specific guidelines for the assessment of whether an agreement concluded by a Government would fall afoul of the obligation to deal with natural resources in the interests of the people, making it difficult to mount a prosecution under international criminal law on this basis.[707]

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[699] See Dam-de Jong and Stewart (2017), p.14 citing N.J. Schrijver, 'Unravelling State Sovereignty? The Controversy on the Right of Indigenous Peoples to Permanent Sovereignty over their Natural Wealth and Resources', in Boerefijn, I. & Goldschmidt, J. (ed.), *Changing Perceptions of Sovereignty and Human Rights: Essays in Honour of Cees Flinterman* (Intersentia 2008), at 85-98; Final Report of the Special Rapporteur of the Commission on Human Rights, Mrs. Erica Daes, on Indigenous peoples' permanent sovereignty over natural resources, *UN Doc. E/CN.4/Sub.2/2004/30* of 13 July 2004 and its addendum, UN Doc. E/CN.4/Sub.2/2004/30/Add.1, 12 July 2004

[700] ICCPR, Article 47 '[n]othing in the present Covenant shall be interpreted as impairing the inherent right of all peoples to enjoy and utilize fully and freely their natural wealth and resources'.

[701] ICESCR, Article 1(2) "all peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic cooperation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence."

[702] UNGA Resolution 1803, article 1.

[703] UNDRIP, GA Res 61/295, UN GAOR, 61st sess, 107th plen mtg, Agenda Item 68, Supp No 49, UN Doc A/RES/61/295 (2 October 2007) annex ('United Nations Declaration on the Rights of Indigenous Peoples'), annex article 4 ("[i]ndigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions.").

[704] See Dam-de Jong *NILR* (2015), p.7 ("International law establishes a right for states and peoples to freely exploit their natural resources."… "It is therefore the government which is entitled to exercise control over the state's natural resources to the exclusion of other entities.").

[705] UNGA Resolution 1803, article 1.

[706] See Dam-de Jong and Stewart (2017), p.14.

[707] See Dam-de Jong and Stewart (2017), p.15 ("For these reasons, it is uncertain if and to what extent the sub-offense would cover agreements concluded by the State to the detriment of indigenous peoples"). Any such prosecution under the African Protocol would also be difficult in light of the preclusion of head of state liability under Article 46A *Bis,* which provides "No charges shall be commenced or continued before the Court against

The survey of established international law relevant to permanent sovereignty over natural resources reinforces the possibility of prosecuting the pillage and exploitation of natural resources where the perpetrators are members of foreign armed forces or rebel groups, while also showing the difficulty of such prosecutions where those carrying out the extraction are agents of the territorial State.

Aside from these crimes, it is difficult to envisage wildlife exploitation *per se* constituting other anthropocentric crimes under the ICC's jurisdiction. Nonetheless, wildlife exploitation may well be committed in connection with other crimes, or else as a by-product of armed conflict and social upheaval.

E. Conclusion

The above survey shows that the substantive jurisdiction of the ICC does not focus explicitly or centrally on the repression of harm to the environment. The tenor of the Preamble and the large majority of the Court's substantive provisions is demonstrably anthropocentric in nature. Only one provision in the Rome Statute, article 8(2)(b)(iv) provides a basis to directly prosecute serious harm to the environment. However, a number of restrictions make it unlikely that charges under this provision could ever be established, particularly due to the exacting proportionality test which will render the likelihood of any conviction negligible. In this manner, the anthropocentric nature of the Rome Statute's orientation, as signaled by its Preamble and confirmed by the framing of its prohibitions, prejudices, and virtually excludes, the chances of effective and efficient proceedings on charges of damaging the natural environment. The substantive crimes indicate that the ICC is a court to redress harm to humans and their property, rather than a court designed to address harm to the environment.

Conversely, 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.[708] The anthropocentric provisions have the advantage of avoiding the restrictions of article 8(2)(b)(iv), such as its limitation to international armed conflict and its requirement that the anticipated environmental harm be "clearly excessive" to the military advantage sought.

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any serving AU Head of State or Government, or anybody acting or entitled to act in such capacity, or other senior state officials based on their functions, during their tenure of office."

[708] See *for example* Weinstein (2005), pp.698, 712 et seq.

However, prosecution under these provisions alone leaves the full extent of the harm to the environment *per se* unrecognised. It would result in environmental harm only being addressed and condemned indirectly as an offshoot of harm to human beings and their property.

International criminal law has an important declaratory function – it records the human race's moral opprobrium against crimes of concern to the international community as a whole. In this sense, prohibiting environmental harm would serve not only the expressivist goal of criminal justice (social disapproval and reinforcement of norms),[709] but also the utilitarian goal (general and special prevention), through the increased awareness of the international condemnation of this conduct, and provides a basis for possible criminal cases which would serve the retributivist goal (just desert).[710] The framing of the Court's substantive jurisdiction sends a clear declaratory message condemning anthropocentric crimes while at the same time implicitly conveying a message de-prioritizing environmental harm as a concern of international criminal law.

[709] M. Drumbl, *Accountability for Property Crimes and Environmental War Crimes: Prosecution, Litigation, and Development*, International Center for Transitional Justice, 2009, pp.21-22.
[710] K. Ambos, 'The Overall Function of International Criminal Law: Striking the Right Balance Between the *Rechtsgut* and the Harm Principles', 9(2) *Criminal Law and Philosophy* (2015), 301; Cusato (2017), text accompanying footnote 51.

III. ENVIRONMENTAL HARM AND JURISDICTIONAL AND PROCEDURAL CHALLENGES

A. Introduction

Procedure is critical to the implementation and effectiveness of a set of criminal prohibitions.[711] Former ICTY Judge and President of the Assembly of States Parties, O.G. Kwon observed that without the "rails of international criminal procedure" the "the train of international criminal law" would go nowhere.[712] History suggests that criminal procedure is not only essential to provide a framework in which the parties can argue the case, but also serves to harness the strong emotions that frequently surround serious crimes. In this manner, procedure helps to discourage the resort to mob justice and vigilantism.[713] The need for functional and effective criminal procedure is particularly acute at the international level, where the substantive provisions are applied to conduct occurring in various jurisdictions with differing procedural frameworks.[714] Contradictions, ambiguities, and lacunae in the procedural framework can hinder and potentially undermine the possibility of fair and expeditious proceedings. Given the possibility of ICC investigations and prosecutions placing increased emphasis on environmental harm in line with the Office of the Prosecutor's case selection guidelines,[715] it is imperative to examine the procedures that would apply to such proceedings.

The applicability of the ICC's procedural framework to cases involving environmental harm is largely unexplored in jurisprudence and literature. There have been no prior cases of prosecutions of environmental harm under international criminal law in its modern form,[716]

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[711] See Sergey Vasiliev et. al., International Criminal Procedure, (Oxford University Press 2013), Introduction, p.2 ("The quality of the procedural law and the efficiency of the institutional structure in which that law is to be interpreted, litigated, and applied have ranked among the most pressing issues in international criminal justice.").
[712] O.G. Kwon, "The Procedural Challenges Faced by International Criminal Tribunals and the Value of Codification", para.2, cited in See Sergey Vasiliev et. al., International Criminal Procedure, Introduction, p.5.
[713] See generally, Oliver Wendall Homes, *The Common Law*, (Cosimo Books, New York, 2009 (Holmes first printed this collection of 1881)).
[714] See Cryer et. al. (2010), pp.425-426 (noting the various differences between diverse common law and civil law approaches).
[715] OTP 2016 Case Selection Paper, para.41.
[716] Some limited guidance can be gleaned from the Rendulić case from the post-World War Two United States Military Tribunal. In that case, scorched earth tactics were adjudicated. However, the charge was wanton destruction of property which is an anthropocentric crime, as indicated by the summary of the charge in the Trial Judgement: "defendants ordered troops under their command to burn, level and destroy entire villages and towns and thereby making thousands of peaceful non-combatants homeless and destitute, thereby' causing untold suffering, misery and death to large numbers of innocent civilians without any recognised military necessity for so doing". The procedure applied at the United States Military Tribunal at Nuremberg was considerably more flexible than the applicable United States domestic law at the time, with hearsay rules and other typical

and, to date, there is no detailed academic treatment of the procedural framework that would apply in such eco-centrically oriented proceedings.

The first part of this chapter sets out the jurisdictional framework and the rules governing the initiation of proceedings at the ICC, as well as the admissibility regime regarding specific cases and investigations. The chapter then turns to the ICC's evidence gathering and presentation framework, including the rules governing the admission of evidence, expert evidence, and judicial involvement in evidence-gathering.

Based on the application of rules and principles to potential cases of environmental harm, this chapter asks whether the procedural framework of the ICC is exclusively conceived of anthropocentrically,[717] rather than eco-centrically.[718] It assesses the impact of this orientation, in terms of precluding or prejudicing proceedings for environmental harm. To substantiate the discussion, the chapter seeks to identify whether adjudicative incoherence results when the procedural framework is applied to environmental harm.[719] Throughout the analysis of the procedural framework, the provisions and rules are applied to three paradigmatic forms of environmental harm – military attacks causing excessive harm to the environment, toxic dumping, and wildlife exploitation, in order to demonstrate the feasibility and limitations of using ICC proceedings to address environmental harm.[720]

As with the preceding chapters, the focus of the following analysis is the ICC. Accordingly, the sources of law relied on are the Rome Statute and accompanying instruments, the relevant conventional and customary international law, and the general principles of law, as set out in

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restrictions eschewed in favour of a broad rule favouring admissibility of probative evidence while providing the opposing party an opportunity to challenge its authenticity and probity; see Trial of Wilhelm List and others ("The tribunals shall not be bound by technical rules of procedure, and shall admit any evidence which they deem to have probative value. Without limiting the foregoing general rules, the following shall be deemed admissible if they appear to the tribunal to contain information of probative value relating to the charges, affidavits, depositions, interrogations, and other statements, diaries, letters, the records, findings, statements and judgments of the military tribunals and the reviewing and confirming authorities of any of the United Nations, and copies of any document or other secondary evidence of the contents of any document, if the original is not readily available or cannot be produced without delay. The tribunal shall afford the opposing party such opportunity to question the authenticity or probative value of such evidence as in the opinion of the tribunal the ends of justice require.") (However, note that the Tribunal additionally applied more restrictive standards governing the admission and weighing of evidence).

[717] See Infra, Chapter I(D) on Definitional Underpinnings, anthropocentric, or human-centred, values, are those designed to minimize unnecessary human suffering resulting from armed conflict. See also Schmitt (1997), pp.6, 56, 62.

[718] See Infra, Chapter I(D) on Definitional Underpinnings, eco-centric values are those that see the environment as having an intrinsic value, irrespective of whether human beings suffer as a result of its destruction. See also *e.g.,* Jensen (2005).

[719] For the details of the adjudicative coherence test, see infra, Chapter I(C)(3) on Adjudicative Coherence.

[720] See infra, Chapter I(C)(4) on paradigmatic types of environmental harm.

article 21 of the Rome Statute.[721] Where appropriate, practice and procedure from domestic jurisdictions is highlighted to illustrate potential complications arising from the application of the ICC's regulatory framework to environmental harm and alternative approaches to redress these concerns.[722]

B. The ICC's jurisdiction and admissibility framework and environmental harm

Before assessing the adjudicative coherence and anthropocentric or eco-centric conceit of the procedures governing the prosecution of environmental harm at the ICC, it is necessary to outline the relevant procedures by which cases are brought before the Court. As will be shown, the Court's jurisdictional limits and trigger mechanisms are not explicitly framed in an anthropocentric manner (aside from the substantive provisions, which are almost all framed in an anthropocentric manner[723]), but nonetheless amplify the anthropocentric orientation that is evident on the face of the substantive crimes set out in the Rome Statute.

1. Jurisdiction

There are strict jurisdictional limits that circumscribe the work of the World's first International Criminal Court. As the substantive jurisdictional parameters governing the crimes the Court can address (*rationae materiae*) have been explored in the previous chapter, the following analysis focuses on the temporal, geographic, and personal jurisdictional parameters. The remaining jurisdictional boundaries to the Court's work are set out forthwith.

Looking to temporal jurisdiction (*ratione temporis*), the Court has an absolute temporal start date of 1 July 2002, which was the date on which the Rome Statute entered into force and the Court began to operate.[724] 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 that 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.[725]

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

[721] See infra Chapter I(C)(1) (discussion of sources of law).
[722] See infra Chapter I(C)(1) (discussion of sources of law).
[723] See above, Chapter II.
[724] Rome Statute, article 11(1); article 24(1).
[725] Rome Statute, article 11(2).

Rome Statute.[726] Acts causing environmental harm that began before 2002 but continued to be perpetrated after 2002 could potentially be addressed by the Court, subject to the other jurisdictional requirements being met. The Statute states that the Accused can only be held responsible for conduct that occurs after its entry into force on 1 July 2002.[727]

The prospects of drawing pre-2002 conduct into the Court's fold are slim. 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 in light of the express terms of article 24(1): "no person shall be criminally responsible under this Statute for conduct prior to the entry into force of the Statute." Consequently, the often-cited example of an attack on the environment constituted by Saddam Hussein's burning of the Kuwait oil wells in 1991, for example, could not be adjudicated before the ICC, irrespective of whether some effects on the environment continue to be felt.[728]

Practice indicates a strict approach to the temporal jurisdiction of the Court will be maintained. In the context of complaints about Chevron's involvement in pollution of areas of Ecuador from the 1960s through to the 1990s during oil exploration and extraction activities, the plaintiff group seeking to initiate ICC proceedings attempted to circumvent this temporal limit by arguing that Chevron's post-2002 efforts to avoid responsibility drew its conduct within the Court's jurisdiction and that it amounted to crimes against humanity.[729] This argument was dismissed, indicating a strict approach whereby the substantive conduct alleged to constitute crimes against humanity must occur within the Court's temporal jurisdiction.[730]

Attempts may be made to cast environmental harm as a continuing crime to draw the conduct into the Court's temporal jurisdiction. However, precedent from the ICTY suggests a strict approach will be taken to attempts to class crimes as continuing offences. The ICTR Appeals Chamber in the *Nahimana* case held that the Trial Chamber erred in considering that direct and public incitement to genocide was a crime that continued up until the genocide was

[726] If the conduct were charged as aggression, then different temporal jurisdictional parameters would apply in line with the Aggression Amendments.
[727] Rome Statute, article 24(1).
[728] See infra, Chapter I(C)(4)(i) on military attacks anticipated to cause excessive environmental harm.
[729] Lambert (2017), p.713.
[730] See Lambert (2017), p.713.

committed, and held that the accused could not be convicted for the incitement that occurred in 1993 as that preceded the start of the ICTR's jurisdiction in 1994.[731]

With regards to geographic jurisdiction (*ratione loci*), the Court can exercise jurisdiction with respect to acts occurring anywhere if the case is referred by the Security Council of the United Nations.[732] Otherwise, in the case of a State party referral or a *proprio motu* initiation of an investigation, 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 or by a national of a State party.[733]

In terms of geographic jurisdiction, the nature of environmental harm means that its impact is likely to be felt across multiple territories even if the causative act occurs in a separate territory. 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.[734] Views diverge on the applicability of this doctrine at the ICC.[735] The terms of article 12(2)(a) suggest that at least part of the conduct in question would have to occur on the territory of a state party (or on board a vessel or aircraft registered to a State Party),[736] but this issue remains jurisprudentially unsettled.

The Court's personal jurisdiction (*ratione personae*) is limited to natural persons, indicating that it cannot prosecute States or organizations.[737] The Court's jurisdictional limit to natural human beings precludes the possibility of punishing corporate entities for serious environmental harm.[738] Companies are widely recognised as playing a key role in serious environmental harm and some domestic approaches to addressing corporate crimes against the environment are well-developed.[739] In this respect, proceedings at the ICC suffer from a significant restriction. While individual company directors and other representatives may be

[731] *Nahimana* AJ, paras,723-724.
[732] Rome Statute, articles 12 and 13.
[733] Rome Statute, article 12.
[734] See generally, Michail Vagias, *The Territorial Jurisdiction of the International Criminal Court: Certain Contested Issues*, "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.
[735] Schabas (2011), p.82.
[736] Rome Statute "Article 12(2) … 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 in accordance with paragraph 3: (a) The State on the territory of which the conduct in question occurred or, if the crime was committed on board a vessel or aircraft, the State of registration of that vessel or aircraft;…"
[737] Rome Statute, article 25(1).
[738] Cusato (2017), text accompanying footnote 63.
[739] McLaughlin (2000), p.399.

prosecuted in their personal capacity, those natural persons' may have only been responsible for a limited aspect of the environmental harm caused by a corporation, leaving a potential impunity gap.

At the same time, immunities, such as head of State immunity or official capacity cannot operate to exempt persons from criminal responsibility for the acts falling under the Rome Statute.[740]

Understanding these jurisdictional limitations is critically important when assessing the utility of ICC proceedings to address harmful conduct. This is particularly the case when the conduct is not squarely addressed in the Rome Statute, as in the case of environmental harm for example (other than in the war crime of article 8(2)(b)(iv)). The Court's jurisdictional limitations define the ambit of its work and cannot easily be altered. Amending the Rome Statute requires action by the Assembly of State Parties, which is a potentially cumbersome and politically charged process.[741] Attempts to address environmental harm, or any other harm, before the Court, must pay due heed to these jurisdictional requirements or risk being aborted *ab initio*. The long-term nature and broad potential geographic extent of many forms of environmental harm provide considerable potential to fall within the Court's jurisdiction in these respects, even subject to strict interpretations of the Court's temporal, geographic, and personal jurisdiction.

2. Trigger mechanisms

Situations can be initiated before the ICC in three primary ways. First, State Parties (and non-State Parties that accept the Court's jurisdiction on an *ad hoc* basis) can refer situations involving the commission of an ICC crime on the territory or by a national of a State Party to the Court.[742] Second, the United Nations Security Council can refer situations involving ICC crimes occurring anywhere and committed by any person over 18 years of age to the Court.[743] Third, the Prosecutor may *proprio motu* initiate situations involving ICC crimes committed

[740] See, e.g., Rome Statute, article 27 (excluding Head of State immunity or official capacity as a basis for avoiding liability).
[741] See Schabas (2011), p.125 (describing the process of amending the Rome Statute as "cumbersome"). For example, the adoption of the amendments on the crime of aggression, which was already included in the original Rome Statute subject to future in-filling of its specific parameters, has been a long and contentious process, which will only be finalized in July 2018; see Jennifer Trahan (2016) "An Overview of the Newly Adopted International Criminal Court Definition of the Crime of Aggression", *Journal of International and Comparative Law*, Vol.2: Iss.1, Article 3.
[742] Rome Statute, articles 12-14.
[743] Rome Statute, articles 13-14.

on the territory or by a national of a State Party (or on board a vessel or aircraft registered in a State Party.[744] This set of jurisdictional trigger mechanisms is a unique feature of the ICC and lays down critical *a priori* parameters for the Court's operations.

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 operate in the same manner as referrals concerning other crimes under the Rome Statute. Given that environmental harm will likely cover multiple domestic jurisdictions, a State Party could refer an area for the Court's consideration rather than a specific national territory.

The second trigger mechanism, Security Council referrals, could potentially be of particular relevance to environmental harm because they are not limited to the territory of States' Parties.[745] Serious environmental harm could occur in areas outside of the territory of any State Party or possible State Party. For example, areas like Antarctica,[746] the high seas, or outer space, could only fall within the Court's jurisdiction if the perpetrator were a national of a State Party or if the Security Council referred the situation to the Court.[747] Yet these areas are vulnerable to environmental harm.[748]

Antarctica has immense significance from an ecological viewpoint, as it constitutes "26 percent of the world's wilderness area, representing 90 percent of all terrestrial ice and 70 percent of planetary fresh water".[749] The possibility of humans engaging in environmentally damaging practices in Antarctica is not a remote possibility. Equally, the prospect of oil pollution in the high seas and the dumping of radioactive materials presents a significant risk, as recognised by the adoption of the 1958 High Seas Fishing and Conservation Convention and the 1969 International Convention Relating to Intervention on the High Seas in Cases of

[744] Rome Statute, article 15.
[745] Rome Statute, articles 12(2), 13(b).
[746] Most states consider that Antarctica is part of the global commons and not subject to the exclusive jurisdiction of any state; Philippe Sands (2003), pp.710-711. Conversely, the arctic region is subject to the jurisdiction of certain states, which have formed the Arctic council to address the common concerns facing Arctic governments; Sands (2003), p.711.
[747] See Rome Statute articles 12, 13; Schabas (2016), p.261; Cherif Bassiouni, *International Extradition: United States Law and Practice*, 2014, p.426; 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"). Contra, 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).
[748] Sands (2003), p.187.
[749] Sands (2003), p.711.

Oil Pollution Casualties.[750] Damage and the spoliation of outer space from human activities is also a distinct and growing possibility.[751]

In order to refer a situation of environmental harm under Chapter VII, the Security Council would have 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.[752] The Security Council has, in recent years, passed resolutions dealing with matters going beyond its usual remit of cases of armed conflict.[753] The "new" measures that the Security Council is increasingly favouring include counter-terrorism measures,[754] and international courts.[755] The Security Council has referred to environmental damage in resolutions, including in relation to Iraq's invasion of Kuwait in 1990-1991,[756] the conflict in the Democratic Republic of Congo,[757] and on the Central African Republic (the preamble of which notes the Security council's "condemnation 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.")[758] However, to date, it has not specifically found environmental harm *per se* to constitute a threat to international peace and security. Nonetheless, there is no legal impediment to the Security

[750] OECD, High Seas Task Force: *Closing the net: Stopping illegal fishing on the high seas* (2006), p.38; Sands (2003), p.449.
[751] Sands (2003), p.382.
[752] United Nations Charter, article 39 ("The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.").
[753] See Alexandra Knight, "Global Environmental Threats: Can the Security Council Save Our Earth?", *New York University Law Review*, vol.80: 1549-1585, p.1565; Shirley v. Scott, "Climate Change and Peak Oil as Threats to International Peace and Security: Is it Time for the Security Council to Legislate?", *Melbourne Journal of International Law*, vol.9 (2008), text accompanying footnote 93.
[754] See, e.g., UNSC Resolution 1373 (2001)—Establishment of Counter-Terrorism Committee (CTC). See also UNSC Resolution 1465 (2003) (condemning bomb attack in Colombia); UNSC Resolution 1526 (2004)—Threats to international peace and security caused by terrorist acts.
[755] UNSC Resolution 827 (1992) (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).
[756] See UNSC Resolution 687, stating in Paragraph 16 that "Iraq is liable under international law for any [...] damage, including environmental damage and the depletion of natural resources [...] as a result of Iraq's unlawful invasion and occupation of Kuwait". However, the UN Security Council founded the liability for environmental harm on Iraq's use of aggressive force (in violation of Article 2(4) of the UN Charter), and did not specify any particular violation of international humanitarian or environmental law. See also UNEP Study (2009), p.27.
[757] See UNSC Resolution 1376, (2001) in which the Security Council "reiterates its condemnation of all illegal exploitation of the natural resources[,] ... demands that such exploitation cease and stresses that the natural resources of the Democratic Republic of the Congo should not be exploited to finance the conflict in that country." In UNSC Resolution 2136 (2014), the Security Council repeated its call to the Democratic Republic of the Congo and States in the Great Lakes region to cooperate at the regional level, in order to investigate and combat illegal exploitation of natural resources, including wildlife poaching and trafficking, by regional criminal networks and armed groups.
[758] UNSC Resolution 2127 (2013), 5 December 2013.

Council determining that a grave environmental crisis constitutes a threat to international peace and security and referring the situation to the Court.[759]

As for the third trigger mechanism, *proprio motu* initiated situations, the Office of 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, 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 impact of crimes.[760] Corresponding with this emphasis, the Prosecutor appears likely to place weight on the occurrence of significant environmental harm when determining whether to proceed with a situation *proprio motu* and seek authorisation to open an investigation.

3. Admissibility and complementarity

A critical factor in determining whether the Court can hear a case is admissibility.[761] The legal concept of admissibility concerns possible impediments to the Court hearing a case that falls within its jurisdiction; typically due to the case having been heard already in another jurisdiction, or falling below the minimum level of gravity required for the Court to address the case.

Admissibility of cases before the ICC is inherently linked to the concept of complementarity. The principle of "complementarity" is a unique and important "cornerstone" factor at the ICC.[762] According to this principle, the efforts of any State (which would normally exercise jurisdiction) to domestically investigate or prosecute crimes are given preference over the ICC proceedings.[763] The principle is based on respect for the primary jurisdiction of States and on considerations of efficiency and effectiveness, particularly given states' access to evidence and witnesses relating to crimes committed in their territories.

[759] Sir Michael Wood, 'The UN Security Council and International Law' (Lecture delivered at Hersch Lauterpacht Memorial Lectures, Cambridge, UK, 8 November 2006) [55], available from at 23 September 2008; Shirley v. Scott (2008), conclusions.
[760] OTP 2016 Case Selection Paper, para.41.
[761] 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.").
[762] 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.
[763] Stephens (2009), p.56.

Cases of environmental harm are prosecuted and litigated in many thousands of domestic courts around the world, including over 300 environmental courts and tribunals that are estimated to be operating.[764] The widespread potential availability of judicial *fora* to address environmental harm contrasts with the extremely restricted resources available within the international courts that can be directed towards redressing environmental harm. This contrast underscores the significance of encouraging domestic proceedings in accordance with the principle of complementarity, and also highlights the significance of the specific legal test used to determine whether or not a case is being sufficiently addressed at the domestic level.

Admissibility of cases before the ICC is controlled by article 17, pursuant to which a case is only inadmissible where: (1) the case is being investigated by a State which has jurisdiction over it; (2) the case has been investigated by a State which has jurisdiction over it and the State has decided not to prosecute the person concerned;[765] or (3) the person concerned has already been tried for conduct which is the subject of the complaint and a trial by the Court would not be permitted under article 20(3) of the Statute.[766]

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.[767] To assert primacy of domestic proceedings, the domestic authorities must show that the national investigation or prosecution cover the same individual and substantially the same conduct as alleged in the proceedings before the ICC.[768]

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[764] Basel Convention Manual (2012), p.7 citing International Judicial Institute for Environmental Adjudication, 2011 (www.pace.edu/school-of-law/sites/pace.edu.school-oflaw/files/press_releases/IJIEArelease.pdf).
[765] Cryer et. al. (2010), p.156.
[766] See also Schabas (2011), pp.187-188.
[767] *Prosecutor v. Saif Al-Islam Gaddafi*, ICC-01/11-01/11-547-Red, 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.71-72. ("The real issue is, therefore, the degree of overlap required as between the incidents being investigated by the Prosecutor and those being investigated by a State - with the focus being upon whether the conduct is substantially the same. Again, this will depend upon the facts of the individual case. If there is a large overlap between the incidents under investigation, it may be clear that the State is investigating substantially the same conduct; if the overlap is smaller, depending upon the precise facts, it may be that the State is still investigating substantially the same conduct or that it is investigating only a very small part of the Prosecutor's case.").
[768] *Prosecutor vs. Uhuru Muigai Kenyatta et al*., ICC-01/09-02/11-274, 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 ("the defining elements of a concrete case before the Court are the individual and the alleged conduct. It follows that for such a case to be inadmissible under article 17 (1) (a) of the Statute, the national investigation must cover the same individual and substantially the same conduct as alleged in the proceedings before the Court."). See also para.61 (clarifying that the burden falls on the state making the challenge to demonstrate inadmissibility).

The first two circumstances 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 national decision "was made for the purpose of shielding the person concerned from criminal responsibility", (ii) there is an unjustified delay in the circumstances "inconsistent with an intent to bring the person concerned to justice", or (iii) "[t]he proceedings were not or are not being conducted independently or impartially" and "were or are being conducted in a manner [...] inconsistent with an intent to bring the person concerned to justice."[769] 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."[770] 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. 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,[771] legislation and/or enforcement mechanisms are lacking in various areas of the world,[772] particularly jurisdictions subject to armed or societal conflict.[773] Complementarity in the case of environmental harm in these States is likely to see cases assigned to the ICC rather than domestic courts, on the basis that the national systems are unable to address the environmental harm.[774]

[769] Rome Statute, article 17.
[770] Rome Statute, article 17(3).
[771] See *R. v Sissen* (2000) All ER (D) 2193 (8 December 2000, Court of Appeal) - Mr Justice Ouseley: "the law is clear as to where the interests of conservation lie. These are serious offences. An immediate custodial sentence is usually appropriate to mark their gravity and the need for deterrence" (a case in which the defendant was imprisoned for 30 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 18 months on appeal); WWF Report, Sentencing Wildlife Trade Offences In England And Wales Consistency, Appropriateness And The Role Of Sentencing Guidelines, September 2016, p.25.
[772] UNEP (2014), p.17.
[773] Even in war-ravaged states, there are some arrests for poaching, 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.").
[774] Rome Statute, article 17.

Conversely, in many domestic jurisdictions, the environmental protections are far more developed and rigorously applied than the international laws protecting the environment.[775] The principle of complementarity is 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 a very few, if any, instances of such prosecutions at the national level.[776]

Complicated questions concerning admissibility may arise in circumstances where environmental harm is being addressed incidentally to anthropocentric charges. It is conceivable that the main anthropocentric crime could be found to be admissible while the environmental aspect could be found to be sufficiently addressed in domestic proceedings.[777] Conversely, if a crime such as pillage were being tried domestically on a narrow basis which ignored the broader environmental impact of the offending conduct (for example if only the stealing of appliances were charged and the looting and destruction of trees and animals were ignored), then an argument could be made that ICC proceedings addressing the environmental harm would not be substantially the same conduct. However, if the environmental harm were not constitutive of any specific crime (or required to show the elements of any particular mode of liability) under the Rome Statute, the domestic authorities could argue that the additional conduct does not weigh in the complementarity equation as it is not capable of forming a separate charge against the accused. 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 (presuming that article 8(2)(b)(iv) was not at issue), complementarity would likely see precedence go to the domestic

[775] For example, in 2014 observers noted that the criminal prosecution of environmental damage as an enforcement mechanism was growing in prevalence in the US at the domestic level; see, e.g., Daniel Riesel, Environmental Enforcement Civil & Criminal (Law Journal Press, Loose Leaf Service) (2014), section 1.07, 1-29 ("the criminal prosecution of environmental crimes may eventually predominate among all environmental enforcement approaches. Nothing catches the regulated community's attention as the very real threat of criminal prosecution. The spectre of incarceration, enormous fines, and the loss of public esteem are serious consequences for environmental dereliction that may or may not actually harm the environment, as opposed to the regulatory scheme.")

[776] See ICRC Study, vol.2, p.848, 861, 872, 887, 907 (noting that no practice was found in the national case law for the rules concerning environmental harm in hostilities).

[777] The converse situation whereby the anthropocentric crime would be inadmissible but the environmental aspect admissible is unlikely to arise, as the only circumstance in which the court would still have jurisdiction in those circumstances is for charges under article 8(2)(b)(iv), which would mean the environmental harm was being addressed directly and would obviate the need to prosecute it incidentally to anthropocentric charges.

proceedings. In this respect, the admissibility test may reinforce the anthropocentric focus of the Court's cases and jurisprudence.

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.[778] A baseline gravity requirement to prosecute environmental harm at the international level fits with the approach taken in public international law precedents (albeit non-criminal proceedings) concerning harm to the environment, which insist on "serious consequences"[779] or "significant" damage,[780] and can serve as a justification for the involvement of international legal institutions and mechanisms.

Previously, anthropocentric interests have been the primary focus of gravity assessments. 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."[781] It is unclear how environmental harm *per se* would be measured in terms of gravity. Environmental harm will not necessarily involve individual human victims in the same manner as anthropocentric crimes, which could be used by the Defence to argue against the gravity being sufficient. That argument would find support in the Rome Statute's Preamble; the reference to anthropocentric harm contrasts with the lack of any direct reference to eco-centric harm.[782]

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."[783] 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 will rank highly in terms of scale and impact.[784] This broad and lasting environmental impact would contrast, for example, with the

[778] See, e.g., Rome Statute, article 17(1)(d), article 53(1)(c); article 53(2)(c);
[779] *Trail Smelter case* (1938 and 1941) 3 RIAA 1911, 1973.
[780] ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, Report of the International Law Commission, 53rd Session, 366, UN Doc, A/56/10 (2001).
[781] ICC-OTP, Response to Communications Received Concerning Iraq (9 February 2006), p.9.
[782] See infra Chapter IV.
[783] *Situation on Registered Vessels of Comoros, Greece and Cambodia*, Article 53(1) Report, para.3 (6 November 2014), available at http://www.icc-cpi.int/iccdocs/otp/OTP-COM-Article_53(1)-Report-06Nov2014Eng.pdf ("Comoros Article 53(1) Report"), para.136.
[784] See discussion above of whether a conviction could arise 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; infra Chapter III.

limited impact attributed to the crimes in Comoros case, concerning the flotilla incident in which Israeli forces allegedly killed 10 persons and injured over 50 more. There it was found that "the crimes did not have a significant impact beyond the immediate victims and their families."[785]

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 Iraq the frequent murders, torture, and other violent acts against civilians and others that ISIS has claimed responsibility for, have also been accompanied by reports that ISIS has engaged in extensive environmental destruction through burning and destroying arable land and oil installations.[786] This combination of anthropocentric and eco-centric harms is likely to be considered 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 focused exclusively on destruction of cultural heritage at the ICC.[787] In seeking to explain the seriousness of the underlying conduct,[788] 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."[789] If this link to anthropocentric harm is made a necessary component for a gravity finding, the emphasis when bringing cases is likely to be placed on the human suffering more than the eco-centric harm *per se*. The human suffering arising from a serious offence, such as the extinction of a

[785] Comoros Article 53(1) Report, para.142. Contra 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.
[786] UNOCHA Iraq report 2016; Schwartzstein (2016).
[787] 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, https://www.globalpolicy.org/home/163-general/52814-icc-opens-a-case-for-the-destruction-of-cultural-heritage-in-mali.html.
[788] Prosecutor Fatou Bensouda, "Arguments for Prosecution at Confirmation Hearing in case of Prosecutor v. Al Mahdi", 1 March 2016, T.13-14 (In the confirmation of charges hearing, Prosecutor Bensouda stated "[t]he charges we have brought against Ahmad Al Faqi Al Mahdi involve most serious crimes; they are about the destructions of irreplaceable historic monuments and they are about a callous assault on the dignity and identity of entire populations and their religion and historical roots.").
[789] Prosecutor Fatou Bensouda, "Arguments for Prosecution at Confirmation Hearing in case of Prosecutor v. Al Mahdi", 1 March 2016, T.12 ("Madam President, your Honours, the Rome Statute prohibits and punishes the most reprehensible criminal acts: Crimes of genocide, crimes against humanity and war crimes. These crimes can be perpetrated in various forms, but they all have one common denominator: They inflict irreparable damage to the human person in his or her body, mind, soul and identity.").

species or destruction of a natural world heritage site, would be grave. Identifying specific human victims, and linking the harm they suffer to the environmental event, such as an animal extinction, may be difficult. In this respect, the Court's practice exhibits a prioritization of anthropocentric harm, which may concretize into a formal requirement, further subordinating the significance of environmental harm in the Court's orientation.

C. Investigation, fact-finding and evidence in relation to environmental harm at the ICC

1. ICC procedural framework

In order to prosecute incidents of environmental harm, it is necessary to seek out evidence, determine the causes and results of the harm, and to present evidence during court proceedings establishing criminal responsibility for the offending act beyond reasonable doubt.[790] Environmental harm is typically a complex and multi-factorial form of criminality.[791] Conducting effective investigations is critical for sound fact-finding, which in turn is necessary in order to obtain relevant and reliable material that can be tendered into evidence during any subsequent proceedings. While the procedures governing investigations and fact-finding are not as rigidly circumscribed as the Court's jurisdiction and trigger mechanisms, there are nonetheless certain rules that must be adhered to and principles that should be followed in order to ensure efficient, effective, and fair legal proceedings. Given the complexity of investigating and prosecuting environmental harm, it is particularly important to adhere to the governing procedural rules and principles in order to ensure that the gathered evidence can be used in any subsequent court proceedings.[792]

(a) Investigation and fact-finding

The ICC's unique procedural framework throws up significant challenges for the investigation of environmental harm. Drawing from common and civil law sources, while also featuring

[790] See International Bar Association, *Evidence Matters in ICC Trials,* August 2016, p.9 ("Evidence, from witnesses and other sources, is at the centre of International Criminal Court (ICC or the 'Court') investigations and trials.").
[791] See, e.g., Cusato (2017), text accompanying footnote 43.
[792] At the quasi-judicial United Nations Claims Commission, which addresses damage caused by Iraq through its invasion of Kuwait in 1991, and which imposes a lower standard of proof than the criminal standard, the failure of the claimant countries to provide sufficient evidence of environmentally linked harm to public health meant that of the approximately 24 billion USD claimed by Iran, Kuwait, Jordan, Saudi Arabia, and Syria for public health damage, only approximately 10 million USD was awarded; United Nations Compensation Commission Governing Council, Report and Recommendations made by the Panel of Commissioners Concerning the Fifth Instalment of "F4" Claims, S/Ac.26/2005/10, 30 June 2005 ("UNCC (2005)").

idiosyncratic procedures originating in the international courts themselves, the ICC's procedures governing the investigation and presentation of evidence must be interpreted and applied in challenging circumstances to address the most serious crimes plaguing the World. However, the rules governing the gathering and presentation of evidence at the ICC are more detailed than, and differ in several respects from, those of the *ad hoc* tribunals, making it important to specifically analyse the terms of the ICC's procedural rules, particularly in relation to environmental harm which is an unchartered area before the Court.

(i) Preliminary examination

There are several procedural steps at the ICC that will be important for the prosecution of environmental harm. The initial stage of the OTP's activities is the preliminary examination.[793] During this process, the OTP does not conduct full investigations but instead seeks to determine whether there is a "reasonable basis to believe" that a crime falling within the Court's jurisdiction has occurred, in order to meet the standard to launch an investigation.[794] At this stage, the Prosecutor may rely on received information; additional information from States, organs of the UN, intergovernmental or non-governmental organizations or other reliable sources and 'written or oral testimony' received at the seat of the Court.[795] The information can take the form of "a) information on crimes provided by individuals or groups, States, intergovernmental or non-governmental organisations or other reliable sources (also referred to as 'communications'); b) referrals from States Parties or the Security Council, or (c) declarations accepting the exercise of jurisdiction by the Court pursuant to article 12(3) lodged by a State which is not a Party to the Statute."[796]

During the preliminary examination phase of cases of environmental harm, the Office of the Prosecutor is likely to look to recognised entities such as the United Nations Environmental Program (UNEP), or Interpol, as well as domestic environmental authorities, to obtain a view

[793] OTP 2013 Preliminary Examination Policy Paper.
[794] Rome Statute, article 53(1), Rules of Procedure and Evidence, Rule 48; OTP 2013 Preliminary Examination Policy Paper, para.72; Broomhall et. al. (2003), para.20. During preliminary examinations, the Prosecution may also take statements from witnesses, if it deems it appropriate; OTP 2013 Preliminary Examination Policy Paper.
[795] Rome Statute, article 15(2); OTP 2013 Preliminary Examination Policy Paper, paras.31, 73, 80, 85-87; Broomhall et. al. (2003), para.21.
[796] Regulation 25, Regulations of the Office of the Prosecutor; OTP 2013 Preliminary Examination Policy Paper, para.73.

of the nature and gravity of the environmental harm, as well as the causative act, and the potential criminality of that act.[797]

Information indicating that a crime falling within the jurisdiction of the court has been committed may be provided to the Prosecution by States Parties to the Rome Statute, or by the Security Council, or from any other source of information obtained by the Prosecution.[798] When the information provides a reasonable basis to believe that a crime within the court's jurisdiction and admissible before the Court has been committed, the Prosecution shall initiate an investigation unless there are substantial reasons to believe this would not serve the interests of justice.[799]

(ii) Investigation

Whereas at the preliminary examination phase the Prosecution seeks evidence providing a "reasonable basis" to believe one or more Rome Statute crimes has been committed,[800] at the investigation phase the OTP actively seeks to meet the confirmation of charges test of "sufficient evidence demonstrating substantial grounds to believe" that the charged person has committed one or more of the crimes within the court's jurisdiction.[801] The Prosecutor of the ICC is charged with establishing the truth, and must investigate incriminating and exonerating circumstances equally.[802]

If the Prosecution initiates an investigation *proprio motu*, it must obtain approval from the Pre-Trial Chamber.[803] Upon authorization begin granted to launch an investigation, then the Prosecution will begin to seek further materials that it can eventually use as evidence to prove its case. Investigations are an aspect of ICC proceedings that largely adhere to the common law model (also known as the Anglo-Saxon model).[804] The Prosecution generally plays the lead role in gathering the evidence and presenting the case to the Judges.[805] Nonetheless, there are various provisions allowing the judges to play an active role even during the investigative

[797] See, e.g., Rome Statute, article 15(2); OTP 2013 Preliminary Examination Policy Paper, para.79.
[798] Rome Statute, articles 13-15.
[799] Rome Statute, article 53(1).
[800] Rome Statute, article 15.
[801] Rome Statute, article 61(7).
[802] Rome Statute, article 54(1)(a). See also Cassese and Gaeta (2008), p.373.
[803] Rome Statute, article 15.
[804] See Cassese and Gaeta (2008) p.370.
[805] See, e.g. Rome Statute, article 54. There is also provision for national authorities to be requested to carry out investigative steps and provide the resulting information to the courts, as discussed below. Rome Statute, article 42(1); Cryer et. al. (2010), p.437; Schabas (2011), p.261.

stage, and the Defence can commence investigating matters for itself at any time after it has been retained on the case.

Investigations of environmental harm are likely to be largely scientifically oriented,[806] and thus will likely necessitate the formation of investigative teams containing persons with scientific and technical expertise.[807] Contracting the assistance of scientific laboratories will also likely be necessary to prove cases of environmental harm, such as to identify the exploited species in a case of wildlife exploitation. This high concentration of technical and scientific evidence will have a major impact on the nature and duration of the investigations undertaken.

There is considerable potential for the degradation or loss of evidence of environmental harm through weather patterns in the case of harm to a specific location, or the disappearance of a population of a protected species in the case of wildlife crime, for example.[808] Accordingly, it will be important to use all available measures to obtain evidence rapidly and effectively, including the special measures for urgent evidence collection that the judges may approve.[809]

a. Collecting *in situ* evidence

On-site examinations will be important to obtain evidence of environmental harm, including in cases of toxic dumping, military attacks resulting in excessive harm to the environment, and wildlife crime. Investigating environmental harm at the ICC would likely involve taking samples of bio-organic or inorganic matter at the site or sites where the elements of the crime were perpetrated in order to assess the damage caused to the natural environment.[810] For example, in the context of ISIS's alleged burning of oil installations in Iraq in 2016, several potential environmental dangers have been noted,[811] but testing and documenting the extent of

[806] Philippe Sands, "Litigating Environmental Disputes: Courts, Tribunals and the Progressive Development of International Environmental Law", Global Forum on International Investment, (2008) ("Sands (2008)"), p.4 (highlighting the concentration on scientific evidence and issues in environmental cases under public international law).
[807] Cooper et. al. (2009), p.2.
[808] See, by analogy, Stahn (2015), p.815, fn.76 (noting that in general that there is "the danger in an unstable post-conflict environment that physical evidence may degrade or be removed".).
[809] See, by analogy, Stahn (2015), p.815, fn.76.
[810] See, e.g., Interpol, Pollution Crime Forensic Investigation Manual, 2014 ("Interpol Investigation Guide"), p.14 (setting out the multiple samples that would be taken in an illegal sewage disposal environmental harm case); Cooper et. al. (2009), p.2.
[811] UNEP (2017), p.2; Cusato Scorched Earth (noting that "[o]il fires release toxic substances into the air and surrounding area (notably, sulphur dioxide, heavy metals and particulate matter laden with carcinogenic PAHs) that may later permeate the soil and underground aquifers, causing severe and long-lasting harm to the natural environment and the human health.").

the environmental impact will likely require samples from the sites of the burning to ensure that the pollution caused by ISIS's acts can be distinguished from other pollution arising due to independent causes.

Because the potential sites will be diverse and potentially lacking in the laboratory equipment or set-up necessary to test samples, an initial step in the investigation will be determining how to gathering the potential evidence for assessment.[812] A pre-analysis should be undertaken prior to traveling to the relevant scenes to collect specimens and other evidence, in order to ensure that the right equipment and expertise are available for subject matter.[813] Samples should be collected as rapidly as possible, to avoid the spoliation, damage, or alteration of potential evidence due to rain, wind, other climatic factors, livestock or wild animals, or human interference.[814] Control samples should be taken from upwind or upstream from the source of the environmental harm, such as the disposal site of toxic materials.[815] The investigative team should consider whether systematic sampling is feasible in order to generate robust results on which to base conclusions as to the nature and extent of the environmental harm.[816] Evidence from the crime scene should be collected subject to as rigorous controls as possible in the circumstances, such as crime-scene demarcation, entry-exit register, crime-scene safety (particularly in the case of toxic dumping).[817] Where specific physical locations are examined, it will be important to ensure that they are accessed rapidly as animal tracks and signs can quickly disappear due to the impact of weather, other animals, and humans.[818] Safety precautions must also be taken to avoid "physical attack (bites, scratches, goring), infectious diseases (zoonoses) and envenomation", as well as attacks by poachers or other hostile groups.[819]

To the extent samples have to be tested *in situ*,[820] it will be important for investigation teams to have the appropriate competencies in field techniques and the appropriate equipment.[821] Investigating environmental harm will require a broad range of skills, including complex scientific knowledge. For example, necessary experts may include specialists such as

[812] Cooper et. al. (2009), p.2.
[813] Interpol Investigation Guide, pp.96-97.
[814] Cooper et. al. (2009), p.2; Cusato (2017), text accompanying footnote 41.
[815] Interpol Investigation Guide, p.100-101.
[816] Interpol Investigation Guide, p.103.
[817] Cooper et. al. (2009), p.3.
[818] Cooper et. al. (2009), p.3.
[819] Cooper et. al. (2009), p.4.
[820] Interpol Investigation Guide, p.100; Cooper et. al. (2009), p.4.
[821] Cooper et. al. (2009), p.2.

ecologists, entomologists, botanists, veterinarians, pathologists, molecular biologists and toxicologists.[822]Eurojust noted in relation to wildlife exploitation "only experts can determine with certainty if species found are indeed endangered, the category under which they fall, and whether a penal response to the illegal trade has been triggered."[823] In relation to toxic dumping, "experts are needed, for example, to decide if certain items qualify as waste, if waste is exported for recovery or re-use…"[824] For military attacks causing excessive environmental harm, ballistics and military experts would be necessary to assess the source and nature of the munitions used to harm the environment. Organizing teams of investigators for environmental cases will be resource intensive and require considerable coordination with the relevant authorities in the geographic locations affected by the environmental damage. Ensuring a properly collected and sufficiently extensive basis of potential evidentiary material will be important; as noted in the context of the ICTY review of NATO's 1999 bombing of Serbian industrial sites, there was a lack of corroborated sources indicating the "extent of environmental contamination caused by the NATO bombing campaign".[825]

Appropriate measures would need to be taken to label and preserve these samples and ensure that they are able to be used in court proceedings.[826] Preserving investigative evidence typically involves three stages: providing a unique name to the sample; labelling it with met-data, such as a description, the time and place it was found, and the person who collected it; and storing the sample in a protected location.[827] To best facilitate the use of the evidential sample in court, it is important to maintain a record of the chain of custody.[828] The chain of custody is the series of persons who have taken possession of or handled the evidential material from the time it was located at the crime scene to the time it was brought to court. Each person is considered a link in this chain. It is advisable to keep the number of people who handle evidence as minimal as possible, in order to reduce the risk of contamination or interference.[829] With environmental harm cases likely featuring large amounts of physical

[822] Cooper et. al. (2009), p.3.
[823] See, e.g. Eurojust, *Strategic Project on Environmental Crime* (November 2014) ("Eurojust (2014)"), p.11.
[824] See, e.g. Eurojust (2014), p.32.
[825] Final Report on NATO (2000), para. 17.
[826] Interpol Investigation Guide, 2014.
[827] Dermot Groome, *The Handbook of Human Rights Investigation* (Human Rights Press) (2011) ("Groome (2011)"), p.102.
[828] See Regulations of the Office of the Prosecutor, regulation 22 ("The Office shall ensure an uninterrupted chain of custody of documents and all other types of evidence. All evidence shall constantly be in the possession of the collector or the individual authorised to have possession of the item. The maintenance of the chain of custody shall be recorded and managed in accordance with regulation 23"). See also, e.g. Interpol Investigation Guide (2014), p.105; Cooper et. al. (2009), p.2.
[829] Groome (2011), p.103, Cooper et. al. (2009), p.2.

sample type evidence, the chain of custody will be of critical importance. A meticulous chain of custody will help to "minimise the chance of loss or substitution of material and helps to prove the origin and veracity of specimens or exhibits" in any subsequent court proceedings.[830]

At the international level, problems with access to crime sites and deterioration of evidence make investigating particularly challenging. The concerns compound the difficulties presented by the prevalence of uncooperative governments, security concerns, the lack of military or even policing power to support the investigations, and cultural and linguistic barriers which can interfere with investigative activities.[831] For anthropocentric crimes, the Prosecution has interviewed diaspora witnesses when its investigators have been unable to access the country in question, as has been the case in Darfur.[832] However, this strategy may be insufficient in relation to environmental harm for which access to crime sites or samples from the affected area will more likely be necessary to access the affected sites or animal populations in the territorial country in order to establish the nature and cause of the damage.

Wildlife offences exemplify the importance and difficulty of *in situ* investigative activities and sample acquisition. Investigating wildlife exploitation will typically require the gathering of evidence at the location or locations where the elements of the crimes were conducted. Collecting the evidence in a proper manner will assist the smooth conduct of any subsequent legal proceedings.[833] At the same time, wildlife exploitation may be difficult to investigate *in situ* precisely due to the conditions of conflict which give rise to the Court's jurisdiction.[834] Moreover, the investigation of wildlife exploitation such as the illegal exploitation or trade of endangered species may not necessarily be restricted to one specific locality or crime scene.[835] This is because the trade or exploitation is likely to be a process, occurring across several different locations. For example, the "crime scene" of an incident of poaching and illegally trading a rare animal may comprise several countries and even cyber-spaces such as

[830] Cooper et. al. (2009), p.2.
[831] Stahn (2015), pp.329-330.
[832] See Statement of ICC Prosecutor, Fatou Bensouda, before the United Nations Security Council on the Situation in Darfur, pursuant to UNSCR 1593 (2005), 13 December 2016, paras.33, 35.
[833] Cooper et. al. (2009), p.1 ("the proper collection, handling and analysis of evidence gathered at such a site will enhance the chances of securing a conviction and/or preventing/discouraging further breaches of the law.").
[834] Cooper et. al. (2009), p.5-6.
[835] European Union Action to Fight Environmental Crime (2015), p.20.

websites.[836] Wildlife crime can involve individuals at the highest levels of government, in which case security measures for the investigative team will be of paramount importance.[837]

In relation to wildlife exploitation, the seized materials may include "live" animals, which had been kept in unlawful conditions.[838] Investigations teams require the appropriate level of expertise and equipment to hold such specimens until a safe location can be organized for their relocation.[839] In this respect, reliance on national authorities will likely be heavy. However, national authorities in countries where the ICC is competent to investigate may well be non-functional due to societal conflict, and may be complicit in the crimes. In such locations, the ability of the Court to conduct its own investigations, including potentially conducting *in situ* specialized technical tests, will be particularly important.[840]

b. Collecting witness evidence concerning environmental harm

Witnesses to the environmentally harmful act will also be valuable sources of evidence. Investigators should seek first-hand witness accounts of events whenever possible.[841] Although hearsay evidence is admissible at the international courts, the best evidence rule dictates that more direct evidence (such as from an eye-witness to an event) will usually be preferred to less direct evidence (such as from a person who was told by an eye-witness about the events).[842]

Perpetrators of environmental harm often seek to mask their crimes by combining illegal and legal activities. Consequently, it will be important for investigators to gather evidence of the specific conduct of the perpetrators and incidental forms of criminality accompanying the environmental harm to contribute to successful prosecutions of environmental harm.[843] For example, with the cross-boundary movement of toxic substances or wildlife, fraudulent or forged documentation is frequently used to cover up or obfuscate the illegal conduct. Ozone-

[836] Cooper et. al. (2009), p.1.
[837] UNODC Toolkit (2012), p.54.
[838] European Union Action to Fight Environmental Crime (2015), p.20.
[839] Cooper et. al. (2009), p.2.
[840] Cooper et. al. (2009), p.5-6.
[841] See *Prosecutor v. Milan Martić*, Case No. IT-95-11-T, 19 January 2006, Decision Adopting Guidelines On The Standards Governing The Admission Of Evidence; Groome (2011), p.39; Interpol Investigation Guide (2014).
[842] Groome (2011), p.39 (the author somewhat overshoots the mark in claiming that "no circumstances can ever make hearsay testimony more reliable than eyewitness testimony". In fact, a hearsay witness who spoke to multiple eye-witnesses who subsequently died and who knew the perpetrators well may be a more reliable witness than an eye-witness who was confused or had a strong motivation to mislead the court. Nonetheless, Groome's underlying point, that the best available evidence should always be collected, remains valid).
[843] Rose (2014), p.18.

depleting substances are mis-labelled as coming from recycled sources, and protected species are misrepresented as having been bred in captivity, or even as entirely different species.[844]

Given the potential magnitude of events causing serious harm to the environment, and the multiple ways in which the impact manifest itself, multiple witnesses may be required to provide evidence of the events. For example, trafficking wildlife can involve a complicated matrix of methods, including bribery, violence, and even computer hacking to forge permits.[845] The prosecution of wildlife traffickers would typically require evidence from witnesses to the capture of the animals or the aftermath of the capture, in addition to scientific evidence identifying the targeted species, witnesses to the transactions by which the animals were trafficked, witnesses able to linked bank accounts or other assets to the trafficking, and witnesses able to establish the person or entity which issued the instructions for the trafficking. If the trafficking were prosecuted as the crime against humanity of other inhumane acts, for example, it would also be necessary to bring witnesses to describe the impact on the local community of the trafficking, as well as the impact on the animal population.[846] When added to the large number of expert and other witnesses, it becomes clear that environmental harm cases may implicate a vast amount of witness testimony.

In light of the apparent preference for testimony delivered in person that applies at the ICC,[847] and the drawn-out nature of oral testimony at the ICC, proceedings of this nature could become extremely lengthy. Although there are means of reducing the length of proceedings, particularly through the admission of testimonial evidence in written form,[848] the trials continue to feature a large number of *viva voce* witnesses appearing live before the Court. This approach would require re-thinking to address instances of environmental harm, which may extend across many sites and involve relatively limited harm being felt by a large number of people across a broad area. The witnesses affected by the harm may also have difficulty explaining the causes and extent of the damage, which may not be readily apparent to the naked eye. In this respect, the diffuse nature of the impact of environmental harm, such as the spread of toxic chemicals or wildlife exploitation, is not directly analogous with the harm caused by anthropocentric crimes, which will typically be felt by specific victims and more amenable to direct witness testimony of its causes and extent.

[844] Rose (2014), p.14.
[845] UNEP (2014), pp.13-14.
[846] See above, Chapter II (on crime against humanity of Other Inhumane Acts).
[847] Rome Statute, article 69(2).
[848] See ICC Rules of Procedure and Evidence, rule 68.

c. Insider witness evidence concerning environmental harm

Frequently the accused before the international courts are not the direct physical perpetrators of crimes, but instead are high-level, powerful figures, charged with ordering, inducing, or otherwise contributed to the crimes. Attributing environmental harm to specific perpetrators will often be difficult because of the multi-factorial causes of environmental harm.[849] To the extent the identification of direct physical perpetrators would be difficult, linking the crimes of those perpetrators to any senior commanders or superiors responsible for the crimes would likely be an even more challenging endeavour.

Establishing responsibility in these circumstances would likely require evidence from members of the perpetrator forces, known as insiders, or as informants.[850] Environmental cases such as for toxic dumping or harmful practices by corporations and other organized groups will typically depend on information provided by employees or members of those organizations to detail the extent of the knowledge of the harmful environmental results on the part of other members of the organization. Access to insider witnesses, or at least internal documents, from the violating entity, would assist with the prosecution of a director of a company which had carried out sufficiently grave environmental harm to be prosecutable under international criminal law.[851]

In addition to insider witnesses in the typical sense of perpetrators or accomplices in crimes, proving environmental harm will typically require evidence from members of government agencies, such as environmental ministries, as to the nature and extent of the environmental destruction. However, the Court lacks the power to subpoena individuals to testify at the seat of the ICC.[852] This lacuna is somewhat mitigated by the Court's ability to order States Parties to ensure that individuals give evidence from within their territory.[853] Nonetheless, as far as insider witnesses are concerned, simply appearing in their home territory may not be sufficient to encourage them to provide full and frank testimony. This will particularly be the case if the allegations are made against governmental figures - whose armed agents will be

[849] McLaughlin (2000), pp.397-398; Cusato (2017), text accompanying footnote 43.
[850] UNODC Toolkit (2012), p.85.
[851] McLaughlin (2000), p.402.
[852] The Court can request States to have witnesses provide evidence *in situ*, even against the witnesses' desires, but cannot demand that the witnesses be sent to The Hague to testify; *Prosecutor v. William Samoei Ruto and Mr Joshua Arap Sang*, ICC-01/09-01/11-1598, Judgment on the appeals of William Samoei Ruto and Mr Joshua Arap Sang against the decision of Trial Chamber V (A) of 17 April 2014 entitled "Decision on Prosecutor's Application for Witness Summonses and resulting Request for State Party Cooperation" ("Ruto and Sang Appeal Decision on Witness Summons").
[853] Ruto and Sang Appeal Decision on Witness Summons.

accompanying the insider witness to their testimony *in situ*, which is not conducive to eliciting a full and frank account from the witness. Lacking a full subpoena power, the court is not equipped with the machinery to ensure adjudicative coherence for complex cases requiring evidence from reluctant witnesses. This issue is not unique to the prosecution of environmental harm, but it exacerbates the myriad other difficulties that arise in seeking to redress environmental damage under the ICC framework.

(iii) Judicial involvement in investigations

The role of the judiciary in the investigation of environmental crimes is potentially highly significant. While proceedings at the ICC have been party-driven to date, the Rome Statute bestows upon the judicial branch a close supervisory function along with participatory powers in the process of evidence collection.[854]

During the investigative phase of proceedings, the Prosecutor must inform the Pre-Trial Chamber if circumstances jeopardize the subsequent availability of the evidence at trial, and may request the judges for permission to take measures to acquire a statement or collect or test evidence.[855] If the Prosecutor fails to seek such measures without good reason, the Pre-Trial Chamber may do so *proprio motu*.[856] The Pre-Trial Chamber may also take measures for the preservation of evidence and to authorise investigative steps within the territory of State Parties without having secured cooperation from those states.[857] For serious environmental harm, these options provide important means of gathering evidence where the usual procedure entails excessive risk of losing the evidence.

The judiciary's powers during the investigative phase carry through to the trial phase of proceedings. Under the Rome Statute, the trial chamber may "require the attendance and testimony of witnesses and production of documents and other evidence",[858] and it may "order the production of evidence in addition to that already collected prior to trial or

[854] See, e.g., Rome Statute, articles 56 and 57. See also Cryer et. al. (2010), p.436-439.
[855] Rome Statute, article 56. Article 56 proceedings are being increasingly utilized at the ICC, including in circumstances where traumatized witnesses may no longer be able to provide their evidence by the time of trial; see Decision of the Single Judge in the case of *Prosecutor v. Dominic Ongwen*, ICC-02/04-01/15-277-Conf, ICC-02/04-01/15-316-Conf; Application of Prosecution in the Judge in the case of *Prosecutor v. Dominic Ongwen*, ICC-02/04-01/15-310-Conf, paras.21-44 (wherein the Prosecution made factual submissions showing the various pressures facing female witnesses).
[856] Rome Statute, article 56(3).
[857] Rome Statute, article 57(3)(c).
[858] Rome Statute, article 64(6)(b).

presented during the trial by the parties".[859] The trial chamber has the power to "request the submission of all evidence that it considers necessary for the determination of the truth",[860] and may take judicial notice of facts of common knowledge without the parties submitting evidence to this effect.[861] Judges may order expert witnesses to appear, as indeed was done in the first two cases before the court – *Lubanga* and *Katanga*.[862] These procedural mechanisms provide the Judges with significant powers and avenues to control and contribute to the collection and presentation of evidence.

In cases of anthropocentric charges, the traditional party-led investigative process has been predominant in international proceedings, and judges have tended to only adduce evidence to supplement areas insufficiently explored.[863] Conversely, in the context of environmental harm, it may be appropriate to have a judge-led investigative process; a more active judicial role in proceedings, including a limited role during investigations is provided for under the Rome Statute.[864] State cooperation is a particularly acute need in environmental harm investigations, and active judicial participation at the investigative stage may enhance States' willingness to facilitate the court's requests.[865] Already, after a small number of trials at the ICC, the suggestion that Judges should play a more proactive role in running proceedings has been made.[866]

The primary reason to involve Judges in investigations is the large amount of technical and expert evidence that is likely to dominate an environmental harm prosecution.[867] If Judges are not closely following, and preferably involved in collecting, this type of information from the outset, they will lack a developed awareness on the nature of the scientific materials and

[859] Rome Statute, article 64(6)(d).
[860] Rome Statute, article 69(3).
[861] Rome Statute, article 69(6).
[862] *Lubanga* article 74 Decision, para.11; *Katanga* article 74 Decision, para.21.
[863] See Schabas (2011), p.313 (citing the comments of one ICC Judge in the context of a confirmation hearing: '[t]he Chamber, in any case, has one remit – and only one remit – and that is to establish the truth[,] and the objective of this confirmation hearing is to supplement the adversarial debate between the parties'; Lubanga (ICC-01/04–01/06), Transcript, 27 November 2006).
[864] See, in general, Cryer et. al. (2010), p.436. An example of judge-led investigations is the statute of the African Court of Human and Peoples' Rights, in which judges are expressly given the power to carry out investigations and where environmental crimes like toxic dumping are included within the court's jurisdiction "The Court may, at any time during the proceedings, assign one or more of its Members to conduct an enquiry, carry out a visit to the scene or take evidence in any other manner." At the ICTY, Rule 98 allows the Judiciary to call witnesses *proprio motu*, but does not expressly provide chambers with the power to carry out investigations.
[865] Cryer et. al. (2010), p.436.
[866] Stahn and Sluiter (2009), pp.487-488.
[867] Sands (2008), p.4.

testimony when they are adduced in court as evidence.[868] A loss of efficiency is likely to result, as the Judges will significantly lag behind the parties in their familiarity with and understanding of the key scientific evidence.[869] Already Professor Robert Heinsch has called for a more active judicial engagement, stating "(i)t is essential to find a way in which the judges of the ICC can be informed properly, thus being able to take active steps during proceedings."[870] In terms of the test set out above of adjudicative coherence, the spectre of extended trials, with judges struggling to catch up with vast bodies of expert and technical evidence that the parties have pondered over for months, would start to infringe on the delicate equilibrium that makes up an international trial.

The Rome system also provides a firm basis for judicial involvement in investigative activities through the mechanism of site visits.[871] Site visits by the judicial panel addressing the charges of environmental harm would be an important means of familiarizing the finders of fact with the locations in which the alleged destruction occurred.[872] For example, in investigating military attacks resulting in excessive harm, allowing the judges to view the damage *in situ*, would enhance their appreciation of the topography and potential directional provenance of the munitions causing the damage. In assessing the environmental damage caused by Iraq during its invasion and occupation of Kuwait, the UNCC undertook site visits to Kuwait to assess the nature and extent of the environmental damage resulting from Iraq's invasion and occupation of Kuwait; evaluate the technical feasibility, reasonableness and cost-effectiveness of the remediation measures proposed by Kuwait; and to identify possible remediation alternatives.[873] These site visits were explicitly relied upon by the Panel in

[868] See Robert Heinsch, "How to achieve fair and expeditious trial proceedings before the ICC: Is it time for a more judge-dominated approach?" in Stahn and Sluiter (2009), p.488 ("the judges will never be able to play such a proactive role when they are not properly informed about the background of the case").
[869] See Heinsch in Stahn and Sluiter (2009), p.489.
[870] See Heinsch in Stahn and Sluiter (2009), p.489.
[871] There is no specific provision in the Statute or Rules providing for site visits, but they have been ordered in the past under the chamber's general powers under article 64, 69, 74 and Rule 132; *Prosecutor v. Germaine Katanga and Mathieu Ngudjolo*, Decision on the Judicial Site Visit to the Democratic Republic of Congo, 1 December 2011, p.1.
[872] In Katanga, the Trial Chamber noted the importance of the judicial site visit, particularly in evaluating the environment where the alleged crimes occurred, stating "aside from the opportunity thus afforded to the Chamber to gain a better understanding of the context of the events before it for determination, the main purpose of the site visit was to enable the Chamber to conduct the requisite verifications in situ of specific points and to evaluate the environment and geography of locations mentioned by witnesses and the Accused persons."; *Katanga* article 74 Decision, para.108.

reaching its findings that oil contamination caused by Iraq's forces in Kuwait had caused significant damage to the environment.[874]

(iv) State cooperation in the investigation of environmental harm

In domestic settings, where investigators enjoy the support of police forces, investigating environmental damage is difficult. Before the ICC, which lacks a deployable police force, and must usually seek state consent to conduct investigative activities, the prospect of investigating environmental harm is a daunting challenge. As with the prosecution of other crimes before the ICC,[875] the prosecution of environmental harm will rely heavily on state cooperation.[876] like the other international tribunals, the ICC does not have its own police force on the ground in territories where the crimes occur. Accordingly, it must use a variety of diplomatic, political and pragmatic means to obtain the necessary evidence to proceed to trial.[877] State cooperation is critical for access to evidence.[878]

Proceedings for environmental harm will generally require extended access to locations relevant to the causation and effects of the environmental harm. Although aerial photos and remote sensing of data, such as smoke plumes,[879] could provide an indication of the damage, real evidence, such as samples of organic materials from the harmed area or even dead animals that have been trafficked, would typically be a primary means of establishing the extent of the damage. For example, in the investigation of allegations of the use of chemical weapons in Syria, it was only after representatives of the Organization for the Prevention of

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[873] United Nations Compensation Commission Governing Council, Report and Recommendations made by the Panel of Commissioners Concerning the Fourth Instalment of "F4" Claims, part two, S/Ac.26/2004/17, 9 December 2004, Para.45 ("UNCC (2004)").

[874] UNCC (2004), Para.73 ("Site visits to the affected areas confirm that the existing damage from oil contamination is severe since hardly any live vegetation is currently present in either areas of wet or dry oil contamination or in piles of oil contaminated material. The barren oil-contaminated areas stand in sharp contrast to the surrounding desert areas, which have experienced ecological recovery. In addition to the visible damage to vegetation and soil, the oil lakes continue to impair water transport and nutrient cycling because water is unable to penetrate the pools of oil and crusts of weathered sludge that cover the oil lakes.").

[875] Broomhall et. al. (2003), para.4.

[876] See International Bar Association, Evidence Matters in ICC Trials, August 2016, p.10 ("With respect to evidence, the central role of state cooperation at the ICC impacts investigations because cooperation is necessary for the Court to have access to evidence").

[877] Schabas (2011), p.286; Broomhall et. al. (2003), para.8.

[878] As noted by a group of informal experts convened to examine the Court's investigative functions: "unrestricted access to all forms of evidence by the ICC Prosecutor and the full co-operation of States is vital to the successful and fair functioning of the International Criminal Court." Broomhall et. al. (2003), para.4.

[879] See Earle (1992) *cited in* Schmitt (1997), p.19. See also Popović (1995-1996), p.70. (noting that the air pollution from the burning of the Iraqi oil wells in 1991 could be seen from as far away as the Himalayas).

Chemical Weapons went to Syria to investigate that it was able to declare that the attacks indeed involved chemical weapons. [880]

Unlike the *ad hoc* tribunals, which have binding powers over all UN member states due to their founding resolutions being passed under Chapter VII,[881] the ICC is a treaty-based institution. At the ICC, member States voluntarily take on commitments by signing the Rome Statute. Even for member States, the relationship with the court is more horizontal than the vertical relationship that the *ad hoc* Tribunals for the former Yugoslavia and Rwanda enjoy with States.[882] Some ICC cooperation obligations are explicitly mandatory, whereas some are expressed as being subject to collaborative negotiation between the relevant State or States and the Court.[883]

Several of the Court's cooperation provisions are relevant to environmental harm. During the investigative phase of proceedings, the Court may take measures to acquire a statement or collect or test evidence if circumstances jeopardize the subsequent availability of the evidence at trial.[884] In article 93, the Rome Statute sets out a series of investigative and prosecutorial steps that the Court may request and that State Parties "shall" comply with.[885]

The sub-provisions of article 93 are worded broadly, with terms such as "taking evidence" and "examination places or sites" and "any other assistance" being capable of covering

[880] See OPCW Press Release, "OPCW Fact-Finding Mission Confirms Use of Chemical Weapons in Khan Shaykhun on 4 April 2017", 30 June 2017 (https://www.opcw.org/news/article/opcw-fact-finding-mission-confirms-use-of-chemical-weapons-in-khan-shaykhun-on-4-april-2017/).

[881] See ICTY Statute, article 29; paragraph 4 of Security Council resolution 827 (1993); *Prosecutor v. Blaskić*, "Judgement on the Request of the Republic of Croatia for Review of the Decision of Trial Chamber I of 18 July 1997", 29 October 1997, para.26 ("The Security Council, the body entrusted with primary responsibility for the maintenance of international peace and security, has solemnly enjoined all Member States to comply with orders and requests of the International Tribunal.")

[882] Karim Khan et. al., Principles of Evidence in International Criminal Justice, (Oxford University Press) (2010) ("Khan et. al. (2010"), p.261. *Cf.* Hans Peter Kaul who refers to the ICC's jurisdiction as "subordinated" to national courts; Judge Hans-Peter Kaul, "The International Criminal Court – Its relationship to domestic jurisdictions", in Stahn and Sluiter (2009), p.34.

[883] Khan et. al. (2010), p.242.

[884] Rome Statute, article 56.

[885] Rome Statute, article 93(1). ((a) The identification and whereabouts of persons or the location of items; (b) The taking of evidence, including testimony under oath, and the production of evidence, including expert opinions and reports necessary to the Court; (c) The questioning of any person being investigated or prosecuted; (d) The service of documents, including judicial documents; (e) Facilitating the voluntary appearance of persons as witnesses or experts before the Court; (f) The temporary transfer of persons as provided in paragraph 7; (g) The examination of places or sites, including the exhumation and examination of grave sites; (h) The execution of searches and seizures; (i) The provision of records and documents, including official records and documents; (j) The protection of victims and witnesses and the preservation of evidence; (k) The identification, tracing and freezing or seizure of proceeds, property and assets and instrumentalities of crimes for the purpose of eventual forfeiture, without prejudice to the rights of bona fide third parties; and (l) Any other type of assistance which is not prohibited by the law of the requested State, with a view to facilitating the investigation and prosecution of crimes within the jurisdiction of the Court.)

virtually any investigative activity conceivable.[886] These sub-provisions also appear to be interpreted broadly in practice – ICC investigators operate in several countries, taking statements and collecting copies of evidence, typically with the acquiescence of those countries. United Nations Peacekeepers have also been permitted to conduct searches on behalf of the ICC in the Democratic Republic of Congo, where the ICC has an open situation for investigation.[887] The assistance of peacekeepers can expand the investigative options available to ICC teams present in the field, through the added security and access to terrain that is difficult to reach due to topographical features or potential land-mines and other dangerous remnants of war. For environmental harm, where access to the site of damage may be essential, the involvement of UN peacekeepers is a highly significant factor.

When putatively applied to a hypothetical case of environmental harm, it is notable that the terms used in article 93 indicate a preconception of prosecuting anthropocentric crimes. For example, article 93 refers explicitly to the "exhumation and examination of grave sites", which is a common feature of prosecutions for anthropocentric crimes such as murder or extermination. While the other sub-provisions of article 93 are neutrally worded in this respect, they do not explicitly refer to activities that would be central to most environmental harm cases, such as taking samples of organic and inorganic matter, although this would be encompassed by article 93's reference to "the taking of evidence"[888] and "the execution of searches and seizures".[889] The wording of the Rome Statute concerning assistance for investigations indicates that eco-centric prosecutions were not at the forefront of the framers' minds when establishing the guiding instrument of the court.

The ICC can undertake such *in situ* investigative activities without the State Party's consent, for example if there are no authorities capable of fulfilling a request for cooperation sent under part 9 (on cooperation) of the Statute,[890] or if the measures do not involve the use of compulsory measures, for example voluntary interviews with witnesses or inspection of grave sites without modifying them.[891] A State could seek to reject applications for such assistance

[886] See, e.g., Broomhall et. al. (2003), para.61, referring to article 93(1)(l) as a catch-all provision.
[887] Khan et. al. (2010), p.253 referring to Memorandum of Understanding Between the United Nations and the International Criminal Court concerning Cooperation between the United Nations Organization Mission in the Democratic Republic of the Congo (MONUC), and the International Criminal Court, article 16.
[888] Rome Statute, article 93(1)(b).
[889] Rome Statute, article 93(1)(h).
[890] Rome Statute, article 57(3)(d); Khan et. al. (2010) pp.247-248. This article requires the Court to seek the views of the involved State insofar as possible.
[891] Rome Statute, article 99(4); Khan et. al. (2010) p.247.

if contrary to an "existing fundamental legal principle of general application"[892] or if the measures would threaten national security,[893] but that may also require the State to provide some detail as to the nature of the threat it faces. States seeking to limit the intrusiveness of international investigations may link any searches to possible breaches of their national security interests, particularly if the site of the alleged environmental harm were government owned. Under article 72(a)(iii) of the Rome Statute, a failure of the Government to provide the requested information would allow the Court to draw an adverse inference against it, as well as the benefiting party or both parties.[894]

Access to facilities from which individuals and organisations engage in the environmentally deleterious conduct will be of critical importance to the success of investigations for environmental damage in many circumstances. Surprise searches, which are an important means to investigate domestic environmental harm, are likely to cause significant fall-out if not carefully planned in advance with the relevant domestic authorities. Such searches are labour-intensive and require considerable coordination, as described by an expert on domestic environmental law:

> "searches are often carried out by teams of agents literally swarming over the facility. Agents will often attempt to take advantage of the element of surprise incident to a search and the absence of counsel. Statements will be sought from all who can be induced to speak. Professionally executed searches will be persistent and pervasive; voluminous records essential to the business will often be seized. In environmental cases, extensive samples from sundry places will be obtained."[895]

On-site searches were found to be sufficiently important for investigations at the ICTY, that a Trial Chamber issued warrants for the Prosecution to conduct searches through Government offices across Bosnia.[896] The Prosecutor used this power days later to search multiple government buildings and seize thousands of pages of documents for removal to the Tribunal

[892] Rome Statute, article 93(3).
[893] Rome Statute, articles 72, 93(3); Khan et. al. (2010) p.248.
[894] Schabas (2011), pp.318-319.
[895] Riesel (2014), section 7.02[5], 7-27.
[896] *Prosecutor v. Kordić and Čerkez*, Case No.IT-95-14/2-T, Decision stating Reasons for Trial Chamber's Ruling of 1 June 1999 Rejecting Defence Motion to Supress Evidence, 25 June 1999; Khan et. al. (2010) p.254.

in The Hague, having informed the Bosnian authorities on the morning of the searches of the upcoming search operations.[897]

Environmentally harmful conduct may well be undertaken by public authorities. If so, the possibility escalates that the State will invoke national security interests as a shield to prevent disclosure or use of information demonstrating the State's involvement in the harmful practice. In such cases, the ICC's subordination to States' interests will prove an obstacle to the effective investigation and prosecution of environmental harm. In this respect, the delicate litigation balance is tilted excessively in one direction, resulting in a potential adjudicative impasse with no effective remedy other than reporting to external bodies.[898]

(b) Confirmation of charges, commencement of trial, and expeditious proceedings at the ICC

(i) Arrest warrant, initial hearings and confirmation of charges

The Prosecution can request an arrest warrant when there are reasonable grounds to believe that the named person has committed a crime within the court's jurisdiction.[899] If the person is apprehended then they will appear at a hearing in the custodial domestic state in order to verify basic facts concerning their identity and the course of the arrest, before being transferred to the ICC.[900] Following the person's appearance at the Court, a confirmation hearing is held, in which the Prosecution must provide sufficient evidence to establish substantial grounds to believe that the person committed the crime charged.[901]

Proving environmental harm is likely to require significant scientific and technical evidence,[902] which will be suitable for expert testing before the courtroom. The confirmation hearing is the first stage of proceedings at which the Defence is likely to challenge specific evidentiary and factual issues concerning environmental harm. At the confirmation hearing, the parties may introduce the evidence of witnesses, including expert witnesses, and introduce evidence of the extent and nature of the environmental harm, as well as the accused's criminal

[897] *Prosecutor v. Kordić and Čerkez*, Case No.IT-95-14/2-T, Submission of Declarations in Connection with Rule 95 Hearing on 31 May 1999; Khan et. al. (2010) pp.254-255.
[898] Under article 72(7), the Court may refer a State invoking national security interests to the United Nations Security Council or to the Assembly of State Parties.
[899] Rome Statute, article 58.
[900] Rome Statute, article 59.
[901] Rome Statute, article 61.
[902] Sands (2008), p.4.

responsibility therefor.[903] For complex proceedings, this may become a lengthy and resource-intensive process.

The Prosecution and Judges will face pressure to exclude facets of environmental harm that are not central to the charged crimes against the accused in order to speed up and streamline proceedings. Unless the charged crime is military attacks expected to cause excessive harm to the environment under article 8(2)(b)(iv), the core harm underlying the charged crimes will be anthropocentric in nature, and the collateral environmental harm will present a possible area to cut from proceedings. In this respect, the graduated series of tests that are designed to filter out unmeritorious cases will have a particularly exclusionary impact on environmental harm before the Court when charged

(ii) Trial proceedings

If a case reaches the trial stage, the collected materials that the parties consider relevant and probative will be tendered before the Court.[904] In all cases thus far, it has been the Prosecution first presenting evidence intended to show the accused's responsibility for the charged crime(s), and the Defence then presenting its case, or else presenting a motion for no case to answer to have the trial discontinued without having to present a case.[905] In this sense, the trials held so far at the ICC have essentially followed an adversarial model.[906]

Several other aspects of ICC proceedings are reflective of common law legal systems. Judges typically assume the role of neutral arbiters between the parties, and appeals proceedings are corrective in nature rather than serving as an opportunity for a trial de novo.[907] In-court proceedings usually follow the adversarial paradigm of examination-in-chief, cross-examination, and re-examination.[908] Despite the generally adversarial nature of ICC trials, in

[903] Rome Statute, article 61(5). Typically, the witness evidence will be submitted in a prior recorded form, though in exceptional circumstances the parties may call live witnesses at the confirmation hearing; ICC Chambers' Practice Manual, May 2017, p.14 ("use of live evidence at the confirmation hearing should be exceptional and should be subject to specific authorisation by the Pre-Trial Chamber. The parties must satisfactorily demonstrate that the proposed oral testimony cannot be properly substituted by a written statement or other documentary evidence.").
[904] Rome Statute, article 69(3).
[905] See *The Prosecutor v. William Samoei Ruto and Joshua Arap Sang*, ICC-01/09-01/11-2027-Red-Corr, Decision on Defence Applications for Judgments of Acquittal, 5 April 2016.
[906] See Cryer et. al. (2010), p.464; Cassese and Gaeta (2008), p.369-370.
[907] Rome Statute, article 81; *Lubanga* Appeal Judgment, para.27.
[908] See, e.g., *Prosecutor v. Laurent Gbagbo and Charles Blé Goudé*, Directions on the conduct of the proceedings, ICC-02/11-01/15-205, 3 September 2015 (providing the following general order for the questioning of witnesses: (1) examination by the calling party, during which questions are neutral, (2) examination by the

several important respects they deviate from typical common law procedures and incorporate civil law approaches.[909] There is no jury of lay people to act as the ultimate arbiters of factual questions. Instead of empanelling juries, professional Judges are entrusted with deciding all legal and factual matters.[910] Moreover, at the ICC, as with the Special Tribunal for Lebanon and Extraordinary Chambers in the Courts of Cambodia, victims can participate in their own right, including by presenting evidence going to the guilt or innocence of the accused.[911]

Chambers are accorded extensive flexibility in determining which evidence to admit.[912] This flexibility is important for the adjudication of environmental harm, as the relevant evidence will potentially be broad-ranging, from samples collected at the scene of the environmental harm, to scientific studies of the impact of the damage, to witness evidence of orders and instructions issued by the accused, along with many other related materials.

(c) Ensuring expeditious proceedings in the case of environmental harm

Investigating and prosecuting environmental harm before the ICC presents considerable difficulties in light of the requirement to ensure expeditious proceedings.[913] The Office of the Prosecutor has set out new investigative policies in its most recent Strategic Plan. It has stated that it will (i) move from its previous "focused" investigative approach to "open-ended, in-depth investigations"; (ii) move towards a "building-upwards" strategy where culpability of the most responsible persons can not be sufficiently proven from the outset; and (iii) seek to be as trial-ready as possible from earliest phases of proceedings, such as when requesting a warrant of arrest and no later than the confirmation of charges hearing.[914] In relation to environmental harm, the third prong of the new Prosecution strategy may be problematic.

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non-calling party, during which leading questions are permissible, (3) possible examination by the Legal Representative of Victims, and (4) in exceptional circumstances, re-examination by the calling party).

[909] Cassese and Gaeta (2008), p.371.

[910] Rome Statute, article 74(5).

[911] Rome Statute, article 68(3); see infra Chapter IV. See also Matthew Gillett, *"Victim Participation at the International Criminal Court"* Australian International Law Journal (September 2010), pp.39-45; Matthew Gillett, *"The Special Tribunal for Lebanon Swiftly Adopts its Rules of Procedure and Evidence"* Journal of International Criminal Justice (October 2009), pp-901-904.

[912] D.K. Piragoff, "Evidence", in R.S. Lee (ed.), *The International Criminal Court – Elements of Crimes and Rules of Procedure* (2001), p.351; Reinhold Gallmetzer, "The Trial Chamber's discretionary power and its exercise in the trial of Thomas Lubanga Dyilo" in Stahn and Sluiter (2009), p.507.

[913] See, e.g., Rome Statute, article 67(1)(c).

[914] OTP Strategic Plan 2016-2018, p.9.

Environmental harm is typically long-term, dynamic, and multi-factorial.[915] The impact of the harm manifests over an extended period of time, often changing in intensity and nature, and often influenced by several factors, including the activities of human beings in the midst of conflict.[916] For these reasons, a prior Secretary-General of the United Nations has noted that "it is not easy to know in advance exactly what the scope and duration of some environmentally damaging acts will be…"[917] For example, the large-scale poaching of a rare species may result in harm that impacts the species over several generations by reducing its genetic variation and rendering it more vulnerable to extinction through diseases. At the same time, if charges and evidence cannot be augmented and adjusted on as the proceedings continue, the litigation may focus on environmental harm that is no longer pertinent, or turns out to be less serious than first feared, by the time of judgement and/or the outcome of the appeal. The Prosecution is constrained by the Appeals Chamber's strong guidance that the Prosecution's case should be largely completed by the time of the confirmation hearing,[918] and a clear view of the charges is necessary for the Defence to be able to conduct its trial preparations.

It will be necessary in some cases to obtain longitudinal studies to demonstrate the nature of the damage and how the damage manifested in the environment over time, as well as the severity of the damage. However, an investigation cannot be delayed indefinitely while long-term studies are undertaken. Although there is no specific length of time within which an investigation must be completed, the longer the delays in bringing a case to trial, the greater the risk of other forms of evidence, such as witness accounts, being degraded due to diminishing memories, ill-health, death, or improper interference.

In this sense, the Prosecution's strategic approach, though in accordance with the general tenor of the judicial guidance emerging from the ICC on trial-readiness, is potentially incompatible with prosecuting environmental harm. This may lead to adjudicative

[915] See, e.g., Final Report on NATO (2000), para.16 (referring to the Balkans Task Force report on the environmental harm caused during NATO's bombing campaign "Part of the contamination identified at some sites clearly pre-dates the Kosovo conflict, and there is evidence of long-term deficiencies in the treatment and storage of hazardous waste"); para.17 ("it is quite possible that, as this campaign occurred only a year ago, the UNEP study may not be a reliable indicator of the long term environmental consequences of the NATO bombing, as accurate assessments regarding the long-term effects of this contamination may not yet be practicable."); UNCC Recommendations First Instalment (2001), paras.33-34.
[916] Cusato (2017), text accompanying footnote 44.
[917] Secretary-General Report 1993, p.7.
[918] See *Prosecutor v. Callixte Mbarushimana*, ICC-01/04-01/10-514, Judgment on the appeal of the Prosecutor against the decision of Pre-Trial Chamber I of 16 December 2011 entitled "Decision on the confirmation of charges", para 44.

incoherence, as the nature of environmental harm renders it difficult to fit into the existing ICC procedures. However, at origin, the difficulty of adjusting to a dynamic form of harm is less a function of the Prosecution strategy than a function of the need for discrete, time-bound steps along the litigation path in the context of international crimes trials. Indeed, the ICC will have similar difficulties with other, anthropocentric, crimes. Mass displacement of the population, for example, can render uncertain results that fluctuate over time, as people move from shelter to shelter, sometimes crossing borders, and sometimes dying from causes related to the movement. To the extent the ICC procedures are also problematic for these other crimes, it is concerning and should prompt close review of the procedural framework applicable to those crimes. But such concerns should not eclipse the need to address the framework for prosecuting environmental harm and calling for reform where necessary.

(d) Conclusion on investigations and evidence gathering

The preceding analysis shows that the investigating environmental harm would likely face considerable challenges in terms of State cooperation, access to the location of the environmental damage, access to insider witnesses and documentation, and collection and labelling of sufficient material to demonstrate the specific causes of the damage.

While the ICC is imbued with procedures and powers designed to facilitate effective investigations of grave crimes, there are several areas in which the ICC's procedures are not well-suited to the investigation of environmental harm. First, the time-bound steps requiring the Prosecution to commit itself to a certain description of the impugned environmental harm is problematic insofar as it fails to address the dynamic, long-term and multi-factorial nature of environmental harm and may lead to the Prosecution presenting a view of the extent and impact of the environmental harm that is obsolete by the time the trial starts.[919]

Second, the presumption in favour of the principle of orality, combined with the multi-faceted nature of environmental harm, may necessitate large volumes of witness testimony to prove the crimes, which may amount to overly lengthy proceedings and render expeditious trials impossible.[920]

Third, under the cooperation regime, States retain the ultimate ability to frustrate the Court's investigative activities in their territories, particularly when citing national security issues.

[919] See infra Chapter III(C)(1)(C).
[920] See infra Chapter III(C)(1)(a)(ii).

The need for access to territory to investigate environmental harm will be acute. Yet under the current Rome Statute system, such access is far from guaranteed and is likely to be conditional and contingent on the State's interests being met.[921]In this respect, the Court's lack of an international subpoena power will present an obstacle to obtaining full and frank evidence from witnesses, particularly insider witnesses, who are likely to be critical to the success of environmental cases.[922]

Finally, although the rules allow for considerable judicial involvement during the investigative phase of proceedings, the practice to date has not seen a particularly hands-on utilization of these rules by the judiciary. The success of environmental harm cases will be enhanced by greater judicial involvement at the investigative stage, particularly in light of the large volumes of technical and scientific evidence and issues that will arise during investigations and need to be resolved during or prior to trial.[923]

The combined impact of these procedural obstacles to the effective investigation of environmental harm is an adjudicative imbalance, whereby the Court's procedures are not properly facilitative of the overarching goals set out in its founding document's preamble. These obstacles to the Court's investigative functions will hinder its ability to balance the trinity of adjudicative functions, namely conducting fair and expeditious proceedings, while seeking to establish the guilt or innocence of the accused, and at the same time respecting their fair trial rights. The analysis now addresses the applicable procedural framework relevant to evidence, particularly expert evidence, in the context of environmental harm cases.

2. Evidentiary challenges in environmental harm cases

A criminal trial revolves around the presentation and testing of evidence. This is as true at the international level as at the national level. In determining the outcome of a trial at the ICC, the judges may base their decision "only on evidence submitted and discussed before [them] at the trial."[924] Moreover, in their end-of-trial decision on the accused's responsibility for the charged crimes, the judges must provide a "full and reasoned" statement of their findings on

[921] See infra Chapter III(C)(1)(a)(iv).
[922] See infra Chapter III(C)(1)(a)(ii).
[923] See infra Chapter III(C)(1)(a)(iii).
[924] Rome Statute, article 74(2).

the evidence and conclusions.[925] Accordingly, the evidentiary framework will play a critical role in determining whether or not environmental harm can be prosecuted before the Court.

The following section analyses how the procedures and rules governing the admission of evidence and presentation of evidence would apply specifically to a case of environmental harm. In doing so, it takes the three paradigmatic forms of environmental harm – military attacks expected to cause excessive environmental harm, toxic dumping, and wildlife exploitation, and, where relevant, explores the types of evidence and means of presenting the evidence relevant to these crimes.

(a) Approach to admission of evidence

As with the *ad hoc* tribunals, the ICC has a relatively flexible approach to the admission of evidence and the practice is generally in favour of admissibility.[926] Witness evidence is primarily conveyed through oral testimony before the Judges.[927] Under the revised Rules of Procedure applicable at the ICC, there are several means to admit written witness statements into evidence, including, in specific circumstances, when the witness is not made available for cross-examination.[928]

Documentary evidence has played a highly significant role in trials for atrocity crimes committed by large numbers of actors since their earliest occurrence. At Nuremberg, the Nazis' meticulous documentation of their crimes greatly assisted the work of the Prosecution and the efficiency of the trial.[929] Documents continue to be admitted and relied on in large numbers in modern international criminal trials. In ICTY multi-accused cases, the numbers of

[925] Rome Statute, article 74(5).
[926] See, e.g., *Situation in the Democratic Republic of Congo in the Case of the Prosecutor v. Thomas Lubanga Dyilo*, Decision on the admissibility of four documents (TC), ICC-01/04-01/06, 13 June 2008, para.24. See also *Prosecutor v. Delalić et al.,* Decision on the Motion of the Prosecution for the Admissibility of evidence, Case No. IT-96-21-T, 19 January 1998, para. 16; *Prosecutor v. Rašim Delić,* Case No. IT-04-83-T, Decision Adopting Guidelines on the Admission and Presentation of Evidence and Conduct of Counsel, 24 July 2007, Annex, para.26; International Bar Association, *Evidence Matters in ICC Trials*, August 2016, p.15 ("ICC Trial Chambers have broad latitude and flexibility to rule on evidentiary issues during the trial."). See *further* Khan et. al. (2010), p.447.
[927] ICC Statute, article 69(2); ICTR Statute, Rule 90(A). The corresponding Rule of the ICTY Statute (Rule 90(A)) was removed in 2000 and replaced with Rule 89(F), which jettisons the primacy of oral testimony and reflects the increased reliance of written witness statements in ICTY cases (allowing chambers to "receive the evidence of a witness orally, or, where the interests of justice allow, in written form.")
[928] ICC Rules of Procedure and Evidence, Rule 68. See also ICTY Rules of Procedure and Evidence, Rules 92*bis*, *ter*, *quater*, *quinquies*. See also Cassese and Gaeta (2008), p.372.
[929] Telford Taylor, *The Anatomy of the Nuremberg Trials* (Little Brown and Co) (1992), p.57.

documents admitted have run up to around 5,000 in the *Prlic et. al.* Trial,[930] while in the ICC trial of *Katanga*, which concerned only one incident, 643 exhibits were admitted.[931]

Unsurprisingly, the specific rules underlying this permissive approach to evidence are broadly framed. Articles 64 and 69 of the Rome Statute provide that, subject to rulings of the Presiding Judge, the parties may present evidence to the Trial Chamber and that the Court shall have the authority to request the submission of all evidence that it considers necessary for the determination of the truth.[932] These rules do not circumscribe the types of evidence that may be presented. Article 69(4), is worded flexibly,[933] and provides little in the way of guidance as to the rules governing the presentation, admission and weight of evidence

> "The Court may rule on the relevance or admissibility of any evidence, taking into account, *inter alia*, the probative value of the evidence and any prejudice that such evidence may cause to a fair trial or to a fair evaluation of the testimony of a witness, in accordance with the Rules of Procedure and Evidence."[934]

The Rules of Procedure and Evidence further clarify that the Judges may "freely" assess the evidence.[935]

The flexible approach to evidence will be important when addressing environmental harm, particularly in light of the technical and scientific nature of proving the harm, as well as the likelihood that environmental harm will be perpetrated by persons or entities acting in groups, sometimes across multiple jurisdictions, necessitating a greater reliance on "new" forms of evidence, such as call data records and other electronic sources.

In environmental cases, as with other charges, chambers will have to assess the probative value of all evidence on which it relies. The ICC Statute and Rules are potentially ambiguous as to whether evidence could be admitted that does not meet the requirements of relevance

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[930] *Prosecutor v. Prlić et. al*., Trial Judgement, Vol.6, Separate and Partially Dissenting Opinion of Judge Antonetti, pp.62-64 (setting out the numbers of exhibits admitted in various ICTY trials).
[931] For example, 643 exhibits were admitted in the *Katanga* case; *Katanga* article 74 Decision, para.22.
[932] Rule 89 of the ICTY and ICTR Rules of Procedure and Evidence is also broadly framed. It allows for the admission of evidence that is relevant and has probative value (meaning that the evidence has sufficient indications of authenticity and reliability that it can be used as a basis for the judges' findings), so long as the probative value is not substantially outweighed by the prejudicial effect of the evidence.
[933] Stahn and Sluiter (2009), p.507.
[934] Rule 63(2) of the ICC Rules of Procedure and Evidence is similarly broad, providing that "a Chamber shall have the authority, in accordance with the discretion described in article 64, paragraph 9, to assess freely all evidence submitted in order to determine its relevance or admissibility in accordance with article 69."
[935] See rule 63(2).

and probative value.[936] However, in the *Bemba* proceedings, the ICC Appeals Chamber provided some axiomatic requirements, directing that "when ruling on the admissibility of the evidence, the trial chamber must assess "*inter alia*, its probative value and any prejudice to a fair trial or to a fair evaluation of the testimony of a witness that such evidence might cause".[937]

Nonetheless, more latitude is left to the Trial Chamber as to *when* to make that assessment. In the *Bemba* proceedings, the ICC Appeals Chamber left it open to the relevant chamber to determine admissibility "when evidence is submitted, during the trial, or at the end of the trial".[938] Given the high proportion of scientific evidence likely to be needed for environmental harm prosecutions, and the number of experts to explain the evidence, it will benefit parties if they are aware of which evidence has been admitted on a continuous basis throughout the trial.[939] Equally, this approach will reduce the likelihood of disputes over evidentiary standards continuously surfacing through trial. This is a particularly acute concern in relation to environmental harm cases, with the heavy emphasis on detailed technical evidence, as they may see one party repeatedly questioning the methods or sources of the scientific data and requesting access to underlying databases and other materials.[940]

At the same time, this contemporaneous approach is problematic for judges, as they will have to assess the admissibility of proposed evidence somewhat in isolation, and without the benefit of a complete body of connected information against which it can be compared. Moreover, additional information regarding the nature, extent, and cause of the environmental harm may only become available during proceedings and may undermine the reliability of evidence tendered earlier in the trial. Because of this, there is the potential for ill-founded decisions regarding admission of evidence, particularly for evidence submitted early in proceedings. In environmental cases involving scientific issues, it will be difficult to

[936] See Schabas (2011), p.312.
[937] *Prosecutor v. Jean-Pierre Bemba Gombo*, No. ICC-01/05-01/08 OA 5 OA 6. Judgment on the appeals of Mr Jean-Pierre Bemba Gombo and the Prosecutor against the decision of Trial Chamber III entitled "Decision on the admission into evidence of materials contained in the prosecution's list of evidence", 3 May 2011 ("*Bemba* Appeal Decision"), paras.37, 52. See also para.45, noting that pursuant to article 74(2), the material must be "submitted" for admission before the trial chamber can admit it.
[938] *Bemba* Appeal Decision, paras.37, 52.
[939] Some decisions on admissibility are issued with delay in the contemporaneous model, particularly when complex legal or procedural issues are litigated regarding the evidence in question. However, the majority of the evidence is ruled upon as it is submitted.
[940] In the Karadžić proceedings at the ICTY, for example, the Defence repeatedly sought access to the complete International Commission for Missing Persons database of DNA samples for Bosnia. This raised complex issues of privacy relating to the DNA samples and the balancing of fair trial rights and the efficiency of proceedings as well as the concerns of third party organizations. See *Prosecutor v. Radovan Karadžić*, Case No.IT-95-13/1, Decision on the Accused's Motion to exclude DNA Evidence, 16 April 2013.

appreciate the reliability and probative value of complex evidence in the absence of all other related scientific evidence intended to be used during the trial.

(i) Hearsay evidence

Significantly for the prosecution of environmental harm, hearsay evidence is generally admissible.[941] Hearsay evidence has been liberally admitted at the international tribunals and relied on by the judges,[942] and this trend appears set to continue at the ICC.[943] Given the varied types of evidence that will be relevant to proving environmental harm, including business records,[944] scientific data reports, and other documents, the flexible approach to evidence will facilitate the presentation of a large range of evidence by the parties.

(ii) The admission of documents through witnesses

At the *ad hoc* tribunals and in the early cases before the ICC, the tendency has been for documents to be admitted through witnesses, during the witnesses' testimony.[945] However, this is a practice rather than a rule, and the jurisprudence of the *ad hoc* tribunals has recognised other procedural mechanisms for the presentation of evidence, such as tendering documentary evidence through bar table motions, as discussed below.[946] *Ex post facto* reports or documents would be relevant to investigations and prosecutions for attacks causing excessive harm to the environment during armed conflict (for example crater impact reports made in the immediate aftermath of a shelling attack), toxic dumping (for example reports by rapid response health workers as to the medical problems caused by the toxic substances), and

[941] See, e.g., *Lubanga* Article 74 Decision, para.1036 relying on the partially hearsay evidence of P-0116. See also *Prosecutor v. Milan Lukić & Sredoje Lukić*, Case No. IT-98-32/1-A, Appeal Judgement, 4 December 2012, para.303; *Prosecutor v. Tihomir Blaškić*, Case No. IT-95-14-A, Appeal Judgement, 29 July 2004, para.656, fn.1374; *Prosecutor v. Duško Tadić*, Case No.IT-94-1, Decision on the Defence Motion on Hearsay, 5 August 1996.
[942] See, e.g., *Prosecutor v. Zlatko Aleksovski,* Case No. IT-95-14/1-AR73, Decision on Prosecutor's Appeal on Admissibility of Evidence, 16 February 1999, para. 15.
[943] Piragoff (2001), p.351.
[944] Access to records and databases will also be a significant determinant of the quality of an investigation at the ICC for environmental harm. Domestic enforcement agencies in the USA, for example, make use of sophisticated computer programs to monitor data relevant to potential breaches of environmental regulations, such as toxic release data, and facility compliance data. These agencies often have access to the computer databases of the entity being investigated and so can monitor its own data. Obtaining similar access to business and organizational records will have a major impact on the feasibility of proceedings before the ICC for environmental harm; Riesel (2014), section 1.03[4], 1-10.
[945] Khan et. al. (2010), p.480-481.
[946] See infra Chapter III(C)(2)(a)(iii).

wildlife exploitation (such as reports about the fluctuating numbers of a particular endangered species).[947]

(iii) Bar table motions

Litigation for environmental harm would likely feature a large amount of documentation. Bar table motions in this context could be a valuable means of ensuring the efficiency of proceedings by allowing parties to focus valuable court time on the most important documents and issues, tendering exemplars of each type of document, and then tendering the additional similar documents covering the full range of charges in written form. The guidelines of several trial chambers specify that the fact that the author of a document is not present to testify does not preclude the admission of the document.[948] Bar table motions have been utilized in the large majority of international criminal cases, in many instances serving as a residual means of tendering relevant and probative documents that were not used with witnesses. In environmental prosecutions, bar table motions would be important tools for the parties, as evidence such as lengthy, highly-technical, reports of scientific bodies would likely make up a considerable portion of the parties' evidence lists. The corollary is a heightened risk of materials being admitted in bulk without expert guidance as to the specific details and methodology of the reports in question. Chambers would have to guard against the misuse of the bar table procedure, such its use as a form of Trojan horse to sneak documents onto the record on issues that were not canvassed during the testimonial part of that party's case, without providing sufficient opportunity for the opposing party to respond.[949]

[947] In this respect, the practice of the *ad hoc* tribunals provides some guidance. Such reports and statements are regularly admitted before the ICTY under the general evidential provision (Rule 89) rather than the lex specialis of Rule *92bis, ter, quater, or quinquies*. See e.g., *Prosecutor v. Mladen Naletilić & Vinko Martinović*, Case No. IT-98-34-A, Appeal Judgement, 3 May 2006, para.223; Khan et. al. (2010), p.404. At the ICTR, such non-contemporaneous reports have been sometimes considered as falling under Rule 92*bis*, but have also been admitted under Rule 89. Khan et. al. (2010), p.403, 406 citing *Prosecutor v. Nahimana*, Case No. ICTR-99-52-T Decision on the Nahimana Defence's Motion to Admit into Evidence Certain Materials and the Prosecution Objections thereto, 5 June 2003; P*rosecutor v. Bagosora et. al.*, Judgement, ICTR-98-41-T, 18 December 2008, para.1963. The conventional approach is that statements are defined as meaning records of the words of a person recorded non-contemporaneously and for the purpose of legal proceedings (typically with the involvement of law enforcement or similar authorities). See, e.g., *Prosecutor v. Stanislav Galić*, Case No.IT-98-29-AR73.2, Decision on Interlocutory Appeal Concerning Rule 92bis(C), 7 June 2002, paras.28-31.

[948] See, e.g., *Prosecutor v. Goran Hadžić*, Case No. IT-04-75-T, Order on Guidelines for Procedure for Conduct of Trial, 4 October 2012, Annex, para.5 ("There is no rule prohibiting the admission into evidence of documents merely because their alleged source was not called to testify.")

[949] These are written motions that are typically submitted near the end of a party's case as a form of back-stop mechanism to tender documents that were not able to be used with a specific witness. Chambers tend to

(iv) Exclusionary rules concerning evidence

To balance the broadly framed permissive rules of evidence, there are exclusionary rules that can be invoked to limit the introduction of evidence. For example, at the ICC if a State considers that the disclosure of its documents would prejudice its national security interests, it may intervene before the ICC to prevent that disclosure, as discussed above.[950] A failure of the Government to provide the requested information allows the Court to draw an adverse inference against it, as well as the benefiting party or both parties.[951]

Evidence obtained through dubious methods or evidence of such a nature as to bring the integrity of proceedings into dispute is not admissible before the international tribunals:[952]

> Article 69 (7) renders evidence that is obtained in violation of the Statute or internationally recognised human rights inadmissible if (1) the violation casts substantial doubt on the reliability of the evidence or (2) its admission would be antithetical to or would seriously damage the integrity of the proceedings…"[953]

The exclusionary rules would be important for environmental cases, as there are many domestic principles that limit the way in which the authorities can collect and use evidence from sites such as factories and business records. Searches carried out on business premises would have to be conducted carefully and in accordance with the appropriate procedures to ensure that any evidence obtained could be used in subsequent proceedings before the Court. If samples were obtained without full adherence to domestic law and subsequently provided to the Court, the Judges may have to determine whether the admission of such materials would be antithetical to or seriously undermine the integrity of the proceedings. There is no direct precedent to guide this assessment, but the proceedings against Jean-Pierre Bemba and several members of his defence team for interference with the administration of justice indicate that minor procedural deviations from national law will not amount to grounds to

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encourage parties to minimize their reliance on bar table motions. Trial Chambers have indicated that they do not want to be flooded with large amounts of documentary evidence which has not been placed in context and authenticated by accompanying witness testimony. See, e.g., *Prosecutor v. Goran Hadžić*, Case No. IT-04-75-T, Decision on Prosecution Bar Table Motion, 28 November 2013, para.3.

[950] Rome Statute, article 72.

[951] Rome Statute, article 72(a)(iii).

[952] Rome Statute, article 69(7); ICTY and ICTR Statutes, Rule 95; SCSL Statute, Rule 95.

[953] *Prosecutor v. Jean-Pierre Bemba Gombo*, No. ICC-01/05-01/08 OA 5 OA 6. Judgment on the appeals of Mr Jean-Pierre Bemba Gombo and the Prosecutor against the decision of Trial Chamber III entitled "Decision on the admission into evidence of materials contained in the prosecution's list of evidence", 3 May 2011, para.52.

exclude evidence under article 69(7).[954] It is important in this respect that the Court does not act as a review body for domestic law, and will not rule on the application of a State's national law when determining issues concerning the admissibility of evidence.[955]

(b) Standards and burdens of proof applicable to environmental harm cases

In the context of a trial for environmental harm, the standards of proof of guilt beyond reasonable doubt,[956] which falls on the Prosecution,[957] will be exacting. The scientific and technical type of evidence required to prove environmental harm, and the multi-factorial and dynamic nature of the environmental harm itself do not lend themselves easily to proof beyond reasonable doubt.[958] As set out above, issues like the longitudinal extent of the harm and causation will be difficult to establish beyond reasonable doubt.[959]

The one provision in the Rome Statute that mentions the environment demonstrates these difficulties: article 8(2)(b)(iv) requires evidence demonstrating beyond reasonable doubt that environmental damage was anticipated that was widespread, long-term and severe, and also that it was the attack of the accused that caused the damage.[960] As discussed previously, the definitions of these terms remain unsettled, meaning that a Prosecution team pursuing the charges would have to presume the most demanding definition of the crime and ensure that sufficient evidence was obtained. Article 8(2)(b)(iv) also contains the exacting proportionality analysis whereby it must be shown that the commander launched the attack knowing that it would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.[961]

In this respect, environmental harm brings into question the efficacy of the beyond reasonable doubt standard for environmental harm featuring complex scientific and technical issues of a dynamic nature. In turn, given the importance of the beyond reasonable doubt standard for the

[954] *Prosecutor v. Jean-Pierre Bemba Gombo et. al.*, ICC-01/05-01/13, Decision on Requests to Exclude Western Union Documents and other Evidence Pursuant to Article 69(7), 29 April 2016, para.34.
[955] Rome Statute, article 69(8).
[956] See, e.g., Rome Statute, article 66(3). See also ICTY Rules of Procedure and Evidence, Rule 87 ("A finding of guilt may be reached only when a majority of the Trial Chamber is satisfied that guilt has been proved beyond reasonable doubt.").
[957] See, e.g., Rome Statute, article 66(2). See also *Prosecutor v. Milan Martić*, Case No. IT-95-11-A, Appeal Judgement, 8 October 2008, para. 55; *Prosecutor v. André Ntagerura, Emmanuel Bagambiki & Samuel Imanishimwe*, Case No. ICTR-99-46-A, Appeal Judgement, 7 July 2006, paras. 174–175.
[958] Cusato (2017), text accompanying footnote 44.
[959] See, e.g., Cusato (2017), text accompanying footnote 43.
[960] See Rome Statute, article 8(2)(b)(iv) and Elements of Crimes for article 8(2)(b)(iv).
[961] Elements of Crimes, fn.36. See also Weinstein (2005), pp.698, 708, fn.95.

fairness of proceedings and the rights of the accused, the procedural requirements at the ICC indicate potential adjudicative incoherence when applied to complex cases of environmental harm.

(i) The applicability of the precautionary principle

A question arises as to the impact of the precautionary principle in the context of a trial for environmental harm before the ICC. The substance of the principle is expressed *inter alia* in the *Rio Declaration,* at principle 15, which states that in order to protect the environment,

> "the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

The ICRC has explained the nature of the precautionary principle under international law as follows: "an emerging, but generally recognized principle of international law [whose object it is] to anticipate and prevent damage to the environment and to ensure that, where there are threats of serious or irreversible damage, lack of scientific certainty shall not be used as a reason to postpone any measures to prevent such damage."[962]

Under article 21 of the Rome Statute, the precautionary principle could constitute an applicable source of law if it were established as customary international law or else incorporated into an applicable international treaty.[963] However, the status of the precautionary principle under customary international law is disputed. Whereas it has been recognised as part of customary international law before the International Tribunal on the Law of the Sea,[964] it is yet to be confirmed as part of customary international law by the ICJ, and the ICRC called it an emerging principle in its study of customary international law.[965] In the *Pulp Mills* case, the parties specifically addressing it at length, but the ICJ declined to use the

[962] ICRC Study, Commentary to Rule 44. See also Secretary-General Report 1993, p.17.
[963] Rome Statute, article 21(1)(b).
[964] ICRC Study, Rule 43; *Southern Bluefin Tuna Cases*, Provisional Measures 2, Int'l Trib. L. of the Sea, Order of 27 August 1999; See Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area: Advisory Opinion, 132-33, Int'l Trib. L. of the Sea (Advisory Opinion of 1 February 2011).

[965] ICRC Study, Commentary to Rule 44. See also Secretary-General Report 1993, p.17.

principle in any concerted manner.[966] Nonetheless, the ICJ left open the space to later re-engage the precautionary principle, stating "a precautionary approach may be relevant in the interpretation and application of the provisions of the Statute".[967]

Failing customary international law status, the precautionary principle arguably would be applicable if it constituted a general principle of law.[968] The precautionary principle is explicitly referred to in domestic statutes addressing crimes against the environment.[969] UNEP has also stated that principles such as the precautionary principle can be invoked to assist the prosecution of environmental harm such as the illegal transboundary movement of hazardous waste.[970]

If applied in cases of international criminal law, the precautionary principle would potentially have a significant impact. It would apply to prosecutions under international criminal law, which are clearly measures taken to prevent or deter environmental harm. Because it holds that a lack of full scientific certainty as to the nature of the environmental damage should not hinder or undermine these measures, those advocating heightened protections of the environment would argue that the precautionary principle justifies using estimates and predictions in place of precise and comprehensive measurements of environmental harm.

For example, in relation to the requirement of showing long-term harm for the purposes of article 8(2)(b)(iv) of the Rome Statute, advocates of this approach may argue that an interpretation in line with the precautionary principle could be taken to allow for the use of prospective estimates instead of waiting and collecting samples over several years in order to establish that actual harm had occurred.[971] They would argue that incorporating the precautionary principle into the interpretation of international humanitarian law would adhere to the ICJ's guidance that "an international instrument has to be interpreted and applied within

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[966] Daniel Kazhdan, "Precautionary Pulp: Pulp Mills and the Evolving Dispute between International Tribunals over the Reach of the Precautionary Principle", *Ecology Law Quarterly*, Vol. 38, Issue 2, March 2011, p.545.
[967] *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, Judgment, para.228 (20 April 2010), available at http://www.icj-cij.org/docket/files/135/15877.pdf, para.257.
[968] Rome Statute, article 21(1)(b).
[969] Environment Protection Act of Victoria, Australia, 1970 - Section 1C(1) ("If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.") Available at http://www.austlii.edu.au/au/legis/vic/consol_act/epa1970284/s4.html (last checked 29 May 2015).
[970] UNEP Basel Convention Guide, para.63.
[971] Note that it is unclear that article 8(2)(b)(iv) requires the demonstration of actual environmental harm, as opposed to the anticipation of environmental harm matching the requirements of long-term, widespread, and severe harm.

the framework of the entire legal system prevailing at the time of the interpretation".[972] It would also potentially fit with the strange framing of article 8(2)(b)(iv), which literally refers to anticipated environmental harm that "will" ensue, rather than actual environmental harm *per se*.

In this respect, the precautionary principle could potentially also impact on the assessment of the *mens rea* of an accused prosecuted under article 8(2)(b)(iv). In showing that the accused was aware that the harm to the natural environment would be "clearly excessive in relation to the concrete and direct overall military advantage anticipated", the precautionary principle would justify not having to demonstrate that the accused knew with scientific precision of the extent of the environmental damage but merely that there was a "threat of serious or irreversible damage." If this approach applied, an accused would be unlikely to have success in arguing that he had to predict the extent of the damage with scientific certainty. However, the explicit terms of article 8(2)(b)(iv), specifically showing that the accused knew that the environmental harm "will" ensue, clashes with mere knowledge of a risk of such harm. Moreover, the term "clearly" in article 8(2)(b)(iv) indicates that any doubt as to the extent of the damage would undermine the requirement of showing the accused's awareness that it was "clearly" excessive.

(c) Order of presentation of the case

Under the governing rules of procedure and evidence of the ICC there is considerable scope for variation of the manner in which the evidence is presented. Trial Chambers may establish whichever order for the presentation is considered to be in the interests of justice.[973] Although in practice the international courts have almost always adhered to the traditional common law sequence of Prosecution evidence followed by Defence evidence with any Chambers' evidence brought after the Parties, there are valid reasons that this order could be varied for the purposes of prosecuting environmental harm before the ICC.

The Rome Statute allows for a flexible approach to the order of presentation of evidence.[974] Under Article 64(8)(b) and Rule 140, the Trial Chamber may give directions for the conduct of proceedings, but no presumptive order of proceedings is established. This is a reflection of

[972] International Court of Justice, *Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970)*, Advisory Opinion of 21 June 1971, I.C.J. Reports 1971, p.16, para.53.
[973] ICC Statute, article 64(8)(b) and rule 140. See also Stahn and Sluiter (2009), pp.506-507.
[974] Cryer et. al. (2010), p.469.

the influence of delegates from civil law systems involved in the Rome Statute negotiations. Civil law trials are founded on a dossier of the relevant information that is provided to all parties prior to the commencement of trial. Because of this, they are not as strictly bound as common law systems to the traditional order of prosecution followed by defence with supplementary evidence adduced by the Judges.[975] The ICTY Rules reflect a presumption in favour of the common law order with the Prosecution presenting its case before the Defence is given the opportunity to present evidence in its case. The order is an important reinforcer of the fair trial rights of the accused. It provides the Defence with the opportunity to view the core of the case against its client before it determines whether to call evidence in response.[976]

At set out above, cases of environmental harm are likely to focus heavily on scientific data.[977] For cases concerning complex scientific data, some flexibility in the order of presentation of evidence may be advisable. For example, if a case had two major components, one focusing on damage to an environmental feature, such as a waterway, and one focusing on damage to a forest, it may benefit the Chamber to hear the witnesses, including experts, and receive the other evidence concerning the first component from both parties before subsequently moving to the second component.[978] Cases involving charges of environmental harm would be particularly amenable to partitioning off segments of the evidence, such as expert evidence or scientific focussed areas, in order to address the prosecution and defence evidence and submissions on that segment before moving to the next one. For military attacks resulting in excessive harm to the environment, two areas that could potentially be partitioned off would be the technical and expert evidence concerning the nature of the environmental damage, and the military and ballistic evidence concerning the nature of the military strike itself. Similarly, toxic dumping may benefit from partitioning segments of the case. The technical and expert evidence concerning the nature of the chemicals dumped and their impact on the environment, as well as the evidence concerning the structure of the corporations or organizations that conducted the dumping would potentially be suitable for partitioning.

A possible means of avoiding unduly lengthy proceedings would be to litigate the most demanding legal element or elements based on the evidence of both Parties at the outset of

[975] Cryer et. al. (2010), p.470.
[976] Khan et. al. (2010), p.423.
[977] Sands (2008), p.4.
[978] For a similar suggestion of dividing the case into "topics" or "thematic blocks", see Stahn and Sluiter (2009), p.506.

trial proceedings.[979] Only if that element were met would the trial proceedings continue. A *voir dire* could be held to assess whether there was a reasonable basis on the evidence as admitted at that point to support the element. If the element/s were not met, then the charges would be unsustainable. If that element/s were met, the accused would be encouraged in many cases to plead guilty. If neither of these outcomes were taken up, the result would simply be an ongoing trial of approximately the same length as originally anticipated. There is flexibility in the Rules of the ICC to allow for such an approach. Given that proof of factors such as long-term environmental damage may require several years, the accelerated adjudication suggested herein would help to prevent unmeritorious cases remaining *sub judice* and clogging up the Court's docket.

(d) Proving key elements of environmental harm

Evidence may potentially include anything that provides information about the incident being investigated.[980] A variety of evidential sources will typically be necessary to prove charges of environmental harm, foremost amongst which will be scientific and expert evidence. The categories of evidence that could be introduced in an environmental harm case would be varied. Evidential materials could include testimonial evidence from witnesses (evidence in international trials is typically introduced through witnesses during their testimony); written materials including orders, log books, communiqués, press statements, meeting minutes, newspaper articles, books, reports, and all manner of other recorded documents; videos; photographs; maps; graphs; diagrams; satellite images; audio recordings; real evidence;[981] crime-scene analysis or physical samples (typically tested by experts and explained in their reports);[982] computer databases, and various other recordings.[983] For the purposes of proving atrocity crimes, a broad net should be cast to pick up all relevant information.[984]

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[979] One of the fair trial rights of an accused is to be tried without undue delay; Rome Statute, article 67(1)(c). From the range of evidence discussed above, it is clear that, in the absence of a confession, any prosecution for environmental harm would require a considerable amount of time to proceed through the trial and then additional time for the appeal. Trials for established crimes such as murder, deportation or plunder take years to complete before the international courts. Adding in additional layers of evidence to address the elements of environmental crimes such as that contained in article 8(2)(b)(iv) of the Rome Statute would lengthen proceedings even further. For example, the Trail Smelter arbitration, which concerned emissions from a Canadian factory that resulted in environmental harm suffered across the border in the USA, dragged on for 13 years; *Trail Smelter Case* (1941).

[980] See Groome (2011), p.40 ("Evidence is anything that can provide information about the incident being investigated. It may include: physical objects; the investigator's observations; the testimony of witnesses and suspects; documents; and scientific analysis.")

[981] "Real evidence" is a term of art referring to physical evidence such as handcuffs, murder weapons, and other objects that are presented in their original state.

[982] Examples of on-site reports that have been admitted into evidence at the ICTY can be seen in ballistics and impact reports submitted as evidence in the cases concerning the siege of Sarajevo; see, e.g., *Prosecutor v.*

Instead of attempting to comprehensively analyse every potential type of evidence that may be used to proving environmental harm, the following section examines the primary evidentiary areas that will need to be addressed. Examples from prior cases at the ICC and other international tribunals are used to instantiate the particular benefits and concerns of certain types of evidence. Because there have been no trials focusing on environmental harm under international criminal law, much of the following analysis draws insights by analogizing with anthropocentric cases, or by referring to relevant practice of other jurisdictions, such as international human rights courts, and occasionally domestic jurisdictions.

(i) The nature of the wrongful act

Finding appropriate evidence to prove the nature of the harmful act is a critical focus of investigations and prosecutions under international law. In the context of charges of excessive damage to the natural environment through military attacks,[985] the relevant orders and artillery log books would likely be critical to establishing when the attack was launched, what munitions were used, and which factors were taken into account in determining which targets to strike.

Harm to the environment due to the impact of war tactics is a dynamic matter, implicating many variables.[986] It can be difficult to accurately measure the extent of environmental damage and it can be even more difficult to prove the cause of the damage (or the relative significance of the causative factors if they are multiple).[987] Various factors can cumulatively impact on the environment, including man-made objects, such as missiles or chemicals, weather patterns, such as tornadoes or floods, and longer-term atmospheric changes, including climate change. Establishing the impact of a single causative factor can be elusive due to the gap in time and distance that may occur between the causative event and the resulting

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Dragomir Milošević, Case No. IT-98-29/1-T, Judgement, 12 December 2007, paras.682, 719. For an example of the admission of an on-site report by a local investigative judge in a central Bosnia case of crimes by Croats against Bosniaks see *Prosecutor v. Kordić and Čerkez*, Case No. IT-95-14/2-T, Decision on Prosecution Application to Admit the Tulica Report and Dossier into Evidence, 29 July 1999, paras.29-32.

[983] See, e.g., Khan et. al. (2010), p.487.

[984] See Stahn (2015), p.815, fn.76 ("A responsible investigator will therefore seek to document or collect all relevant evidence as soon as it is encountered, providing that it is practically feasible for them to do so and will not give rise to an unacceptable risk for the information provider.").

[985] This is a paraphrased reference to the crime contained in article 8(2)(b)(iv) of the Rome Statute. For an analysis of the elements of that crime, see infra Chapter II.

[986] See, e.g., Final Report on NATO (2000), para. 17 (finding that the environmental damage to sites in Serbia could not unambiguously be attributed to NATO).

[987] See McLaughlin (2000), p.396. See also UNCC Recommendations First Instalment (2001), paras.33-34.

environmental harm as well as the intervention of other intervening factors that may augment the resulting damage.[988]

In the context of charges of improper disposal or dealing of hazardous substances,[989] the annexes to the Basel Convention could be cited to show that the chemicals in question were listed as a substance that should not be improperly disposed.[990] Expert evidence, incorporating samples of contaminated soil or other matter, could then be used to prove that the chemicals were indeed regulated ones. To prove the dumping itself, it would likely be necessary to obtain shipping logs or other records of those transferring the chemicals, as well tests to show the nature of the chemicals.[991] Because this crime cannot currently be directly prosecuted at the ICC and would most easily be prosecuted as anthropocentric crime such as the crime against humanity of other inhumane acts, [992] it would be necessary to gather and adduce evidence showing that the traffic or improper disposal of hazardous substances led to serious physical or mental harm to victims. The primary source of such evidence would be statements from the victims who suffered the harm. But hospital records, which are frequently used as evidence in international cases, would also assist to connect the causative act with the resulting harm.

Reports from respected international bodies could also form a valuable source of information, and potentially evidence, for international proceedings in relation to the nature and extent of the harm to the environment. For example, in Ogoniland, Nigeria, the Government, together with UNEP and other partners, prepared an environmental impact assessment focusing on the effects of the oil industry's activities in the region. examined the environmental impact of oil industry operations in the area since the late 1950s, which demonstrated extensive oil contamination in Ogoniland, which was impacting the environment and human health, particularly through contaminated drinking water and carcinogens.[993]

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[988] UNCC Recommendations First Instalment (2001), paras.33-34 ("This may make it difficult in many cases to distinguish between damage attributable to Iraq's invasion and occupation of Kuwait and damage that may be due either to factors unrelated to Iraq's invasion and occupation or only partly attributable to Iraq's invasion and occupation.").
[989] African Union Specialized Technical Committee on Justice and Legal Affairs, *Draft Protocol on Amendments to the Protocol on the Statute of the African Court of Justice and Human Rights*, Doc.STC/Legal/Min/7(I) Rev. 1, 15 May 2014, p.28, Article 28L.
[990] See infra Chapter I(C)(1) (discussion of sources of law).
[991] See, e.g., Interpol Investigation Guide (2014).
[992] See infra Chapter II(C)(2)(b) (discussion of crime against humanity of other inhumane acts).
[993] UNEP *Environmental Assessment of Ogoniland* (2011).

However, concerns have been raised as to the reliability of *ex post facto* reports from organisations, such as human rights NGOs. All reports are not equal however, and the judiciary has on occasion indicated concerns with NGO reports and press articles, particularly those incorporating or based on anonymous hearsay information,[994] as a means of proving charges to the requisite standard.[995] In the *Mbarushimana* confirmation proceedings, the pre-trial chamber declined to confirm the charges and noted concern at the Prosecution's reliance on reports from NGOs and international organizations, primarily because these sources tend to contain hearsay evidence rather than constituting the direct evidence of witnesses to the events in question.[996] Similarly, in the Kenya confirmation decisions, the pre-trial chamber expressed concerns about relying on "indirect evidence", which it defined as "hearsay evidence, reports of international and non-governmental organisations (NGOs) as well as reports from national agencies, domestic intelligence services and the media",[997] and in the first confirmation decision in the Gbagbo case, the Pre-Trial Chamber expressed concerns about the reliance on reports of NGOs and international organizations.[998]

Wildlife exploitation could conceivably be prosecuted as the crime against humanity of other inhumane acts under the current iteration of the Rome Statute.[999] As a starting point, the CITES annexes could be relied on to establish prima facie that the relevant species is endangered. In this manner, CITES would be relied on as the *lex specialis* concerning the status of various species as endangered or otherwise. To establish the crime against humanity of inhumane acts, it is necessary to show that the perpetrator inflicted great suffering, or serious injury to body or to mental or physical health.[1000] In respect of exploited species, this would mean not just proving the improper dealing with the species itself, but also linking the trade or exploitation to the great suffering or serious injury on the part of victims. Obtaining evidence of these elements would be highly context-specific and would likely require expert

[994] *Prosecutor v. Callixte Mbarushimana*, ICC-01/04-01/10-465-Red, Decision on the Confirmation of Charges, 16 December 2011 ("*Mbarushimana* confirmation decision"), para.78.
[995] See generally Niamh Hayes, "Investigating and Prosecuting Sexual Violence at the ICC", in Stahn (2015), p.822.
[996] See *Mbarushimana* confirmation decision, para.78; *Prosecutor v. Callixte Mbarushimana*, Confirmation of Charges Hearing Transcript, ICC-01/04-01/10-T-9-ENG CT WT, PTC I, ICC, 21 September 2011, 2–4.
[997] *Prosecutor v. Ruto, Kosgey and Sang*, Decision on the Confirmation of Charges Pursuant to Art 61(7)(a) and (b) of the Rome Statute, Situation in the Republic of Kenya, ICC-01/09-01/11-373, PTC II, ICC, 23 January 2012; *Prosecutor v. Muthaura, Kenyatta and Ali*, Decision on the Confirmation of Charges Pursuant to Art 61(7)(a) and (b) of the Rome Statute, Situation in the Republic of Kenya, ICC-01/09-02/11-382-Red, PTC II, ICC, 23 January 2012.
[998] See *Prosecutor v. Laurent Gbagbo*, ICC-02/11-01/15, Decision adjourning the hearing on the confirmation of charges pursuant to article 61(7)(c)(i) of the Rome Statute, 3 June 2013, para.35.
[999] See infra Chapter II(C)(2)(b) (discussion of crime against humanity of other inhumane acts).
[1000] Elements of Crimes, p.12, article 7(1)(k).

evidence to explain the significance of the relevant fauna or flora to the victim community. Because of this, a combination of witness statements from affected victims, reports and testimony of expert witnesses detailing the crimes, and evidence from documents or persons with knowledge of the perpetrator(s) would be necessary to prove the wildlife exploitation.

In conjunction with evidence from witnesses, documents, and other sources, materials such as satellite imagery could be submitted through expert witnesses or possibly even through the bar table,[1001] to demonstrate the extent of the harm. For example, under the auspices of the UNCC, Iran successfully sought compensation for a study that used satellite imagery analysis to track the transport of airborne pollutants from the oil fires in Kuwait and the spilled oil in the Persian Gulf that resulted from Iraq's invasion and occupation of Kuwait.[1002]

Media reports have been used frequently in international criminal proceedings, but have also come under criticism, particularly when used as a substitute for evidence from direct sources such as witnesses to the crimes.[1003] Large-scale attacks on the environment would typically generate considerable media interest. In theory, media articles could be used to prove elements of the crime, particularly the occurrence of widespread or severe environmental harm. Newspaper articles are in principle treated like other documents and tested according to their reliability and probative value. Newspaper articles are not typically treated as witness statements in international criminal proceedings, despite arguments to this effect.[1004] In the context of the prosecution of environmental damage, newspaper reports could be used to demonstrate the occurrence of the attack, the notoriety of the attack, and any related information that was publicly reported. Due caution would have to be paid to information that went to core issues concerning the responsibility of the accused, such as his actions or statements concerning the attack.[1005]

However, triers of fact are typically more reluctant to admit newspaper articles because of the impression that such articles can prove unreliable. In the *Gbagbo* proceedings, the pre-trial chamber warned that "[e]ven though NGO reports and press articles may be a useful introduction to the historical context of a conflict situation, they do not usually constitute a valid substitute for the type of evidence that is required to meet the evidentiary threshold for

[1001] See infra Chapter III(C)(2)(a)(iii) and III(C)(2)(e).
[1002] UNCC Recommendations First Instalment (2001), para.62.
[1003] See Niamh Hayes, "Investigating and Prosecuting Sexual Violence at the ICC", in Stahn (2015), p.823.
[1004] *Prosecutor v. Radoslav Brđanin,* Case No. IT-99-36-T, Judgement, 1 September 2004, para.33, *Prosecutor v. Radoslav Brđanin,* Case No. IT-99-36-A, Appeals Judgement, 3 April 2007, para.220-224.
[1005] See Khan et. al. (2010), p.409 (listing dangers inherent in relying on media reports).

the confirmation of charges."[1006] At the African Court of Human and Peoples' Rights, the Rules of the Court provide that applications to the court should "not be based exclusively on news disseminated through the mass media".[1007] In particular, newspaper articles using highly emotive or inflammatory language will be less likely to be admitted into evidence because of the prejudicial nature of such language that is not subject to cross-examination.[1008]

(ii) The extent of the damage resulting from the wrongful act

In the context of prosecuting environmental harm, it will be important to obtain and present evidence that distinguishes between damage caused by unnatural means and naturally occurring damage. Whereas a perpetrator could be held responsible for an attack causing grave environmental harm (presuming the other elements of the relevant provision were fulfilled), s/he should not be held responsible for events that s/he has not contributed to in any way.[1009] Accordingly, causation is a critical consideration under international criminal law, including at the ICC.[1010]

Issues of causation will be particularly difficult to address in the context of environmental harm.[1011] To the extent that causation is difficult to prove for regularly charged crimes such as murder, it is likely to be all the more complex when proving serious environmental harm. Many factors may affect the nature[1012] and extent of the harm deriving from an accused's conduct, including the weather itself. For example, an accused member of ISIS charged with the burning of oil installations in 2016 would be liable for the damage occurring from those acts of arson (presuming the elements of a mode of liability could be established), but would

[1006] See *Prosecutor v. Laurent Gbagbo*, ICC-02/11-01/15, Decision adjourning the hearing on the confirmation of charges pursuant to article 61(7)(c)(i) of the Rome Statute, 3 June 2013, para.35.
[1007] African Court of Human and Peoples' Rights, Rules of Court, Rule 40(4).
[1008] Khan et. al. (2010), p.614 citing *Prosecutor v. Kvocka et. al.*, Decision on Zoran Žigić's Motion for Rescinding Confidentiality of Schedules Attached to the Indictment Decision on Exhibits, IT-98-30/1-T (19 July 2001).
[1009] The framing of the test for superior responsibility under article 28 of the Rome Statute raises complex questions surrounding causation, which are currently *sub judice* on appeal and are not addressed in this analysis. See generally *Bemba* Article 74 Decision.
[1010] For example, the word "caused" in some iteration comes up repeatedly in the elements of crimes of the ICC. Note that the occurrence of the crime is a different question from the use of modes of liability to establish who is responsible for the crime. See G Werle, *Principles of International Criminal Law*, (2nd Ed. 2009), ("Werle (2009)"), p.144-145. For modes of liability, the level of contribution varies and it is not clear that a causal relationship between the accused's acts and the perpetration of the crime is strictly required; Stahn (2015), p.590. For the crime of murder, it must be shown that a perpetrator "caused" the death of one or more persons; *Katanga* article 74 Decision, para.767.
[1011] The requirement of providing "clear and convincing evidence" of harm set down in the Trail Smelter arbitration led to difficulties for Australia and New Zealand when pursuing their claim against France before the ICJ due to the difficulties of proving environmental effects in Australia and New Zealand caused by atmospheric test carried out by France in Mururoa atoll thousands of kilometres away; Stephens (2009), p.134-135.
[1012] Cooper et. al. (2009), p.2.

not be responsible for damage caused by pre-existing improper leaks or other environmental harm from the oil installations.[1013] Similarly, if the attack had the effect of releasing dangerous elements such as chemicals into the environment, and that release was foreseeable, the perpetrator should be held responsible for the resulting damage.[1014]

The critical importance of obtaining evidence of the extent of the environmental damage is highlighted by the Report for the ICTY Prosecutor drafted by the Committee Established to Review the 1999 NATO Bombing Campaign in Former Yugoslavia.[1015] It noted that '[t]he OTP has been hampered in its assessment of the extent of environmental damage in Kosovo by a lack of alternative and corroborated sources regarding the extent of environmental contamination caused by the NATO bombing campaign'.[1016] The ICTY Committee reviewing the destruction caused by the NATO bombing in Serbia and Kosovo stated that 'much of the environmental contamination which is discernible cannot unambiguously be attributed to the NATO bombing'.[1017] Although the Committee had a report from UNEP, the Committee was concerned that it 'may not be a reliable indicator of the long term assessments regarding the long-term effects of the NATO bombing, as accurate assessments regarding the long-term effects of this contamination may not yet be practicable'.[1018]

In principle, a UNEP report would be admissible subject to the usual consideration of probative value, just like any other piece of evidence.[1019] In this instance, the OTP Committee's concern with the UNEP report stemmed from the need to show long-term harm to the environment, which could not be provided in the nearly contemporaneous UNEP report which was assembled within a year of the NATO bombing.[1020]

As noted above, in the context of toxic dumping being prosecuted as the crime against humanity of other inhumane acts, there will likely be a multitude of factors that are relevant to

[1013] For an application of this principle in criminal proceedings, see *R v Blaue* (1975) 61 Cr App R 271 (UK).
[1014] Jensen and Teixeira (2005), p.664. An issue would arise if a commander's attacks did not *per se* cause grave environmental damage but nonetheless prevented firefighters of the opposing party being able to access the area, leading to far greater environmental damage than would otherwise have occurred. Under a theory of indirect causation, such conduct could potentially lead to liability for the grave environmental damage on the part of the commander if the other required elements were fulfilled. An analogy is the deprivation or hindrance of medical treatment, which leads to victims suffering worse injuries than they otherwise would have, or else avoidable death; see, e.g., *Trial of Heinrick Gerike and Seven Others*, British Military Court, Brunswick, 20th March-3rd April, 1946, UNWCC, vol. VII, pp 76-81.
[1015] Final Report on NATO (2000).
[1016] Final Report on NATO (2000), para. 17.
[1017] Final Report on NATO (2000), para. 17 (emphasis added).
[1018] Final Report on NATO (2000), para. 17.
[1019] See infra Chapter III(C)(2)(a).
[1020] Final Report on NATO (2000), para. 17.

the assessment of the harm caused to the victim community.[1021] Obtaining evidence showing that the acts of the accused caused the harm to human beings may be difficult in light of the multi-factorial nature of sickness arising from environmental factors. For example, in the case of the dumping of chemicals in Abidjan, no autopsies were performed to verify the cause of death,[1022] and the pre-existing pollution levels in the lagoon prior to the dumping was considered too high to allow for identification of the hazardous waste in question.[1023] NGOs reporting on the toxic dumping also acknowledged the difficulty of measuring the specific environmental impact caused by the dumping.[1024] This demonstrates both the importance and the challenges presented by prosecuting environmental harm under international law.

Some guidance for the types of evidentiary material needed to establish causation and responsibility for multi-faceted environmental damage can be gleaned from the United Nations Claims Commission in relation to damage caused by Iraq's invasion and occupation of Kuwait in 1990-1991. Panel F4 confronted the issue of concurrent or parallel causes of environmental damage. It apparently required a standard of direct causation:

> "Iraq is, of course, not liable for damage that was unrelated to its invasion and occupation of Kuwait, nor for losses or expenses that are not a direct result of its invasion and occupation of Kuwait. However, Iraq is not exonerated from liability for loss or damage that resulted directly from the invasion and occupation simply because other factors might have contributed to the loss or damage. Whether or not any environmental damage or loss for which compensation is claimed was a *direct* result of Iraq's invasion and occupation of Kuwait will depend on the evidence presented in relation to each particular loss or damage."[1025]

Accordingly, the broad lines of the approach taken by the panel were that damage resulting from causes wholly unconnected with Iraq's invasion and occupation of Kuwait was not compensable. For damage resulting from Iraq's invasion or occupation of Kuwait that was

[1021] For this crime, it must be shown that "The perpetrator inflicted great suffering, or serious injury to body or to mental or physical health, by means of an inhumane act" and that the act was of a similar character to other acts listed in article 7(1) of the Rome Statute; see Elements of Crimes, p.12, article 7(1)(k).
[1022] UNDAC (2006), p.10.
[1023] UNDAC (2006), p.10.
[1024] Amnesty Report on Cote d'Ivoire (2012), Annex 1, p.212 ("Predicting or detecting any mid and long-term implications for the environment arising from the dumping would be a speculative exercise and a near impossibility against a background of poor waste management practice, a huge variety of dumping places, poor baseline data on environmental pollution and unresolved issues around the exact composition of the waste.").
[1025] United Nations Compensation Commission Governing Council, Report and Recommendations made by the Panel of Commissioners Concerning the Second Instalment of "F4" Claims, S/Ac.26/2002/26, 3 October 2002, Para.25 ("UNCC (2002)").

also aggravated by other factors,[1026] "due account" of those factors would be taken into account in determining the appropriate level of compensation.[1027] In order to assess which proportion of the damage was attributable to Iraq's actions, there had to be a reasonable basis in the supporting materials.[1028] The Panel also held that "each claimant has a duty to mitigate environmental damage to the extent possible and reasonable in the circumstances."[1029]

Longitudinal studies will be useful and in some cases necessary to demonstrate the nature of the damage and how the damage manifested in the environment over time, as well as the severity of the damage. However, measured against the exacting standard of beyond reasonable doubt, the duration and extent of the environmental harm may not be amenable to clear proof. Unlike most crimes, where there is a discrete death, injury, or piece of destruction, environmental harm is often a much more complex phenomenon to measure and attribute, particularly given the dynamic nature of the environment and its ability to regenerate.[1030] Studies designed to establish the harm can be expensive and labour intensive. For example, the United Nations Claims Commission awarded 243 million USD for the initial monitoring and assessment of the environmental harm purportedly caused by Iraq's invasion of Kuwait in 1990.[1031] The ICC's already overstretched budget could hardly afford to engage in such expensive activities to establish one element of a crime.[1032] In this respect, the ICC's framework is not well adjusted for the prosecution of environmental harm and unresolvable obstacles may prevent the court conducting effective prosecutions and trials.

In the case of military attacks resulting in excessive harm to the environment, the impact requirements will necessitate a significant body of evidence to satisfy the elements of the

[1026] The F4 panel noted that "In each of the claimant countries and in the region as a whole, there are natural and other phenomena that could result in environmental damage, depletion of natural resources or risks to public health of the same or similar type as those that are the subject of some of the claims. It is, therefore, possible that some of the damage revealed by monitoring and assessment activities resulted from causes other than the effects of Iraq's invasion and occupation of Kuwait. It is also possible that the cause of the damage was a combination of the effects of Iraq's invasion and occupation of Kuwait together with phenomena and activities that occurred before or after that event." UNCC Recommendations First Instalment (2001), para.33.
[1027] The F4 Panel also took into account the potential difficulty created by a lack of baseline documentation as to the pre-Invasion state of the environment: "Moreover, in some of the countries there may not be adequately documented baseline information on the state of the environment or on conditions and trends regarding natural resources prior to Iraq's invasion and occupation of Kuwait." UNCC Recommendations First Instalment (2001), para.34.
[1028] UNCC (2004), Para.36.
[1029] United Nations Compensation Commission Governing Council, Report and Recommendations made by the Panel of Commissioners Concerning the Third Instalment of "F4" Claims, S/Ac.26/2003/31, 18 December 2003, Para.42 ("UNCC (2003)").
[1030] Weinstein (2005), p.708; Final Report on NATO (2000), para.16.
[1031] UNCC Recommendations First Instalment (2001), para.779.
[1032] Stuart Ford, "How Much Money Does the ICC Need?", in Stahn (2015), pp.84-104.

crime, as set out in article 8(2)(b)(iv). Proving the impact of the destructive act could be achieved through various sources of evidence such as witness testimony, documents, biological or soil samples or aerial images. Aerial images were used effectively in cases concerning the mass killings of Bosnian Muslims in and around Srebrenica. The images provided visual evidence of the disturbance of large areas of earth in locations of primary and secondary mass graves of the victims, matching the evidence of survivors of these atrocities and other witnesses.[1033]

To establish the nature of the environmental harm (for example long-term, widespread and severe damage in the case of article 8(2)(b)(iv) of the Rome Statute), evidence from scientific experts would likely take a leading role.[1034] The parameters governing expert evidence as discussed in more detail below, but it is notable at this stage to note that guidance can be drawn from the UNCC's approach to assessing the extent of the environmental impact caused by Iraq to Kuwait during the 1990 invasion and occupation. During the UNCC's enquiries into the environmental damage caused by Iraq's invasion of Kuwait in 1990, the F4 Panel on environmental damage retained expert consultants from a variety of fields including chemistry; toxicology; biology (including microbiology, marine biology, biological oceanography, marine zoology and plant pathology); medicine; epidemiology; environmental, ecological and natural resource economics; geology (including geochemistry, hydrology, geoecology); atmospheric sciences; oil spill assessment and response; rangeland management; and accounting.[1035] While the standard of proof before the UNCC was lower than in a criminal context,[1036] these same areas of expertise would be relevant in order to prove crimes against the environment.

(iii) The person or persons responsible for the causative act and the manner in which they brought about the act

With serious environmental harm often being caused by group action, sometimes even at the societal level, there is likely to be many actors involved, and the corresponding dispersal of

[1033] See, e.g., *Prosecutor v. Vujadin Popović et. al.,* Case No. IT-05-88-T, Judgement, 10 June 2010 ("*Popović* TJ"), paras.75, 418.
[1034] Sands (2008), p.4.
[1035] UNCC Recommendations First Instalment (2001), para.42.
[1036] Article 35(3) of the Provisional Rules for Claims Procedure (the "Rules") (S/AC.26/1992/10) provides that category "F" claims (which is the category that includes environmental damage) "must be supported by documentary and other appropriate evidence sufficient to demonstrate the circumstances and amount of the claimed loss".

individual responsibility.[1037] Under the current ICC framework, only natural persons can be prosecuted, making it all the more important to obtain sufficient evidence to attribute liability for serious environmental harm to one person.

Evidence to prove the specific person or persons responsible for the environmental harm could include a broad range of sources, including witness testimony, or documentary evidence such as orders or communications. Military log books and diaries are particularly useful to establish the responsibility of members of armed forces for serious crimes and have been admitted in numerous cases and relied on by chambers in entering convictions,[1038] including in the post-World War Two Hostages case, which included scorched earth charges against the accused Rendulić.[1039] Bank records and other documents evidencing financial flows may provide powerful indicia of involvement in illicit acts, particularly wildlife crime and toxic dumping. Investigations by the non-governmental organization the Wildlife Justice Commission have unearthed such financial records indicating the involvement of a network of over 50 individuals in the illegal trade of ivory, elephant, tiger and other endangered animals.[1040] The records indicate that Vietnamese nationals have established bank accounts in China in order to facilitate Chinese buyers and traders looking for illicit wildlife products.[1041] Buyers and traders used programs such as facebook and WeChat to conduct their deals, making these platforms also potential sources of evidence.[1042]

Social media increasingly plays a role in investigations and prosecutions before international courts. Efforts to identify the responsible party for environmental damage may benefit from contemporaneous videos and other audio-visual material placed on social media, as well as text-based statements. For example, ISIS, which reportedly has burned oil installations in Iraq in 2016,[1043] is known for its modus operandi of publicising its acts such as destroying cultural heritage on YouTube and other platforms.

[1037] G. Simpson, 'Crime, Structure, Harm', in S. Jodoin and M.C. Cordonier Segger (eds.) *Sustainable Development, International Criminal Justice, and Treaty Implementation* (2013) at 48.
[1038] See, e.g., *Popović* TJ, paras.76-82, 83-85, 368, 1129 (referring to Ex. P00295, "Zvornik Brigade July 1995 Vehicle work log book); *Prosecutor v. Vlastimir Đorđević,* Case No. IT-05-87/1-T, 23 February 2011, paras.167, 478, 800.
[1039] See *Hostages* Trial ("The prosecution has produced oral and documentary evidence to sustain the charges of the indictment. The documents consist mostly of orders, reports and war diaries which were captured by the Allied Armies at the time of the German collapse.").
[1040] Wildlife Justice Commission (2016), p.3.
[1041] Wildlife Justice Commission (2016), p.4, point 8.
[1042] Wildlife Justice Commission (2016), p.4, point 7.
[1043] UNEP (2017), p.2.

Forensic examinations will serve two primary purposes in relation to wildlife exploitation – identifying the identity and origin of the species and linking the suspects to the crimes.[1044] It would generally be necessary to carry out some form of identification or morphological testing to identify the animal or plant species in question from the living specimen or part or derivative that has been located.[1045] While this may be readily recognisable in some cases where bones, hair, feathers, scales or organs and tissues allow, others will require more involved testing, including DNA testing.[1046] For some wildlife exploitation, which involve the mistreatment of the animal in question, a pathological study, or forensic entomology, may be required to establish the timing and cause of death, including by detecting lesions, bruises, wounds, and scars and attempting to ascertain the nature of the instrument causing the injuries.[1047] For example, crushing lesions are likely to indicate the use of traps, whereas strangulation or impairment to blood flow may indicate the use of nets or snares.[1048] For illegal logging, satellite technology may be of significant assistance in monitoring and proving the nature and extent of the crime.[1049]

As set out above, in any corporate or group-perpetrated environmental harm, insider witnesses from organisations that caused the environmental harm would be important sources of evidence. Witnesses who have worked within organizations are familiar with the internal power structures and specific decision-makers within these organizations. In cases where the harm was caused by corporate entities,[1050] insider witnesses would assist to pierce the corporate veil in order to attribute responsibility to particular individuals whose actions and decisions led to the environmental harm, though their evidence should be treated carefully.[1051]

To link suspects to the crimes, many techniques may be relevant, including ballistics studies of bullets from carcasses or bullet casings, samples from the illegally taken species being present on a suspect's person or in their vehicle, or a suspect's DNA being present at the scene of the crime.[1052] The investigation of electronic equipment used by suspects may also yield significant information, such as mobile phones, computers, cameras, and storage

[1044] UNODC Toolkit (2012), p.96.
[1045] Cooper et. al. (2009), p.7.
[1046] UNODC Toolkit (2012), p.96; Cooper et. al. (2009), p.7.
[1047] UNODC Toolkit (2012), p.96; Cooper et. al. (2009), p.7.
[1048] Cooper et. al. (2009), p.8.
[1049] UNODC Toolkit (2012), p.96.
[1050] See infra Chapter II(B)(1).
[1051] *Eliézer Niyitegeka v. Prosecutor*, Case No. ICTR-96-14-A, Appeal Judgement, 9 July 2004, para. 98. See also *Nahimana* AJ, para. 439, and *Prosecutor v. Vidoje Blagojević & Dragan Jokić*, Case No. IT-02-60-A, Appeal Judgement, 9 May 2007, para.82.
[1052] UNODC Toolkit (2012), p.97.

devices.[1053] Investigating financial transactions is also a fruitful area to capture wildlife crime and link it to specific suspects.[1054]

(iv) The knowledge and intent of the accused

Investigating and proving the *mens rea* of the accused in relation to environmental harm will entail considerable difficulties. The one provision in the Rome Statute that explicitly addresses environmental harm incorporates an exacting three-part *mens rea* test,[1055] and the other environmental crimes will require at least[1056] knowledge and intent on the part of the accused if prosecuted under the existing substantive provisions of the Rome Statute.[1057]

Inferences based on circumstantial evidence are often used to establish an accused's knowledge of criminal offending by their subordinates. International jurisprudence recognises the validity of such an approach, with the firm caveat that inferential findings that are decisive of an accused's liability must be the only reasonable inference based on the evidence adduced.[1058] The practice of inferring knowledge and intent is also taken in domestic cases, including for environmental harm.[1059] For example, in the US, domestic courts have pointed out that fact finders can draw (negative) inferences against the accused if a transporter or recipient of waste offers to take it away at an unusual price or under unusual circumstances, in light of the common knowledge that disposing hazardous waste is an expensive process.[1060]

Evidence that could be used to prove an accused's knowledge of the excessive harm to the environment resulting from an attack would include documents, insider witness testimony, and any statements by the Accused. Orders, such as "no-strike" orders, listing the locations of particular sensitivity because of their potential destructive impact on the environment would assist in showing that the Accused was aware of the potential danger of striking a certain

[1053] UNODC Toolkit (2012), p.97.
[1054] UNODC Toolkit (2012), p.98.
[1055] See infra Chapter II(D)(1)(b)(v).
[1056] The Basel Convention refers to "deliberate" dumping or unlawful transport of materials, which, in combination with article 30 of the Rome Statute, would be an exacting standard to meet.
[1057] Rome Statute, article 30.
[1058] See, e.g., *Prosecutor v. Vasiljević*, Case No.IT-98-32-A, Appeal Judgement, para.120.
[1059] See, e.g., David Uhlman, "Prosecutorial Discretion and Environmental Crime", *Harvard Environmental Law Review*, Vol.38, (2014), p.479 ("the Tenth Circuit has allowed a jury to infer both knowledge and control of environmental crimes on the part of corporate officers based on circumstantial evidence"). See also *United States v. Self*, 2 F.3d 1071, 1088 (10th Cir. 1993) (sustaining conviction against corporate president because evidence was sufficient to allow jury to infer that defendant knew of illegal storage of hazardous waste); See *United States v. Hansen*, 262 .3d 1217 (1lth Cir. 2001) (finding that an admitted goal "to operate the plant until a buyer could be found" and knowledge of the plant's problems with environmental compliance allowed the jury to infer that corporate officers had reached a tacit agreement to operate the plant in violation of environmental laws).
[1060] *United States v. Hayes International Corp*, 786 F.2d 1499, 1502-1504 (11th Cir. 1986).

location.[1061] Difficulties would arise where the underlying information was held by various individuals within an organization, with no one person possessing knowledge of all aspects of the criminal offending. In the context of corporate criminal liability, this obstacle can be overcome through attribution of the knowledge of individual corporate personnel to the overarching corporate structure.[1062]

The environmental harm charge of military attacks entailing excessive harm to the environment, under article 8(2)(b)(iv), requires that the accused appreciate that the environmental harm would be excessive to the anticipated military advantage. As discussed elsewhere, this *mens rea* requirement may prove extremely difficult to establish, and it is unclear what type of evaluation the commander must be shown to have made.[1063] From a procedural and evidentiary perspective, the legal uncertainty exacerbates the evidentiary burden, as it is not clear which evidence would be required to show that an individual consciously considered that an attack would cause excessive environmental harm but nonetheless proceeded with it. In this respect, the unclear drafting of article 8(2)(b)(iv) may result in a measure of adjudicative incoherence.

UNEP has reported that a significant challenge in enforcing prohibitions of toxic dumping and illegal transboundary movement of hazardous substances is proving the existence of a "waste" that is "hazardous". A substance or an object is considered waste under the Basel Convention if it is disposed of, intended to be disposed of or if it is required to be disposed of under national law. However, often specifically listed hazardous wastes are mixed with other wastes and are only revealed through laboratory testing.[1064] Even if the presence of the hazardous substance can be determined with certainty, the people caught handling the waste may be able to argue that they were unaware that prohibited substances were mixed into the waste, then putting the onus on the prosecution to establish how the toxic substances came to be present.

To prove the accused's *mens rea* concerning wildlife exploitation, access to records or documents prepared or used by the persons conducting the capture or sale of the animal or

[1061] Jensen (2005), p.666-667.
[1062] See for example, article 46C of the Protocol to the Statute of the African Court of Justice and Human Rights, which provides that a corporation's knowledge "may be established by proof that the actual or constructive knowledge of the relevant information was possessed within the corporation […] even though the relevant information is divided between corporate personnel."
[1063] See, in particular Matthew Gillett, *"Chapter 6: Environmental damage and international criminal law"* in *"*Securing the Rights of Future Generations: Sustainable Development and the International Criminal Law Regime in Practice" (Sébastien Jodoin, Marie-Claire Cordonier Segger & Maja Göpel, eds.) (August 2013).
[1064] UNEP Basel Convention guide para.64.

plants will be highly significant. In this respect, State cooperation will likely be a major determinant of the success of an investigation. As with toxic dumping, insider witnesses will not always be strictly necessary for an investigation of wildlife exploitation, but will nonetheless be an extremely valuable source of information, particularly in relation to the responsibility of specific individuals within the organization or group carrying out the illegal acts. Scientific evidence concerning the identity of the species and the impact on these species of the trade or exploitation will be fundamental to any investigation.

For wildlife exploitation, domestic law will potentially be a relevant factor. If the person conducting the trade has a domestic lawful permit to do so, for example, then they may seek to deny responsibility, invoking doctrines like reliance on an official act or opinion. The Rome Statute makes clear that ignorance of the law is generally not a defence to criminal responsibility (unless it negates the mental element of the offence)[1065] and that prescription of law is not a defence to crimes against humanity and genocide.[1066]

In relation to an accused's *mens rea*, the defence of duress or necessity[1067] could potentially be raised as an excuse for environmental harm. Under the Rome Statute duress applies whenever

> "The conduct which is alleged to constitute a crime within the jurisdiction of the Court has been caused by duress resulting from a threat of imminent death or of continuing or imminent serious bodily harm against that person or another person, and the person acts necessarily and reasonably to avoid this threat, provided that the person does not intend to cause a greater harm than the one sought to be avoided. Such a threat may either be (i) Made by other persons; or (ii) Constituted by other circumstances beyond that person's control."[1068]

The defence set out in article 31(1)(d) is a conflation of two separate means of avoiding liability: the *excuse* of duress, whereby the will of the accused has been overborne excluding their responsibility for the harmful conduct, and the *justification* of necessity, whereby the

[1065] Rome Statute, article 32.
[1066] Rome Statute, article 33.
[1067] Whereas duress concerns a threat of compulsion emanating from a person, necessity addresses those arising from the objective circumstances; Cassese and Gaeta (2008), p.280.
[1068] Rome Statute, article 31(1)(d).

accused is responsible for the harmful conduct but their conduct is considered justified because they sought to avoid a greater harm than the harm they caused.[1069]

In relation to the excuse of duress, it is only anthropocentric harm, in terms of the threat of imminent death or continuing or imminent serious bodily harm, as specified under article 31(1)(d), that will activate the defence. Eco-centric threats will not satisfy this test *per se*, and would only be relevant to the extent they entail those stated anthropocentric risks.

In relation to the justification of necessity, article 31(1)(d) in effect limits the availability of this justification, by establishing a threshold requirement of a threat of imminent death or continuing or imminent serious bodily harm. Presuming such a threat is shown, novel questions would arise in relation to crimes of environmental harm, potentially pitching anthropocentric interests against eco-centric interests. For example, if an accused was shown to be responsible for serious environmental harm, such as launching a military attack which would be anticipated to result in excessive environmental harm, toxic dumping, or wildlife exploitation, but argued that they did so in order to avoid a greater harm, the question would arise as to whether and how different types of harm can be weighed for the purposes of article 31(1)(d).[1070] What if the toxic material were dumped in a nature reserve in order to avoid the risk of imminent anthropocentric harm (such as the material being dumped in a human settlement)? And what if members of a rare, endangered species were killed for bushmeat to avoid human starvation? How would the eco-centric harm in each instance be weighed against the anthropocentric harm?

The issue revolves around the term "greater harm" in article 31(1)(d). However, in *Ongwen*, where the defence of duress was raised by the defence, the judges did not elaborate on the meaning of this term in article 31(1)(d), and the relevant harms were anthropocentric.[1071] Similarly, in *Erdemović*, which is the only case at the *ad hoc* tribunals where duress has been substantively addressed, the relevant harm of killing humans was exclusively anthropocentric in nature.[1072] The 2004 United Kingdom military manual refers to a situation of severe food shortages as justifying a prisoner of war camp commander putting prisoners on rations below

[1069] Albin Eser, "Article 31", in *Commentary On The Rome Statute Of The International Criminal Court* 863, 867 (Otto Triffterer ed., 2d ed. 2008), pp.883-884; Benjamin J. Risacher, "No Excuse: The Failure of the ICC's Article 31 "Duress" Definition", 89 *Notre Dame L. Rev.* 1403 (2014) ("Risacher (2014)"), p.1417.
[1070] On the question of balancing the type of harm for article 31(1)(d) see Risacher (2014), pp.1417-1418.
[1071] *Prosecutor v. Dominic Ongwen*, Case No. ICC-02/04-01/15, Situation in Uganda, 'Decision on the confirmation of charges against Dominic Ongwen', 23 March 2016, paras.151-156.
[1072] See, e.g., *Prosecutor v. Erdemovic*, Case No. IT-96-22-A, Judgement, 7 October 1997 (and separate and dissenting opinions).

the minimum standards set out in the Geneva Conventions.[1073] At present, it remains to be seen how pure eco-centric harm would be weighed against the imminent threat to life or limb that potentially allows the defence under article 31(1)(d) to be argued.

Whereas common law approaches traditionally distinguish between mistakes of fact, which provided a viable defence, and mistakes of law, which do not, the ICC Rome Statute takes a mixed approach whereby mistakes of law are generally invalid as a defence unless they negate the mental element required for the crime.[1074] Environmental harm leaves considerable room for mistakes of law to negate the mental element of the crime – particularly given the prevalence of regulatory offences, and failure to maintain adequate records, as typical environmental offences. In the context of hazardous dumping or trafficking charges, evidence such as permits from the government concerning the allegedly hazardous materials could be critical for the defence to argue that the conduct was approved or at least a colourable mistake of fact or law vitiates the accused's liability for the dumping or trafficking charges.

Presuming one of the crimes under the Rome Statute were demonstrated through environmentally harmful conduct, the accused may potentially raise the issue of self-defence under article 31(1)(c) of the Rome Statute.[1075] The nature of scorched earth tactics as a defensive tactic would not be sufficient *per se* to exclude liability; the Rome Statute clarifies that the fact a person was involved in a defensive operation when they conducted the harmful act(s) is not ground to exclude criminal responsibility due to self-defence.[1076] Nonetheless, if the enemy were unlawfully threatening people and/or property with imminent harm, and the measures taken were proportionate to the level of danger, the accused could seek to rely on this provision. In determining whether the tactics were proportionate to the threat, the Court could rely on notions of customary international law.[1077] For example, the ICRC requires that all feasible measures be taken to limit environmental harm when engaging in military conflicts.[1078]

[1073] The 2004 UK Manual states that necessity (objective duress) applies: 'where a country suffers a severe food shortage…', p.443; Cassese and Gaeta (2008), p.283-284.
[1074] Rome Statute, article 32(2); Ambos (2011), pp.320-323.
[1075] Rome Statute, article 31(1)(c) ("The person 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.").
[1076] Rome Statute, article 31(1)(c).
[1077] Rome Statute, article 21(1)(b).
[1078] See ICRC Study, Rule 44 ("Methods and means of warfare must be employed with due regard to the protection and preservation of the natural environment. In the conduct of military operations, all feasible

(e) Expert evidence concerning environmental harm

Given the centrality of technical and scientific evidence in cases of environmental harm, proceedings before the ICC are likely to place considerable emphasis on expert evidence.[1079] Scientific evidence is increasingly prevalent in general international litigation,[1080] and expert evidence is a regular feature of international criminal cases. Criminal trials featuring complex technical evidence will require considerable assistance from experts: already in international criminal trials, expert evidence is a regular and prominent component of the evidence adduced.[1081] In cases focusing on technical issues like shelling and ballistics, the level of expert evidence is particularly high,[1082] which suggests that in the scientifically focused areas of environmental harm, such as military attacks expected to cause excessive harm to the environment, toxic dumping, and wildlife exploitation, expert evidence will play a central and major role in proceedings. Given the high proportion of scientific evidence, about which "opinions and discoveries are often overturned by new research and conflicting opinions exist",[1083] expert evidence will be particularly valuable for the judges in reaching their verdict on environmental harm.

For example, in relation to wildlife exploitation, several, if not all of the following types of technical tests, which could be relevant to establish the offence, would need expert evidence to be introduced to the court: gross, microscopic, iso-electric focusing, and DNA testing for species and parentage, radiography, cytology, and bacteriology.[1084] These tests would help establish the identity of the species involved in order to discern lawful from unlawful behaviour. They can also assist to establish where the members of an endangered species have

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precautions must be taken to avoid, and in any event to minimize, incidental damage to the environment. Lack of scientific certainty as to the effects on the environment of certain military operations does not absolve a party to the conflict from taking such precautions.")

[1079] Sands (2008), p.4.

[1080] Jean *D'Aspremont and*. Makane Moïse *Mbengue,* "Strategies of Engagement with Scientific Fact-Finding in International Adjudication" (2013) 5 *Journal of International Dispute Settlement*, 2014 ("*D'Aspremont and Mbengue (2014)")*, p.14.

[1081] Arthur Appazov, "Expert Evidence and International Criminal Justice", Springer 2016, p.6 ("the prosecution of the international criminal courts often times resorts to seeking the assistance of experts—historians, sociologists and other social scientists, human rights activists and military professionals—who can provide relevant information in order to establish contextual elements of international crimes—war crimes, crimes against humanity and genocide.").

[1082] See, e.g., *Prosecutor v. Ante Gotovina et. al.*, Case No.IT-06-90-T, Judgment, 15 April 2011, para.23 (noting that 14 experts were called during the trial); *Prosecutor v. Dragomir Milošević*, Case No.IT-98-21/1-T, Judgement, 12 December 2007 (throughout which several expert witnesses are mentioned).

[1083] Makane Mbengue, *Between law and science: A commentary on the Whaling in the Antarctic case*, available at: http://www.qil-qdi.org/between-law-and-science-a-commentary-on-the-whaling-in-the-antarctic-case-2/#_ftnref49 (last checked 26 December 2017).

[1084] Cooper et. al. (2009), p.6.

come from if they are located in a foreign market, and to trace back to the route taken from the area where they were poached, to the various points where they were then sold, which can assist to identify the perpetrators.

In cases of environmental harm, experts will be needed to analyse the evidence, and present their expert conclusions based thereon. In this manner, they will help to explain the complex scientific parts of the case to the adjudicators.[1085] As Judges Al-Khasawneh and Simma explained in the *Pulp Mills* environmental harm case at the ICJ "the adjudication of disputes in which the assessment of scientific questions by experts is indispensable (…) requires an interweaving of legal process with knowledge and expertise that can only be drawn from experts properly trained to evaluate the increasingly complex nature of the facts put before the Court. The Court on its own is not in a position adequately to assess and weigh complex scientific evidence of the type presented by the Parties."[1086]

(i) <u>The definition of an expert at the international criminal court</u>

The definition of an expert witness at the international criminal court is relatively well-settled and essentially follows the definition adopted at the *ad hoc* tribunals. In *Ntaganda* the Court relied on ICTY jurisprudence in describing an expert as "a person who, by virtue of some specialised knowledge, skill or training can assist the Chamber in understanding or determining an issue of a technical nature that is in dispute".[1087] It continued that "expert witnesses are ordinarily afforded wide latitude to offer opinions within their expertise and their views need not be based upon first-hand knowledge or experience."[1088] On a similar note, the Appeals Chamber of the ICTR has observed that "in the ordinary case the expert witness lacks personal familiarity with the particular case, but instead offers a view based on

[1085] See, e.g. Eurojust (2014), p.11 ("only experts can determine with certainty if species found are indeed endangered, the category under which they fall, and whether a penal response to the illegal trade has been triggered."), p.32 ("Experts are needed, for example, to decide if certain items qualify as waste, if waste is exported for recovery or re-use, or if an egg belongs to a specific protected species.").
[1086] *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay),* Joint Dissent of Judges Simma and Al-Khasawneh, [2010] ICJ Rep110, para 3. See also ICJ Nuclear Weapons Advisory Opinion (1996), p.236-37.
[1087] *Prosecutor v. Bosco Ntaganda*, Decision on Defence preliminary challenges to Prosecution's expert witnesses, ICC-01/04-02/06-1159, 9 February 2016 ("*Ntaganda* Decision (2016)"), para.7 *citing Prosecutor v. Vujadin Popović et. al.*, Case No. IT-05-88-Ar73.2, Decision on Joint Defence Interlocutory Appeal Concerning the Status of Richard Butler as an Expert Witness, 30 January 2008 ("*Popović* Butler Decision"), para.27. See also *Laurent Semanza v. Prosecutor,* Case No. ICTR-97-20-A, Judgement, 20 May 2005, para.303.
[1088] *Ntaganda* Decision (2016), para.9.

his or her specialized knowledge regarding a technical, scientific, or otherwise discrete set of ideas or concepts that is expected to lie outside the lay person's ken."[1089]

An expert witness must be sufficiently qualified in order to testify about matters going beyond their personal experience; the testimony of an unqualified person on such matters going beyond their experience would not assist the trier of fact and would thus be irrelevant.[1090] Determining whether a person has sufficient expertise takes into account the person's education, experience in the relevant field, publications, and additional background relating to the subject on which they would testify.[1091]

(ii) The subject-matter of expert testimony in environmental harm cases

As set out above, it falls to the Court's discretion whether to accept a person as an expert, though this discretion must be exercised reasonably, if it is abused it may be overturned on appeal.[1092] Like other evidence, the trial chamber will weigh up probative evidence from expert witnesses, and make the relevant determination. Although the ICC procedural framework allows for a "free" assessment of the evidence,[1093] the overarching standard against which the evidence will be assessed is whether the Prosecution has proved its case beyond reasonable doubt.[1094]

Even if the witness is accepted as sufficiently qualified to be an expert, the scope of his or her expertise must cover the subject-matter of the evidence to be adduced.[1095] Given the broad range of scientific evidence that would be relevant in the adjudication of charges of environmental harm, the scope of the witness's expertise would be a significant factor to establish.[1096] For example, a person accepted as an expert on the impact of certain means and methods of war on fauna, such as mountain gorilla populations, may not be sufficiently qualified to speak to the impact of certain means and methods of war on flora.

The ambit of permissible expert testimony is also limited by the rule that expert evidence should not directly address ultimate issues of fact or law, as this would encroach on the

[1089] *Laurent Semanza v. Prosecutor,* Case No. ICTR-97-20-A, Judgement, 20 May 2005, para.303.
[1090] Khan et. al. (2010), p.614.
[1091] Khan et. al. (2010), p.614-615.
[1092] *Popović* Butler Decision, para.9.
[1093] See, e.g., *Situation in the Democratic Republic of Congo in the Case of the Prosecutor v. Thomas Lubanga Dyilo*, Decision on the admissibility of four documents (TC), ICC-01/04-01/06, 13 June 2008, para.24.
[1094] Rome Statute, article 66(3).
[1095] Khan et. al. (2010), p.615-616.
[1096] *Ntaganda* Decision (2016), para.8; *Popović* Butler Decision, para.27.

province of the chamber.[1097] Experts are also in theory not supposed to provide evidence as to the law that the international criminal court should apply. However, at the international courts, this principle is not strictly followed.[1098] In practice, experts frequently provide evidence that goes to ultimate issues of fact and sometimes law.[1099] For example, the Appeals Chamber in *Gotovina* held that the Trial Chamber erred by not addressed Witness Jones' evidence. This evidence went to the core of Gotovina's responsibility for crimes, as Jones "considered that Gotovina took all necessary and reasonable measures to ensure that his subordinates in the Krajina enforced appropriate disciplinary measures."[1100]

(iii) The role of the expert: neutral interlocutor or partisan witness?

Because experts are allowed to provide evidence on matters that they did not personally witness, they occupy a privileged position in the process of determining facts before the courts. The question arises as to whether the privileged position of experts comes with a concomitant duty to the Court. Although there is a heightened expectation of neutrality on the part of an expert before the international tribunals, it is not definitively established in the jurisprudence that the expert has an overriding duty to the Court. This contrasts with England, for example, where an expert does have such a duty.[1101] Nonetheless, any possible bias may be explored in cross-examination of the expert. An expert's evidence should usually be

[1097] *Prosecutor v. Édouard Karemera & Matthieu Ngirumpatse,* Case No. ICTR-98-44-T, T.Ch., Decision on Prosecution Motion for Reconsideration of the Decision on Prospective Experts Guichaoua, Nowrojee and Des Forges, or for Certification, para.21. ("The Chamber, however, recalls that the established jurisprudence of this Tribunal proscribes expert evidence from usurping the function of the Trial Chamber by offering opinions that are determinative of the guilt or innocence of the Accused or by adverting to the acts, conduct and mental state of the Accused. Admitting the evidence of Des Forges, as suggested by the Prosecution, would be amount to usurping the functions of the Chamber in determining the guilt or not of the Accused."); *Prosecutor v. Hadžihasanović and Kubura*, Decision on Report of Prosecution Expert Klaus Reinhardt, Case No. IT-01-47-T, T. Ch. II, 11 February 2004, p. 4.

[1098] *Prosecutor v. Mučić et. al.*, Case No. IT-96-21, Order on the Prosecution's Motion for Leave to Call Additional Expert Witnesses (noting that "during oral argument on the Motion before the Trial Chamber on 23 October 1997, the Defence for all four accused ("Defence") objected to the calling of Professor Economides since it did not consider it to be an appropriate use of an expert witness when the witness is to testify to the Trial Chamber on international law, and in the view of the Defence, the determination of international law remains within the exclusive province of the Trial Chamber" but allowing the Prosecution to call the witnesses anyway). See also transcript of 2 October 1997, T.8184-8195.

[1099] Khan et. al. (2010), p.616-617.

[1100] *Prosecutor v. Gotovina and Markac*, Case No.IT-06-90-A, Appeal Judgement, 16 November 2012, paras.131-133.

[1101] *Meadow v General Medical Council* [2007] 1 All ER 1; Harris [2006] 1 Cr App R 55; Khan et. al. (2010), p.108.

provided in full transparency, which includes providing access to the underlying material to the opposing party.[1102]

At the ECCC, the co-investigative judges or chambers appoint the experts upon the written request of the Co-Prosecutors, the Accused, or a civil party.[1103] At the ICC, the pre-trial and trial chambers are imbued with a high level of control over the experts that can appear before them. The Judges' Regulations require that the expert be chosen from a list maintained by the Registry.[1104] In the *Lubanga* proceedings, the Trial Chamber requested the Registry to select an expert on the issue of child soldiers and trauma, when the Prosecution expert acknowledged that this topic went beyond his area of expertise.[1105] The ICC is increasingly inviting questions from all participants and drafting questions for experts to address based on those submissions.[1106]

Where experts arrive at diametrically opposed views, there is precedent from the Bosnian War Crimes Chamber for having the two experts attend court to testify at the same time in order to provide them with an opportunity to agree and to provide the trier of fact with the chance to directly compare the two.[1107] This process is occasionally used domestically where it is referred to colloquially as "hot-tubbing". In line with this process, under ICC Regulation 44, the Court can order a jointly commissioned expert report.[1108]

According to ICTY jurisprudence, it is permissible for an expert to be a current or former employee of a Party to the proceedings; possible concerns of bias or lack of impartiality can be addressed during cross-examination.[1109] The complaint has been raised that this will lead to implicit or explicit bias on the part of the expert, and that waiting until cross-examination is too late, as the harmful evidence will already be on the record.[1110] However, the deferred ruling has the advantage of allowing the judges to see the technical evidence, together with its

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[1102] *Prosecutor v. Milan Martić*, Case No. IT-95-11, Decision on Prosecution's Motions for Admission of Transcripts Pursuant to Rule 92bis and of Expert Reports Pursuant to Rule 94bis, 13 January 2006, para.37; Khan et. al. (2010), p.628.
[1103] ECCC Rules of Procedure and Evidence; Rule 31(10).
[1104] ICC Judges Regulation 44.
[1105] *Prosecutor v. Thomas Lubanga Dyilo*, Instructions to the Court's Expert on Names and other Social Connections to the DRC, ICC-01/04-01/06 (5 June 2009), paras.3, 17; Khan et. al. (2010), p.607.
[1106] Khan et. al. (2010), p.607-608.
[1107] *Prosecutor's Office of Bosnia and Herzegovina v Djukic* (First Instance Verdict) CtBiH-X-KR-07/394 (12 June 2009), paras.319-325; Khan et. al. (2010), p.110-111.
[1108] Khan et. al. (2010), p.607.
[1109] *Prosecutor v. Vujadin Popović et al.,* Case No. IT-05-88-T, Decision on Defence Rule 94*bis* Notice Regarding Prosecution Expert Witness Richard Butler, 19 September 2007, paras.26-27; *Popović* Butler Decision, paras.27, 31.
[1110] Khan et. al. (2010), p.613.

explanation, in its entirety, which is important for the type of technical evidence used to show environmental harm. For this reason, the test has remained a case-by-case assessment and chambers retain the discretion to completely exclude the evidence of a purported expert prior to testimony.[1111]

The broad discretion[1112] enjoyed by chambers in relation to the tendering of expert evidence will be helpful in this regard and may see considerable innovation taken by the judges to ensure that sufficient evidence is received in a digestible format without distracting proceedings from the core issue of the responsibility of the individuals or individuals charged with the crimes.

(iv) Expert evidence on environmental matters: the judicial view

As a necessary component of their adjudicative function, judges must establish facts.[1113] Judicial fact-finding is traditionally binary, seeking to determine the veracity of a fact rather than its probability.[1114] Scientific fact-finding, contrastingly, involves a wider range of outcomes, including probabilities that are not easily transposed onto the beyond reasonable doubt judicial standard of proof in criminal law.[1115] The lack of certainty in scientific facts did not impede early adjudicators from entering sweeping findings.[1116] However, with well-trained experts, and the looming shadow of appellate review, first instance trial chambers are

[1111] This can be done, for example, at the ICTY under Rule 95, which provides that evidence is not admissible if it is obtained by methods which cast substantial doubt on its reliability or if its admission is antithetical to, and would seriously damage, the integrity of the proceedings. See also the *Prosecutor v. Milan Milutinović et al.*, Case No. IT-05-87-T, Decision on Prosecution Request for Certification of Interlocutory Appeal of Decision on Admission of Witness Philip Coo's Expert Report, 30 August 2006, paras.1, 10 (the Trial Chamber found that the proposed expert witness was "too close to the team, in other words to the Prosecution presenting the case, to be regarded as an expert" and that "it could not regard his opinion as bearing the appearance of impartiality on which findings crucial to the determination of guilt of criminal charges might confidently be made.").

[1112] See *Prosecutor v. Thomas Lubanga Dyilo*, Instructions to the Court's Expert on Names and other Social Connections to the DRC, ICC-01/04-01/06 (5 June 2009), paras.3, 17; Khan et. al. (2010), p.607.

[1113] Between law and science: Some considerations inspired by the Whaling in the Antarctic judgment, Tullio Scovazzi, available at (http://www.qil-qdi.org/between-law-and-science-some-considerations-inspired-by-the-whaling-in-the-antarctic-judgment-2/).

[1114] *D'Aspremont and Mbengue (2014)*, p.12 ("In that sense, scientific fact-finding enunciates "probabilities" while traditional fact-finding methods validate "veracities".."). The various facts that are established by the trial chamber are then used to determine whether the charges are proved beyond reasonable doubt; Rome Statute, article 66(3).

[1115] There are various interpretations as to how the beyond reasonable doubt standard is to be applied; see for example *Lubanga* Article 74 Decision, para.180.

[1116] See, e.g., Award of 10 April 1905 Rendered by Colonel Macmahon as Arbitrator in Legal problems relating to the utilization and use of international rivers Report by the Secretary-General, 15 April 1963 ("After carefully calculating the normal volume of the Helmand River during the period between the autumn equinox and the spring equinox, it has been clearly ascertained that one third of the water which now reaches Seistan at Bandar-i-Kamal Khan would amply suffice for the proper irrigation of all existing cultivation in Persian Seistan, and also allow of a large future extension of that cultivation. This would leave a requisite supply for all Afghan requirements.").

more likely to be risk-averse in reaching their findings, particularly on complex technical matters. In this respect, environmental cases present a dilemma and a challenge for the traditional binary nature of fact-finding in international criminal trials. Even issues as well-studied as climate change produce a range of scientific views,[1117] with varying levels of certainty.[1118] Attempting to straight-jacket such complex issues into binary options of truth or falsehood can lead to the result being largely dictated by the operation of the burden of proof.

A concomitant question is which form of reasoning should be applied when assessing scientific evidence in environmental harm cases. Approaches vary, from the rejection of the notion that any special approach is requiring when weighing scientific evidence, to full deference to the internal logic of the particular scientific field involved.

One approach taken in public international law proceedings is to adhere to traditional legal concepts and avoid having to address complex scientific issues. The ICJ has been described as adhering to this tactic by its own members. In the *Pulp Mills* case, Judges Simma and Al-Khasawneh stated in their dissenting opinion that "the Court has an unfortunate history of persisting, when faced with sophisticated scientific and technical evidence in support of the legal claims made by States before it, in resolving these issues purely through the application of its traditional legal techniques."[1119] This technique could be seen as judicial economy or else judicial evasion, depending on the observer.[1120]

The WTO Appellate Body has held that scientific findings should be evaluated according to the methodological rigor and standards of the scientific community involved.[1121] Different areas of science have different methodological rationalities. Adhering to the reasoning of the specific domain on which the legal questions centre will ensure a methodological coherence.

[1117] Tullio Scovazzi, "Between law and science: Some considerations inspired by the Whaling in the Antarctic judgment", 19 April 2015, available at (http://www.qil-qdi.org/between-law-and-science-some-considerations-inspired-by-the-whaling-in-the-antarctic-judgment-2/).

[1118] See, e.g. the views of the Inter-governmental Panel on Climate Change, which appears to have adjusted its level of certainty as to the cause of climate change over the years, stating, for example, in 1995 "the balance of evidence suggests that there is a discernible human influence on global climate", and then in 2013 "is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century".

[1119] *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay),* Joint Dissent of Judges Simma and Al-Khasawneh, I.C.J. Reports 2010, para. 12.

[1120] *D'Aspremont and Mbengue (2014)*, pp.21-22.

[1121] *D'Aspremont and Mbengue (2014)*, p.41 citing Canada — Continued Suspension of Obligations in the EC – Hormones Dispute, para. 591 (WT/DS320/AB/R, WT/DS321/AB/R): ("Although the scientific basis need not represent the majority view within the scientific community, it must nevertheless have the necessary scientific and methodological rigor to be considered reputable science. In other words, while the correctness of the views need not have been accepted by the broader scientific community, the views must be considered to be legitimate science according to the standards of the relevant scientific community. A panel should also assess whether the reasoning articulated on the basis of the scientific evidence is objective and coherent.").

At the same time, it would be seen as judicial out-sourcing of its fact-finding role.[1122] Problematically, this approach fails to provide an answer if the parties' experts have opposing views, which is highly likely, and neither side's experts are manifestly more reliable. In such a case, the Judge will still have to engage with the material or else find a way to avoid the scientific issue in order to reach a determination of the matter.

D. Conclusions on the ICC's procedure concerning environmental harm

The international courts have forged a new paradigm of criminal procedure, fusing elements of civil and common law proceedings into a composite model designed to have sufficient flexibility to adapt to the challenges of addressing a broad range of serious crimes.[1123] With modern international criminal law still in its infancy, its procedures and regulations are still developing in many areas, and confer a relatively high level of discretion to the judges and parties to shape proceedings as best suited to redress the allegations before them. In theory, this flexibility should favour the adjudication of jurisprudentially novel areas such as environmental harm under international criminal law. However, the detailed examination set out above demonstrates that several features of the ICC's procedural framework complicate and potentially preclude the possibility of effective prosecutions of environmental harm before the Court.

Testing the feasibility of prosecuting environmental harm at the international criminal court in the absence of actual cases is a difficult exercise. Other modern international courts provide little comparative assistance, as they have not conducted any actual prosecutions for environmental harm, and the hybrid and idiosyncratic nature of the ICC procedures render it difficult to rely on comparisons with domestic courts addressing environmental harm. Nonetheless, the test of adjudicative coherence provides a means of examining, *a priori* and in the abstract, the feasibility of prosecuting environmental harm before the Court.

In relation to environmental harm, the jurisdictional and procedural framework of the ICC presents many challenges. Some, such as the lack of ready access to crime scenes, the inability of the Court to subpoena unwilling witnesses to appear before it in The Hague, and the difficulty of investigating those allied with the Government, are common to the prosecution of other crimes at the international level. Other challenges, such as obtaining evidence of long-term environmental harm, or at least awareness that such harm would

[1122] *D'Aspremont and Mbengue (2014)*, p.33.
[1123] Schabas (2011), p.252.

ensue,[1124] for the purposes of article 8(2)(b)(iv), and the likely need to gather samples of and test potentially dangerous non-human bio-organic material or chemicals, for the purposes of prosecuting toxic dumping, are particularly applicable to environmental harm.

Trials for harm to the environment present a unique set of procedural challenges for international criminal law. In several respects, the existing procedural approach taken at ICC trials will need to be adjusted if trials for environmental harm *per se* are attempted. Some of the adjustments can be made within the existing confines of the Rome System instruments, whereas others may require more holistic changes going to core elements of the Court's mandated procedure, as identified in the preceding analysis.[1125]

Looking first to ICC practices that are not conducive to efficient proceedings for environmental harm, there are several aspects in which new approaches may be required. Environmental harm is inherently suited to proof by scientific evidence, meaning that the traditional eye-witness testimony based approach favoured at the ICC to date[1126] will likely be inadequate to furnish the judges with the evidence to adjudicate the charges. To attempt to lead all such evidence through witness testimony would necessitate protracted proceedings. Efficiency mechanisms such as the introduction of witness evidence in written form under article 69(2) and rule 68 may assist to hasten proceedings, but still require cross-examination of the witness to occur in order to be considered sufficient to independently support a conviction. Similarly, the Court's lack of an international subpoena power will present an obstacle to obtaining full and frank evidence from witnesses, particularly insider witnesses, who are likely to be critical to the success of environmental cases.[1127]

Non-testimonial evidence, such as scientific tests and samples of organic and non-organic matter are likely to feature heavily in cases of environmental harm. Expert evidence is likely to also be a prevalent factor, as experienced views will be needed to analyse and explain the underlying physical evidence. To facilitate the efficient and fair introduction of large volumes of this type of evidence, a flexible approach will be needed to facilitate the volumes of expert

[1124] See infra Chapter II(D)(1)(b)(v).
[1125] See infra Chapter
[1126] In the relatively brief history of international criminal law, testimonial evidence, from witnesses on the stand or else from their written statements, has tended to feature more heavily than any other type of evidence. At the ICC, this approach has continued, with the majority of the evidence being submitted through witnesses on the stand before the judges; Khan et. al. (2010), p.480-481.
[1127] See infra Chapter III(C)(1)(a)(ii).

evidence required to establish the nature and causes of the damage.[1128] On this basis, prosecuting environmental harm will require a significant adjustment to the Court's approach of heavily prioritizing and encouraging witness testimony (primarily through the principle of orality),[1129] and the introduction of documents through testifying witnesses.

Electronic sources, such as computer records, mobile phone records, and companies' email accounts are already becoming a key means of establishing responsibility for international crimes.[1130] Prosecutions for environmental harm will see a continuation of this trend, as investigators seek to discover and show transactions and other electronic records of the nature and extent of the harm, as well as who ordered, incited, or otherwise aided and abetted the impugned activities. Electronic sources can form a powerful means of proving charges because they capture contemporaneous communications and, unlike witnesses' memories, they are less prone to degrade or alter in content with the passage of time. However, the authentication of electronic sources can be complex.[1131] As with other areas of environmental harm, expert and technical evidence is likely to be necessary to establish the authenticity, and thus the reliability, of electronic records used as evidence to prove the nature, cause and impact of the environmental harm.

In general, proceedings involving environmental harm will be suited to an inquisitive approach.[1132] To date, the judiciary's involvement in information gathering during the preliminary and investigative stages of proceedings has been minimal. In light of the large volumes of technical and scientific evidence and issues that will arise during investigations and trials, such judicial non-involvement will likely result in delays and potentially a lack of appreciation of the significance of scientific and technical issues when they arise during trial proceedings.[1133] Encouraging a more participatory role for the judiciary in the early stages of proceedings will enhance the prospects of focused, fair, and effective trials for environmental harm.

[1128] See infra Chapter III(C)(2)(d) and (e).
[1129] See Rome Statute, article 69(2).
[1130] See *Prosecutor v. Ayyash et al.*, STL-11-01, Redacted Version of the Prosecution's Updated Pre-Trial Brief, 23 August 2013 (dedicating a substantial part of the case to proving the use of a network of mobile phone communications to perpetrate the crime); *Prosecutor v. Bemba et. al.*, Public Redacted Version of Judgment pursuant to Article 74 of the Statute, 19 October 2016 ("*Bemba et. al.* article 70 Case"), pp.93-103 (addressing challenges to the Western Credit Union Records and Telephone Communications that formed a significant portion of the evidence).
[1131] *Bemba et. al.* article 70 Case.
[1132] See infra Chapter III(C)(2)(a) and (c).
[1133] See infra Chapter III(C)(1)(a)(iii).

Another feature of the Court's proceedings that straddles the line between substantive and procedural law is that of causation. The standard of causation that is ultimately required to prove environmental harm will have a profound impact on the likelihood of convictions being entered. At present, the issue of causation has not been authoritatively addressed at the ICC and remains relatively uncharted territory in relation to environmental harm.[1134] As such, the Court still has legal space to manoeuvre when crafting its causation standards as applicable to environmental harm, and can avoid the potential pitfall of overly rigid, one-dimensional standards frustrating the possibility of any proceedings for environmental harm.

Looking to more intractable impediments to the Court addressing environmental harm, several factors have been identified herein as problematic. Longitudinal studies will frequently be necessary to establish the duration and impact of environmental harm, in terms of harm from military attacks, chemical dumps, and on wildlife species. The delays inherent in obtaining reliable information as to the duration of the environmental damage will jeopardize the Court's ability to rapidly react to serious crimes through expeditious proceedings,[1135] and may clash with the obligation to ensure fair and expeditious proceedings.[1136] Resource constraints of the ICC will also limit the feasibility of extensive longitudinal studies. Longitudinal environmental harm studies carried out for the Iraq Claims Commission proved expensive; the Iraqi Claims Commission awarded over 243 million USD for the initial monitoring and assessment of the environmental harm alone.[1137] Such extensive monitoring and assessment would not be affordable at the ICC, which has an entire yearly budget for all of its operations of approximately 140 million euro.[1138]

Compounding this difficulty, the necessity of adhering to time-bound stages of proceedings requiring the Prosecution to commit itself to a certain description of the impugned environmental harm fails to address the dynamic, long-term and multi-factorial nature of

[1134] See discussion of causation for the crime of murder in the *Katanga* article 74 Decision, para.767
[1135] The Court has stated that it seeks to "clos[e] the time gap between events on the ground and the Office's investigations" and to ensure expeditious proceedings at all stages; International Criminal Court, Office of the Prosecutor, Strategic Plan 2016-2018, 6 July 2015, para.55.
[1136] Rome Statute, article 64(3)(a). See also Rome Statute, article 67(1)(c) (noting the Accused's right to trial without undue delay).
[1137] See UNCC Recommendations First Instalment (2001), para.779.
[1138] Assembly of States Parties, Report of the Committee on Budget and Finance on the work of its twenty-sixth session, ICC-ASP/15/5, 12 July 2016, para.4.

environmental harm. It may lead to the Prosecution presenting a view of the extent and impact of the environmental harm that is inaccurate and outdated by the time the trial starts.[1139]

A second intractable problem is the number of limitations of the cooperation regime, which grants States broad leeway to frustrate the Court's investigative activities in their territories, particularly when citing national security issues.[1140] While this is not a problem unique to the prospects of prosecuting environmental harm, it is particularly acute in relation to environmental harm, given the significance of access to the crime scene(s), and the need to conduct longitudinal studies to gauge the level of environmental damage and identify its causes to the extent possible.

A fundamental challenge will be posed by the usual need to determine factual allegations according to a binary standard of true or false (or unproved).[1141] With environmental harm, the evidence may not be suitable for such simplistic summarization, and there are likely to be many areas where experts have to use terms like the evidence "tends to show", or "most likely indicates that". How the judiciary will convert such language into legally defensible judicial findings, which can be held up against the exacting standards of international trials, particularly the beyond reasonable doubt standard, remains to be seen. Because the standard of beyond reasonable doubt is explicitly set down in the Rome Statute,[1142] the Parties orient their arguments towards that binary assessment. Expert evidence which is more naturally suited to a discussion in terms of probabilities and potential causes rather than definitive conclusions may fit awkwardly with the rigid binary standard under the Rome Statute. This will be compounded by the potential limitations of the judges' scientific training and knowledge, particularly in relation to complex matters of toxic compound chemical components or epidemiological studies of the multiple factors influencing population declines in wildlife for example.[1143]

The preceding survey shows that, in several areas, there are potential procedural blocks that could prevent efficient proceedings being conducted efficiently and effectively. Whereas some of the obstacles are created by the Court's conventional practice and could be surmounted with new interpretations of the governing instruments, others are unambiguously

[1139] See infra Chapter III(C)(1)(c).
[1140] See infra Chapter III(C)(1)(iv).
[1141] See infra Chapter III(C)(2)(b).
[1142] See Rome Statute, article 66(3).
[1143] In this vein, see, e.g., Daniel Peat, "The Use of Court-Appointed Experts by the International Court of Justice" (2013) 84 *British Yearbook of International Law* 271.

set out in the Rome Statute and Rules of Procedure and Evidence and cannot be easily circumvented. These matters are not all exclusively relevant to environmental harm, and certain of these, such as the key role of state cooperation have featured in prior anthropocentric trials before the Court and have been, in some cases, effectively addressed. Nonetheless, these issues will import particularly destabilising consequences for environmental harm because of its dynamic, multifactorial nature, the need to access crime scenes, and the need to deal with insider witnesses.[1144]

The effect of these obstacles, taken jointly and severally, is likely to result in adjudicative incoherence hindering and potentially undermining proceedings for environmental harm. To avoid this potential adjudicative incoherence would require major procedural adjustments at the ICC, or else funnelling of environmental harm cases to a different institution altogether.[1145]

[1144] See infra Chapter III(C)(1)(a)(ii).
[1145] See Chapter V (Overall Conclusions below).

IV. ENVIRONMENTAL HARM AND VICTIM PARTICIPATION AND REPARATIONS BEFORE THE INTERNATIONAL CRIMINAL COURT

A. Introduction

The prominent role given to victims before the ICC is a significant feature of the court's design, and marks a major development in international criminal law.[1146] Victim participation has become a well-established factor in the work of the ICC. Whereas the *ad hoc* tribunals for the former Yugoslavia and Rwanda did not allow for victims' participation *per se*, the ICC Statute includes explicit provision for this to occur.[1147] Subsequent to the inclusion of provisions for victims' participation in the Rome Statute of the ICC in 1998, other international (or internationalized courts) allowed for this possibility. Since 2004,[1148] the Extraordinary Chambers in the Courts of Cambodia has allowed victims to participate as witnesses, complainants, or as *parties civiles* and to have access to the evidence of the case.[1149] Under the 2007 Statute of the Special Tribunal for Lebanon, victims are able to participate in proceedings in much the same manner as the ICC, and have indeed been participating in proceedings.[1150]

Whereas there were criticisms of the absence of provision for victims' participation qua victims at the *ad hoc* tribunals,[1151] the presence of victims' participation at the ICC has also

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[1146] Schabas (2011), p.346. See also War Crimes Research Office, *Obtaining Victim Status for Purposes of Participating in Proceedings at the International Criminal Court*, International Criminal Court Legal Analysis and Education Project, December 2013 (**"**WCRO 2013"), p.1.

[1147] Claude Jorda and Jerome de Hemptinne, 'The Status and Role of the Victim' in Antonio Cassese, Paola Gaeta and John R W D Jones (eds), *The Rome Statute of the International Criminal Court: A Commentary* (OUP: 2002) ("Jorda and Hemptinne (2002)"), 1387–88.

[1148] Law on the Establishment of the Extraordinary Chambers, with inclusion of amendments as promulgated on 27 October 2004 (NS/RKM/1004/006).

[1149] Because of the unwieldy number of representatives of victims, the ECCC has now directed that victims' submissions be channelled through a common representative, or lead lawyer, of the various victims involved in the proceedings. See Fédération Internationale des Droits de l'Homme, *Victims' Rights Before the International Criminal Court: A Guide for Victims, their Legal Representatives and NGOs*, Chapter IV: Participation (April 2007) <http://www.fidh.org/IMG/pdf/7-CH-IV_Participation.pdf>, at 18.

[1150] *Statute of the Special Tribunal for Lebanon*, annexed to *Resolution 1757*, UN SCOR, 62nd sess, 5685th mtg, 4, UN Doc S/Res/1757 (30 May 2007), article 17, which is essentially a verbatim reproduction of art 68(3) of the *Rome Statute*.

[1151] War Crimes Research Office, Am. Univ. Washington Coll. Of Law, *Victim Participation Before The International Criminal Court* (2007), pp.11-12; Jorda and Hemptinne (2002), 1387, 1387–1388.

been criticized.[1152] A review of all the literature concerning the merits of victims' participation is beyond the scope of this assessment. Nonetheless, a few relevant points clearly emerge from the general practice of victims' participation. Foremost among concerns is the high quantity of victims seeking to participate and the potential to compromise the efficient conduct of proceedings. Victim applicants often number in the hundreds or even thousands in a single case; 5,229 were authorised to participate in the Bemba case.[1153] The sheer weight of numbers jeopardises the feasibility of allowing victims to participate. Other practical concerns are the significant use of time and resources, and fears of imbalanced proceedings, with an accused facing not only the Prosecution but also the victims, also frequently arise.[1154] The following analysis takes cognizance of these concerns, particularly when assessing the adjudicative coherence of applying the provisions on victims' participation to the environment.

Nonetheless, with States Parties having recognized victims' rights as "the cornerstone of the Statute",[1155] it is clear that victims will have their voices heard during proceedings before the Court. The Prosecution's 2016 guidelines on case selection, expanding on the 2013 guidelines on preliminary examination,[1156] signal an increased focus on "the increased vulnerability of victims, the terror subsequently instilled, or the social, economic and *environmental damage inflicted on the affected communities*", and the intent to focus on crimes perpetrated through "the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land".[1157] While this indicates a shift towards redressing environmental harm, it is unclear how the rules and practices governing victims would apply in the case of damage to the environment. Accordingly, the following analysis explores this issue, focusing primarily on the applicability of the regime for victims' participation and reparations to cases of environmental harm.

First, the rules defining victims' participation in Court proceedings and the rules on victims' reparations are set out. Then, this framework is assessed in relation to environmental harm. To

[1152] Christine Van den Wyngaert, "Victims before International Criminal Courts: Some Views and Concerns of an ICC Trial Judge", 44 *Case W. Res. J. Int'l L. 475* (2011) ("Wyngaert (2011)").
[1153] *Bemba* article 74 Decision, paragraph 18.
[1154] *Prosecutor v Thomas Lubanga Dyilo*, Judgment on Appeals of the Prosecutor and the Defence against Trial Chamber I's Decision on Victims' Participation of 18 January 2008) (Appeals Chamber, Case No ICC-01/04-01/06-1432, 11 July 2008) ("*Lubanga* Appeals Chamber decision"), Judge Pikis Dissent, para.14 ("a defendant cannot have more than one accuser"). See generally, Wyngaert (2011).
[1155] Vasiliev in Stahn (2015), p.1134 citing *inter alia* Victims and Affected Communities, Reparations and Trust Fund for Victims, Preamble, Resolution ICC-ASP/12/Res.5, 27 November 2013 (Twelfth Session of the ASP).
[1156] OTP 2013 Preliminary Examination Policy Paper.
[1157] OTP 2016 Case Selection Paper, para.41

instantiate this analysis, the three types of environmental harm that have been discussed in previous chapters are specifically addressed: military attacks resulting in excessive environmental harm; unlawful transboundary movement and storage of hazardous substances (toxic dumping); and wildlife exploitation. Finally, the possibility of an advocate for the environment, analogous to current victim's representation is explored.

B. Victim participation

1. Rules and principles governing victims' participation

The following analysis examines whether the rules on victim participation at the ICC would allow for the environment to qualify as a victim in its own right. It then assesses whether individual human beings, or organizations, that suffer harm as a result of practices harming the environment could qualify as victims.

(a) The Preamble

Before addressing the provisions of the Rome Statute, it is important to examine the terms of the preamble to determine the tenor of the Statute's contents, and to assist the interpretation of specific provisions.[1158] The preamble of the Rome Statute recalls that "millions of children, women and men have been victims of unimaginable atrocities" during the twentieth century.[1159] In this manner, it signals that addressing victimisation is a central motivation behind the Court's establishment. That core motivation, as set out in the preamble, is reflected in the provisions of the Statute, which explicitly allow for victim participation and reparations as a feature of the Court's proceedings.

In line with the predominantly anthropocentric framing of the Rome Statute, the Preamble primarily refers to victims in anthropocentric terms—"children, women and men".[1160] However, concerning harm to the environment, the preambular references to victims are

[1158] 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 context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes"). The Appeals Chamber has stated that the Rome Statute may be interpreted in lights 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* article 74 Decision, paras.55, 1122. See also Max Hulme, "Preambles in Treaty Interpretation", *University of Pennsylvania Law Review*, 164 (2016), 1281-1343, p.1282.
[1159] Rome Statute, Preamble, para.2.
[1160] Rome Statute, Preamble, para.2.

unclear and raise more questions than they answer. While it has been shown that humans can inflict devastating harm to the natural environment, including during the commission of war crimes, crimes against humanity and genocide, the Preamble makes no direct reference to the environment or environmental harm. Nonetheless, the Preamble's notation of "present and future generations",[1161] provides an indirect basis for the Court to address serious environmental victimization.[1162] Nonetheless, basing the Court's interest in assisting the victims of environmental harm on the interests of human generations serves to reinforce the anthropocentric orientation of the Rome Statute.

(b) The definition of victims: key provisions

The foundational provision for victims' participation in proceedings before the ICC is article 68(3) of the Rome Statute. This provision suggests a conceptual predisposition towards victims being natural human beings. For example, it refers to "the personal interests" and "views and concerns" of victims:

> "Where the personal interests of victims are affected, the Court shall permit their views and concerns to be presented and considered at stages of the proceedings determined to be appropriate by the Court and in a manner which is not prejudicial to or inconsistent with the rights of the accused and a fair and impartial trial."

Consistent with the implicit suggestion of human victims in article 68(3), Rule 85(a) provides that victims are 'natural persons who have suffered harm as a result of the commission of any crime within the jurisdiction of the Court'. The harm can be either a direct or indirect result of the crime but must be suffered "personally" by the victim.[1163]

Along with natural humans, organizations may also potentially qualify as victims under the Rome Statute system. Rule 85(b) expands the parameters of potential victims, adding that victims may also include organizations or institutions that have sustained direct harm to their property, and which are dedicated to, *inter alia*, religious, educational, cultural, charitable, or historic purposes. Applying rule 85(b), the Court has required that the organization provide clear information as to (i) the quality of the organisation; (ii) the capacity of the individual

[1161] Rome Statute, Preamble.
[1162] See ICJ Nuclear Weapons Advisory Opinion (1996), p. 226.
[1163] *Lubanga* Appeals Chamber decision, paras.32-35.

acting on its behalf; and (iii) his/her identity are clearly established.[1164] The Court looks to the mandate of the organization in question to determine whether it had suffered direct harm as a result of the crimes for which the accused is charged.[1165] This is not an insurmountable standard. For example, in France, the Court de Cassation has upheld findings that environmental associations have suffered *direct and personal* harm due to environmental harm.[1166]

Whereas the legal tests differentiate between natural persons, who may qualify as victims so long as they suffer *personal* harm (whether direct or indirect) from the charged crimes, and organizations, which must show that they have suffered *direct* harm from the charged crimes in order to qualify for victim status, both humans and organizations are nonetheless explicitly included as potential victims of ICC crimes. Conversely, entities other than human beings or organizations are not explicitly encompassed within the Court's victim parameters.

(c) Rules on modalities of victims' participation

While qualifying under the definition of victim is the threshold test for participation in ICC proceedings, the manner in which this participation is conducted is subject to several rules and principles. The manner in which such participation could be exercised will largely influence its impact and the extent to which the interests of the environment will be upheld during proceedings. In terms of the modalities of victims' participation, article 68(3) imports two significant requirements: first, victims are allowed to present their views in a manner that is not prejudicial to the rights of the accused, and a fair and impartial trial, and second, the participation of victims, where permitted by the Court, must be carried out in accordance with the ICC Rules. Rule 86 adds little in this respect, simply directing the Chambers and other organs of the Court to consider the interests of victims and witnesses in carrying out their functions.[1167]

In terms of when victims may present their views and the manner in which they may do so, article 68(3) is vague. It states that if the personal interests of victims are affected, the Court shall allow them to express their views at a stage of the proceedings that it considers

[1164] See, e.g., *In the Case of the Prosecutor V. Ahmad Al Faqi Al Mahdi*, Case No. ICC-01/12-01/15, Public redacted version of 'Second Decision on Victim Participation at Trial', 12 August 2016, para.9.
[1165] See, e.g., *In the Case of the Prosecutor V. Ahmad Al Faqi Al Mahdi*, Case No. ICC-01/12-01/15, Public redacted version of 'Second Decision on Victim Participation at Trial', 12 August 2016, para.10.
[1166] Papadopoulou (2009), p.101 citing Cass. Crim., 12 September 2006.
[1167] See Gillett (2010), p.30-31.

appropriate.[1168] The Appeals Chamber held that under article 68(3), read in light of rules 85 and 89(1), a victim must show a link between the harm suffered and the crimes charged for his or her views and concerns to be presented.[1169]

Nor do the ICC Rules exhaustively determine the modalities of victim participation. The rules are representative, rather than exhaustive, of victims' participatory rights. Rules 89 and 91 set out the manner in which victims can participate in proceedings. Rule 89 provides that victims wanting to participate in proceedings are directed to apply to the Registry, which then passes on the applications to the relevant chamber. This rule explicitly mentions the possibility of victims making opening and closing statements.[1170] Concerning the procedure for obtaining victim status, rule 89 provides that "In order to present their views and concerns, victims shall make [a] written application to the Registrar, who shall transmit the application to the relevant Chamber". Regulation 86 requires that persons applying for victim status include the following information to the extent possible: the identity of the victim, the harm allegedly suffered at the hands of the accused, the location and date of the crime, evidence showing that the victim's personal interest is affected, and designation of the stage of proceedings in which the victim wants to participate.

The Appeals Chamber has clarified that victims' may only participate where judicial proceedings are concerned. Accordingly, victims could not invoke article 68(3), for example, to request the Prosecutor to investigate a certain issue or incident in the absence of some judicial proceeding already contemplated under the Rome Statute framework.[1171]

In its seminal decision in the *Lubanga* case, the Appeals Chamber held that, so long as a fair and impartial trial was ensured, victims could tender evidence going to the guilt or innocence of the Accused.[1172] To date, this has primarily consisted of questioning witnesses called by the Parties (the Prosecution and Defence). However, it would also potentially include having a witness called or a document introduced to the record.[1173] At the same time, the Appeals Chamber emphasized that leading evidence going to the proof of the charges is primarily a

[1168] Rome Statute, article 68(3).
[1169] *Lubanga* Appeals Chamber decision, para. 62-65.
[1170] Rule 89.
[1171] Situation in the Democratic Republic of the Congo, ICC-01/04-556, Judgment on Victim Participation in the Investigation Stage of the Proceedings in the Appeal of the OPCD against the Decision of Pre-Trial Chamber I of 7 December 2007 and in the Appeals of the OPCD and the Prosecutor against the Decision of Pre-Trial Chamber I of 24 December 2007, para.56 (19 December 2008), http://www.icc-cpi.int/iccdocs/doc/doc612293.pdf; Wyngaert (2011), p.484.
[1172] *Lubanga* Appeals Chamber decision, para. 96.
[1173] *Lubanga* Appeals Chamber decision, para. 99.

role played by the parties and that victims are not parties as such in proceedings before the ICC (victims are referred to as participants).[1174]

However, the right to intervene in proceedings *qua* victims, including by leading evidence going to the guilt or innocence of the accused, has limitations. The Court has held that victims, when applying for participation in legal proceedings against an accused, have to show that the interests that they assert were not those of a nature belonging to the role assigned to the Prosecutor.[1175] Similar restrictions are increasingly placed on victim participation in domestic proceedings.[1176] These limitations reflect the judicial concern at victims being given such latitude to intervene and potentially duplicate the activities of the Prosecution. Accordingly, the victims' interventions would generally be most appropriately directed towards the manner in which they were personally affected by the environmental harm.

C. Victim reparations

The following section sets out the core provisions on reparations for victims and the relevant interpretations of those provisions set out in the Court's jurisprudence to date. In assessing the applicability of the provisions and the jurisprudence on reparations to instances of environmental harm, the analysis looks to the reparations phase in the *Al-Mahdi* case, which exclusively concerned the destruction of cultural heritage, to provide guidance as to the likely approach of the ICC judiciary when seeking to determine the appropriate quantum, form, and heads of reparations for environmental harm.

1. The law on victim reparations at the ICC

The Rome Statute provides in article 75 that the Court may order reparations for victims. In accordance with the definition of victims under Rule 85, reparations may be granted to "direct and indirect individual victims, provided that the harm they suffered is personal" and to "legal

[1174] *Lubanga* Appeals Chamber decision, para. 93.
[1175] *Prosecutor v. Thomas Lubanga Dyilo,* Decision of the Appeals Chamber on the Joint Application of Victims a/0001/06 to a/0003/06 and a/0105/06 concerning the 'Directions and Decision of the Appeals Chamber' of 2 February 2007, Appeals Chamber, Case No ICC-01/04-01/06-925, 13 June 2007, paras.28–29.
[1176] The War Crimes Research Office notes that "in *Berger v. France*, the European Court of Human Rights upheld France's law limiting the instances in which a civil party may appeal the dismissal of a criminal action where the Prosecutor chooses not to lodge such an appeal. Notably, the court in Berger based its decision in part on the "complementary interests" of civil parties and the prosecution in criminal cases." (report on participation during case), WCRO (2009), p.53.

entities that are direct victims of the crime committed".[1177] The ICC's reparations regime serves two purposes: it obliges those responsible for serious crimes to repair the harm they caused to the victims and it enables the Court to ensure that offenders are held to account for their acts.[1178] The reparations scheme may be accessed by individuals, thus providing potential additional and complementary forum to seek redress to these other mechanisms. Transposing this compensatory obligation onto individuals, as is done under the ICC reparations scheme, is a relatively under-developed area of international law, although it is changing rapidly.

The provision for reparations to victims set out in the Rome Statute marks the first time that an international criminal body has been authorized to award reparations, including restitution, compensation, and rehabilitation, against individual perpetrators of mass atrocities for the benefit of their victims.[1179] The ICC regime for victim participation has been described as part of a shift towards restorative justice in order to compensate victims for their injuries.[1180] In this respect, the WCRO notes in its report on victims' participation at the case stage of proceedings that "the drafters of the ICC's victim participation scheme were heavily influenced by the 1985 United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power" ("1985 Victims' Declaration of Basic Principles"),[1181] pursuant to which "[i]n cases where *a person*, a legal person, or other entity is found liable for reparations to a victim, such party should provide reparations to the victim."[1182]

In terms of reparations, the provisions of the Rome Statute constitute a development from the previous international courts, as they internalize the entire process of ordering reparations. The earlier statutes of the ICTY and ICTR allowed the judgements of those tribunals to be

[1177] *Prosecutor v. Al-Mahdi*, ICC-01/12-01/15, Reparations Order, 17 August 2017 ("*Al-Mahdi* Reparations Order"), paras.40-41.
[1178] *Al-Mahdi* Reparations Order, para.27.
[1179] The Case-Based Reparations Scheme at the International Criminal Court, War Crimes Research Office, International Criminal Court Legal Analysis and Education Project, June 2010 ("WCRO, Reparations)", p.1 (noting that the *ad hoc* International Criminal Tribunals for the former Yugoslavia and Rwanda possess an authority to order restitution of property unlawfully taken by a perpetrator, the efforts to adopt a the power to award financial compensation to victims have been rejected by the judges of the Tribunals, and no formal consideration was given to empowering the Tribunals to award other forms of reparations, such as rehabilitation).
[1180] WCRO, victims' participation at the case stage of proceedings, (2013), p.6.
[1181] WCRO, victims' participation at the case stage of proceedings, (2013), p.7.
[1182] See *Prosecutor v. Thomas Lubanga Dyilo*, Judgment on the appeals against the "Decision establishing the principles and procedures to be applied to reparations" of 7 August 2012, ICC-01/04-01/06-3129, 3 March 2015 ("*Lubanga* Appeals Decision on Reparations"), para.100 ("The Appeals Chamber notes that the imposition of liability for reparations on the convicted person is also consistent with the UN Basic Principles on Reparations for Victims, pursuant to which "[i]n cases where *a person*, a legal person, or other entity is found liable for reparations to a victim, such party should provide reparations to the victim […]" (emphasis added)").

used to support domestic claims for compensation.[1183] Moreover, the rules allowed the judges of the *ad hoc* tribunals to order restitution of property acquired by criminal conduct,[1184] but have not used this power to order restitution to victims.[1185] Similarly, the Statute of the Special Tribunal for Lebanon allows its judgements of individual criminal responsibility to be used in domestic proceedings for claims of compensation.[1186] Other international or hybrid courts have also provided for reparations to be granted to individual victims. The ECCC allows for "collective" and "moral" reparations to be ordered for victims.[1187]

In accordance with article 21 of the Rome Statute, potential guidance for the interpretation of the terms of the ICC framework documents concerning victims' reparations can be gleaned from several instruments of international law which require States to redress violations of human rights and empower their implementing institutions to award reparations to individual victims.[1188] For example, the European Convention on Human Rights,[1189] the American Convention on Human Rights,[1190] and the Optional Protocol to the African Charter on Human Rights[1191] allow the corresponding human rights institutions to award reparations. Reparations have been ordered for victims of killings, torture, enforced disappearances, and the destruction and appropriation of property.[1192] However, human rights instruments are anthropocentric in foundation and design, and can be described as bearing "a basic ecological blindness."[1193]

The Trust Fund for Victims has claimed that "[r]eparations are essential to any transitional justice process because reparations focus most directly and explicitly on the victims' situation by providing redress for rights that have been violated, for harms suffered, and for indignities endured."[1194] Accordingly, Article 75(1) of the Rome Statute provides that the Court "shall

[1183] Rule 106 of the ICTY and ICTR Rules.
[1184] ICTY Statute, article 24(3); ICTR Statute article 23(3).
[1185] Conor McCarthy, *Reparations and Victim Support in the International Criminal Court*, Cambridge University Press, 2012, p.35; S. Malmström, 'Restitution of Property and Compensation to Victims', in R. May (eds), *Essays on ICTY Procedure and Evidence* (Kluwer Law International, 2001) pp. 373–384.
[1186] STL Statute: Article 25 Compensation to victims.
[1187] ECCC Internal Rules 23 and 100. Individual reparations awards are not allowed. See McCarthy (2012), p.46.
[1188] McCarthy (2012), pp.13-14.
[1189] ECHR, article 41.
[1190] ACHR, article 63.
[1191] Protocol to ACHR, article 27.
[1192] McCarthy (2012), p.16 citing *Khatsiyeva and Others v Russia*, Merits, 17 January 2008, Application no.5108/02, para139; *Akdivar and Others v Turkey*, Just Satisfaction, Grand Chamber 1 April 1998, Application no. 2189/93; *Varnava and Others v Turkey*, Merits, Grand Chamber, 18 September 2009, Application 16064/90, para.185.
[1193] Tarcisio Hardman Reis, *Compensation for Environmental Damages Under International Law: The Role of the International Judge*, (Kluwer Law International, 2011), p.40.
[1194] Trust Fund for Victims, Submission in *Lubanga* proceedings , para.6.

establish principles relating to reparations to, or in respect of, victims, including restitution, compensation and rehabilitation." Beyond this vague formulation, it was left to the Court to establish the details through its jurisprudence.[1195]

The Appeals Chamber in *Lubanga* set out the purpose behind reparations orders, stating "reparations, and more specifically orders for reparations, must reflect the context from which they arise, which, at the Court, is a legal system of establishing *individual* criminal liability for crimes under the Statute. In the view of the Appeals Chamber, this context strongly suggests that reparations orders are intrinsically linked to the *individual* whose criminal liability is established in a conviction and whose culpability for those criminal acts is determined in a sentence."[1196]

In *Lubanga*, the Trial Chamber clarified that restitution "should, as far as possible, restore the victim to his or her circumstances before the crime was committed, but this will often be unachievable for victims of the crimes of enlisting and conscripting children under the age of 15 and using them to participate actively in the hostilities."[1197] The Appeals Chamber of the ICC has held that an order for reparations should usually adhere to the following requirements:

> "1) it must be directed against the convicted person; 2) it must establish and inform the convicted person of his or her liability with respect to the reparations awarded in the order; 3) it must specify, and provide reasons for, the type of reparations ordered, either collective, individual or both, pursuant to rules 97 (1) and 98 of the Rules of Procedure and Evidence; 4) it must define the harm caused to direct and indirect victims as a result of the crimes for which the person was convicted, as well as identify the modalities of reparations that the Trial Chamber considers appropriate based on the circumstances of the specific case before it; and 5) it must identify the victims eligible to benefit from the awards for reparations or set out the criteria of eligibility based on the link between the harm suffered by the victims and the crimes for which the person was convicted."[1198]

With respect to the third of the listed requirements, the order for "reparations must specify the type of reparations, either individual, collective or both."[1199] However, the fact that a victim

[1195] Wyngaert (2011), p.486-487.
[1196] *Lubanga* Appeals Decision on Reparations, para.65.
[1197] *Lubanga* Appeals Decision on Reparations, para.223.
[1198] *Lubanga* Appeals Decision on Reparations, para.32; *Al-Mahdi* Reparations Order, paa.38.
[1199] *Lubanga* Appeals Decision on Reparations, para.130.

has not actively participated in proceedings is immaterial as long as they have received victim status in the proceedings.[1200] The Appeals Chamber has held that "a convicted person's liability for reparations must be proportionate to the harm caused and, *inter alia*, his or her participation in the commission of the crimes for which he or she was found guilty, in the specific circumstances of the case."[1201]

Procedurally, the burden falls on the applicant to provide "sufficient proof of the causal link between the crime and the harm suffered, based on the specific circumstances of the case."[1202] Among the myriad standards of causation that have been applied in international and domestic law, most require that the harm be the "proximate cause" of the loss.[1203] For reparations, the Court has appeared to require a confusing mix of a but/for test with a proximate cause test.[1204] Whilst the exact test is unclear, it is relatively well-established that the requisite level of causation does not need to be the exclusive cause, mere coincidence in time will not be sufficient.[1205] Given that environmental degradation of other harm may be multi-factorial or opaque in its causes, it will likely be difficult to establish causation.[1206]

The specific mechanics of how the quantum, form, and heads of reparations are calculated is a relatively undeveloped and opaque area at the vanishing point of law and accessible practice. But guidance can be taken from the *Al-Mahdi* case at the ICC. The Judges in the *Al-Mahdi* case contracted experts to provide written reports addressing the nature and impact of the destruction that *Al-Mahdi* was convicted for. The Judges requested the experts to comment on "(i) the importance of international cultural heritage generally and the harm to the international community caused by its destruction; (ii) the scope of the damage caused, including monetary value, to the ten mausoleums and mosques at issue in the case; and (iii) the scope of the economic and moral harm suffered, including monetary value, to persons or organizations as a result of the crimes committed."[1207]

[1200] *Lubanga*, Judgment on the appeals of The Prosecutor and The Defence against Trial Chamber I's Decision on Victims' Participation of 18 January 2008, Partly Dissenting Opinion of Judge G.M. Pikis, para.18.
[1201] *Lubanga* Appeals Decision on Reparations, para.118.
[1202] *Lubanga* Appeals Decision on Reparations, para.81.
[1203] WRCO, reparations, pp.5, 39.
[1204] See *Al-Mahdi* Reparations Order, para.44 citing Lubanga Appeals Decision on Reparations, paras.11 and 59.
[1205] In the case of *Affaire Tătar c. Roumanie*, *(Requête No* 67021/01*), 27 Janvier 2009 Judgment,* The ECHR held that the applicants had not provided a sufficient basis to show that the levels of sodium cyanide produced by a nearby factory led to increased aggravation of asthma, and so did not order damages. (paras.105-106).
[1206] See infra Chapter III(C)(2)(d)(ii).
[1207] *Prosecutor v. Al-Mahdi*, ICC-01/12-01/15, Public Redacted Version of "Decision Appointing Reparations Experts and Partly Amending Reparations Calendar", 19 January 2017, para.1.

By analogy, reparations proceedings for convictions focusing on environmental harm would see the judges taking into account the importance of the environment and the harm to the international community arising from its destruction, as well as the scope of the damage in the specific case and the scope of the harm to the victimized persons and organizations, including the monetary value of these forms of harm. In order to arrive at a quantum, the Court relied on the approach suggested by one of the experts of taking a broadly analogous award from the Ethiopian-Eritrean arbitration commission concerning cultural destruction and adjusting the level of compensation to match the circumstances in *Al-Mahdi*.[1208]

Whilst the ICC framework allows for a broad range of victims' reparations to be awarded, which goes beyond the other international courts, its regime is still subject to major restrictions. Proving the criminal nature of the acts in question is a pre-requisite for a compensation order,[1209] which in turn necessitates proving elements of the crime or crimes in question—a difficult task in relation to environmental harm, as set out above.[1210] Proving the mental element, typically that the act carried out with intent and knowledge,[1211] is typically an exacting task,[1212] and the framing of the one substantive provision in the Rome Statute referring to environmental harm (article 8(2)(b)(iv)) includes a demanding combination of three mental sub-elements, as discussed previously.[1213]

2. Individual vs collective reparations

At the ICC, pursuant to rule 97(1), "the Court may award reparations on an individualized basis or, where it deems it appropriate, on a collective basis or both". With regards the type of reparations, Article 75 of the Rome Statute lists restitution, compensation and rehabilitation as forms of reparations. This list is not exclusive and it has been held that other types of

[1208] *Al-Mahdi* Reparations Order, paras.131-132.
[1209] See Rome Statute, article 75; *Lubanga* Appeals Decision on Reparations, para.65. Additionally, the Trust Fund for Victims may use "other resources" to "benefit victims of crimes"; Regulations 48, 50(a)(i), Regulations of the Trust Fund for Victims; McCarthy (2012), p.35. That will still require showing that the harmful acts were crimes, which requires a demonstration of criminal intent, irrespective of whether the specific accused is responsible for the crime.
[1210] See infra Chapter II.
[1211] Rome Statute, article 30.
[1212] By contrast, general international law does not have a baseline mental element required to be shown for any finding of a wrongful act: Max Sorensen (ed.), *Manual of Public International Law* (London, 1968), p.535 ("The decisive consideration is that unless the rule of international law which has been violated specifically envisages malice or culpable negligence, the rules of international law do not contain a general floating requirement of malice or culpable negligence as a condition of responsibility").
[1213] See infra Chapter II on the *mens rea* required for article 8(2)(b)(iv).

reparations may include, for example, those with a "symbolic, preventative or transformative value".[1214]

In relation to environmental harm, the likely orientation of any reparations awards would be both towards restoring the environment to its state prior to the harmful act, and, to the extent there were human victims, individual compensation to natural persons. This is consonant with the approach taken in the 1985 Victims' Declaration, which recognizes restitution of the environment to its pre-damaged state in the event of criminal conduct resulting in serious environmental harm.[1215] However, whereas collective reparations can be readily directed to efforts to restore the environment to its state prior to the crime in question, it is unlikely that individual reparations would or could be used to conduct such rehabilitation of the environment. This augurs in favour of collective reparations awards when redressing environmental harm.

3. Implementation: The Trust Fund for Victims

The body that will be responsible for implementing any court decisions on reparations is the Trust Fund for Victims ("TFV").[1216] According to the Appeals Chamber in *Lubanga*, "the Trust Fund has a dual mandate: 1) to provide assistance to victims within the Court's jurisdiction and 2) to implement Court-ordered reparations".[1217]

The framework governing the Trust Fund for Victim's operations has two tracks.[1218] First, there is the regime for implementing and supporting court-ordered reparations, as discussed above.[1219] Second, there is the broader framework whereby the Trust Fund may use "other resources…to benefit victims of crimes as defined in rule 85 of the Rules of Procedure and Evidence, and, where natural persons are concerned, their families, who have suffered physical, psychological and/or material harm as a result of these crimes."[1220]

[1214] *Prosecutor v. Thomas Lubanga Dyilo*, ICC-01/04-01/06-2904, Decision establishing the principles and procedures to be applied to reparations, 7 August 2012.
[1215] *United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power*, GA Res 4034, UN GAOR, 40th sess, 96th plen mtg, Annex, UN Doc A/Res/40/34, (29 November 1985).
[1216] Rome Statute, article 79.
[1217] *Lubanga* Appeals Decision on Reparations, para.105.
[1218] Report to the Assembly of States Parties on the projects and the activities of the Board of Directors of the Trust Fund for Victims for the period 1 July 2015 to 30 June 2016, 16 August 2016, para.2.
[1219] See Regulation 50(b) of the Regulations of the Trust Fund for Victims.
[1220] See Regulations 48, 50(a)(i) of the Regulations of the Trust Fund for Victims. See also Rule 98(5) "Other resources of the Trust Fund may be used for the benefit of victims subject to the provisions of article 79".

For the first track of Court-ordered reparations, the Court may order that the awards be deposited with the Trust Fund for Victims under rule 98, if it is impossible to make individual awards directly to each victim. It may also order that an award for reparations against a convicted person be made on a collective basis through the Trust Fund for Victims where the "number of the victims and the scope, forms and modalities of reparations makes a collective award more appropriate" as provided for under rule 98(3). In all instances, the award must be made against the accused person.[1221] Additionally, the Trust Fund for Victims may itself determine whether to allocate "other resources" to complement those ordered by the trial chamber.[1222]

The parameters controlling the measures that may be undertaken under the second track are not yet comprehensively elucidated, but the Regulations clarify that the Trust Fund must first notify the Court of any such measures and give the Court the opportunity to inform the Trust Fund that the measures "would pre-determine any issue to be determined by the Court, including the determination of jurisdiction pursuant to article 19, admissibility pursuant to articles 17 and 18, or violate the presumption of innocence pursuant to article 66, or be prejudicial to or inconsistent with the rights of the accused and a fair and impartial trial."[1223]

This second track of victim support can be ordered irrespective of whether an individual has been convicted for any crime.[1224] For environmental harm, the ability to provide support even in the absence of a conviction is significant. Environmental harm may form part of the backdrop against which other crimes are committed, and may form part of the initial charges against an accused, but still not be reflected in convictions entered at the end of a trial.[1225] At the same time, the Prosecution's 2016 guidelines on case selection signal an increased focus on environmental harm as a factor supporting ICC pursuit of a case.[1226]

The types of measures that have been ordered for victim support include (a) physical rehabilitation; (b) psychological rehabilitation; (c) material support; and (d) implementing

[1221] *Lubanga* Appeals Decision on Reparations, para.76.
[1222] *Lubanga* Appeals Decision on Reparations, paras.109-111.
[1223] See Regulation 50(a)(ii) of the Regulations of the Trust Fund for Victims.
[1224] Regulation 50(a)(i) of the Regulations of the Trust Fund for Victims
[1225] To date, no convictions have been entered under international criminal law for environmental harm, indicating the difficulty of securing convictions for this form of conduct: Weinstein (2005), p.698; UNEP Study (2009), p.24.
[1226] OTP 2016 Case Selection Paper.

special initiatives for victims of sexual violence and their children.[1227] Of relevance to environmental harm, the Trust Fund indicates that the material support it provides to victims includes "environmentally friendly livelihood activities",[1228] but otherwise does not indicate any particular focus on environmental issues.

In relation to individual natural persons who may be victims of environmental harm, the potential for victim support from the Trust Fund is established and sufficiently broad to cover this type of crime and provide a measure of relief designed to avoid further harm to the environment. At the same time, the Trust Fund's activities indicate a strong anthropocentric underpinning. Measures such as physical and psychological rehabilitation and vocational training strongly point to a view of victims as natural human beings, in line with the primary formulations of the Rules, as set out above. Treating the environment as a victim *per se* would therefore fit awkwardly with this practice and would fit awkwardly with the terms of the Regulations of the Trust Fund, particularly its focus on "physical or psychological rehabilitation or material support for the benefit of victims and their families".[1229] Furthermore, although this framework for victim support has the potential space to redress environmental harm, the language of its instruments, such as psychological rehabilitation, indicates that environmental harm is not the primary type of harm that was intended to be covered.

D. Applying the ICC's regulatory scheme for victim participation and reparations to environmental harm

The applicability of the victim participation and reparations system to victims of crimes concerning harm to the environment raises several questions. These are, first, whether the environment can qualify as a victim, or whether the victims' regime would only be relevant insofar as human beings and human organizations were impacted by environmental harm. Second, the need to show causation between the environmental harm and the injury to individuals. Third, the means and mechanisms available to quantify environmental harm for the purpose of reparations through compensation. Applying the Court's rules and provisions to the paradigmatic forms of environmental harm of military attacks causing excessive harm,

[1227] Report to the Assembly of States Parties on the projects and the activities of the Board of Directors of the Trust Fund for Victims for the period 1 July 2015 to 30 June 2016, 16 August 2016, para.36.
[1228] Report to the Assembly of States Parties on the projects and the activities of the Board of Directors of the Trust Fund for Victims for the period 1 July 2015 to 30 June 2016, 16 August 2016, para.36(c).
[1229] Regulation 50(a)(i) of the Regulations of the Trust Fund for Victims.

toxic dumping, and wildlife exploitation, assists to instantiate each of these discussions. Accordingly, the following analysis presents the major questions and then tests them against these forms of environmental harm.

1. Harm to the environment *per se* vs. harm to individual humans or organizations as a result of environmental destruction

At the outset, it is important to distinguish between harm to the environment *per se* and harm to human beings arising as a consequence of harm to the environment. Although the assessment below looks at the possibility to compensate both forms of harm, they are distinct in terms of the entity being harmed and, potentially, the directness of the harm.

(a) The environment as a victim *per se*

Addressing the question of the environment's status as a victim before the ICC necessarily involves applying the provisions of the Rome Statute and associated instruments to the environment.[1230] In this section, the possibility of the environment constituting a victim *per se* is addressed in relation to all crimes that could potentially involve environmental harm. This is because the rules on qualifying as a victim and victim participation do not vary, as a matter of law, in light of the crime in question.

As with the other Rome Statute crimes,[1231] crimes against the environment may impact human beings or man-made entities, but are premised on the occurrence of harm to the environment in and of itself. For example, the primary and direct victims of wildlife exploitation such as the illegal trade of animal species are the animals themselves.[1232] This distinction has important flow-on effects in terms of procedure and also in terms of victim participation in trials for environmental harm.

[1230] However, see below for an assessment of the environment being considered as a victim irrespective of it meeting the definition of victim under the Rules.

[1231] Crimes against the environment differ from the other crimes under the Court's jurisdiction in terms of the nature of the entity that is harmed. Crimes against humanity, war crimes, and genocide typically concern the victimization of human beings, and destruction of buildings, and harm to man-made entities such as organisations (either through the physical or mental harm to themselves or through the misappropriation or destruction of their property). However, it is questionable whether crimes against cultural heritage inherently require anthropocentric harm; see Marina Lostal, "Prosecutor v. Al Mahdi: a Positive New Direction for the ICC?", *Opinio Juris*, http://opiniojuris.org/2016/10/26/prosecutor-v-al-mahdi-a-positive-new-direction-for-the-icc/.

[1232] Note approximately 90 to 95 percent of trafficked parrots and reptiles from South America will not survive the experience, and many that do survive will suffer broken limbs; European Union Action to Fight Environmental Crime (2015), p.20. Note that at one level this trade may be lawful due to the loophole in the CITES convention allowing trade in animals born in captivity.

With respect to whether the environment could be classified as a victim in its own right, the definition of victims in rule 85 (as "natural persons who have suffered harm as a result of the commission of any crime within the jurisdiction of the Court" and "organizations or institutions that have sustained direct harm to any of their property") appears to exclude the environment from qualifying *per se* for this status. The environment cannot be sensibly defined as a "person" let alone a "natural person", as required for rule 85(a). Similarly, the environment is not an organization or institution, and so would not naturally qualify under Rule 85(b).

Innovative approaches to the legal recognition of environmental features are present in certain domestic jurisdictions. For example, in New Zealand, the Whanganui River, which is the third largest river in the country, was granted the status of a legal person in 2017, after negotiations between the Whanganui Iwi and the Crown.[1233] An entity called Te Pou Tupua, with representation by the Iwi and by the Crown, was created to represent the interests of the river.[1234] Previously, New Zealand's Te Urewera National Park had been ascribed legal status in 2014, with a board formed to represent its interests.[1235] Similarly, in India in 2017, the High Court of Uttarakhand declared that the Ganges and Yamuna rivers are living entities with legal status.[1236] However, these domestic precedents are exceptional even within their own systems and, even if they were more well-established at the domestic level, are not automatically applicable at the ICC.[1237] Moreover, it would require a significant departure from the natural meaning of the ICC Rules to consider the environment to be a "natural person" under rule 85(a), or an organization or institution under rule 85(b).

[1233] See Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, section 14. See also Guardian, "New Zealand river granted same legal rights as human being", 16 March 2017 https://www.theguardian.com/world/2017/mar/16/new-zealand-river-granted-same-legal-rights-as-human-being.
[1234] Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, Section 19(1)(a).
[1235] Te Urewera Act 2014, Sections 4, 11. See also Stuff New Zealand, "Whanganui River gets the rights of a legal person", 16 March 2017, http://www.stuff.co.nz/national/politics/90488008/Whanganui-River-gets-the-rights-of-a-legal-person.
[1236] *M. Salim v. State of Uttarakhand & others*, Writ Petition (PIL) No.126 of 2014, 20 March 2017, para.19 ("Accordingly, while exercising the parens patrie jurisdiction, the Rivers Ganga and Yamuna, all their tributaries, streams, every natural water flowing with flow continuously or intermittently of these rivers, are declared as juristic/legal persons/living entities having the status of a legal person with all corresponding rights, duties and liabilities of a living person in order to preserve and conserve river Ganga and Yamuna. The Director NAMAMI Gange, the Chief Secretary of the State of Uttarakhand and the Advocate General of the State of Uttarakhand are hereby declared persons in loco parentis as the human face to protect, conserve and preserve Rivers Ganga and Yamuna and their tributaries. These Officers are bound to uphold the status of Rivers Ganges and Yamuna and also to promote the health and well-being of these rivers.").
[1237] See Rome Statute, article 21. See infra Chapter I(C)(1) (discussion of sources of law).

Other provisions of the governing instruments of the ICC also sit uneasily with the notion of an entity such as the environment qualifying as a victim (as opposed to natural humans and human organisations harmed by environmental destruction qualifying as victims). For example, article 68(1) provides that "[t]he Court shall take appropriate measures to protect the safety, physical and psychological well-being, dignity and privacy of victims and witnesses." These protected values do not immediately appear designed for application to the natural environment, and, given the use of the mandatory term "shall", which requires the Court to apply these measures, again suggest an anthropocentric focus.

Provisions outlining the procedure for obtaining victim status further indicate a presumed anthropocentric requirement for the grant of victim status. As noted above, article 68(3), the governing provision on victim participation at the ICC, and rule 89, which sets out the application process for victims, both refer to the "views and concerns" of victims. This is difficult to reconcile with the notion of the environment qualifying as a victim in and of itself. Similarly, the types of information sought under regulation 86 such as the identity of the victim, the harm allegedly suffered at the hands of the accused, the location and date of the crime, evidence showing that the victim's personal interest is affected, and designation of the stage of proceedings in which the victim wants to participate, do not naturally fit with the environment qualifying *per se* as a victim.

On this reading, it is hard to find space for the environment to qualify as a victim in its own right under the current ICC procedural framework, particularly article 68(3) and rule 85. This conclusion holds irrespective of whether the specific environmental harm in question consists of military attacks causing excessive environmental harm, toxic dumping, and wildlife crime.

Three major implications emerge from this analysis of the possibility of the environmental qualifying as a victim *per se*.

- First, the fact that there is no realistic means of the environment qualifying as a victim in its own right under the existing Rome Statute framework indicates that the rules on victim participation are conceived of anthropocentrically. This accords with the general framing of the provisions of the Rome Statute instruments, as discussed above.

- Second, as discussed below, the exclusion of the environment qualifying for victim status *per se* is contradictory in light of the Rome Statute's inclusion of a partially eco-centrically framed crime under article 8(2)(b)(iv). This means that the crime could be

proven but, if there were no natural humans or organizations sufficiently harmed, there would be no qualifying victim despite a grave international crime having been committed. This indicates adjudicative incoherence inherent in the Court's founding instruments.

- Third, in relation to toxic dumping and wildlife exploitation, the fact that the environment could not qualify as a victim does not indicate adjudicative incoherence, as these types of environmental harm are not explicitly included as crimes in the Court's jurisdiction. Whilst these crimes could potentially be prosecuted incidentally under other crimes within the Rome Statute,[1238] they are not specifically provided for and it is thus unsurprising that the environment could not qualify as a victim *per se* in this respect.

Allowing the environment to qualify as a victim would require an amendment of the Rules, particularly rule 85. Such an amendment would be in line with the undertaking given by States concerning the "greening" of their internal laws on victims' compensation, such as in article 13 of the Rio Declaration on Environment and Development, 1992, which provides that "States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction."

(b) Individual persons who suffer due to environmental harm as victims

Even if the environment may not qualify as a victim in and of itself, the question arises whether individual persons who suffer as a result of environmental harm could qualify as victims under the ICC provisions. As set out above, a natural person may suffer either direct or indirect harm as a result of the crime to qualify as a victim as long as that harm is suffered "personally" by the victim.[1239]

In relation to the possibility of reparations for individual humans or organizations who have suffered personal harm as a result of environmental degradation, there are multiple forms of consequent damage to human beings and their health that may arise as a consequence of

[1238] See infra Chapter II(D).
[1239] *Lubanga* Appeals Chamber decision, paras.32-35.

environmental harm. Three major categories of such harm are: material harm, physical harm, and mental harm.[1240]

In relation to environmental damage caused in connection with a crime under the statute, all three types of harm could be caused to victims. Death or physical injury or illness may arise from severe environmental harm that deprives a people of their access to sustenance, material harm may arise from damage to property, such as agricultural land and crops, and mental harm and suffering may arise from the destruction or damage of environmental features of special significance to a population. For example, victims of ISIS' alleged scorched earth tactics in Iraq in 2015-2016 reported wells laced with diesel, rendering the water toxic to plants, and improvised explosive devices in fields, which undermined agriculture, as well as secondary effects such as large price increases for food, all of which has led to malnutrition among the surviving inhabitants of these lands.[1241] The specific harm to humans arising from environmental damage is not always immediately clear, and may require monitoring and assessment. For example, the United Nations Claims Commission addressed claims for reasonable monitoring of public health, and performing medical screening for the purposes of investigating and combating increased health risks.[1242]

An alternative approach to the issue of the victimization of the environment is to focus on the collective harm caused to people when the environment is seriously damaged. While such damage may not necessarily directly cause any individual serious personal harm, it can result in significant aggregated collective harm to present and future generations.[1243] This would be partially analogous with the manner in which aspiring victims have been encouraged to join with others in order to make a single collective application to obtain victim status, rather than flooding the Court with thousands of applications.[1244] While such an argument may potentially have merit, it has effectively been excluded by the Appeals Chamber in its leading decision in the *Lubanga* case. There, the Appeals Chamber stated that the collective nature of

[1240] *Lubanga* Appeals Chamber decision, paras.32-38.
[1241] Schwartzstein (2016).
[1242] UNCC Recommendations First Instalment (2001), paras.29-31.
[1243] In this respect, see the Preamble to the Rome Statute, which notes that the Court ICC is established for the sake of present and future generations.
[1244] *The Prosecutor v. Laurent Gbagbo,* Decision on Issues Related to the Victims' Application Process, ICC-02/11-01/11, para.8 (Pre-Trial Chamber III, 6 February 2012).

the harm is immaterial to the question of victim participation; the decisive factors are the personal suffering of harm by the victim, and the type of harm suffered.[1245]

2. Causation required for reparations for environmental harm

In addition to detailing the harm, it must be shown that there is a connection between the crime(s) and the environmental harm. In establishing this connection for the purposes of reparations, the applicant would not need to show a "direct and immediate link" between the crime and the harm suffered.[1246] Instead, the applicant would need to show that the crime was a "proximate cause" of the environmental harm, or consequent harm to human being(s), and that "but/for" the crime, the harm would not have been suffered by the victims.[1247] The but/for test is difficult to apply and would be particularly difficult in the circumstances of environmental harm, which typically has myriad interrelated causes.

For individual human victims of environmental harm, any injuries, trauma, or disruption to life may potentially qualify for reparations. The standard of proof that has been applied to establish personal harm for victim status is the prima facie standard.[1248] Previous cases where harm has been considered sufficiently proximate to the crimes for which an accused was convicted include *Lubanga*, in which the Appeals Chamber found the following forms of harm to be sufficiently proximate with respect to direct victims: physical injury and trauma; psychological trauma and the development of psychological disorders, such as, *inter alia*, suicidal tendencies, depression, and dissociative behaviour; interruption and loss of schooling; separation from families; exposure to an environment of violence and fear; difficulties socialising within their families and communities; difficulties in controlling aggressive impulses; and the non-development of 'civilian life skills' resulting in the victim being at a disadvantage, particularly as regards employment.

With respect to indirect victims, it found the following was compensable: psychological suffering experienced as a result of the sudden loss of a family member; material deprivation that accompanies the loss of the family members' contribution; loss, injury or damage suffered by the intervening person from attempting to prevent the child from being further harmed as a result of a relevant crime; and psychological and/or material sufferings as a result

[1245] *Lubanga* Appeals Chamber Decision, para. 35.
[1246] *Lubanga* Appeals Decision on Reparations, para.126, 129.
[1247] *Lubanga* Appeals Decision on Reparations, paras.129, 247-250; *Al-Mahdi* Reparations Order, para.44.
[1248] *Bemba* article 74 Decision, paragraph 20.

of aggressiveness on the part of former child soldiers relocated to their families and communities.[1249] It appears that loss of livelihood would be qualified as an indirect form of harm under these latter provisions.

The types of compensable harm identified in *Lubanga* are overwhelmingly anthropocentric, as they exhibit a clear orientation towards individual human victims. That orientation reflects the structure and contents of the Rules governing victims' participation and reparations at the ICC. It reinforces that reparations for environmental harm would be likely be directed towards any specific natural human victims who could show harm from the environmental degradation.

On the other hand, examples of harm that was not considered sufficiently proximate in the *Katanga* proceedings include that of lost opportunity claimed by inhabitants of Bogoro born after the date of the attack for which Katanga was convicted (24 February 2003). The Court reasoned that this was too attenuated to be compensable.[1250]

Superimposing the analysis from the decided ICC cases of *Lubanga* and *Katanga*, it can be seen that a broad approach is generally taken to the application of the proximate cause and but for tests. Accordingly, all three major forms of harm (material, physical, and mental) against human victims resulting from environmental destruction would potentially be included.

3. Quantifying reparations for environmental harm

In terms of reparations, there is considerable overlap with the tests set out above to establish victim status, particularly in terms of the types of harm that can result in victim status. Under international law, reparations and compensation are generally divided into two major categories. First, there is pecuniary loss, consisting of the loss of directly and specifically quantifiable assets, such as real estate, movable property, or loss of income. Second, there is non-pecuniary loss, which may consist of physical harm and moral harm arising from the wrongful conduct.[1251]

While courts have considerable experience at placing monetary values on these forms of loss arising from anthropocentric claims, it is more difficult to quantify environmental losses.[1252]

[1249] *Lubanga* Appeals Decision on Reparations, para.191.
[1250] *Katanga* Reparations Decision, 24 March 2017, para.134.
[1251] See McCarthy (2012), p.98-99, 100, 110.
[1252] Papadopoulou (2009), 97.

For any harm occasioning reparations, the nature of the harm must be established and documented. The analogous reparations in the *Al-Mahdi* case, which concerned harm to cultural heritage, indicate that the Court would consider harm at two levels: the general harm to the international community caused by environmental destruction, and the specific harm caused by the convicted person's crimes.[1253] The Court would look to establish the monetary value of the destruction itself and of the economic and moral harm caused to the individual and organizational victims.[1254] The Court would look to analogous cases from other international proceedings in which reparations were ordered, including human rights proceedings, to provide a starting point for the calculation of monetary compensation, and would provide damages for the destruction itself, as well as the economic and moral harm caused. Whereas in *Al-Mahdi*, the Court followed one of the appointed expert's methodology of using the Eritrea-Ethiopia Claims Commission award concerning a damaged cultural site as a starting point,[1255] in a case of environmental harm, the Court could look to the awards of the United Nations Claims Commission F2 panel concerning environmental harm committed by Iraq in connection with its invasion of Kuwait in 1990-1991.

The United Nations Claims Commission addressing the harm done during Iraq's invasion of Kuwait included the following types of environmental harm: direct environmental damage and the depletion of natural resources; losses or expenses resulting from abatement and prevention of environmental damage; reasonable measures already taken to clean and restore the environment; and reasonable monitoring and assessment of environmental damage for the purpose of evaluating and abating the harm and restoring the environment.[1256]

Other international courts support the notion that reparations in the form of damages are not limited to pecuniary damages; in *Gutierrez-Soler v. Colombia* the Inter-American Court of Human Rights held that 'nonpecuniary damage may include distress, suffering, tampering with the victim's core values, and changes of a non-pecuniary nature in the person's everyday life.'[1257] An additional form of harm that has been recognised in some court proceedings, is that of communal harm. Communal harm is that caused to important community interests,

[1253] *Prosecutor v. Al-Mahdi,* ICC-01/12-01/15, Public Redacted Version of "Decision Appointing Reparations Experts and Partly Amending Reparations Calendar", 19 January 2017, para.1.
[1254] *Prosecutor v. Al-Mahdi*, ICC-01/12-01/15, Public Redacted Version of "Decision Appointing Reparations Experts and Partly Amending Reparations Calendar", 19 January 2017, para.1.
[1255] *Al-Mahdi* Reparations Order, paras.131-132.
[1256] See, e.g., UNCC Recommendations First Instalment (2001), paras.29-31.
[1257] *Case of Gutiérrez-Soler v. Colombia*, Inter-American Court of Human Rights, Judgment of September 12, 2005 (Merits, Reparations and Costs), para.82.

which may disrupt or destroy the social structures and cohesion of a community. For example, Canada was found to have violated the ICCPR through the expropriation of land from an indigenous community, the Lubicon Lake Band.[1258] Communal harm would be naturally suited to compensation through collective reparations to the affected victims.

Some guidance can also be taken from domestic jurisprudence addressing forms of harm suffering by various entities due to environmental harm.[1259] In France, it has been held in the criminal context that legal persons may suffer moral harm,[1260] raising the prospect of environmental associations with legal standing seeking compensation for non-pecuniary losses arising from environmental harm. French courts have also referred to loss suffered by "the aquatic environment",[1261] and loss suffered by the "natural heritage of the [regional] park".[1262]

4. Applying the victims' participation and reparations framework to three types of environmental harm

This analysis first addresses victims of the key eco-centric crime under the Rome Statute, that being military attacks resulting in excessive harm to the environment under article 8(2)(b)(iv). The analysis then examines the feasibility of individual victims of toxic dumping and wildlife exploitation qualifying under the Rome Statute and associated instruments.

(a) Military attacks that result in disproportionate environmental harm

(i) Victim status and participation

Looking first to article 8(2)(b)(iv), although there have not been any charges laid for violations of this provision, it is evident that actions resulting in long-term, widespread and severe harm to the environment could also result in harm to natural human beings. The personal harm to those humans would potentially qualify those people as victims under rule 85(a), as has been interpreted in the jurisprudence.[1263]

If organizations or institutions were directly harmed, those organizations could potentially qualify as victims under rule 85(b), subject to the elements of article 8(2)(b)(iv) being met. An

[1258] *Ominayak v. Canada*, 26 March 1990, HRC Communication 167/1984, para.33.
[1259] See infra Chapter I(C)(1) (discussion of sources of law).
[1260] Papadopoulou (2009), p.98 citing *Cass. Crim.*, 9 January 2002, n8 01-82471 (unreported).
[1261] Papadopoulou (2009), 99 citing *CA Bordeaux*, 13 January 2006, n8 05/00567 (unreported).
[1262] Papadopoulou (2009) citing *TGI Narbonne*, 4 October 2007, S.A.R.L. SOFT (unreported)
[1263] *Lubanga* Appeals Chamber decision, paras.32-35.

example would be the shelters of an association of wildlife protection rangers were destroyed in an arson attack that also gravely impacted the environment.[1264]

Given the requisite elements under article 8(2)(b)(iv), which include showing widespread and serious environmental damage, it is likely that there would be multiple victims of any such attack. The key to obtaining victim status is the demonstration of "personal harm" suffered by the applicant(s).[1265] This could be established by injuries suffered by the applicant, and else by showing that the victims personally suffered indirect personal harm, for example due to the destruction of their places of living, means of subsistence, or death or major injury of family members. For example, ISIS reportedly lit oil wells in Iraq in 2016, leading in one instance to 1,500 people seeking medical attention for suffocation symptoms brought on by the plume of sulphur dioxide.[1266]

Establishing the causative connection between the military attack, the environmental damage, and the personal harm suffered would be the key test. As set out above, the causal test requires a proximate link, and the but-for standard must be satisfied.[1267] In the case of a conviction under article 8(2)(b)(iv), any victims suffering death or injury, pecuniary harm or moral harm for which the military attack was a proximate cause and which would not have occurred but for the attack would have a sound basis to claim victim status and reparations.

However, it would be more difficult to make out these claims if the harm arose indirectly from the environmental damage caused by the attack, rather than the harm being directly caused by the attack itself. At the United Nations Claims Commission, for example, Kuwait claimed various forms of damage resulting from Saddam Hussein's lighting of the oil fires, which could potentially be seen as the type of military attack that article 8(2)(b)(iv) addresses.[1268] In relation to Kuwait's claim that the pollution caused by the oil well fires had resulted in higher mortality rates, the UNCC was unconvinced, holding that Kuwait had not provided sufficient information to show that any particular deaths could be wholly or partially

[1264] See, e.g., African Conservation, https://www.africanconservation.org/wildlife-news/lords-resistance-army-attack-threatens-headquarters-at-garamba-national-park-north-eastern-drc-2 ("in January 2009…a 200-strong LRA force attacked Nagero, killing 15 African Parks' staff-members and kidnapping two children whist destroying $2 million worth of buildings and equipment").
[1265] *Lubanga* Appeals Chamber decision, paras.32-35.
[1266] Cusato (2017).
[1267] *Lubanga* Appeals Decision on Reparations, paras.129, 247-250; *Al-Mahdi* Reparations Order, para.44.
[1268] See Chapter II(D)(1).

attributed to the effects of Iraq's actions in relation to the invasion.[1269] In many instances the personal harm necessary under the ICC's victims' framework would arise as a result of multiple factors, and determining the relative contribution of the environmental harm caused by the accused would be a difficult, and more speculative, exercise.

Moreover, in the confusing wartime circumstances in which the attacks would be launched, it may be difficult to show a connection between the military attack and the harm underlying the application for victim status. For example, in the context of the NATO attacks on the former Yugoslavia, the report prepared by the ICTY referred to the attacks on various chemical industrial sites but did not specify how many victims, if any, resulted from the chemicals unleashed by the NATO attacks.[1270]

In terms of the subjects open to the intervention of victims through the participation, victims of the crime of military attacks causing excessive environmental harm under article 8(2)(b)(iv) would be able to point to the nature and extent of the environmental harm. Because environmental harm is a central focus of the crime, the victims would have a clear basis to address environmental matters. Victims of attacks causing excessive harm to the environment during armed conflict could also potentially participate in proceedings on the issue of the accused's guilt or innocence, to the extent the matter was not held to have been covered by the Prosecution, as discussed above.[1271]

Given the difficulty of proving environmental harm with any precision, there will be considerable scope for victim participation in proceedings for environmental harm. With increased participation comes increased risk of excess filings impeding the expeditious

[1269] UNCC (2005), para.519, 524 ("Kuwait seeks compensation in the amount of USD 192,500,000 for increased mortality in Kuwait due to increased pollution resulting from the oil well fires in Kuwait. In particular, Kuwait seeks compensation for loss of economic value resulting from 35 premature deaths that it estimates occurred due to the exposure of its population to airborne particulate matter from the oil well fires. Kuwait calculates the compensation requested on the basis of USD 5,500,000 per life lost… The Panel notes that there is sufficient evidence to show that the oil well fires in Kuwait resulted in increased ground-level concentrations of airborne particulate matter in populated areas of Kuwait between February 1991 and October 1991, and that these concentrations could have been sufficient to cause increased mortality in Kuwait. However, the evidence submitted by Kuwait is not sufficient to demonstrate either that 35 premature deaths actually occurred or that any such premature deaths were the direct result of the invasion and occupation. In particular, Kuwait provides no information on the specific circumstances of actual deaths that would enable the Panel to determine whether such premature deaths could reasonably be attributed, wholly or partially, to factors resulting from Iraq's invasion and occupation. Consequently, Kuwait has failed to meet the evidentiary requirements for compensation as specified in article 35(3) of the Rules").

[1270] Press Release on Final Report on NATO (2000); Final Report on NATO (2000), para.14-16, available at <http://www.icty.org/sid/10052> (last accessed 16 October 2015), para.9.

[1271] *Lubanga* Appeals Chamber decision, para.96 (holding that, so long as a fair and impartial trial was ensured, victims could contribute evidence going to the guilt or innocence of the Accused). In this respect, see *Lubanga* Appeals Chamber decision, Dissenting Opinion of Judge Pikis, para.14.

progress of the trial. Overseeing such proceedings and ensuring their effectiveness will require a presiding judge experienced in the management of large-scale proceedings involving varying actors with diverging interests.

(ii) Reparations for victims of attacks causing excessive harm to the environment during armed conflict

As set out above, the relevant chamber must establish that the accused is guilty of one or more of the crimes with which he or she was charged before it can issue a reparations order.[1272] Where the crime is one listed under the Rome Statute, this element is directly fulfilled, as would be the case with a conviction under article 8(2)(b)(iv). The reparations would accordingly have to be formulated with reference to the nature and severity of the environmental harm.

Guidance on principles governing awards of compensation relevant to military attacks causing environmental harm can be taken from the Iraq Claims Commission. The UNCC established that the costs of monitoring and assessing environmental damage and monitoring of public health and performing medical screenings caused by Iraq's invasion and occupation of Kuwait could be included as part of the damages attributable to Iraq.[1273] Claimants sought damages for: damage from air pollution; depletion of water resources; damage to groundwater; damage to cultural heritage resources; oil pollution in the Persian Gulf; damage to coastlines; damage to fisheries; damage to wetlands and rangelands; damage to forestry, agriculture and livestock; and damage or risk of damage to public health.[1274]

[1272] *Lubanga* Appeals Decision on Reparations, para.99.

[1273] UNCC Recommendations First Instalment (2001), paras.29-31. See also Paragraph 35 of Governing Council decision 7 provides that "direct environmental damage and the depletion of natural resources" includes losses or expenses resulting from: (a) "Abatement and prevention of environmental damage, including expenses directly relating to fighting oil fires and stemming the flow of oil in coastal and international waters; (b) Reasonable measures already taken to clean and restore the environment or future measures which can be documented as reasonably necessary to clean and restore the environment; (c) Reasonable monitoring and assessment of the environmental damage for the purposes of evaluating and abating the harm and restoring the environment; (d) Reasonable monitoring of public health and performing medical screenings for the purposes of investigation and combating increased health risks as a result of the environmental damage; and (e) Depletion of or damage to natural resources." And noting that ""F4" claims were claims for damage to the environment. The Commission received approximately 170 such claims seeking a total of approximately US$85 billion in compensation. "F4" claims fell into two broad groups. The first group comprised claims for environmental damage and the depletion of natural resources in the Persian Gulf region including those resulting from oil-well fires and the discharge of oil into the sea. The second group consisted of claims for costs incurred by Governments outside of the region in providing assistance to countries that were directly affected by the environmental damage. This assistance included the alleviation of the damage caused by the oil-well fires, the prevention and clean up of pollution and the provision of manpower and supplies."

[1274] UNCC Recommendations First Instalment (2001), para.13.

Faced with the contingent nature of claims being sought for monitoring expenses in order to undertake studies to determine whether or not compensable environmental harm had occurred, the F4 Panel opted for an open approach. It permitted such claims to proceed, and thereby avoided undermining the claimants' ability to prove their substantive claims of environmental harm. At the same time, it held that claims for monitoring would not be granted for monitoring and assessment of purely theoretical or speculative environmental harm, or harm with only a tenuous link to Iraq's invasion and occupation of Kuwait.[1275] Notably, the F4 Panel insisted on establishing a sufficient nexus between Iraq's conduct and the potential environmental harm – for example by showing the "possible pathways and media by which pollutants resulting from Iraq's invasion and occupation of Kuwait could have reached the areas or resources concerned".[1276]

Other institutions assessing the damage or harm to a community's environment have struggled to provide precise parameters for the reparations. In the case of *Ominayak v Canada*, the Human Rights Commission found a violation of article 27 ("ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language") due to Canada's expropriation of land from indigenous communities in the Lubicon Lake Band for commercial and industrial development.[1277] The Human Rights Commission did not indicate any special form of reparations but accepted Canada's offer to rectify the harm in accordance with article 2's requirement to provide an effective remedy.[1278]

The Court would have to determine whether to provide compensation on an individualized basis or collective basis or both.[1279] This is a different issue for the collective nature of victim harm for the purposes of obtaining victim status to participate in proceedings, which is discussed above. A significant question in this respect is the degree to which the interests of individual victims would differ from those of the environment as a collective entity. In the case of military attacks resulting excessive harm to the environment, it is likely that there would be multiple victims suffering in connection with the serious harm to the environment. Because of the multiplicity and the collective nature of the value harmed, it would be coherent

[1275] UNCC Recommendations First Instalment (2001), paras.29-31.
[1276] UNCC Recommendations First Instalment (2001), para.31.
[1277] *Ominayak v Canada*, 26 March 1990, Human Rights Commission Communication no.167/1984.
[1278] McCarthy (2012), p.124-125.
[1279] Rome Statute, rule 98(3).

to order reparations on a collective basis. Compensation could also be awarded on an individualized basis for any harm suffered personally by any victims, so long as that did not doubly compensate particular victims.[1280] This may occur for example if collective moral (non-pecuniary) compensation were awarded for causing pollution and environmental harm to an area through unlawful military attacks, while individual pecuniary compensation were awarded for the specific harm caused to land held by individuals.

For environmental harm caused by military attacks, restitution of the harmed facet of the environment to its pre-attack state would be the preferred course of action in most instances. In the context of the environment, restitution is a particularly desirable form of reparations as it seeks to return the natural environment to its pre-damage state in keeping with the motivating environmental consideration of conservation, and it is provided for under the 1985 Basic Principles on Victims' Rights specifically in the aftermath of serious damage to it pursuant to criminal conduct.[1281]

However, if this were not possible, compensation would be appropriate. Rehabilitation generally refers to harm to natural persons, and would only be relevant in this context if the environmental harm in turn harmed natural persons. Additionally, reparations ordered on a preventative, symbolic, or transformative basis would be relevant to harm to the natural environment.

In terms of calculating the exact amount of pecuniary compensation due, determining a proportionate quantum and form of compensation appropriate for victims of military attacks resulting in excessive environmental harm would be a case-by-case assessment. Nonetheless, some guidance can be gleaned from the awards of the United Nations Claims Commission addressing the harm caused by Iraq's invasion of Kuwait in 1990-1991.[1282] The F4 Panel received a myriad of claims ranging from monitoring the environmental impact of Iraq's invasion and occupation of Kuwait, to the actual damage itself, which was argued to have affected coastlines, air quality, soil water, and to have caused respiratory problems and to

[1280] UNCC (2002), para.46 (noting that the secretariat of the Claims Commission carried out cross-claim checks in order to avoid "multiple recovery of compensation").
[1281] Principle 10. In cases of substantial harm to the environment, restitution, if ordered, should include, as far as possible, restoration of the environment, reconstruction of the infrastructure, replacement of community facilities and reimbursement of the expenses of relocation, whenever such harm results in the dislocation of a community.
[1282] Note that the Chamber in *Al-Mahdi* took note of the Ethiopia-Eritrea Arbitration to determine an analogous starting point to establish quantum, but did not explain the basis under the sources of law set out in article 21 of the Rome Statute for addressing this precedent; *Al-Mahdi* Reparations Order, para.131.

potentially have increased cancer rates.[1283] The F4 Panel also faced requests for compensation for environmental damage to facets of the environment that have no commercial value (an example provided was the existence of oil along a beach). It held that there is no rule in its guiding statutes or under general international law preventing compensation for such damage.[1284]

One of the main heads of damage was "The release and transport, into the Claimants' territories, of airborne pollutants caused by oil fires resulting from the ignition of hundreds of oil wells in Kuwait by Iraqi forces during Iraq's invasion and occupation of Kuwait".[1285] Putting aside the question of whether the lighting of oil wells in this specific instance would constitute an "attack" for the purposes of article 8(2)(b)(iv), the igniting of industrial facilities provides a guide as to costs that were calculated to have been incurred or caused by the environmental damage. At the same time, it should be borne in mind that compensation awarded against a state, in this case Iraq, are likely to be significantly higher than the compensation awarded against an individual in the context of a criminal trial. The basis to attribute harm to a state is different from the basis for attributing harm to an individual, and in the case of military attacks in an international armed conflict would generally be broader than the conduct that could be attributed to one specific individual.[1286]

To set out some examples, the Commission awarded 672,960 USD to Iran to collect samples and engage in computer modelling analysis to test the spread of pollution from the oil fires.[1287] It awarded between zero and 4,873,620 USD to Kuwait for costs to monitor and assess harm to groundwater and surface water caused by the oil fires.[1288] The Commission awarded 681,055,719 USD to Kuwait for ordnance disposal, finding that this was a reasonable measure to clean and restore the environment.[1289] For costs associated with remediation of wellhead pits used to store water to fight oil fires, the Commission awarded Kuwait 8,252,657 USD.[1290]

[1283] UNCC Recommendations First Instalment (2001), (addressing Iran's claims).
[1284] UNCC (2005), paras.52-58.
[1285] UNCC Recommendations First Instalment (2001), para.14.
[1286] This is because the articles on state responsibility make a state responsible for *inter alia* all actions undertaken by its authorised agents; whereas criminal liability attaching to an individual is dependent on the applicable modes of liability under article 25 of the Rome Statute.
[1287] UNCC Recommendations First Instalment (2001), para.78.
[1288] UNCC Recommendations First Instalment (2001), table 7.
[1289] UNCC (2002), para.46.
[1290] UNCC (2003), para.119.

Although the nature of the environmental harm in a specific case would determine the relevance of these potential precedents, the Court's approach in *Al-Mahdi* suggests that the findings of the UNCC could be taken into account as a reference point for environmental harm. As an internationally founded institution, addressing the specific question of compensation for environmental harm, the UNCC's analysis can be taken into account under article 21 of the Rome Statute as relevant to the determination of international law. The quantum awarded to Kuwait suggests that environmental harm serious enough to meet the Court's gravity requirement would lead to reparations potentially amounting to several million dollars.

(b) Unlawful transboundary movement and storage of hazardous substances (toxic dumping)

(i) Victim status and participation

Looking to unlawful transboundary movement and storage of hazardous substances, individuals personally harmed by the toxic dumping in question could include those suffering respiratory problems from the noxious fumes emitted by the chemicals or relatives of those killed by the chemicals.[1291] Organizations with property directly damaged by such dumping could also qualify as victims under the ICC framework. For example, if an organization held coastal land for environmental purposes, and that were harmed by unlawful toxic dumping or mis-storage, the organization could apply for victim status and reparations.

But questions would arise for those who did not suffer acute health effects from the dumping but nonetheless suffered other forms of harm, such as their crops being damaged, or the wildlife in their locality being killed. These include whether this form of harm constitutes "personal harm" so as to justify victim status, and what would be the impact of the dumping having ruined the enjoyment of the environment, for example by removing the possibility of outdoor activities or even the view of the environment. Mental pain and anguish have been recognised as a basis for claims for damages under international law, including in the form of distress, anxiety, a sense of injustice and shock.[1292] However, the gravity of the requisite mental harm has been relatively elevated. At the United Nations Claims Commission, qualifying victims of mental harm were those who lost an immediate family member, those who suffering disfigurement, those who were victims of a sexual assault or torture, those who

[1291] See Amnesty Report on Cote d'Ivoire (2012); Reports of Special Rapporteur on Toxic Dumping (2009), para.6; White (2008), p.119.
[1292] McCarthy (2012), p.116.

witnessed one of the above events, those taken hostage, or those who lost all economic means.[1293] At the same time, ICC decisions concerning victims suffering personal harm have found that a broader range of mental harm and anguish may qualify, including where socialising with other members of society was disrupted by the crimes and exposure to an environment of violence and fear.[1294]

On their face, these types of effects would not seem to be comparable with the harm suffered by victims of other anthropocentric crimes under the Rome Statute, such as sexual violence or mutilation for example. However, because the rules are broadly worded and the interpretation is largely left to the judges, there is considerable scope for development and refinement in this area of the ICC's operations and procedure. At the ECHR it has been held that severe environmental harm can affect the well-being of individuals and adversely affect their private and family life (particularly by impeding their enjoyment of the home) even without seriously damaging the victims' health.[1295]

In terms of the modalities of participation for victims of toxic dumping, it is not clear that the victims would be able to present evidence going to the extent of the environmental harm. The existing crimes under which toxic dumping could be prosecuted are all anthropocentric (or genus-centric) in nature.[1296] For example, the crime against humanity of other inhumane acts, which is a possible charge that could arise from toxic dumping, is explicitly anthropocentric in nature. Qualifying victims would be permitted to present the views, and potentially evidence, concerning the extent of the harm to themselves.

However, it is necessary for a victim to show the link between the harm suffered and the crimes charged for his or her views and concerns to be presented.[1297] Because the crimes charged to cover toxic dumping, such as other inhumane acts, do not include an element of environmental harm, the victim may be restricted to discussing the toxic dumping only to the extent that it led to the victims' suffering and not to the extent that it caused serious harm to the environment *per se*. Ultimately, the environmental harm could potentially be de-prioritized or even essentially excluded from consideration in the reparations phase of the

[1293] UNCC, Report and Recommendations Made by the Panel of Commissioners Concerning the First Instalment of Individual Claims for Damage up to US$100,000 (Category C claims), 21 December 1994, S.AC/1994/3, p.87 cited in McCarthy (2012), p.118.
[1294] *Lubanga* Appeals Decision on Reparations, para.191.
[1295] ECHR, *Lopez Ostra, v Spain*, (1994) 20 EHRR 277.
[1296] See infra Chapter II(D)(2).
[1297] *Lubanga* Appeals Chamber decision, para. 62-65.

proceedings. In this respect, the lack of a provision protecting the environment from toxic dumping in the substantive offences of the Rome Statute could be exacerbated by the restrictions on victim participation before the ICC.

(ii) Reparations for victims of toxic dumping

In the case of toxic dumping, there is no provision of the Rome Statute directly criminalizing this type of crime. Accordingly, it would instead be at most prosecuted indirectly through other provisions such as crimes against humanity, genocide, and war crimes.[1298] The possibility of addressing environmental harm through this indirect means has been foreshadowed by the Prosecution's 2016 guidelines on case selection, which refer to environmental harm *per se* and the use of environmental harm to effectuate other crimes.[1299] Although a conviction pursuant to this approach would not explicitly be for a crime against the environment, such harm could be reflected in the reparations order. This could occur if the environmental damage were found to be an inherent part of the harm caused by the crime.

In the case of toxic dumping constituting the crime against humanity of other inhumane acts due to the severe effects on civilians, or possibly other crimes under the Statute, victims could be affected on an individual basis. Nonetheless, the harm would almost certainly involve a collective aspect in relation to the deterioration of the location(s) where the substances were dumped, which would render appropriate a collective form of reparations, compensation or restitution.[1300]

Determining a proportionate quantum and form of reparations appropriate for victims of toxic dumping would be a case-by-case assessment. There is little precedent for reparations for victims of crimes involving toxic dumping at the international level. However, improper storage or treatment of hazardous wastes have generated human rights cases, that have been treated by regional human rights courts, providing some broad parameters for levels of pecuniary compensation. At the same time, it should be borne in mind that compensation awarded to an individual for a violation of their human rights, will be calculated differently to the compensation awarded against an individual in the context of a criminal trial.

[1298] See, e.g., Weinstein (2005), p.708.
[1299] OTP 2016 Case Selection Paper.
[1300] See ICC Rules of Procedure and Evidence, Rule 97.

Guidance can also be taken from the 2006 ILC principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities.[1301] These rules underline that there must be 'prompt, adequate and effective remedies' in the event of transboundary damage caused by hazardous activities (Principles 4 and 6), which may have occurred despite compliance by the relevant State with its obligations concerning prevention of such damage. However, the guidance can only be of limited impact in the context of international crimes as the commentary explains that

> liability is excepted if, despite taking all appropriate measures, the damage was the result of (a) an act of armed conflict, hostilities, civil war or insurrection; or (b) the result of a natural phenomenon of exceptional, inevitable, unforeseeable and irresistible character; or (c) wholly the result of compliance with a compulsory measure of a public authority in the State of injury; or (d) wholly result of a wrongful intentional conduct of a third party.[1302]

Given that the possibility of reparations discussed above is premised on the commission of wrongful conduct, it would automatically fall under the exception in (d). Nonetheless, if remedies must be 'prompt, adequate and effective' in the case of non-criminal conduct, then these standards should also apply in the case of criminal offending.

Some broad guidance as to quantum of reparations can be taken from awards in international human rights courts. In a case involving harm caused to persons living near a rubbish tip in Turkey, the ECHR awarded compensation for a violation of the right to protection of life enshrined in Article 2 of the Convention and of the right to peaceful enjoyment of possessions as protected by Article 1 of Protocol No. 1, and a violation of the right to a domestic remedy, as set forth in Article 13 of the Convention.[1303] The applicant lost nine members of his family due to the accident, and also claimed that his house and movable property was damaged. Prior to the accident, the experts had warned that site gases such as methane, carbon dioxide and hydrogen sulphide were likely to have formed in the site and there was a risk of an explosion as the site was not equipped with a system to dispose of such gases, which could be extremely harmful given the proximity of residential houses.[1304] The Court's finding that there was a

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[1301] Draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities, with commentaries (UN-Doc A/61/10), *Yearbook of the International Law Commission,* 2006, vol. II, Part Two, available at http://legal.un.org/ilc/texts/instruments/english/commentaries/9_10_2006.pdf ("Draft Principles on Allocation of Harm").

[1302] Draft Principles on Allocation of Harm, p.161 and fn.434.

[1303] Öneryıldız v. Turkey [GC], p.59 (disposition).

[1304] Öneryıldız v. Turkey [GC]; Öneryıldız v. Turkey (48939/99) [2002] ECHR 491; The experts stated: ("... In any waste-collection site gases such as methane, carbon dioxide and hydrogen sulphide form. These substances must be collected and ... burnt under supervision. However, the tip in question is not equipped with such a system. If methane is mixed with air in a particular proportion, it can explode. This installation contains no

breach of the right to life was based on the fact that the municipal waste site was opened and operated despite not operating according to the relevant technical standards, and the authorities were aware of these shortcomings (or had reason to know of them) but did not address the problems, thereby leading to the extensive damage and deaths when the accident occurred.[1305]

The court awarded funeral expenses of 2,000 euros "on an equitable basis" (the equitable basis was used as it found that the applicant's pecuniary losses had not been duly documented).[1306] In relation to the applicant's claims for the loss of financial support due to the death of his household members, and for the loss of future support from his children, the Court awarded 10,000 euros.[1307] For the damage to the applicant's flat, the Court awarded no financial compensation as it could discern no major financial loss arising from the accident. However, it awarded 1,500 euros for the damage to his movable property.[1308] Addressing the applicant's non-pecuniary damage, the Court awarded 33,750 euros to each of the applicant and his three adult children.

Additional guidance as to quantum ranges from the ECHR concerns amounts of approximately 12,000 euros and 24,000 euros awarded for violations of article 8 of the ECHR (right to respect for home and family life) due to a plant for the storage and treatment of "special waste" classified as either hazardous or non-hazardous being located near a residential house,[1309] and nuisance due to smells, noise and fumes caused by a waste-treatment plant close to housing, respectively.[1310]

Notably, in a study of UK domestic sentencing practices, it was found that fines for illegal dumping of toxic materials and similar polluting offences, the fines were approximately 10

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means of preventing an explosion of the methane produced as a result of the decomposition [of the waste]. May God preserve us, as the damage could be very substantial given the neighbouring dwellings. ..."). The court noted that "on 28 April 1993 at about 11 a.m. a methane explosion occurred at the site. Following a landslide caused by mounting pressure, the refuse erupted from the mountain of waste and engulfed some ten slum dwellings situated below it, including the one belonging to the applicant. Thirty-nine people died in the accident.").

[1305] Öneryıldız v. Turkey [GC], para.109.

[1306] Öneryıldız v. Turkey [GC], paras.166-167.

[1307] Öneryıldız v. Turkey [GC], para.168 ("the Grand Chamber agrees with the Chamber's view that in the instant case each member of the household must, in one way or another, have provided a contribution, if only an accessory one, to the sustenance of all, although the prospect of future financial support by the seven minor children who died in the accident appears too distant.").

[1308] Öneryıldız v. Turkey [GC], para.170.

[1309] ECHR, Case of Giacomelli v. Italy *(Application no.* 59909/00*)* 2 November 2006, Judgment.

[1310] ECHR, Case of Lopez Ostra v. Spain, *(Application no.* 16798/90*)*, Judgment - 9 December 1994 (the award was for 4,000,000 Spanish pesetas).

times higher on average than fines for wildlife exploitation.[1311] Other domestic cases have seen damages for substance spills calculated based on the surface area of affected waters, although this is considered inappropriate for sea-water due to the rapidly changing area of pollution at the surface.[1312]

(c) Wildlife exploitation

(i) Victim status and participation

For wildlife exploitation, the perpetrators could be prosecuted under several substantive provisions, including for the crime against humanity of other inhumane acts under article 7(1)(k),[1313] or as an indirect result of the crime of pillage under article 8(2)(b)(xvi) or possibly the destruction or appropriation of protected property under article 8(2)(a)(iv), among other crimes. These are all anthropocentric in focus.[1314]

To qualify as victims, individuals would have to show that they were personally affected by the misuse of the species in question, whether directly or indirectly.[1315] The direct victims of wildlife exploitation are usually the species themselves. Such circumstances could arise where for example the species were a sacred religious symbol for the people in question and their mental health would be affected by its disappearance.

For organizations, it would have to be shown that the species was the property of the organization and therefore the organization suffered harm as a result of the acts in question.[1316] This is conceivable, for example if the organization were a collective of tribes that relied on the medicinal property of a certain species for physical and or mental well-being.

Arguments have been made that the illicit trade of endangered species can harm humans due to the possibility of the promised medicinal effects of rare animals not being effective in curing human diseases, or because of humans eating bad meat from unlawfully traded

[1311] Fines in Magistrates' Court for wildlife offences were on average £5,000; whereas for environmental offences it was £50,000; WWF Report, *Sentencing Wildlife Trade Offences in England and Wales Consistency, Appropriateness and the Role of Sentencing Guidelines*, September 2016 ("WWF (2016)"), p.75.
[1312] Papadopoulou (2009), p.108.
[1313] Rome Statute, article 7(1)(k). See also Statute of the ICTY Article 5(i); Statute of the ICTR Article 3(i) (for the analogous provisions).
[1314] See infra Chapter II(D)(3).
[1315] Rule 85(a).
[1316] Rule 85(b).

species.[1317] The former type of harm would not qualify the natural person as a victim, as they would themselves have contributed to the underlying criminal harm (the trading and killing of the protected species) by purchasing the supposedly medicinal goods.[1318] The latter type of harm could potentially qualify a natural person as a victim, although it would have to be shown that they were not complicit in the provision of illegally traded species in order to merit victim status.

More broadly, it has been claimed that the loss of biodiversity indirectly impacts on all citizens of an affected locality.[1319] However, such a broad category of persons would be unlikely to be accepted by the Court as having suffered "personal" harm, absent some additional specific link to the species in question. Arguments that wildlife crime is associated with other organized crime are generally correct, but is more of a general observation than a basis to qualify any specific individual as a victim.[1320] Again, questions concerning the level of harm that must be suffered and the directness of that harm to the application are likely to arise in cases where a non-human species has been injured. The judges will enjoy considerable discretion in framing an appropriate response to these issues.

Looking to the modalities of participation for victims of wildlife exploitation, it is not clear that the victims would be able to present evidence going to the extent of the harm to the species involved, or more generally to the environment. The existing crimes under which wildlife crime could be prosecuted are all anthropocentric in nature, and the most likely crime (other inhumane acts) is explicitly anthropocentric in nature. Qualifying victims would be permitted to present the views, and potentially evidence, concerning harm to themselves or other persons with whom they had a close relationship. However, as set out above, a victim must show the link between the harm suffered and the crimes charged for his or her views to be presented.[1321] Because the crimes charged to cover wildlife exploitation under the Rome Statute, such as other inhumane acts, do not include an element of environmental harm, the victim would likely be restricted to discussing the wildlife exploitation only to the extent that it led to the victims' suffering and not to the extent that it caused serious harm to the environment *per se*. Again, the environmental harm, in this case to wildlife, could be de-prioritized or even essentially excluded from consideration in the reparations phase of the

[1317] European Union Action to Fight Environmental Crime (2015), p.22.
[1318] Preventing malefactors from benefiting from their wrongdoing accords with the general legal principle *ex injuria jus non oritur*.
[1319] European Union Action to Fight Environmental Crime (2015), p.22.
[1320] European Union Action to Fight Environmental Crime (2015), p.22.
[1321] *Lubanga* Appeals Chamber Decision, paras.62-65.

proceedings. In this respect, the lack of a provision protecting wildlife in the substantive offences of the Rome Statute would be exacerbated by the restrictions on victim participation before the ICC.

(ii) Reparations for victims of wildlife crime

In relation to wildlife crime, it is hard to envisage natural human victims suffering harm on an individual basis at the requisite level. The trafficked species cannot themselves qualify as victims and the natural human beings who could qualify would be hard to characterize as suffering on an individual basis from the trafficking or poaching of animals. Accordingly, group reparations would appear appropriate for this form of harm.

As set out above, wildlife crime would raise the issue of whether the relevant harm caused can include the environmental harm, or whether it would be restricted to the harm constituting a necessary feature of other inhumane acts, that being severe harm to individual persons. While the Prosecution has signaled in its 2016 guidelines on case selection that the impact on the environment will be a factor taken into account in the initiation of cases,[1322] it is unclear whether the Court would also take into account environmental harm at the conclusion of a case when ordering reparations.

In cases of crimes against animal species, such as trafficking and illegal export/import, restitution may include costs of housing the animals when they are rescued as well as the costs of re-patriating the animals.[1323] Similarly, in the case of the Erika spill off the coast of France in 1999, which may provide a broadly analogous measure of guidance as civil and criminal liability was imposed, the damages included expenses for the bird rescue and care centres to aid animals affected by the spill.[1324] In terms of the recipient of the compensation, where the harm is caused to the environment *per se*, rather than to any specific natural person, restitution should be paid to the relevant state or states and should include restitution for the costs of the clean-up and/or treatment of affected wildlife or natural features.[1325]

Compensation for wildlife crime at the international level can be informed by court awards at the domestic level,[1326] which have included compensation to environmental associations for

[1322] OTP 2016 Case Selection Paper.
[1323] UNODC Toolkit (2012), p.138.
[1324] Papadopoulou (2009), p.101.
[1325] UNODC Toolkit (2012), p.138.
[1326] See infra Chapter I(C)(1) (discussion of sources of law).

extra expenses incurred in responding to illegal poaching.[1327] In the Erika case, an environmental association focused on bird protection sought damages for each bird harmed, but this was rejected and instead damages were calculated based on the "extent of the pollution, or the role of the association in organising the bird care, and its general efforts in the field".[1328]

In terms of quantum, guidance can be gleaned from awards in domestic cases. In the 2010 case of *United States v. Slattery*, the accused pleaded guilty to conspiracy to violate the Lacey Act in connection with obtaining black rhinoceros horns. He was sentenced to serve 14 months' incarceration, a 10,000 United States dollar fine, and forfeited 50,000 United States dollars of proceeds from his illegal trade in rhinoceros horns.

In the 2014 case of *United States v. Andrew Zarauskas*, the accused was convicted in connection with his purchase of approximately 33 narwhal tusks, which are covered by the international Convention on International Trade in Endangered Species (CITES) and also listed as threatened under the US Endangered Species Act. The accused was sentenced to 33 months imprisonment and ordered to forfeit 85,089 United States dollars, six narwhal tusks and one narwhal skull. He was also ordered to pay a fine of 7,500 United States dollars.[1329]

Studies of UK sentencing for wildlife crime showed that sentences and fines were low. A study of 174 cases of illegal wildlife trade from 1986 and 2013 found that most cases (74 percent) resulted in non-custodial sentences and fines were typically low with 88 percent amounting to 2,500 pounds or less.[1330] For example, in 2000 an Indian company called the Renaissance Corporation was fined 1,500 pounds by Horseferry Road Magistrates Court (London) for trading in shatoosh shawls (also forfeited) worth 353,000 pounds made from endangered Tibetan antelope.[1331]

E. Adjudicative incoherence arising from the application of the ICC rules on victim participation and reparations to environmental harm

The preceding analysis of the relevant rules and jurisprudence show that the environment may not qualify as a victim in and of itself but that it may incidentally be linked to the victim status

[1327] Papadopoulou (2009), p.100 citing Cass. Crim., 4 July 1978, Bull. Crim. n8 219.
[1328] Papadopoulou (2009), 108.
[1329] WWF (2016), p.26.
[1330] WWF (2016), p.4.
[1331] WWF (2016), p.25 citing Lowther, Cook and Roberts, The International Wildlife Trade and Organised Crime: A Review of the Evidence and the Role of the UK (Wolverhampton, UK: WWF–UK, 2002).

of specific persons if environmental harm is an integral part of those persons suffering when subjected to a crime under the jurisdiction of the Court. The exclusion of the environment from victim status *per se* is contradictory in light of the Rome Statute's inclusion of a partially eco-centrically framed crime in article 8(2)(b)(iv).[1332] Despite the inclusion of this substantive prohibition against harming the environment, the environment itself cannot be qualified as a victim under rule 85 or any other rule. The discrepancy further indicates the anthropocentric orientation of the Court's governing framework.

The imbalance is all the more concerning in light of the ICC OTP's recent shift in policy to increase its focus on criminal conduct impacting the environment.[1333] An increase in the prosecution of environmental harm will result in an increased focus on the victimization of the environment. This will highlight the lack of provision in the rules on victim participation capable of applying to the environment in and of itself.

An explicit recognition of the environment's potential victimization by acts prohibited under the Rome Statute would have been consistent with the 1985 United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power.[1334] These principles have been recognized as a valid reference material when assessing the law applicable to victims' participation at the ICC.[1335] Significantly, the 1985 Victims' Declaration of Basic Principles refer to restitution of the environment in the aftermath of serious damage to it pursuant to criminal conduct.[1336] However, such recognition would require amendment of the rules concerning the qualification of victims, which is unlikely to occur in light of the existent concerns that victim participation and reparations are lengthening proceedings unduly and complicating proceedings.

Failing amendment of the definition of victims, environmental harm could potentially engage the provisions related to victims if the environment were considered to be property.[1337] This would render any harm to the environment harmful in turn to people's property interests.

[1332] The crime set out in article 8(2)(b)(iv) is specifically formulated as follows: "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].
[1333] OTP 2016 Case Selection Paper, para.41.
[1334] 1985 Victims' Declaration of Basic Principles.
[1335] *Lubanga* Appeals Chamber Decision, para.33.
[1336] Principle 10. In cases of substantial harm to the environment, restitution, if ordered, should include, as far as possible, restoration of the environment, reconstruction of the infrastructure, replacement of community facilities and reimbursement of the expenses of relocation, whenever such harm results in the dislocation of a community.
[1337] Already some aspects of the natural environment constitute property in some circumstances, such as certain wildlife sanctuaries, forests, and beaches.

However, the notion of the natural environment in toto constituting property is problematic and would clash with the idea of global commons, such as Antarctica, the high seas, or outer space, which may be subject to grave environmental harm even where no specific person's property interests are affected.[1338]

Alternatively, instead of the environment qualifying as a victim *per se*, the protection of environmental interests could be achieved by Chambers appointing an advocate for the environment. Under the Rome Statute, Chambers possess a broad discretion to manage proceedings, as for example is provided in article 64(8)(b). The judges could appoint an expert or advocate to represent the interest of the environment during proceedings, much the same way as a counsel is typically appointed to represent any child in domestic family proceedings or similar cases. Such an advocate for the environment would provide eco-centric counter-weight to the overwhelmingly anthropocentrically oriented framing of the Rome Statute and associated instruments.

The representatives of victims have enjoyed an increasingly prominent role in proceedings before the ICC. To date almost all participation of victims in proceedings has been conducted through a common legal representative.[1339] In *Lubanga*, Trial Chamber I allowed the various legal representatives for the victims access to many documents and the ability to file submissions with the Court, including on substantive topics relating to the guilt or innocence of the accused.[1340] In *Bemba*, the Trial Chamber also allowed victims to file submissions on a range of topics and allowed victim applicants to make an opening statement.[1341] In *Katanga & Ngudjolo*, there were 366 victims who participated in the trial and these victims were divided among two groups, with each group being represented by a common legal representative.[1342]

Corresponding with the judiciary's potential power to hear from an advocate for the environment, the Trust Fund also has scope to be addressed in this manner. Under regulation 49 of the Regulations of the Trust Fund for Victims, the Board of Directors "may consult victims as defined in rule 85 of the Rules of Procedure and Evidence and, where natural

[1338] See infra Chapter III(B)(2).
[1339] WCRO (2013), pp.14-15.
[1340] *Prosecutor v Thomas Lubanga Dyilo,* Decision on Victims' Participation, (Trial Chamber I, Case No ICC-01/04-01/06, 18 January 2008). See also *Lubanga* Appeals Chamber decision, [96]. (holding that, so long as a fair and impartial trial was ensured, victims could contribute evidence going to the guilt or innocence of the Accused). In this respect, see *Lubanga* Appeals Chamber decision, Dissenting Opinion of Judge Pikis, para.14.
[1341] *The Prosecutor v. Jean-Pierre Bemba Gombo*, Decision on the Legal Representation of Victim Applicants at Trial, ICC-01/05-01/08-1020 (Trial Chamber III, 19 November 2010), paras.25-27.
[1342] *The Prosecutor v. Germain Katanga and Mathieu Ngudjolo Chui*, Order on the Organisation of Common Legal Representation of Victims, ICC-01/04-01/07-1328, pp.2-4.

persons are concerned, their families as well as their legal representatives". It continues that the Board may also "consult any competent expert or any expert organisation in conducting its activities and projects". An advocate for the environmental could accordingly have to be classified as an expert in order to qualify for consultative status vis-à-vis the Trust Fund.

Legal recognition of the interests of the environment has occurred in several instances in domestic proceedings, which may provide a model for the advocate for the environment.[1343] For example, the Supreme Court of New Zealand was presented with arguments in July 2017 that the swapping of one parcel of land administered by the Department of Conversation (which was sought for flooding to serve a dam project) for another parcel of land served environmental interests by enhancing the overall "conservation value" of the land managed by the Department.[1344] The Court noted that "[i]t is necessary to consider what is appropriate to protect the "intrinsic values" of the land concerned (a focus required by the definition of "conservation")".[1345] The Court overturned the political decision to permit the land swap on the basis that the assessment had mistakenly focused on the benefits of the overall benefits of swapping the parcels of land instead of focusing on the conversation values of protecting the initial parcel of land in its own right.[1346] Taking account of the intrinsic value of the environment is required under the applicable legislation.[1347]

Similarly, the intrinsic value of environmental features such as a river and a national park have been legally recognised under New Zealand legislation, and boards have been established to represent those interests.[1348] The 2014 legislation protecting the national park noted that its legal status was intended to "preserve, as far as possible, the natural features and beauty of Te Urewera, the integrity of its indigenous ecological systems and biodiversity, and

[1343] Papadopoulou (2009), p88; *T. Corr. Paris*, 16 January 2008, n8 99-34-895010, N/ H 10-82.938 Fp-P+B+R+I N/ 3439 CI 25 *Septembre* 2012 Cassation Partielle Sans Renvoi (available at https://www.courdecassation.fr/IMG///Crim_arret3439_20120925.pdf).
[1344] Hawke's Bay Decision, para.22 ("The summary taken into account by the Director-General was that "from an ecological and biological point of view", exchanging the 147 hectare Smedley land for the 22 hectare Ruahine Forest Park revocation land would enhance the conservation values of land managed by the Department.").
[1345] Hawke's Bay Decision, para.111.
[1346] Hawke's Bay Decision, para.127.
[1347] See New Zealand Conservation Act 1987, Section 2(1), ("Conservation" is defined to mean the "preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations". Additionally, "preservation" is defined in relation to a resource as "the maintenance, so far as is practicable, of its intrinsic values", while "protection" in relation to a resource is defined as "its maintenance, so far as is practicable, in its current state; but includes … its restoration, … augmentation, enhancement, or expansion").
[1348] See Chapter IV(D)(1) referring to Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, Sections 14 and 19, and Te Urewera Act 2014, Sections 11 and 16.

its historical and cultural heritage" and to "provide for Te Urewera as a place for public use and enjoyment, for recreation, learning, and spiritual reflection, and as an inspiration for all".[1349] More recently in 2017, the High Court of Uttarakhand in India declared that the Ganges and Yamuna rivers are living entities with legal status.[1350]

In the case of a military attack resulting in excessive harm to the environment, for example, the advocate for the environment may wish to highlight the harm caused by the conflict in question as a whole to the environment, and not necessarily just that arising from the particular attack. The Prosecution may be resistant towards such an approach due to concerns about losing focus on the primary charges.

In relation to reparations, the advocate for the environment could again play a constructive role in the Court's operations. Rule 97(2) of the ICC Rules authorizes trial chambers to "appoint appropriate experts to assist it in determining the scope." Using experts to assess the form and quantum of reparations obviates the need for victims to attempt to itemize or document their losses, and thereby avoids a source of possible re-traumatization for the victim.[1351] Recently the ICC has issued a call for experts on victims' reparations in relation to the *Al-Mahdi* case, signalling an openness to receiving external expert assistance in this complicated area.[1352]

The advocate for the environment would have to assist the court by advising about the impact on endangered species and biological diversity of certain practices, including practices that we may consider relatively mundane in present circumstances. In order to carry out these functions, the advocate for the environment would require the following powers:

- Represent the views of victims of environmental harm, including by making written and/or oral submissions on points of law and fact;

- Challenge narrowness of indictment: the advocate for the environment should be able to submit a legal challenge to the framing of the indictment. In *Lubanga* this was

[1349] Te Urewera Act 2014, Section 4.
[1350] *M. Salim v. State of Uttarakhand & others*, Writ Petition (PIL) No.126 of 2014, 20 March 2017, para.19.
[1351] WCRO, 3rd report, p.56.
[1352] There is precedent for the use of an expert to address the technical details of victim compensation. In a class action suit brought under the Alien Tort Claims Act by victims of torture and other human rights abuses committed by the authorities during the regime of Ferdinand Marcos in the Philippines, a Special Master was appointed to supervise the compensatory damage phase of the case, which involved around 10,000 victim claimants. The jury ultimately ordered compensatory-damages of over $766 million along with compensatory-damage awards in favor of the direct plaintiffs; *Hilao v. Marcos*, 103 F. 3d 767, 771, 774 (9th Cir. 1996).

carried out by the victims when they attempted to have the indictment re-characterized to include charges of sexual violence. Ultimately the Appeals Chamber agreed with Judge Fulford's dissenting opinion that the re-characterization was not lawful and went beyond the legitimate power of the lower court during the ongoing proceedings.

- Undertake scientific research missions *in situ* to assess the level of the damage.

Some guidance for the advocate for the environment is the role of environmental associations in French civil and criminal proceedings. These associations have received formal recognition as ''guardians'' of the collective interest to environmental protection, and are entitled, subject to certain conditions to bring civil party petitions concerning 'environmental harm' being addressed by criminal courts.[1353] Environmental associations that are able to bring claims for environmental damage are specifically listed in legislation.[1354]

As an alternative, or else in conjunction with the creation of the post of advocate for the environment, a panel of scientists could be convened to advise the ICC on matters of environmental harm.[1355] The panel would effectively operate as *amicus curiae*, with the task of providing the court with independent expert advice on various scientific matters that may arise during the proceedings. The UNCC established a similar pool of experts in order to address the questions of environmental harm that it was tasked to address. There is also provision for expert opinions to be obtained by the Tribunal for the Convention of the Law on the Sea.[1356] It would be important to vet these experts to ensure that none had an improper connection with any of the parties to the proceedings that could compromise their neutrality. Any materials generated by the panel of experts for the Judges should be shared with the Parties to proceedings in order to provide them with an opportunity to comment thereon.[1357]

[1353] Papadopoulou (2009), 87-112.
[1354] Article L142-2 of the French Environmental Code reads "[t]he approved associations mentioned in Article L141-1 may exercise the rights recognised as those of the civil party with regard to acts which directly or indirectly damage the collective interests that they defend and which constitute an infringement of the legislative provisions relating to the protection of nature and the environment, to the improvement of the living environment, to the protection of water, air, soils, sites and landscapes, to town planning, or those whose purpose is the control of pollution and nuisances, nuclear safety and radiation hygiene, and of the enactments for their application"; Papadopoulou (2009), 92.
[1355] McLaughlin (2000), p.406.
[1356] Rules of the Tribunal (UNTCLOS), article 82(1).
[1357] See, e.g., Rules of the Tribunal (UNTCLOS), article 82(2).

F. Conclusion

The above survey shows that the natural environment does not *per se* match the definitions of victims established under the Rules of the ICC, and so could not itself be considered a direct victim of crimes before the ICC under the current framework. Nonetheless, there are circumstances in which human victims of crimes involving environmental harm could qualify as victims in order to potentially participate in proceedings and receive reparations arising from their injuries.

The subject-matter crimes of the ICC – war crimes, crimes against humanity and genocide, are typically viewed as victimizing human beings and their property. There is essentially only one provision directly addressing harm to the environment - article 8(2)(b)(iv) of the Rome Statute, which prohibits attacks resulting in excessive harm to the environment. In keeping with the anthropocentric focus behind the crimes falling into the jurisdiction of the ICC, the relevant provisions of the Rome Statute and associated instruments do not easily lend themselves to an interpretation whereby the environment could qualify as a victim.

At the theoretical level, the exclusion of the environment from itself qualifying as a direct victim is potentially contradictory in light of the Rome Statute's inclusion of an eco-centrically framed crime, namely the prohibition on attacks on the environment resulting in excessive harm under article 8(2)(b)(iv). The discrepancy results in anomalies, including the potential for a situation where there is no person or entity capable of qualifying as a victim despite a grave international crime having been committed. The lack of provision for the environment to qualify as a victim is particularly concerning in light of the guidance in the United Nations principles on the basic rights of victims that there should be compensation for environmental damage, particularly its restoration to the pre-damaged state.[1358] However, the rules also provide the basis for the Judges to order the appointment of an advocate for the environment to ensure that these eco-centric interests are represented during proceedings. That possibility presents a moderating counter-balance to the lack of provision made for the environment as a victim under the Statute and Rules.

The major implications emerging from the survey of the relevant provision on reparations for victims as it applies to environmental harm are: first, there is a natural tension between reparations provided to individuals and reparations provided on a collective basis to restore

[1358] 1985 Victims' Declaration of Basic Principles.

the environment to its pre-damaged state. Specific victims' interests may well differ as to which is preferable in a particular circumstance. Second, there is considerable flexibility in how the awards are structured, subject to the basic requirements of a connection to the charged crime(s) being satisfied, leaving room to cover environmental restoration efforts. Third, the potential for the Trust Fund for Victims to intervene to assist victims and victim projects irrespective of any link to the charged crime is important in its own right as it extends the potential scope of recipients, including potentially to projects centered on the restoration of the environment to its pre-damaged state, partly in line with the Basic Principles of Justice for Victims of Crime and Abuse of Power.

V. OVERALL CONCLUSIONS AND OBSERVATIONS ON THE WAY FORWARD

In 1992, over 170 States gathered in Rio de Janeiro and pledged to take individual and collective action to stem environmental harm within the framework of encouraging sustainable development.[1359] Along with the references to co-operation and "the spirit of global partnership", the Rio Declaration also exhorted States to develop international law, including that applicable during armed conflict, to protect the environment.[1360] One means of transforming this pledge into concrete change is through international criminal law. As reports emerge that the current era of human development is causing the sixth mass extinction,[1361] and population growth intensifies the competition for resources, the anthropogenic threat to the environment is growing. International criminal law presents a system designed to address common concerns and is increasingly being touted as a means to redress environmental harm, including by the United Nations.[1362] The preceding analysis sought to map out the substantive and procedural provisions of international criminal law to discern its potential as a complementary means, along with other multilateral efforts, to protect the environment.

Despite calls in the early 1990s for criminal law to be used to protect environmental interests "as such",[1363] no international court for the environment has been established to address this collective concern. In lieu of a specialised environmental court, the ICC presents itself as the primary institution capable of potentially addressing serious environmental harm. However, to

[1359] Rio Declaration, Principle 7 ("States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities…").

[1360] Rio Declaration. Principles 13, 14, 19, and 24. Principle 13 ("States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction."), Principle 14 ("States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health"), Principle 19 ("States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith."); Principle 24 ("Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.").
See also Convention on the Protection of the Environment through Criminal Law, 1998, (14 European States signed this treaty, but only one has ratified it to date (Estonia) and it has not come into force).

[1361] See infra Chapter I(A): Introduction, citing Gerardo Ceballosa, Paul R. Ehrlich, and Rodolfo Dirzo, "Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines", *Proceedings of the National Academy of Sciences of the United States of America*, May 2017, p.1.

[1362] See infra Chapter I(A): Introduction.

[1363] United Nations Economic and Social Council, Resolution 1993/28, "The role of criminal law in the protection of the environment", Annex: Conclusions of the Seminar on the Policy of Criminal Law in the Protection of Nature and the Environment in a European Perspective, held at Lauchhammer, Germany, from 25 to 29 April 1992, para.4.

date there have been no systematic examinations of the feasibility of investigating, prosecuting and adjudicating environmental harm before the ICC. Commentators have touched upon some substantive provisions that could be used to address environmental harm, such as the war crime in article 8(2)(b)(iv).[1364] But they have not conducted a detailed analysis of the applicability of genocide, crimes against humanity, and war crimes to environmental harm, and have not assessed in detail the procedures that would apply in these circumstances nor the applicability of the framework for victims' participation and reparations to environmental harm. This study seeks to fill the void.

To explore the feasibility of addressing environmental harm before the ICC, the preceding analysis surveyed the substantive and procedural frameworks applicable at the ICC, as well as its provisions on victim participation and reparations. Addressing both theoretical and practical considerations, the study applied a test of adjudicative coherence to test the ICC's ability to adequately prosecute environmental harm. While referring to a wide range of forms of environmental harm, the study primarily focused on three paradigmatic deleterious practices, those being military harms anticipated to cause excessive environmental harm, toxic dumping, and wildlife exploitation. By instantiating the analysis through these three examples, the study provides a unique insight into the manner in which the Court's provisions would operate when applied to a case of environmental harm.

A. Orientation of the Court

In terms of the suitability of prosecuting environmental harm before the ICC, the study has explored the essential orientation of the ICC's substantive crimes, jurisdictional parameters, and rules of procedure, including on victim status and reparations. The analysis shows that the ICC's legal framework is overwhelmingly anthropocentric in its orientation. The lack of any direct reference to the environment or environmental harm in the Preamble to the Rome Statute signals this anthropocentric emphasis. Similarly, the specific provisions of the Rome Statute and accompanying instruments as well as the applicable additional sources of law shows that the environment is accorded at most incidental coverage, and it ultimately subordinated to anthropocentric interests.

The only provision of the Rome Statute that mentions the environment, the war crime set out in article 8(2)(b)(xx), potentially provides a means to address environmental harm. However,

[1364] See infra Chapter II(D)(1) and references therein.

it is subject to exacting restrictions on top of its narrow applicability to only international armed conflicts. It requires knowledge that an attack will cause widespread, long-term and severe damage to the environment. And it incorporates a proportionality test requiring that the perpetrator understood at the time of launching the attack that it would cause environmental harm clearly excessive to the anticipated military advantage. While ostensibly repressed environmental harm, the provision nonetheless elevates anthropocentric interests, particularly the interest in obtaining military advantage, above those of preserving and protecting the environment.

Although there are a multitude of varied anthropocentric prohibitions within the Court's jurisdiction which could conceivably be used to prosecute environmental harm indirectly, reliance on these provisions would send a message that environmental harm is only condemnable indirectly as an offshoot of harm to human beings and their property. In relation to environmental protection, it would undercut one of the primary purposes that international criminal law may serve, which is its declaratory function of recording the human race's moral opprobrium against crimes of concern to the international community as a whole. Consequently, the orientation of the Court's guiding documents evinces a decidedly anthropocentric orientation.

B. Adjudicative (in)coherence

The analysis has also examined whether the orientation of the Court's substantive and procedural framework and its regime for victim redress preclude or significantly prejudice proceedings for environmental harm. It has used the *adjudicative coherence* test to examine whether the Court's provisions exhibit incoherence when applied to environmental crimes, particularly military attacks resulting in excessive environmental harm, toxic dumping and wildlife offences.

In terms of substantive jurisdiction, 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 the extremely rare circumstances. But it cannot be said that the limited possibility of such a conviction contradicts or undermines any explicit goal set out in the Preamble to the Rome Statute. Similarly, the prosecution of environmental harm as part of anthropocentric crimes and prohibitions does not indicate adjudicative incoherence. The crimes, such as the crime against humanity of other

inhumane acts, could be applied to conduct such as toxic dumping and wildlife harm, even though the likelihood of any conviction resulting from solely the environmental harm is not high.

Looking to the procedural framework, as surveyed in Chapter Three, the majority of evidence in environmental harm cases is unlikely to come from eye-witnesses to the perpetration of the crime *res gestae*, and instead will likely constitute scientific type compilations. Litigation for environmental harm will heavily concentrate on forecasting models and epidemic general trends, rather than discrete events such as murders. If the current ICC practice of relying primarily on witness testimony as evidence were applied to environmental harm, this would likely result in unduly lengthy proceedings. However, the emphasis on witness testimony is a feature of practice rather than a fundamental requirement under the Statute and Rules. While that practice could hinder the efficient conduct of proceedings for environmental harm, there is room under the current ICC framework for adjustment of this practice. On its face, the procedural framework of the Court permits considerable flexibility as regards the form of evidence and the manner in which it is received.

The Court's practice of limited judicial involvement during the investigative phase of proceedings would increase the risk of delays in subsequent proceedings and potentially a reduced judicial capacity to understand key technical points in the evidence. However, certain rules that have been utilized only on a limited basis to date allow the judges considerable scope to participate in the investigative stage of proceedings.

Several aspects of the Court's procedural framework present more fundamental difficulties for the prosecution of environmental harm. The prospect of criminal proceedings for environmental harm highlights the contrasting underlying standards between international criminal law and international environmental law. There is a potentially intractable tension between the requirement of certainty for an international criminal trial (or near certainty), to meet the beyond reasonable doubt standard, and the application of the precautionary principle from environmental law, according to which scientific certainty should not be a reason to postpone taking measures to repress environmental damage.[1365] To uphold the established beyond reasonable doubt standard in the context of environmental harm, will be to ignore the precautionary principle's entreaty to take measures even in the case of a lack of full scientific certainty. Conversely, to uphold the precautionary principle's insistence on looking past

[1365] Secretary-General Report 1993, p.17.

scientific certainty will be to undercut established criminal law principles, such as the beyond reasonable doubt standard. Similarly, the time-bound stages of proceedings in international criminal law, in which the Prosecution is required to commit itself to a description of the impugned environmental harm and conduct, with limited opportunity to adjust those charges, fails to address the dynamic, long-term and multi-factorial nature of environmental harm.

On an evidentiary note, the types of longitudinal and/or epidemiological studies required to show certain forms of environmental harm, such as atmospheric pollution resulting in increased pulmonary disease incidence, will involve time-delays and/or costs that may be prohibitive and clash with the accused's right to trial without undue delay as well as the Court's basic funding limitations. Compounding these difficulties will be the possibility of State's citing national security concerns to prevent necessary evidentiary materials demonstrating environmental harm being provided, and the lack of an international subpoena power to oblige witnesses to appear before the Court.

In relation to victims, the analysis herein shows that the natural environment would not qualify in and of itself as a victim under the Rules of the ICC, even though human victims of crimes involving environmental harm could qualify for victim status and potentially for reparations for their injuries. Given the ostensible inclusion of a prohibition on harming the environment, under article 8(2)(b)(iv), the inability of the environment to be accorded victim status suggests an adjudicative imbalance. However, the overwhelmingly anthropocentric tenor of the provisions on victims' participation and reparations, matches the anthropocentric essence of the Rome Statute's substantive and procedural legal framework. Judges are provided sufficient latitude to partially redress this imbalance – for example through the appointment of an advocate for the environment. However, this advocate would not be representing the environment as a victim *de lege* raising the question of whether reparations could or would be ordered in order to restore the natural environment after serious harm suffered due to the commission of a crime under the Rome Statute. The most likely scenario in which this would occur would be if the anthropocentric interests of human victims were seen as best served by restoring their natural environment in line with the Court's subordination of eco-centric to anthropocentric interests.

C. Policy options

Despite the substantive restrictions and procedural obstacles that would hamper the prosecution of environmental harm, it is not inconceivable that an environmental crimes case could be brought before the Court. With the Prosecution announcing a heightened focus on environmental harm, the likelihood of future proceedings having a significant component in this area cannot be discounted. The most direct manner of addressing environmental harm would be a prosecution under the war crime in article 8(2)(b)(iv). Other anthropocentric provisions could also be used to redress environmental harm occurring as a means or result of bringing about the crime.

In light of the restrictive parameters of article 8(2)(b)(iv) and the mismatched fit of environmental harm under anthropocentric provisions, a temptation may arise to adopt novel interpretations of the substantive prohibitions set out in the Rome Statute. Similarly, the potential incompatibility of various procedural provisions with environmental harm, including the definitions of victims, could lead to strained readings of the applicable provisions to accommodate environmental harm. However, such an approach would risk harming the institution's reputation and could have a deleterious impact on its core function of addressing atrocity crimes. In addition to the restraining impact of article 22(2), which prohibits the definition of crimes being extended by analogy, the integrity of the Court and the Rome Statute system as a whole would not be well served by adopting overly stretched interpretations of the Court's provisions in order to redress environmental harm.

An alternative option would be to seek amendment of the existing provisions of the Rome Statute to accommodate the prosecution of environmental harm. For example, a corresponding prohibition for article 8(2)(b)(iv) could be adopted to apply in the context of non-international armed conflicts, which would remove the current imbalanced approach to military attacks that can be anticipated to cause excessive environmental harm. Similarly, the exacting proportionality test in article 8(2)(b)(iv) could be re-worded to more equally balance anthropocentric and eco-centric interests. Additionally, the definition of victims under rule 85 could be adjusted to encompass the natural environment *per se*. This would partially address the current anomaly whereby the article 8(2)(b)(iv) prohibition on disproportionate environmental attacks is primarily designed to protect the environment, but the environment cannot qualify as a victim of this crime under the current ICC provisions.

However, amendments to the Rome Statute and accompanying instruments are not easily achieved.[1366] It is likely the States Parties would be reluctant to adjust existing definitions of war crimes and victims to provisions that have already been debated and consented to. Additionally, some adjustments would necessitate a fundamental divide between environmental harm cases, and the existing substantive crimes under the Rome Statute. For example, if the *mens rea* standard for environmental harm were adjusted to a recklessness or negligence test, as advocated by some commentators, [1367] proving the crime would be qualitatively distinct from the other crimes which require various forms of direct intent and knowledge. Similarly, if the precautionary principle were introduced to avoid uncertainty being an excuse for avoiding responsibility for environmental harm, arguments could be raised that similar legal mechanisms should apply to cases such as mass displacement, which are also multi-factorial and may involve perpetrators undertaking activities that entail a risk, rather than certainty, that they will cause civilians to flee their homes. On top of these questions of coherence and consistency, major adjustments to address environmental harm would provoke the question whether they constitute too great a departure from the Court's conception, which is distinctly anthropocentric in orientation.

An alternate approach would be to establish a separate, purpose-built international environmental crimes court designed to address serious environmental harm through international proceedings. This would permit the creation of a bespoke institution with prohibitions and procedures designed to address cases of serious environmental harm. For example, a specifically designed international environmental crimes court would provide the possibility to incorporate a negligence standard alongside direct intent.[1368]

In the realm of environmental harm prosecutions, negligence has been considered a sufficient mental state to establish liability in several high-profile cases. For example, in 1999 the Erika oil spill off the coast of Brittany was reported to have killed tens of thousands of sea birds and

[1366] Schabas (2011), p.125 (describing the process of amending the Rome Statute as "cumbersome").
[1367] United Nations Economic and Social Council, Resolution 1994/15 "The role of criminal law in the protection of the environment", 25 July 1994, Annex "Recommendations Concerning the Role of Criminal Law in Protecting the Environment", para.(f) ("Environmental crimes should cover intentional as well as reckless acts. When serious harm or actual danger of harm has been caused or created, however, negligent conduct should also be a crime if the persons responsible have significantly departed from the care and skill expected of them in the pursuit of their activities. In relatively minor cases, the imposition of fines, including administratively or judicially imposed non-criminal fines, and other non-custodial alternatives should be sufficient.").
[1368] Mégret (2011), p.249 ("However, the possibility of international regulatory offenses based on international environmental law and those that rely on a standard of negligence should not be excluded, as long as these come with lesser penalties that reflect their lesser gravity.")

damaged approximately 400 km of coastline.[1369] The contracting company shipping the oil was held responsible both criminally and civilly, and ordered to pay fines as well as clean-up costs.[1370] After the Deepwater Horizon oil spill in the Gulf of Mexico caused huge environmental damage in 2010, British Petroleum agreed to plead guilty to criminal charges including felony manslaughter, environmental crimes and obstruction of Congress, and to pay four billion USD in criminal fines and penalties.[1371]

An international environmental crimes court would also allow for the offences to be de-linked from the existence of armed conflict. Mégret notes that "[t]he devastation sown by some human activities under the cover of peace is occasionally far greater than that caused in war."[1372] He argues that "in the search for normative and moral consistency", punishable harm to the environment should not be limited to that occurring in armed conflict, as "[f]rom an environmental point of view, there is no reason why it should not be equally reprehensible to cause such damage in peacetime."[1373]

An international environmental crimes court could be designed with diverse measures and remedies available to repress and compensate for environmental harm. This would adhere to the advice of the United Nations Economic and Social Council that "national and supranational authorities should be provided with a wide array of measures, remedies and sanctions, within their constitutional and legal frameworks and consistent with the fundamental principles of criminal law, in order to ensure compliance with environmental protection laws."[1374] It would ensure the flexibility to address cases varying from the killing of the last members of an endangered species, to industrial level toxic dumping in natural sites.

[1369] See http://www.reuters.com/article/us-france-erika-idUSBRE88O0LX20120925.
[1370] Papadopoulou (2009), pp.87-112, at 88 ; *T. Corr. Paris*, 16 January 2008, n8 99-34-895010, N/ H 10-82.938 Fp-P+B+R+I N/ 3439 CI 25 *Septembre* 2012 Cassation Partielle Sans Renvoi.
[1371] United States Environmental Protection Agency, Summary of Criminal Proceedings for 2013 (available https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2468) (last checked 27 December 2017).
[1372] Mégret (2011), pp.246-247.
[1373] Mégret (2011), p.246.
[1374] United Nations Economic and Social Council, Resolution 1994/15 "The role of criminal law in the protection of the environment", 25 July 1994, Annex "Recommendations Concerning The Role Of Criminal Law In Protecting The Environment", para.(b) ("National and supranational authorities should be provided with a wide array of measures, remedies and sanctions, within their constitutional and legal frameworks and consistent with the fundamental principles of criminal law, in order to ensure compliance with environmental protection laws. They should include regulatory and licensing powers, incentives, administrative enforcement mechanisms, and punitive administrative, civil and criminal sanctions for impairing or endangering the environment. They should also include provisions for the forfeiture of profits and proceeds of crime, and of property used or employed in the commission of crime, such as vessels, vehicles, tools, equipment and buildings").

In terms of the substantive prohibitions that a purpose-built institution could address, the most widely touted environmental crime at the international level is that of ecocide. Richard Falk proposed a Convention on the Crime of Ecocide, which defined ecocide as encompassing 'acts committed with intent to destroy, in whole or in part, a human ecosystem', in peacetime or wartime.[1375] To better adhere to the principle of *nullum crimen sine lege*, a more detailed prohibition with examples of included acts of environmental harm would assist persons to plan their behaviour and courts to regulate transgressions. A model is provided by the definition of the crime of aggression under the Rome Statute, which incorporates two tiers – a general definition and an enumerated list of examples.[1376] Existing treaties of international environmental law could be used to populate the specifically prohibited conduct list, such as through the Basel Convention for toxic dumping and the CITES treaty for wildlife offences, and similar instruments of international environmental law.

An international environmental crimes court could be attributed with jurisdiction covering corporate responsibility, in line with the recommendations of the United Nations Economic and Social Council that "support should be given to the extension of the idea of imposing criminal or non-criminal fines or other measures on corporations in jurisdictions in which corporate criminal liability is not currently recognized in the legal systems."[1377] This would allow international criminal (or quasi-criminal) proceedings to be undertaken against the entities that frequently bear responsibility for the largest scale environmental disasters, and would allow the international community to send a message to corporate actors to ensure environmental conscientiousness.

Procedurally, several practical difficulties could be avoided through the careful framing of the new court's procedural framework. The tension between the sacrosanct principle of the beyond reasonable doubt standard applicable in international criminal law, and the inherently dynamic nature of environmental harm could be confronted directly in the design of a purpose-built institution to address environmental harm at the international law. Incorporating the precautionary standard from international environmental law as a form of procedural device that shifted the burden onto the party who acted in the face of scientific uncertainty as to the potential consequences of their acts resulting in the environment harm, would also help

[1375] Richard Falk, "Environmental Warfare and Ecocide: Facts, Appraisal and Proposals", 4 *Bulletin of Peace Proposals* (1973) 80, at 93, appendix 1.
[1376] Rome Statute, article 8*bis*.
[1377] United Nations Economic and Social Council, Resolution 1994/15 "The role of criminal law in the protection of the environment", 25 July 1994, Annex "Recommendations Concerning the Role of Criminal Law in Protecting the Environment", para.(g).

avoid the situation where uncertainty inherent in the nature of addressing multi-factorial, dynamic environmental harm, would prevent any responsibility being established for that harm.[1378]

Ultimately, the world faces a growing risk of environmental harm both during and outside of armed conflict. Seeking innovative means to address and repress serious forms of environmental harm is important, and the ICC at first view appears an appropriate venue to hold those who commit serious environmental damage responsible and deter other potential offenders. But equally important is an appreciation of the potential limitations and pitfalls of seeking to prosecute environmental harm at an overwhelmingly anthropocentric institution. The substantive and procedure provisions, as well as the Court's innovative regime for victim participation and reparations, present numerous challenges to the effective and efficient investigation and prosecution of environmental harm. While there are ways in which the Court could potentially prosecute some forms of environmental harm, in many cases these indirect means would be an awkward fit and would reinforce the message of eco-centric subordination to anthropocentric interests emerging from the Court's framework. Instead of straining the ICC's provisions and principles to try to cover environmental harm, there would be considerable merit in developing a purpose designed institution able to effectively redress all forms of serious environmental harm, efficiently and through fair proceedings.

[1378] See infra Chapter III(C)(2)(d)(iv).

VI. SUMMARY

Prosecuting Environmental Harm before the International Criminal Court

This thesis explores the feasibility of prosecuting environmental harm before the International Criminal Court. It examines the Court's substantive and procedural framework to determine its applicability to instances of serious destruction of the environment. It analyses the rules concerning victim participation and compensation arising from environmental harm. Key provisions and jurisprudence governing the Court's work are assessed, along with relevant international law conventions, principles, cases and commentary. Fundamentally, the study questions the extent of the Court's anthropocentric orientation and impact thereof on any prospective eco-centric proceedings.

The opening chapter surveys key environmental threats currently plaguing the world. It places particular focus on three activities which threaten the environment: military attacks resulting in environmental harm, toxic dumping, and wildlife offences. It highlights the recognition of these threats in United Nations General Assembly and Security Council resolutions, as well as in international conventions such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal of 1989 and the Convention on International Trade in Endangered Species of Wild Fauna and Flora of 1973. Moving to the framework governing international criminal prosecutions, the opening chapter looks to the development of international criminal law, noting the multiplication of international criminal institutions with jurisdiction to address the most grave atrocities menacing the well-being of human beings around the world. On a parallel track, it summarizes the development of international environmental law and the key principles emerging from this regulatory body.

To introduce the terminology used throughout the work, the opening chapter sets out definitions of key concepts such as the natural environment, anthropocentrism, and eco-centrism. Looking to the possibility of the International Criminal Court intervening to address environmental harm, the analysis notes the sources of law listed in article 21 of the Rome Statute of the ICC, which encompass the Statute itself, the Rules of Procedure and Evidence, customary and conventional law, and general principles of law derived from national systems. These sources potentially leave room to import principles and practices from the field of environmental law but also raise questions about how far such incorporation of other bodies of law may be taken. The analysis concludes that whereas certain principles of international environmental law, such as the precautionary principle, could be potentially used to assist interpreting the Rome Statute, the direct importation of substantive prohibitions from international environmental law would be a step too far and would clash, in particular, with the express inclusion of certain crimes in articles 5 to 8bis of the Rome Statute.

The opening chapter also explains the approach taken in the analysis of prosecuting environmental harm before the ICC. In this respect, it presents the test of adjudicative coherence, which is used to test the viability of prosecuting international environmental harm under the Rome Statute. While based on approaches taken in certain international judicial decisions testing unprecedented regulatory features, the adjudicative coherence test as formulated herein is novel. It examines whether the specific ICC rules and procedures, when viewed in their context and applied to possible scenarios involving environmental harm, would result in an incoherent judicial process. Essentially, the test asks whether the application of the Court's framework to environmental harm would require such interpretive gymnastics or would meet such practical obstacles because of the nature of the harm being prosecuted, that it would see the feasibility of the proceedings seriously impaired or

jeopardized. In subsequent chapters, the adjudicative coherence test is applied to assess the feasibility of ICC proceedings for the three causes of environmental harm listed above – military attacks, toxic dumping and wildlife offences.

In chapter II, the analysis shifts to the substantive provisions and prohibitions set out in the Rome Statute, namely genocide, crimes against humanity, war crimes, and aggression. Each of these crimes is examined for its potential to capture and condemn environmental harm. In each instance, the assessment concludes that prosecuting environmental harm under the Rome Statute's provisions would almost certainly require the showing of significant anthropocentric harm. The assessment then narrows the focus to the three key forms of environmental harm mentioned above. Various complications that can be foreseen are presented in order to provide a detailed picture of the capacity of international criminal law, and the international criminal court specifically, to address environmental harm.

For military attacks causing excessive environmental harm, the analysis concludes that the more directly relevant provision, article 8(2)(b)(iv), is encumbered by such restrictive requirements that it would be extremely difficult to apply to any actual instance of environmental harm. Other war crimes, crimes against humanity, and forms of genocide could potentially address military attacks resulting in serious environmental harm, but those other crimes are primarily focused on anthropocentric interests. Applying the Rome Statute's provisions to a posited case of toxic dumping or wildlife offences, would see similar concerns arise; although it would be theoretically possible, particularly under the crime against humanity of other inhumane acts, or through the various forcible displacement type crimes, these would see eco-centric interests subordinated and made conditional upon anthropocentric harm.

In chapter III, the survey shifts to the jurisdictional and procedural issues that are likely to arise if proceedings centred on environmental harm are undertaken. Jurisdictional concerns that are discussed include the substantive limits on the ICC's remit, along with temporal and personnel limitations on the Court's jurisdiction. The chapter then moves to the rules of procedure and evidence, and maps these onto potential environmental harm cases. A major focus of this chapter is on evidence, including witness evidence, bar table motions, and expert evidence. The assessment concludes that several significant hurdles are presented by the Court's jurisdictional and procedural framework in relation to prosecuting environmental harm. From the technical demands of gathering and assessing evidence of environmental harm, to the difficulty of completing investigations and presenting evidence in a timely manner when that evidence requires longitudinal studies and large amounts of expert evidence, along with the complexity of proving criminal culpability for environmental damage that will frequently be multi-factorial, there are several respects in which the Court's procedures will make prosecuting environmental harm highly challenging.

In chapter IV, the thesis looks to the ICC's system of victim participation and reparations. It notes the Court's expansive approach to victim participation, but also the lack of a provision on the definition of victims for living entities other than humans, aside from organisations that are created by human beings. The Court's provisions on victims do not leave space for the environment to qualify as a victim in its own right. As for human victims of environmental harm, they may seek to participate in proceedings and receive reparations, which accords with the Court's strongly anthropocentric orientation. This conclusion is reinforced when the examples of military attacks resulting in excessive environmental harm, toxic dumping, and wildlife offences are assessed under the victim participation and reparations framework.

Finally, in its last chapter, the thesis presents overarching conclusions concerning the nature of the Court's orientation (anthropocentric vs eco-centric). Based on the preceding analysis, the thesis concludes that the ICC is primarily designed to address anthropocentric crimes. It notes that potential criminal proceedings for environmental harm will, if taken to trial, highlight the contrasting underlying standards between international criminal law and international environmental law. In that respect, the potentially intractable tension between the requirement of certainty for an international criminal trial (or near certainty), to meet the beyond reasonable doubt standard, and international environmental law's precautionary principle, according to which scientific certainty should not be a reason to postpone taking measures to protect the environment.

Looking forward, the thesis presents several policy options for how maximize the powerful potential of international criminal law to address environmental harm in some form or another. It concludes that while many apparent difficulties will arise if the Rome Statute is applied to environmental harm in its current formulation, it will also be difficult to amend the Rome Statute to accommodate prohibitions of environmental harm without unbalancing or fundamentally altering the nature of the Court. Alternatively, the prospect of a specifically designed international institution to address serious environmental harm through judicial proceedings presents itself as a means of effectively redressing environmental harm while avoiding several of the complications inherent in using the primarily anthropocentric ICC framework to address such harm. The applicable *mens rea* standard could be set at a level considered most appropriate for environmental harm, offences could be de-linked from armed conflict without having to be linked to anthropocentric suffering, corporate responsibility could be encompassed in the Court's scope, and procedures could be adapted to best suit cases heavily dependent on the introduction and assessment of scientific and expert evidence. While there would be considerable costs involved, both political and economic, in establishing such an institution, it would provide the international community with a mechanism crafted to address the threat of grave environmental harm which is a cause to all those who inhabit the Earth and to the Earth itself.

VII. SAMENVATTING (SUMMARY IN DUTCH)

De vervolging van milieuschade voor het Internationaal Strafhof

Dit proefschrift onderzoekt de haalbaarheid van de vervolging van milieuschade voor het Internationaal Strafhof. Het bestudeert het materiële en procedurele kader van het Hof om te bepalen of het toepasbaar is op gevallen van ernstige vernietiging van het milieu. Het analyseert de regelgeving omtrent slachtofferparticipatie en compensatie voortkomend uit milieuschade. De belangrijkste bepalingen en jurisprudentie die van toepassing zijn op de werkzaamheden van het Hof, evenals de relevante internationale verdragen, rechtsbeginselen, zaken en toelichtingen, worden beoordeeld. Fundamenteel zet het onderzoek kanttekeningen bij de omvang van de antropocentrische oriëntatie van het Hof en de gevolgen voor alle toekomstige ecocentrische procedures dat deze oriëntatie met zich meebrengt.

Het openingshoofdstuk bekijkt de belangrijkste milieubedreigingen die momenteel de wereld teisteren. In het bijzonder wordt er gefocust op drie activiteiten die het milieu bedreigen: militaire aanvallen die leiden tot excessieve milieuschade, het dumpen van toxische stoffen en natuurdelicten. Het hoofdstuk benadrukt de erkenning van deze bedreigingen in zowel de resoluties van de Algemene Vergadering en Veiligheidsraad van de Verenigde Naties, als in de internationale verdragen zoals het Verdrag van Bazel inzake de beheersing van de grensoverschrijdende overbrenging van gevaarlijke afvalstoffen en de verwijdering ervan van 1989 en de Overeenkomst inzake de internationale handel in bedreigde in het wild levende dier- en plantsoorten van 1973. Het openingshoofdstuk behandelt, met betrekking tot het kader van internationale strafvervolging, de ontwikkeling van internationaal strafrecht. Hierbij wordt opgemerkt dat er een vermenigvuldiging plaatsvindt van het aantal internationale strafrechtelijke instanties die jurisdictie hebben over de meest ernstige wreedheden die het welzijn van mensen over de hele wereld bedreigen. Tegelijkertijd vat het hoofdstuk de ontwikkeling van de internationale milieuwetgeving en de rechtsbeginselen die hieruit ontstaan samen.

Het openingshoofdstuk geeft een overzicht van de definities van de belangrijkste begrippen zoals het natuurlijke milieu, antropocentrisme en ecocentrisme, om zo de gebruikte terminologie in te leiden. Met betrekking tot de mogelijkheid voor het Internationaal Strafhof om milieuschade aan te pakken, noemt de analyse de rechtsbronnen die worden opgesomd in Artikel 21 van het Statuut van Rome inzake het Internationaal Strafhof. Hieronder vallen het Statuut zelf, het Reglement van proces- en bewijsvoering, verdragen en gewoonterecht en de algemene rechtsbeginselen van nationale rechtsstelsels. Deze bronnen geven mogelijk ruimte om de rechtsbeginselen en praktijken vanuit milieurecht in te voeren, maar tevens doen ze vragen rijzen in hoeverre andere wetgeving geïncorporeerd mag worden. De analyse concludeert dat hoewel bepaalde beginselen van internationaal milieurecht, zoals het voorzorgsbeginsel, mogelijk gebruikt kunnen worden om te dienen in de interpretatie van het Statuut van Rome; de directe overname van de materiële verbodsbepalingen van internationaal milieurecht zou een stap te ver zijn en zou in strijd zijn met de uitdrukkelijke opname van bepaalde misdaden in artikelen 5 tot 8bis van het Statuut van Rome.

Het openingshoofdstuk legt de aanpak van de analyse van het vervolgen van milieuschade voor het Internationaal Strafhof uit. In deze uitleg wordt de test van adjudicatieve coherentie gepresenteerd, die wordt gebruikt om de uitvoerbaarheid van het vervolgen van milieuschade onder het Statuut van Rome te testen. Hoewel deze test gebaseerd is op bepaalde internationale rechtelijke uitspraken waarin regelgevende kenmerken zonder precedent worden getoetst, is de test van adjudicatieve coherentie zoals deze hier wordt geformuleerd nieuw. Het bestudeert of de gespecificeerde regels en procedures van het Internationaal Strafhof, wanneer ze worden bekeken vanuit hun context en worden toegepast

op mogelijke scenario's die milieuschade omvatten, zouden leiden tot een incoherente gerechtelijke procedure. In wezen wordt in de test gevraagd of de toepassing van het kader van het Hof op milieuschade zo'n interpretatieve gymnastiek zou vereisen of zou leiden tot dergelijke praktische obstakels vanwege de schade die wordt vervolgd, dat het de haalbaarheid van de procedures ernstig beschadigd of bedreigd. In de daaropvolgende hoofdstukken wordt de adjudicatieve coherentie test toegepast om de haalbaarheid van procedures voor het Internationaal Strafhof voor de bovengenoemde oorzaken van milieuschade – militaire aanvallen, het dumpen van toxische stoffen en natuurdelicten – te beoordelen.

In hoofdstuk II worden de materiële bepalingen en verbodsbepalingen zoals omschreven in het Statuut van Rome geanalyseerd, namelijk genocide, misdrijven tegen de menselijkheid, oorlogsmisdaden en agressie. Van elk van deze misdrijven wordt beoordeeld op de potentie om milieuschade vast te stellen en te veroordelen. In elk van deze gevallen is de conclusie dat het vervolgen van milieuschade voor het Internationaal Strafhof vrijwel zeker het aantonen van aanzienlijke antropocentrische schade vereist. Vervolgens wordt de nadruk gelegd op de drie belangrijkste vormen van milieuschade zoals die hierboven benoemd. Om een gedetailleerd beeld te geven van de bevoegdheid van internationaal strafrecht, met het Internationaal Strafhof in het bijzonder, om milieuschade aan de orde te stellen worden verscheidene complicaties die voorzien kunnen worden gepresenteerd.

Voor militaire aanvallen die excessieve milieuschade veroorzaken concludeert de analyse dat de meer direct relevante bepaling, artikel 8(2)(b)(iv), belast is met dusdanig restrictieve vereisten dat het zeer lastig zou zijn om deze toe te passen op concrete gevallen van milieuschade. Andere oorlogsmisdrijven, misdrijven tegen de menselijkheid en vormen van genocide kunnen mogelijk militaire aanvallen die leiden tot excessieve milieuschade aan de orde stellen, maar deze misdrijven benadrukken vooral antropocentrische belangen. Soortgelijke bezwaren rijzen wanneer het Statuut van Rome wordt toegepast op een geponeerde casus van natuurdelicten of het dumpen van toxische stoffen. Hoewel het theoretisch mogelijk zou kunnen zijn, met name onder midsdrijven tegen de menselijkheid zoals andere inhumane handeling of de verscheidene soorten misdrijven van het onder dwang overbrengen van een bevolking, zouden deze ecocentrische belangen worden achtergesteld en afhankelijk zijn van antropocentrische schade.

In hoofdstuk III, wordt de aandacht van het onderzoek verlegd naar de jurisdictionele en procedurele kwesties die zich waarschijnlijk zullen voordoen als procedures worden ondernomen die gericht zijn op milieuschade. Jurisdictionele zaken die worden besproken betreffen de materiële beperkingen van de bevoegdheden van het Internationaal Strafhof en de temporele en personele beperkingen van de jurisdictie van het Hof. Vervolgens behandelt het hoofdstuk het reglement van proces- en bewijsvoering en sluit deze aan op mogelijke gevallen van milieuschade. Een speerpunt van deze evaluatie betreft bewijs, inclusief ooggetuigenissen, deskundigenbewijs en het inbrengen van bewijs tijdens de zitting zonder een getuige te gebruiken. In de beoordeling wordt geconcludeerd dat het jurisdictionele en procedurele kader van het Hof met betrekking tot de vervolging van milieuschade verscheidene belangrijke hindernissen vormt. Zo zijn er de technische eisen aan het verzamelen en beoordelen van bewijs van milieuschade en de druk om onderzoeken af te ronden en bewijs tijdig voor te leggen terwijl dit langdurige onderzoeken en grote hoeveelheden deskundigenbewijs vereist. Dit gaat tevens gepaard met de complexiteit van het bewijzen van de verwijtbaarheid voor milieuschade dat vaak multifactorieel is. Deze verscheidene aspecten in de procedures van het Hof maken de vervolging van milieuschade uiterst uitdagend.

In hoofdstuk IV wordt het systeem van het Internationaal Hof met betrekking tot slachtofferparticipatie en herstelbetalingen behandeld. Het hoofdstuk noemt de expansieve benadering

van het Hof ten aanzien van slachtofferparticipatie, maar wijst ook naar het ontbreken van een bepaling over de definitie van slachtoffers voor levende wezens behalve mensen, naast organisaties die zijn opgezet door mensen. De bepalingen van het Hof omtrent slachtoffers geven niet de mogelijkheid voor het milieu om op zichzelf te kwalificeren als slachtoffer. Daaarentegen mensen die slachtoffer van milieuschade zijn mogen wel deelnemen aan de procedures en herstelbetalingen ontvangen, hetgeen overeenkomt met de sterk antropocentrische oriëntatie van het Hof. Deze conclusie wordt versterkt wanneer de voorbeelden van militaire aanvallen die leiden tot excessieve milieuschade, het dumpen van toxische stoffen en natuurdelicten worden beoordeeld in het kader van slachtoffer participatie en herstelbetalingen.

Ten slotte, in het laatste hoofdstuk licht het proefschrift de overkoepelende conclusies omtrent de aard van de oriëntatie van het Hof (antropocentrisch versus ecocentrisch) toe. Op basis van de voorgaande analyse concludeert het proefschrift dat het Hof vooral is ontworpen om antropocentrische misdaden aan te pakken. Het stelt dat, indien milieuschade voor het gerecht wordt gesleept, de mogelijke strafprocedures voor milieuschade de tegenstrijdige onderliggende normen tussen internationaal strafrecht en internationaal milieurecht zullen benadrukken. Zo is er, in dat opzicht, de mogelijke spanning tussen de eis voor zekerheid in een internationale strafprocedure (of nagenoeg zekerheid) om te voldoen aan de norm van buiten redelijke twijfel en het voorzorgsbeginsel van internationaal milieurecht, volgens welke wetenschappelijke zekerheid geen reden mag zijn om milieubeschermende maatregelen uit te stellen.

Vooruitkijkend presenteert het proefschrift meerdere beleidsopties voor het maximaliseren van het machtige potentieel van internationaal strafrecht om milieurecht op één of andere wijze aan te pakken. Het concludeert dat hoewel veel schijnbare moeilijkheden zullen rijzen als het Statuut van Rome met de huidige formulering wordt toegepast op milieuschade, het ook lastig zou zijn om het Statuut van Rome aan te passen aan de verboden van milieuschade zonder de aard van het Hof fundamenteel te veranderen. Het idee om een internationale instantie op te zetten dat specifiek is opgezet om milieuschade aan te pakken door middel van juridische procedures presenteert zich als een alternatief om effectief milieuschade te herstellen. Tevens kunnen met dit alternatief de verschillende complicaties worden voorkomen die inherent zijn in de aanpak van milieuschade van het voornamelijk antropocentrisch kader van het Internationaal Strafhof. De toepasbare mens rea norm kan worden gezet op een niveau dat wordt beschouwd als meest geschikt voor milieuschade. Misdrijven kunnen worden losgekoppeld van gewapende conflicten zonder dat de schade gerelateerd moet zijn aan antropocentrisch leed. Verder zou bedrijfsverantwoordelijkheid opgenomen kunnen worden in de reikwijdte van het Hof en procedures kunnen worden aangepast om zo goed mogelijk aan te sluiten bij zaken die sterk afhankelijk zijn van het inbrengen en beoordelen van wetenschappelijk- en deskundigenbewijs. Ondanks dat er aanzienlijke kosten, zowel politiek als economisch, verbonden zouden zijn aan de oprichting van een dergelijke instantie, zou het de internationale gemeenschap een mechanisme bieden dat is gemaakt om het gevaar van milieuschade aan te pakken, hetgeen een doel is voor iedereen op deze aarde en de aarde zelf.

VIII. ANNEXES

A. Bibliography

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C. Conventions and Protocols

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Convention on International Trade in Endangered Species of Wild Fauna and Flora (adopted 3 March1973, entered into force 1 July 1975) 993 UNTS243.

Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be Excessively Injurious or to have Indiscriminate Effects 1342 UNTS 137.

Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, 1342 UNTS 137.

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IX. *CURRICULUM VITAE*

Matthew Gillett is an international lawyer and academic who has worked and written on issues concerning international criminal law for over ten years. He currently works as a Trial Lawyer in the Office of the Prosecutor of the International Criminal Court, and has previously worked as a Trial Attorney and Appeals Counsel at the United Nations International Criminal Tribunal for the former Yugoslavia, and as a defence barrister and judges' clerk in New Zealand. In 2010, he was a member of the New Zealand delegation at the Kampala Review Conference of the International Criminal Court, where the crime of aggression agreed upon. He teaches and writes on issues ranging from crimes against humanity, to terrorism, to criminal procedure, and has received several awards for his academic work.