

DANUTA PALARCZYK*



ECOCIDE BEFORE THE INTERNATIONAL CRIMINAL COURT: SIMPLICITY IS BETTER THAN AN ELABORATE EMBELLISHMENT

Accepted: 30 January 2023; Published online: 20 February 2023

ABSTRACT. In 2021, with their proposals of a new definition of ‘ecocide’, the Independent Expert Panel for the Legal Definition of Ecocide (‘IEPLDE’) and the Promise Institute for Human Rights (‘UCLA’) Group of Experts reignited the discussion on expanding the International Criminal Court’s (‘ICC’ or ‘Court’) jurisdiction over the gravest instances of environmental degradation. The proposed definitions form part of the broader campaign towards the international criminalisation of ‘ecocide’ and its prosecution before the ICC. This discussion challenges such ambitions, arguing that, in its current form, the Court would be unable to produce environmentally-satisfactory results. It underscores that the human-centric fundamentals of modern international criminal law (‘ICL’) prevent the ICC from fusing different approaches and values governing international environmental law (‘IEL’) into its institutional design. A middle-ground is proposed instead: rather than surrendering the pursuit of environmental justice before the ICC or risking a ‘symbolic’ revolutionisation, the focus should be re-oriented on maximising the ‘environmental’ potential of the current statutory framework. This approach aligns with the strive towards greater ‘internationalisation’ of international courts and tribunals, encouraging more eager analysis of their statutory provisions from multiple perspectives and in the context of a variety of cross-sectoral international law norms, objectives, principles, and approaches. Two possible directions for progression in that regard are proposed: (i) more resourceful translation of environmental realities into the substantive prohibitions of war crimes and (ii) more active reliance on and application of a ‘greened’ scope of Articles 21(3) and 7(1) of the Statute.

* University of Cambridge, Cambridge, UK. E-Mail: danpalarczyk@gmail.com.

I INTRODUCTION

It is indeed an ‘unfortunate truism’ that the environment is jeopardised and harmed during armed hostilities and conflict situations,¹ and reduced to ‘a silent casualty of war’.² This exclusive perception still has a firm and rigid grounding in the ubiquitous understanding of ‘harm’. The international reaction to Russia’s invasion of Ukraine exemplifies the secondary treatment of the environment, still deeply entrenched in the utilitarian vision of nature. Alongside the direct toll on civilian life, the aggression has led to many far-reaching environmental abuses: for instance, the seizure of the Chernobyl nuclear disaster site has mobilised ‘radioactive dust’ and increased ‘detectable radiation [that] may spread radioactive material into new areas’.³ As the conflict is of an international nature (‘IAC’), termed the ‘first-ever occasion’ for Article 8(2)(b)(iv) of the Rome Statute (‘Statute’),⁴ there is a chance, although slight, that environmental wrongs will finally reach the attention of the International Criminal Court (‘ICC’ or ‘Court’).⁵ Yet, the value of that precedent remains contentious. The first obstacle is set by the excessively high threshold of Article 8(2)(b)(iv) of the Statute, limiting its application to incidental and chimerical instances of mass environmental damage whilst

¹ Matthew Gillett, ‘Eco-struggles: Using International Criminal Law to Protect the Environment During and After Non-international Armed Conflict’ in Carsten Stahn, Jens Iverson, and Jennifer S Easterday (eds), *Environmental Protection and Transitions From Conflict to Peace: Clarifying Norms, Principles, and Practices* (OUP 2017), p. 222.

² International Committee of Red Cross (‘ICRC’), ‘Guidelines on the Protection of the Natural Environment in Armed Conflict Rules and Recommendations Relating to the Protection of the Natural Environment Under International Humanitarian Law, With Commentary’ (2020), §77.

³ Environmental Peacebuilding Association, ‘Open Letter on the Environmental Dimensions of the Russian Invasion of Ukraine’ (*Environmental Peacebuilding*, 03/03/2022) <https://www.environmentalpeacebuilding.org/library/show/LibraryItem-6528> last accessed 23/01/2023.

⁴ Article 8(2)(b)(iv) of the Statute is the only crime within the framework of the ICC that refers to the environment. See Mark Kersten, ‘Forgotten Victim of War: The Natural Environment in Ukraine’ (*JusticeInConflict*, 02/05/2022) <https://justiceinconflict.org/2022/05/02/the-forgotten-victim-of-war-the-natural-environment-in-ukraine/> accessed 23/01/2023.

⁵ For more information see ‘Joint Statement on Environmental Crimes in Ukraine’ (*ASEAN Parliamentarians for Human Right*, 30/05/2022) <https://aseanmp.org/2022/05/30/joint-statement-on-environmental-crimes-in-ukraine/> accessed 23/01/2023.

excluding the majority of recent and current conflicts that are non-international ('NIACs') or diffusive in nature.⁶ The stark absence of an equivalent peacetime and NIAC provision and the dubious prospects of creating a special international court for the environment ('ICE')⁷ has caused many,⁸ including the Independent Expert Panel for the Legal Definition of Ecocide ('IEPLDE')⁹ and the Promise Institute for Human Rights ('UCLA') Group of Experts,¹⁰ to advocate the expansion of the ICC's jurisdiction over the gravest instances of environmental degradation. This discussion challenges the current ambitions. Although the case for the development of an autonomous international crime prohibiting mass environmental damage is meritorious and warrants attention, it seems to neglect the second and more fundamental obstacle precluding the prompt and smooth translation of environmental harm into the language of the ICC: the *sui generis* nature of the Court. The enduring theme of modern international criminal law ('ICL') remains the protection of humanity; one should not be 'pushing too far too fast in trying to turn the ICC into more than its language clearly states'.¹¹ International environmental law ('IEL') is an unparalleled field of international law driven by its own peculiar technicalities, objectives, and narratives,

⁶ Thibaud de La Bourdonnaye, 'Greener Insurgencies? Engaging Non-state Armed Groups for the Protection of the Natural Environment During Non-international Armed Conflicts' (2020) 102 (914) *International Review of the Red Cross* 579, 580.

⁷ Patrick J Keenan, Charlotte Ku, and Shirley V Scott, 'The Creation of a Climate Change Court or Tribunal' in Shirley V Scott and Charlotte Ku (eds), *Climate Change and the UN Security Council* (Edward Elgar Publishing 2018), pp. 79–80.

⁸ See, e.g., Aurelie Lopez 'Criminal Liability for Environmental Damage Occurring in Times of Non-International Armed Conflict: Rights and Remedies' (2007) 18(2) *Fordham Environmental Law Review* 231, 271.

⁹ IEPLDE, 'Commentary and Core Text' (*Stop Ecocide Foundation*, 06/2021) <https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d1e6e604fae2201d03407f/1624368879048/SE+Foundation+Commentary+and+core+text+rev+6.pdf> accessed 23/01/2023.

¹⁰ UCLA Group of Experts, 'Proposed Definition of Ecocide' (09/04/2021) <https://ecocidelaw.com/wp-content/uploads/2022/02/Proposed-Definition-of-Ecocide-Promise-Group-April-9-2021-final.pdf> accessed 23/01/2023.

¹¹ Peter Sharp, 'Prospects for Environmental Liability in the International Criminal Court' (1999) 18(217) *Virginia Environmental Law Journal* 217, 220.

which deserve individual and separate treatment. Although its normative development ‘has come a long way from ‘limited/utilitarian’ concerns to ‘common concerns of humankind’,¹² still, as shown above, environmental concerns do not attract much attention causing IEL to develop at the intersection of other sub-divisions of international law. Whilst recognising IEL’s intrinsic fragility, international courts and tribunals (‘ICTs’) have gradually taken a more ‘welcoming’ approach towards environmental matters, analysing their institutional frameworks from a plurality of perspectives and evaluating them in the context of a variety of cross-sectoral norms of international law.¹³ In this spirit and without risking a too hasty adaptation of the law to a new set of rules, the fundamental premise advanced here is that the ICC should align itself to the ‘reinforcing technique’, reading environmental norms into its substantive statutory provisions. The lack of a specific environmental provision applicable in peacetime and NIAC ‘could actually be an advantage when exploring ways in which existing provisions could be more purposively interpreted’.¹⁴ The ultimate challenge on the side of the ICC would be to ‘strike the right balance between environmental protection and the integrity’ of ICL,¹⁵ being cautious of the fact that its practice can go both ways: ‘it could be inhibiting or facilitating legal development’.¹⁶ With jurisdiction over the most serious crimes of international law, the ICC, being ‘a constitutional development’,¹⁷ can influence and mould the behaviour of individual States and draw policy attention.

¹² Bharat H. Desai and Balraj K. Sidhub, ‘International Courts and Tribunals—The New Environmental Sentinels in International Law’ (2020) 50(1–2) *Environmental Policy and Law* 17, 28.

¹³ Julian Wyatt, ‘Law-Making at the Intersection of International Environmental, Humanitarian and Criminal Law: The Issue of Damage to the Environment in International Armed Conflict’ (2010) 92(879) *International Review of the Red Cross* 593, 646.

¹⁴ Tara Smith, ‘Critical Perspectives on Environmental Protection in Non-international Armed Conflict: Developing the Principles of Distinction, Proportionality and Necessity’ (2019) 32(4) *Leiden Journal of International Law* 759, 761.

¹⁵ *Supra* note 13, 645.

¹⁶ Christina Voigt (ed), *International Judicial Practice on the Environment: Questions of Legitimacy* (CUP 2019), p. 17.

¹⁷ Gerard Kemp, ‘Climate Change, Global Governance and International Criminal Justice’ in Oliver C. Ruppel, Christian Roschmann, and Katharina Ruppel-Schlichting, *Climate Change: International Law and Global Governance: Volume I: Legal Responses and Global Responsibility* (Nomos Verlagsgesellschaft mbH 2013), p. 714.

On that approach, and within the understanding of complementarity,¹⁸ the ICC would not substitute¹⁹ but enhance the capacity of domestic authorities themselves to take action.

The discussion begins by analysing several possibilities for intersection and principal conflict points between ICL and IEL. The goal is not to provide definitive answers to every issue but to highlight major practical and conceptual impediments precluding the ICC from effectively accommodating instances of mass environmental harm without unbalancing its institutional framework. Whilst directly recognising all these challenges, the second section presents two options via which the ICC could optimise its current 'environmental' potential. Through the prism of environmental justice, the Court's organs could purposely: (i) translate environmental realities into the substantive provisions of the ICC, and (ii) take advantage of the breadth of Articles 21(3) and 7(1)(h) of the Statute and manoeuvre their further development in a more environmentally sensitive direction. Such an approach, however, is not free of limitations. Apart from objectifying the environment, this indirect strategy towards broader environmental protection can result in a 'bifurcated' or 'selective' safety net with some natural components considered more worthwhile than others. A further argument against this expansionist rhetoric towards reducing the 'impunity gap' refers to the fact that it carries the danger of unbridledly enlarging the ambit of the ICC, which might result in trivializing the ICC and ultimately swamping its operations. It would ultimately depend on the Court itself to weigh the arguments in favour and against 'greening' its current framework and to adjudge the types of environmental damage deserving international attention and condemnation. Although the proposed solutions might be considered conservative, it is a sincere attempt to bring forward the insuperable truth: the current substantive disconnect between ICL and IEL precludes the ICC from taking a more radical stance on environmental protection. Until one attains a closer reconciliation between them and instead of detracting from the present attention by elaborate designs for amendment, one should not underestimate the power of simply relying on the existing statutory framework.

¹⁸ Preamble ICCS.

¹⁹ Patrick J. Keenan, 'International Criminal Law and Climate Change' (2019) 37(89) *Boston University International Law Journal* 89, 122.

II THE TERM —ECOCIDE²⁰

The idea of creating an international crime of ‘ecocide’ is not a novel concept as it dates back to the 1970s. The idea initially arose during the Vietnam War when the US military infamously used ‘Agent Orange’, a toxic herbicide, as a tool of chemical warfare in Vietnam. The term was first used publicly by the plant biologist Arthur Galston to encapsulate what he described as ‘wilful, permanent destruction of environments in which people can live in a manner of their choosing’.²¹ Due to the lack of substantive and enforcement jurisdiction of the post-WW2 criminal tribunals over crimes against the environment, the first 1954 Draft Code of Offences against the Peace and Security of Mankind (‘Draft Code’)²² did not include any new crimes not mentioned in the Nuremberg Principles.²³ Only in 1995, throughout the revision process of its Draft Code, did the International Law Commission (‘ILC’) take the initiative in criminalising offences against the environment on the international level. Despite environmental crimes finding their place in Article 26 of the Draft Code,²⁴ during the second reading ILC’s Chairman unilaterally decided to remove mass environmental degradation entirely as a separate provision, without any recorded justification and most likely because of pressure from the nuclear lobby and a few States.²⁵ As ‘an offshoot’ of the ILC’s Draft Code,²⁶ the final and current position of

²⁰ For the purposes of this essay, the terms ‘ecocide’ and ‘mass environmental degradation’ are used interchangeably.

²¹ David Zierler, *The Invention of Ecocide Agent Orange, Vietnam, and the Scientists Who Changed the Way We Think about the Environment* (University of Georgia Press 2011), p. 19.

²² *Draft Code of Offences Against the Peace and Security of Mankind* (1954) in ILC, *Yearbook of the International Law Commission: Vol II* (1954).

²³ Jaap Spier and Ulrich Magnus (eds), *Climate Change Remedies: Injunctive Relief and Criminal Law Responses* (Sun Press 2013), p. 189.

²⁴ ILC, *Yearbook of the International Law Commission Part II (part 2)* (1995) UN Doc A/CN.4/SERA/1954/Add1, p. 30: ‘[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 (...)’.

²⁵ Christian Tomuschat, ‘Crimes Against the Environment’ (1996) 26(6) *Environmental Policy and Law* 242, 243.

²⁶ James Crawford, ‘The ILC Adopts a Statute for an International Criminal Court’ (1995) 89(2) *American Journal of International Law* 404, 404.

environmental protection remains ‘a far cry’ from the other provisions included in the Statute remains.²⁷ In its current form, Article 8(2)(b)(iv) of the Statute prohibits ‘[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’. Thus, the provision limits the level of lawful destruction by the ‘ceiling’ of environmental degradation established by the absolute prohibition of ‘widespread, long-term, and severe damage to the natural environment’.²⁸ At first glance, the advance seems to have the potency to punish wartime environmental damage, but the cumulative threshold for operation—‘widespread’, ‘long-term’, and ‘severe’—is widely considered too high and ultimately provides little or no protection to the environment.²⁹ Despite being termed the ‘first genuinely ecocentric war crime’,³⁰ by requiring the damage to be ‘clearly excessive’, the provision is tied to instances of incidental environmental harm balanced against ‘the concrete and direct overall military advantage anticipated’.³¹ As further discussed below, such a balanced approach to environmental protection is indifferent to the logic of IEL, the exercise of striking a careful balance between environmental and developmental considerations. Article 8(2)(b)(iv) of the Statute translates this reconciliation technique into the realities of armed hostilities, where the inherently anthropocentric biases³² are counterbalanced by the prohibition of a high level of environmental damage. But the ‘vague and malleable meaning’ of the concept of military advantage places a significant conceptual burden³³ yet to be interpreted in an environmentally

²⁷ *Supra* note 17, p. 730.

²⁸ *Supra* note 2, §49.

²⁹ Matthew Gillett, ‘Environmental Damage and International Criminal Law’ in Marrie-Claire Cordonier Segger and Sébastien Jodoin, *Sustainable Development, International Criminal Justice, and Treaty Implementation* (CUP 2013), p. 79. An extensive discussion on the meaning behind ‘widespread’, ‘long-term’, and ‘severe’ can be found in the ICRC Guidelines on the Protection of the Natural Environment in Armed Conflict Rules. *Supra* note 2, §47–75.

³⁰ Jessica C Lawrence and Kevin J Heller, ‘The Limits of Article 8(2)(b)(iv) of the Rome Statute, the First Ecocentric Environmental War Crime’ (2007) 20(1) *Georgetown International Environmental Law Review* 61, 71.

³¹ Article 8(2)(b)(iv) ICCS.

³² *Supra* note 1, p. 230.

³³ *Supra* note 8, 248.

sensitive manner. Any such assessment would be heavily reliant ‘on value judgments’³⁴ and would be unpredictable in ‘requiring a prediction of consequences based on available information under circumstances of urgency’.³⁵ Article 8(2)(b)(iv) of the Statute illustrates how the objective of preventing environmental damage and the international humanitarian law (‘IHL’) philosophy of accepting all aspects of armed conflict necessary for the conduct of hostilities play off against each other. Reconciling these underlying tensions with environmentalists placing greater weight on environmental protection, the law of armed conflict lawyers lessening the strains of commitment, and IHL advocates prioritising civilian matters³⁶ would require judges to mediate between different value systems to strike a balance. Could it be one of the reasons why pursuing individual criminal responsibility for environmental atrocities has been largely ignored at the international level?

This unsatisfactory *status quo* has led to numerous policy proposals³⁷ and resulted in a vast amount of research on the possible expansion of the current prohibition of environmental damage beyond the laws of an IAC.³⁸ From the substantive perspective, as eloquently put by Robinson, there is ‘no elegant “magic bullet” solution’³⁹ to the conceptual challenges in defining international environmental crimes or ‘ecocide’. Clothing the gravest instances of environmental destruction into the fashion of ICL demands careful balancing of the interests of environmental protection with the realities of international criminal justice.

³⁴ Kai Ambos, ‘Remarks on the General Part of International Criminal Law’ (2006) 4(4) *Journal of International Criminal Justice* 660, 670.

³⁵ Robert Cryer, Darryl Robinson, and Sergey Vasiliev, *An Introduction to International Criminal Law and Procedure* (4th edn, CUP, 2019), p. 286.

³⁶ David Luban, ‘Military Necessity and the Cultures of Military Law’ (2013) 26(2) *Leiden Journal of International Law* 315, 315.

³⁷ Polly Higgins, *Eradicating Ecocide: Exposing the Corporate and Political Practises Destroying the Planet and Proposing the Laws Needed to Eradicate Ecocide* (Shepherd-Walwyn 2010); Richard A Falk, ‘Environmental Warfare and Ecocide Facts, Appraisal and Proposals’ (1973) 4(1) *Bulletin of Peace Proposals* 80.

³⁸ Ludwik A. Teclaff, ‘Beyond Restoration—The Case of Ecocide’ (1991) 34(4) *Natural Resources Journal* 933; Marcos A. Orellana, ‘Criminal Punishment for Environmental Damage: Individual and State Responsibility at a Crossroad’ (2005) 17(4) *Georgetown International Environmental Law Review* 673.

³⁹ Darryl Robinson, ‘Your Guide to Ecocide: Part 1’ (*OpinioJuris*, 16/07/2021) <https://opiniojuris.org/2021/07/16/your-guide-to-ecocide-part-1/> accessed 23/01/2023.

Despite the ongoing campaign to make ‘ecocide’ an international crime, very little has been done towards the interlacing of IEL and ICL. The question of ‘ecocide’ attempts to bring closer together these two disciplines, but, in reality, their ‘interaction remains strikingly limited’.⁴⁰ The following digression on the focal points for their convergence and divergence shows that, although tempting and morally appealing, any current attempts to translate mass environmental degradation into the language of the Statute may prove to be conceptually unfeasible. Instead of strengthening its effectiveness, a too-hasty innovation would raise significant normative predicaments, which, if not meticulously counterbalanced, might lead to the weakening of the existing IEL and ICL frameworks. To build this narrative, the following section begins by explaining the distinctive nature of IEL vis-à-vis other fields of international law.

III IEL AND ICL VS IEL OR ICL

3.1 *A Worthwhile Initiative?*

IEL is still a very modern sub-division that has rapidly evolved over the last 40 years, challenging the foundations of traditional international law. As its *raison d’être*—the avoidance of the occurrence of environmental harm - dictates an anticipatory approach, at the heart of IEL lies the principle of prevention which imposes an obligation to exercise due care in the face of risks of environmental damage.⁴¹ The current formulation of the concept of prevention in the environmental context was introduced in 1972 in Principle 21 of the Stockholm Declaration: ‘States have (...) the sovereign right to exploit their own resources (...) and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction’.⁴² Prevention finds its conceptual roots not in the pro-

⁴⁰ Frédéric Mégret, ‘The Challenge of an International Environmental Criminal Law’ (2010) 1.

⁴¹ Leslie-Anne Duvic-Paoli, ‘Prevention in International Environmental Law and the Anticipation of Risk(s): A Multifaceted Norm’ in Mónica Ambrus, Rosemary G. Rayfuse, and Wouter G. Werner (eds), *Risk and the Regulation of Uncertainty in International Law* (OUP 2017), p. 141.

⁴² On this principle, see Leslie-Anne Duvic Paoli and Jorge E. Viñuales, ‘Principle 2: Prevention’ in Jorge E Viñuales, (ed), *The Rio Declaration on Environment and Development. A Commentary* (OUP 2015), pp. 107–38.

tection of the environment *per se*, but in the mutual limitation of sovereign rights to the use and enjoyment of territory. Thus, the modern IEL framework has developed on the basis of the sovereign prerogative to exploit natural resources that should be exercised within mutually-acceptable bounds: exploration must not harm the environment of other States.⁴³ The Stockholm⁴⁴ and Rio⁴⁵ Declarations and other constitutional developments of international environmental justice have pushed the IEL's progression beyond interstate interests, allowing the 'transboundary' set of risks to progress into a broader 'global' array of threats to the concern of the international community. The modern progression of IEL, with the conception of sustainable development at the heart of its governance,⁴⁶ results from the constant tension between environmental protection and human development. International environmental protection, as a relatively new specialised field of international law, has evolved in a unique manner, throughout the negotiatory processes undertaken within the international institutional framework and 'on an ever-increasing body of soft law instruments'.⁴⁷ A significant chunk of substantive IEL, based on sectoral multilateral environmental agreements ('MEAs'),⁴⁸ is developed by conferences of the parties responsible for facilitating the development of a specific regime.⁴⁹ The Basel Convention,⁵⁰ the Convention on Biological

⁴³ *Declaration of the United Nations Conference on the Human Environment* (16/06/1972) UN Doc A/CONF 48/14/Rev1, Principle 16.

⁴⁴ *Ibid.* See also, Louis B. Sohn, 'The Stockholm Declaration on the Human Environment' (1972) 14(3) *Harvard International Law Journal* 423, 451–5.

⁴⁵ *Rio Declaration on Environment and Development* (13/06/1992) UN Doc A/CONF151/26.

⁴⁶ Pierre-Marie Dupuy and Jorge E. Viñuales, *International Environmental Law* (2nd edn, CUP 2018), p. 91.

⁴⁷ Pierre-Marie Dupuy, Ginevra Le Moli, and Jorge E. Viñuales, 'Customary International Law and the Environment' (C-EENRG Working Papers 2018-2, 2018), p. 6 https://www.ceenrg.landecon.cam.ac.uk/system/files/documents/CEENRG_WP_19_CustomaryInternationalLawandtheEnvironment.pdf accessed 23/01/2023.

⁴⁸ On the role of MEAs in the development of modern IEL see Bharat H. Desai, *Multilateral Environmental Agreements. Legal Status of the Secretariats* (CUP 2010).

⁴⁹ *Supra* note 46, p. 33.

⁵⁰ *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal* (adopted 22/03/1989, entered into force 05/05/1992) 1673 UNTS 57, Article 15.

Diversity ('CBD'),⁵¹ and the Convention on Desertification⁵² have followed that approach, to name but a few. This sectoral approach to tackling international environmental law issues has resulted in a scattered and decentralised legal landscape of global environmental governance.⁵³ Contrary to other more-mature fields of international legal governance, IEL lacks a system of courts with compulsory jurisdiction of the kinds found, for example, in ICL.⁵⁴ With the absence of a foundational MEA giving international environmental protection character, weight, or force and with one international organisation supervising its application, IEL remains fragmented and uncoordinated.⁵⁵

As the evolution of IEL is yet to reach a more general stage in the imposition of criminal liability,⁵⁶ the possible deterrent or even pre-deterrent effect of an international criminal regime on gross environmental wrongs might produce the necessary *stimuli* to encourage those involved to abide by rules preserving the environment. As noted by Kersting, employing ICL as 'a vehicle to combat environmental destruction already carries significant symbolic weight'—whether or not the agreed definition of 'ecocide' is ecocentric or anthropocentric.⁵⁷ The combined *Rechtsgut*-harm (eng 'risk of harming') approach, broadened to include the 'risk to harm' and 'harm to oneself',⁵⁸ can be regarded as reflective of the prevention principle,

⁵¹ *Convention on Biological Diversity* (adopted 05/06/1992, entered into force 29/12/1993) 1760 UNTS 79, Article 23.

⁵² *United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa* (adopted 14/10/1994, entered into force 26/12/1996) 1954 UNTS 3, Article 22.

⁵³ For a discussion about possible solutions to the decentralisation of the modern IEL framework, see Rakhyun E. Kim and Klaus Bosselmann, 'International Environmental Law in the Anthropocene: Towards a Purposive System of Multilateral Environmental Agreements' (2013) 2(1) *Transnational Environmental Law* 285.

⁵⁴ Lakshman D Guruswamy, 'International Environmental Law: Boundaries, Landmarks, and Realities' (1995) 10(2) *Natural Resources and Environment* 43, 43–4.

⁵⁵ *Ibid.*, 76–7.

⁵⁶ *Supra* note 13, 616.

⁵⁷ Natascha Kersting, 'On Symbolism and Beyond: Defining Ecocide' (*Völkerrechtsblog*, 08/07/2021) <https://voelkerrechtsblog.org/on-symbolism-and-beyond/> last accessed 23/01/2023.

⁵⁸ Kai Ambos, 'The Overall Function of International Criminal Law: Striking the Right Balance Between the *Rechtsgut* and the Harm Principles—A Second Contribution Towards a Consistent Theory of ICL' (2013) 9(2) *Criminal Law and Philosophy* 301, 309.

the cornerstone of modern IEL. Numerous jurisdictions use criminal responsibility as a key part of their 'regulatory armoury' to enhance deterrence and remediation and to increase public safety.⁵⁹ Amongst these is the European Union ('EU'), explicitly underscoring that criminal sanctions yield 'a social disapproval of a qualitatively different nature compared to administrative penalties or a compensation mechanism under civil law'.⁶⁰ It is plausible to assume that an overarching law on mass damage to ecosystems, applicable both in times of peace and armed conflict, is bound to produce some deterrent effects of a stigma on a much broader, international level.

Leaving aside the deterrent potential, the international judicial practice carries an important normative function: ICTs 'stabilize normative expectations' whilst reasserting the validity and enforcement of international law.⁶¹ Environmental litigation has already transgressed into domestic, regional, as well as global judicial practice: in the last 2 years alone the International Court of Justice ('ICJ') had made several ground-breaking environmental decisions,⁶² and the Inter-American Commission on Human Rights ('IACtHR') has released a series of high-profile international judicial rulings.⁶³ Although excessive reliance on the judiciary is precluded by Article 38(1)(d) of the ICJ Statute,⁶⁴ ICTs 'do exercise influence on the development of the law' as their potential for innovation lies predominantly in their identification of the relevant law and the application of law to facts.⁶⁵ The unique character of international environmental concerns, which have 'larger ramifications comprising humans, other species and natural resources',⁶⁶ provides a motivation

⁵⁹ Marrie-Pierre Camproux Duffrène and Véronique Jaworski, 'Legal Paradigm Shifts for a New Environmental Law' (The Greens/European Free Alliance in the European Parliament, 05/2021), pp. 5, 35, 45–6.

⁶⁰ Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the Protection of the Environment Through Criminal Law (06/12/2008) OJ L 328, Preamble, §3.

⁶¹ *Supra* note 12, 23.

⁶² See, e.g., ICJ, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, Judgement, 02/02/2018, ICJ Reports 2018, p. 15.

⁶³ IACtHR, *Advisory Opinion*, 07/02/2018, OC-23/17.

⁶⁴ Statute of the International Court of Justice (18/04/1946).

⁶⁵ Philippe Gautier, 'The Role of International Courts and Tribunals in the Development of Environmental Law' (2015) 109 *American Society of International Law* 190, 193.

⁶⁶ *Supra* note 12, 23.

for the ‘internationalisation’ of IEL through existing legal frameworks. Environmental considerations have, for instance, contributed to the expansion of the ramifications of ‘security’ traditionally understood in terms of political and military threats to national sovereignty that are now broadened to encompass resource, environmental, and demographic issues.⁶⁷ Although having a secondary role in peace and prevention, political and security concerns ‘form part of the contextual backdrop’ in which the ICC operates.⁶⁸ With its jurisdiction over the gravest crimes that threaten ‘the peace, security and well-being of the world’,⁶⁹ the ICC promotes the goals of its regime whilst enhancing ‘international cooperation’ for ‘the sake of present and future generations’.⁷⁰ Viewing the Statute as a ‘living instrument’, driven by the underlying intention of progressive justice and able to accommodate the needs of current and future generations, correlates with the inter-generational principle of IEL. Although it might be an argument too far that intergenerational equity lies ‘at the heart of the international criminal justice system’,⁷¹ ICL has manifold objectives,⁷² spreading over those traditionally recognised in domestic criminal law systems. Through the mechanism of purposive judicial interpretation, the ICC can captivate the attention of policy-makers and citizens alike, reinforcing the spirit of international cooperation.

3.2 A Standalone ‘Ecocide’ Provision is Still a Radical Development

The major added value of incorporating the fifth crime of ‘ecocide’ would be the expansion of international accountability for environmental harm. Yet, this assumption is only partially true. Although such an innovation would provide the ICC with the necessary tools to investigate and prosecute the gravest instances of environmental degradation, countries that signed and ratified the Statute would be

⁶⁷ Jessica Tuchman Mathews, ‘Redefining Security’ (1989) 68(2) *Foreign Affairs* 162, 162.

⁶⁸ *Ibid.*

⁶⁹ Preamble ICCS.

⁷⁰ *Ibid.*

⁷¹ Jarrod Hepburn, ‘Intergenerational Equity and Rights and International Criminal Law’ in Marie-Claire Cordonier Segger and Sébastien Jodoin (eds), *Sustainable Development, International Criminal Justice, and Treaty Implementation* (CUP 2013), p. 184.

⁷² Robert Cryer et al., *An Introduction to International Criminal Law and Procedure* (4th edn, CUP 2019), pp. 28–46.

under no obligation to criminalise ‘ecocide’ in their domestic law.⁷³ The Statute only requires that national law facilitates cooperation with the Court⁷⁴ and penalise offences against the ICC’s administration of justice.⁷⁵ However, an ‘ecocide’ amendment is likely to have a catalysing effect on normative grounds: State Parties could feel encouraged to follow the ICC’s example and expand their jurisdictional purview. Diehl et al. mention three criteria necessary for a successful international legal innovation: the existence of a sufficiently clear legal concept, the availability of a structure or framework that can support the operation of the law, and the political will to use the law.⁷⁶ The satisfaction of these requirements does not guarantee a change to occur, but their presence would increase the likelihood of successful innovation in the international system. Whilst focusing on the first and third of these requirements, the following discussion will show that the ongoing campaign on international law on ‘ecocide’ is yet to result in (i) achieving conceptual unity on its definition and (ii) gaining political acceptance and will between the international community of States.

3.2.1 *Precaution and Legality*

As explained above, environmental cases have several peculiar features not present in other sub-divisions of international law.⁷⁷ Reaching an effective amendment would require mediating between the vagueness, flexibility, and imprecision of IEL and the specificity and rigidity required of ICL provisions.⁷⁸ Finding its primary formulation in Principle 15 of the Rio Declaration, the precautionary approach mandates those confronted with a lack of full scientific certainty to take actions ‘that err on the side of precaution rather than increasing risk’.⁷⁹ The underlying idea is that the lack of scientific certainty about the actual or

⁷³ Sarah M. H. Nouwen, *Complementarity in the Line of Fire: The Catalysing Effect of the International Criminal Court in Uganda and Sudan* (CUP 2013), pp. 40–1.

⁷⁴ Article 88 ICCS.

⁷⁵ *Ibid*, Article 70(1).

⁷⁶ Paul F. Diehl, Charlotte Ku, and Daniel Zamora, ‘The Dynamics of International Law: The Interaction of Normative and Operating Systems’ (2003) 57(1) *International Organization* 43, 43.

⁷⁷ *Supra* note 46, p. 3.

⁷⁸ Frédéric Mégret, ‘The Problem of an International Criminal Law of the Environment’ (2011) 36(2) *Columbia Journal of Environmental Law* 195, 236.

⁷⁹ Antônio A. Cançado Trindade, ‘Principle 15’ in Jorge E Viñuales, *The Rio Declaration on Environment and Development: A Commentary* (OUP 2015), p. 403.

potential effects of an activity must not prevent States from taking appropriate measures when such effects may be serious or irreversible.⁸⁰ This precautionary logic, dependent on decision-making in the face of uncertainty,⁸¹ seems to clash with a cornerstone of modern ICL: the principle of legality.⁸² As crafted for interstate relations, rather than the exacting demands of international criminal justice, many leading principles of IEL⁸³ are formulated in environmental law treaties in vague and broad terms. These may raise legitimate concerns about respect for the legality principle which mandates that certain conduct can only be punished if it ‘has been criminalized in a clear and unambiguous manner (*lex certa*) at the time of commission (*lex praevia*)’.⁸⁴ The first two paragraphs of Article 22 of the Statute spell out the principle of non-retroactivity (*lex praevia*) and of specificity or legal certainty (*lex certa*).⁸⁵ The IEPLDE’s definition of ‘ecocide’, which proposes an open-ended list of possible ‘acts’ including single acts or omissions,⁸⁶ encapsulates the difficulty in reconciling precaution with *nullum crimen sine lege*. The rationale behind the adoption of an open list of acts can be regarded as an attempt to broadly align with the rapid evolution of IEL, and the fact that human knowledge and science have not yet managed to address all aspects of the environment. There are many areas of science where there are significant unknowns—‘we don’t know what we don’t know’.⁸⁷ The constant need for enhancing understanding of the ambit of scientific uncertainty militates against any enumeration of the underlying forms of ‘ecocide’ leading to ambiguity as to the specific conduct that may violate the prohibition.

⁸⁰ For a discussion on the role of the principle of precaution in the development of IEL consult *ibid*, pp. 403–27.

⁸¹ *Supra* note 46, p. 70.

⁸² Bruce Broomhall in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 22, mn. 15.

⁸³ Jorge E. Viñuales, ‘The Influence of Environmental Protection on the Fabric of International Law’ in Riccardo Pisillo Mazzeschi and Pasquale De Sena (eds), *Global Justice, Human Rights and the Modernization of International Law* (Springer, 2018), pp. 255–67.

⁸⁴ Kai Ambos, *Treatise on International Criminal Law: Volume I: Foundations and General Part* (2nd edn, OUP 2021), p. 146.

⁸⁵ *Ibid*, p. 143.

⁸⁶ *Supra* note 9, p. 10.

⁸⁷ Brian Wynne, ‘Uncertainty and Environmental Learning: Reconceiving Science and Policy in the Preventative Paradigm’ (1992) 2(2) *Global Environmental Change* 111, 114.

Disputes involving scientific uncertainty and potential future harm predetermine an absence of certainty from the start, running counter to the rationalist tradition.⁸⁸ Thus, it is difficult to define a crime with sufficient specificity to satisfy the requirements of ICL, but still, leave enough room for the ICC Prosecutor to apply it to a broad range of substantive activity. A solution could be to narrow the prohibited scope to a range of specific environmentally harmful acts, focusing on particular types of destruction. This approach has been undertaken, *inter alia*, by the European Court of Human Rights ('ECtHR') and the International Tribunal for the Law of the Sea ('ITLOS'), with the former limiting its environmental purview to environmental wrongs that directly affect natural persons⁸⁹ and the latter to 'serious harm to the marine environment'.⁹⁰ In order to rectify the imprecision of a general formula, the most recent definition of 'ecocide' enumerates the most established environmental hazards that could amount to crimes under international law: land, sea, and air pollution; destruction of habits, ecosystems, or natural heritage; protected species; hazardous waste; and ozone-depleting substances, persistent organic pollutants, and greenhouse gases.⁹¹ This list concludes with a 'residual' provision similar to that of the CAH of other inhumane acts which defines material criminal conduct by reference to the preceding list of acts in Article 7(1) of the Statute.⁹² As stated by the Pre-Trial Chamber II in *Muthaura et al.*, "'other inhumane acts" is a residual category within Article 7(1)',⁹³ because 'one would never be able to catch up with the imagination of future torturers'.⁹⁴ In the same fashion, a separate provision criminalising 'sexual violence' found in the Statute functions

⁸⁸ Caroline E Foster, *Science and the Precautionary Principle in International Courts and Tribunals Expert Evidence, Burden of Proof and Finality* (CUP 2011), p. 6.

⁸⁹ *Convention for the Protection of Human Rights and Fundamental Freedoms* (4/11/1950) (as amended), Article 34.

⁹⁰ *Statute of the International Tribunal for the Law of the Sea*, Article 21; *Convention on the Law of the Sea* (adopted 10/12/1982, entered into force 16/11/1994), Article 290(1).

⁹¹ *Supra* note 10, p. 2.

⁹² Article 7(1)(k) ICCS. On the relationship between Article 7(1)(k) and Article 22(2) ICCS see *supra* note 82, mn. 43.

⁹³ *Prosecutor v. Francis Kirimi Muthaura et al.*, Case ICC-01/09-02/1, Pre-Trial Chamber II, Decision on the Confirmation of Charges Pursuant to Article 61(7)(a) and (b) of the Rome Statute, 23/01/2012, §269.

⁹⁴ *Prosecutor v. Tihomir Blaškić*, Case IT-95-14-T, Trial Chamber, Judgement, 03/03/2000, §237.

as a catchall provision allowing the Court to exercise jurisdiction over any other, un-enumerated form(s) of sexual violence of comparable gravity to the listed sex-based crimes.⁹⁵ Thus, in contrast to the IEPLDE, the UCLA's definition attempts to align the proposed definition with the requirements of Article 22 of the Statute. On the one hand, the 'list' technique seems to be more practical and desirable from the perspective of certainty and predictability, and thus might be relatively easier to gain States' acceptance.⁹⁶ On the other hand, as IEL does not expressly penalise a particular conduct, it is difficult to put forward a concrete and exhaustive list of acts. Although it might have reached its infancy stage, IEL is still a very new and undeveloped field characterised by an unprecedented speed of normative growth racing to meet the emerging needs of the global society. With its fallback on 'softer' forms of accountability, the language of the IELs' treaties is generally not prohibitive.⁹⁷ One example is the CBD that requires States to 'duly take into account' significant adverse impacts on biodiversity, and to assess projects 'with a view' to avoiding or minimizing harms.⁹⁸ But there is a vast number of multilateral environmental treaties that prescribe the conduct using the mandatory 'shall'; for instance, Article 2 of the London Convention stipulates that States parties 'shall (...) take effective measures (...) to prevent, reduce and where practicable eliminate pollution caused by dumping (...)'.⁹⁹ There have been even attempts, although scarce, to include prohibitive language such as Article 4 of the Montreal Protocol which prohibits 'importing and exporting by States parties of substances from or to third States'.¹⁰⁰ These developments show the IEL's potential to progress into a more 'prohibitive' direction. But the field is still at an early stage of its formation, yet to move beyond its state-centric nature. This state-centric focus constitutes the major obstacle to curving out a concise list

⁹⁵ Rosemary Grey, 'Conflicting Interpretations of 'Sexual Violence' in the International Criminal Court' (2014) 29(81) *Australian Feminist Studies* 273, 275.

⁹⁶ *Supra* note 57.

⁹⁷ Darryl Robinson, 'Your Guide to Ecocide—Part 2: The Hard Part' (*OpinioJuris*, 16/07/2021) <https://opiniojuris.org/2021/07/16/your-guide-to-ecocide-part-2-the-hard-part/> accessed 23/01/2023.

⁹⁸ *Supra* note 51, Article 14(1)(b) and (a).

⁹⁹ *Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter* (1975) (adopted 07/11/1996, entered into force 24/03/2006) UNTS 1046.

¹⁰⁰ *Montreal Protocol on Substances That Deplete the Ozone Layer* (adopted 16/09/1987, entered into force 01/01/1989) UNTS 1522.

of actions that could impose concrete prohibitions vis-à-vis States and individuals. To recall the words of the ICJ in *Nuclear Weapons*: ‘these treaties [on the deployment and testing of nuclear weapons] could therefore be seen as foreshadowing a future general prohibition of the use of such weapons’.¹⁰¹ Yet, it immediately added that ‘they do not constitute such a prohibition by themselves’.¹⁰² The UCLA’s proposal of a general list of acts that might be regarded as prohibitive under IEL should be regarded as a positive development, but it has to be taken with a pinch of salt.

3.2.2 *Culpability*

Beyond the questions surrounding precaution and legality, other principles inherent to the ICL doctrine—*mens rea* and individual criminal responsibility—further complicate the successful reconciliation of IEL and ICL under the mantle of the Statute. Article 30 of the Statute sets the general subjective element standard of crimes under the Statute that is applicable in all cases where the substantive provision in question does not rules specifically regulate the *mens rea*. As referred to above,¹⁰³ the only explicit reference to environmental damage found in the Statute, Article 8(2)(b)(iv), requires a standard of ‘knowledge of causation’.¹⁰⁴ Thus, to discharge the burden of proof, the ICC Prosecutor must prove that the accused had, with the knowledge to the contextual element and with regard to the general intent regarding the actus reus of the crime knowledge that the attacks would cause ‘clearly excessive’ environmental damage.¹⁰⁵ Heller and Lawrence accused the fault standard included under Article 8(2)(b)(iv) of the Statute as being futile by making it close to impossible to prove that the accused ‘knew’ that their attack would be disproportionate.¹⁰⁶ To rectify this conceptual limitation, the IEPLDE proposed a ‘knowledge’ element that requires only ‘a substantial likelihood’ of environmental damage,¹⁰⁷ whilst the UCLA

¹⁰¹ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 08/07/1996, ICJ Reports 1996, p. 253, §62.

¹⁰² *Ibid.*

¹⁰³ See Sect. “[A Worthwhile Initiative?](#)”.

¹⁰⁴ Article 8(2)(b)(iv) ICCS.

¹⁰⁵ *Ibid.*, Article 30(2)(b).

¹⁰⁶ *Supra* note 30, 78.

¹⁰⁷ *Supra* note 9, p. 7.

put forward the standard of ‘knowledge of likelihood’.¹⁰⁸ Both proposed *mens rea* elements are much lower than the threshold, for instance, for *dolus specialis* for genocide¹⁰⁹ and the ‘knowledge of causation’ requirement under Article 8(2)(b)(iv) of the Statute. More fundamentally, both also fall short of Article 30 of the Statute which establishes the general level of *mens rea* for all the crimes defined in Articles 6 to 8 of the Statute.¹¹⁰ The term ‘knowledge’ found in Article 30 of the Statute requires perpetrators to be aware that their actions are ‘virtually certain’ to bring about a prohibited outcome¹¹¹ and that a circumstance exists or a consequence will occur in the ordinary course of events.¹¹² The ‘substantial likelihood’, instead, sets a lower cognitive threshold of subjective awareness. Because of setting the standard below the ‘general’ intent requirement within the ICC framework, the IEPLDE’s *mens rea* notion has been termed as ‘confusing’¹¹³ and ‘troubling’¹¹⁴ as it directly challenges the purposive exclusion of ‘*dolus eventualis*, recklessness or any lower form of culpability’ from the scope of the Statute.¹¹⁵ Similarly, the UCLA’s ‘knowledge of likelihood’ appears to fall below the ‘general’ subjective element requiring both intent and knowledge, and comes closer to the principles of *dolus eventualis* or recklessness.

However, this critique seems to disregard the phrase ‘[u]nless otherwise provided’ found in Article 30(1) of the Statute, which allows departures from the general standard prescribing both knowl-

¹⁰⁸ *Supra* note 10, p. 5.

¹⁰⁹ Article 6 ICCS.

¹¹⁰ Gerhard Werle and Florian Jessberger, ‘“Unless Otherwise Provided”: Article 30 of the ICC Statute and the Mental Element of Crimes Under International Criminal Law’ (2005) 3(1) *Journal of International Criminal Justice* 35, 36.

¹¹¹ *Prosecutor v. Thomas Lubanga Dyilo*, Case ICC-01/04-01/06 A 5, Appeals Chamber, Judgment on the Appeal of Mr Thomas Lubanga Dyilo Against His Conviction, 01/12/2014, §454.

¹¹² Article 30(3) ICCS.

¹¹³ John Heller, ‘Skeptical Thoughts on the Proposed Crime of “Ecocide” (That Isn’t)’ (*OpinioJuris*, 23/06/2021) <http://opiniojuris.org/2021/06/23/skeptical-thoughts-on-the-proposed-crime-of-ecocide-that-isnt/> accessed 23/01/2023.

¹¹⁴ Michael G. Karnavas, ‘Ecocide: Environmental Crime of Crimes or Ill-Conceived Concept?’ (*OpinioJuris*, 29/07/2021) <http://opiniojuris.org/2021/07/29/ecocide-environmental-crime-of-crimes-or-ill-conceived-concept/> accessed 23/01/2023.

¹¹⁵ *Prosecutor v. Jean-Pierre Bemba Gombo*, Case ICC-01/05-01/08, Pre-Trial Chamber II, Decision Pursuant to Article 61(7)(a) and (b) of the Rome Statute of the Charges of the Prosecutor Against Jean-Pierre Bemba Gombo, 15/06/2009, §369.

edge and intent.¹¹⁶ A number of provisions in the Elements of Crimes relate to the phase ‘otherwise provided’ in Article 30 of the Statute, including ‘knew or should have known’,¹¹⁷ ‘was aware of’,¹¹⁸ ‘intended’,¹¹⁹ and ‘in order to’¹²⁰ as confirmed in the literature.¹²¹ Thus, both the UCLA and the IEPLDE definitions are consistent with the ICC legal regime which contemplates ‘knowledge’ of risk and possibilities.¹²²

Looking more closely at the language used by the IEPLDE, the concept of ‘substantial likelihood’ has been used on at least two occasions in the jurisprudence of the International Criminal Tribunal for the former Yugoslavia (‘ICTY’). First, the reference to ‘substantial likelihood’ was made by the ICTY in the context of the ‘had reason to know’ criterion under Article 7(1) ICTY Statute. In *Strugar*, the Appeals Chamber found that the ‘had reason to know’ standard demands ‘sufficiently alarming information putting a superior on notice of the risk that crimes might subsequently be carried out by his subordinates and justifying further inquiry’.¹²³ In the words of the ICTY, in order to surpass this threshold of awareness, it is not necessary to either show proof of a ‘clear and strong risk’ or a ‘substantial likelihood’ that a crime will be committed.¹²⁴ Instead, the possibility of the occurrence of unlawful acts suffices.¹²⁵ The ICTY jurisprudence on the ‘had reason to know’ standard seems to align with the interpretation of the IEPLDE: ‘substantial likelihood’ denotes ‘a clear and strong risk’ that the perpetrator accepted the peril

¹¹⁶ Sarah Finnin, ‘Mental Elements Under Article 30 of the Rome Statute of the International Criminal Court: A Comparative Analysis’ (2012) 61(2) *International and Comparative Law Quarterly* 325, 351.

¹¹⁷ Articles 8(2)(b)(vii)-1, -2, -4 and 8(2)(e)(vii) Elements of Crimes.

¹¹⁸ *Ibid.*, Articles 7(1)(k) and 8(2)(a)(i).

¹¹⁹ *Ibid.*, Articles 8(2)(b)(i), (ii), (iii) and 8(2)(b)(xvi).

¹²⁰ *Ibid.*, Articles 8(2)(b)(vii)-1 and 8(2)(b)(xii).

¹²¹ Mohamed E. Badar, ‘The Mental Element in the Rome Statute of the International Criminal Court’ (2009) 12 *New Criminal Law Forum* 473, 501; Gerhard Werle and Florian Jessberger, *Principles of International Criminal Law* (4th edn, OUP 2020), p. 225.

¹²² Darryl Robinson, ‘Ecocide—Puzzles and Possibilities’ (2022) 20(2) *Journal of International Criminal Justice* 313, 331.

¹²³ *Prosecutor v. Pavle Strugar*, Case IT-01-42-A, Appeals Chamber, Judgement, 17/07/2008, §304.

¹²⁴ *Ibid.*, §303.

¹²⁵ *Ibid.*

whilst foreseeing the possibility of crime in the bargain. Second, the phrase ‘substantial likelihood’ was referred to by the ICTY in the context of liability for ordering. The *Blaškić* Appeals Chamber determined that a ‘person who orders an act or omission with the awareness of the substantial likelihood that a crime will be committed in the execution of that order, has the requisite *mens rea* for establishing liability’.¹²⁶ The judgement concludes that ‘[o]rdering with such awareness has to be regarded as accepting that crime’.¹²⁷ It seems that the degree of such risk must be considerable—‘higher likelihood’—and that chances that are empirically not likely to occur are irrelevant. Within the ICC’s jurisprudence, the concepts of ‘substantial risk or likelihood’ formed part of the analysis on the principle of ‘*dolus eventualis*’ in the first decision of the ICC rendered by the Pre-Trial Chamber I (‘PTC I’) in *Lubanga*. It opined that if ‘the risk (...) is substantial (that is, there is a likelihood that it “will occur in the ordinary course of events”)’ the fact that the suspect accepted the idea to bring about the *actus reus* of the crime can be inferred from their awareness of substantial likelihood of its commission and the fact that they carried out their actions or omissions despite such awareness.¹²⁸ From this sentence it can be deduced that the PTC I treats the concepts of ‘risk’ and ‘likelihood’ interchangeably.¹²⁹ In the same vein, the adjective ‘substantial’ denotes the phrase ‘will occur in the ordinary course of events’.¹³⁰ Thus, in line with the language of the PTC I, the IEPLDE’s concept of ‘substantial likelihood’ can be translated into risk or likelihood that the consequence will occur in the ordinary course of events. And, by reference to Article 30(3) of the Statute, the UCLA’s ‘knowledge of likelihood’ can be interpreted to mean risk or likelihood that ‘that a circumstance exists or a consequence will occur in the ordinary course of events’.¹³¹ It boils down to the conclusion that in the wording of the Lubanga Confirmation of Charges Decision, both proposed *mens rea* standards for the crime of ‘ecocide’ convey a similar subjective threshold.

¹²⁶ *Prosecutor v. Tihomir Blaškić*, Case IT-95-14-A, Appeals Chamber, Judgement, 29/07/2004, §166.

¹²⁷ *Ibid.*

¹²⁸ *Prosecutor v. Thomas Lubanga Dyilo*, Case ICC-01/04-01/06, Pre-Trial Chamber I, Decision on the Confirmation of Charges, 29/01/2007, §353.

¹²⁹ *Ibid.*

¹³⁰ *Ibid.*

¹³¹ Article 30(3) ICCS.

To summarise, whilst the concept of ‘substantial likelihood’ has an established pedigree both at the *ad hoc* tribunals and the ICC, the phrase ‘knowledge of likelihood’ can be implicitly inferred from the early ICC’s case law. As neither of the constitutive documents of the Court directly specifies the meaning behind either of the proposed subjective elements, the ICC judges might be willing to cite the precedent of the other international tribunals or revert to its first Confirmation of Charges Decision. If States Parties decide to introduce the lowered *mens rea* criterion, the above-reviewed jurisprudence can provide a reference starting point for any determination made on its scope. But, so far, the ICC has been reluctant to ‘mechanically’ transfer the *ad hoc* tribunals’ case law to the system of the Court.¹³² Whilst the Court tends to take an account of the jurisprudence of its predecessors, the ICC judges do not feel bound or even guided by it.¹³³ For example, despite the introduction of joint criminal enterprise as a principal form of liability in *Tadić*,¹³⁴ ‘credited for being the most appropriate mode of liability to tackle the collective dimension of international crimes’,¹³⁵ the drafters of the Statute, including the ICC judges themselves, have expressly rejected its inclusion.¹³⁶

Nevertheless, if a less exacting *mens rea* were to be successfully inserted into the Statute, it would provide a sort of middle ground between intent and negligence. On the one hand, such a lowered *mens rea* requirement could make a difference in the ICC’s reach concerning environmental harm. On the other hand, a successful charge of ‘ecocide’ would require the ICC Prosecutor to prove that the perpetrator had, to a certain degree, reconciled themselves to the prohibited result by accepting a risk that, in their circumstances, was unreasonable to take. As already noted above, the IEPLDE’s defi-

¹³² *Prosecutor v. Germain Kantanga and Mathieu Ngudjolo Chui*, Case ICC-01/04-01/07, Pre-Trial Chamber I, Decision on the Confirmation of Charges, 30/09/2008, §508.

¹³³ Kai Ambos, ‘International Criminal Law at the Crossroads: From Ad Hoc Imposition to a Treaty-Based Universal System’ in Carsten Stahn and Larissa van den Herik (eds), *Future Perspectives on International Criminal Justice* (T M C Asser Press 2010), p. 165.

¹³⁴ *Prosecutor v. Dusko Tadić*, Case IT-94-1-A, Appeals Chamber, Judgement, 15/07/1999, §185 et seq.

¹³⁵ Iryna Marchuk, *The Fundamental Concept of Crime in International Criminal Law: A Comparative Law Analysis* (Springer 2014), p. 166.

¹³⁶ *Prosecutor v. Thomas Lubanga Dyilo*, Case ICC-01/04-01/06-803-TEN, Pre-Trial Chamber I, Decision on the Confirmation of Charges, 29/01/2007, §323–38.

nition of ‘ecocide’ omits spelling out the objective elements of the crime. The absence of a clear *actus reus* would be problematic from the *mens rea* perspective as the ICC Prosecutor would have the burden of proving that the perpetrator had knowledge—albeit general—which alerted them to the relevant risk of the prohibited conduct being committed. Without an express definition of the objective elements of the crime, it is far from certain on which basis would the ICC Prosecutor propose a charge of ‘ecocide’ and how later to discharge the requisite burden of proof. From this perspective, the UCLA’s list of prohibited conduct would limit the discretion vested in the ICC Prosecutor in terms of drawing up the list of possible charges. The inclusion of a residual clause, however, would still afford the ICC Prosecutor and, in turn, the ICC judges to expand on the range of prohibitive acts to the detriment of the principle of equality of arms.

In addition, both the IEPLDE’s and UCLA’s proposed definitions formulate ‘ecocide’ as ‘a crime of endangerment rather than of material result’.¹³⁷ By portraying risk itself as mischief,¹³⁸ such a provision would allow the ICC Prosecutor to charge alleged perpetrators, not on the basis of causing substantive harm to the environment but merely endangering it. Thus, taking advance of the open-ended scope of the IEPLDE’s prohibition, the ICC Prosecutor would be able to virtually charge any conduct that endangers severe and either widespread or long-term damage to the environment.¹³⁹

In the context of liability for international environmental damage, one could reasonably query what would happen if the risk of environmental harm is simply miscalculated or undervalued. Within the framework of the Statute, an erroneous appreciation or awareness of the relevant facts by an accused can amount to a defence of mistake of fact, negating the *mens rea* if the perpetrator erred about ‘a factual (descriptive) element of the relevant offence’.¹⁴⁰ Mistakes of facts

¹³⁷ *Supra* note 9, p. 12; *supra* note 10, p. 5.

¹³⁸ For a discussion about endangerment offences under German and English criminal law, see Antony Duff and Tatjana Hörnle, ‘Crimes of Endangerment’ in Kai Ambos et al. (eds), *Core Concepts in Criminal Law and Criminal Justice: Volume II* (CUP 2022), pp. 132–66.

¹³⁹ On the further discussion on the endangerment rationale and ‘ecocide’ see Kai Ambos, ‘Protecting the Environment Through International Criminal Law?’ (*EJIL: Talk!*, 29/06/2021) <https://www.ejiltalk.org/protecting-the-environment-through-international-criminal-law/> accessed 23/01/2023; *supra* note 122, 331–2.

¹⁴⁰ *Supra* note 84, p. 487.

including, for instance, a human error arising from the misidentification of factual information, can lead to the exclusion of criminal liability. What would happen if, despite carrying out a laborious and thorough analysis of available information, a superior has nevertheless erroneously predicated and mischaracterised the environmental hazards? Would the principle of precaution be relevant in the interpretation and application of that statutory provision? How far should governments and militaries align with the precautionary approach whilst working to find ways to meet the needs of both a burgeoning military and a finite life-sustaining environment?¹⁴¹ Should there be a certain threshold of potential damage in the absence of which the concept of precaution could be ignored? All of these questions illustrate that even if the States Parties accept the inclusion of a more expansive *mens rea* to the crime of ‘ecocide’, in practice a less demanding subjective element might prove exacting to apply and establish in practice. Many have also raised reasonable concerns that any addition of a substantially dissimilar and statutorily ‘odd’ *mens rea* element, would become ‘an anomaly’ further uncoupling ‘ecocide’ from the remaining substantive provisions.¹⁴²

3.2.3 *The Responsibility Paradigm*

In contrast to ICL, the current framework of IEL is based on the traditional and predominant role of States and their responsibility for environmental harm.¹⁴³ But that regime has not played a significant or at least practical role in addressing environmental challenges: most cross-national environmental concerns find their resolution via negotiation or adoption of an agreement that regulates the issue at hand, and only a few cases result in formal dispute settlement.¹⁴⁴ This

¹⁴¹ Kurt Smith, ‘Environmental Protection, the Military, and Preserving the Balance: “Why it Matters, in War and Peace” ’ (2020) 11(1) *Seattle Journal of Technology, Environmental and Innovation Law* 112, 119.

¹⁴² Anastacia Greene, ‘Mens Rea and the Proposed Legal Definition of Ecocide’ (*Voelkerrechtsblog*, 7/07/2021) <https://voelkerrechtsblog.org/mens-rea-and-the-proposed-legal-definition-of-ecocide/> accessed 23/01/2023.

¹⁴³ Robert McLaughlin, ‘Improving Compliance: Making Non-State International Actors Responsible for Environmental Crimes’ (2000) 11(2) *Colorado Journal of International Environmental Law and Policy* 377, 381, 389; Jutta Brunnée, ‘International Legal Accountability Through the Lens of the Law of State Responsibility’ (2005) 36 *Netherlands Yearbook of International Law* 21, 55.

¹⁴⁴ Jutta Brunnée, ‘Of Sense and Sensibility: Reflections on International Liability Regimes as Tools for Environmental Protection’ (2008) 53(2) *International and Comparative Law Quarterly* 351, 353.

ineffectiveness of State responsibility fuels the efforts to extend the doctrine of individual criminal responsibility to the environmental damage line with the internal logic of domestic and international humanitarian and criminal law.¹⁴⁵ The major deficiency of individual criminal responsibility is its upfront restriction of the range of possible perpetrators to natural persons, excluding the concept of criminal liability of corporations for international crimes.¹⁴⁶ In line with the ICC's model of attribution, investigations and prosecutions target individuals at the leadership level of given organisations: those who are 'able control and dominate the collective action with full responsibility'.¹⁴⁷ But the ICC Prosecutor is unable to charge corporations themselves, despite the fact that many of the defendants in such cases 'will be corporations rather than individuals'.¹⁴⁸ Widespread environmental threats are increasingly linked to large corporate entities, which possessed early knowledge of the risks posed by their activities and had opportunities to mitigate those risks. Instead, they failed to do so or even tried 'to mislead the public by spreading misinformation campaigns and lobbying regulators against taking action'.¹⁴⁹ The added value of including corporate liability for mass environmental damage would be to bypass 'the most complex liability theories in international law'¹⁵⁰—superior responsibility—and render transnational companies directly liable to provide compensation for

¹⁴⁵ *Supra* note 13, 617.

¹⁴⁶ There were proposals at the Rome Conference that led to the adoption of the Statute to include a regime for criminal liability of legal entities, but these proposals were rejected. See, Larissa van den Herik and Jernej Letnar Čerňič, 'Regulating Corporations Under International Law from Human Rights to International Criminal Law and Back Again' (2010) 8(3) *Journal of International Criminal Justice* 725.

¹⁴⁷ *Supra* note 84, p. 142.

¹⁴⁸ G. R. Sullivan, 'Strict Liability for Criminal Offences in England and Wales Following Incorporation Into English Law of the European Convention on Human Rights' in Andrew P. Simester (ed), *Appraising Strict Liability* (OUP 2005), p. 196.

¹⁴⁹ See, e.g., Peter C. Frumhoff, Richard Heede, and Naomi Oreskes, 'The Climate Responsibilities of Industrial Carbon Producers' (2015) 132(2) *Climatic Change* 157, 161–6; Geoffrey Supran and Naomi Oreskes, 'Assessing ExxonMobil's Climate Change Communications (1977–2014)' (2017) 12(8) *Environmental Research Letters* 1, 12–5.

¹⁵⁰ Elies van Sliedregt, *Individual Criminal Responsibility in International Law* (OUP 2012), p. 209.

the damage incurred throughout their activities. Instead of targeting the narrowed band of responsible CEOs, international criminal proceedings for corporate environmental crimes, putting the company's reputation at risk, might have a 'dissuasive and preventive effect rather than just punitive'.¹⁵¹ Although discussion on the possible inclusion of corporate responsibility in the framework of the ICC falls beyond this analysis, it is relevant to mention the recent ILC Draft Principles on the Protection of the environment in relation to armed conflicts ('ILC Draft Principles').¹⁵² By putting the centre of gravity of the international environmental liability regime on state responsibility,¹⁵³ ILC Draft Principle 9 has explicitly reaffirmed the supremacy of States in international environmental governance. Subsequent ILC Draft Principles impose on States a duty of 'corporate due diligence',¹⁵⁴ obliging them to 'regulate their corporations and hold them liable for their wrongdoings'.¹⁵⁵ This explicit recognition of the complicity of corporations in the current environmental crisis¹⁵⁶ is highly relevant to the current practice as corporate involvement in environmentally harmful practices (e.g., illicit exploitation of natural resources) continues to magnify. Despite certain limitations,¹⁵⁷ the work of the ILC can be perceived as 'momentous'¹⁵⁸ in establishing a clear hierarchy within the system of individual and corporate responsibility: States and individuals can be

¹⁵¹ Jelena Aparac, 'ICL and Environmental Protection Symposium: International Criminal Courts as Potential Jurisdiction for Corporate Responsibility for Environmental Crimes (Part II)' (*OpinioJuris*, 04/06/2020) <http://opiniojuris.org/2020/06/04/icl-and-environmental-protection-symposium-international-criminal-courts-as-potential-jurisdiction-for-corporate-responsibility-for-environmental-crimes-part-ii/> accessed 23/01/2023.

¹⁵² ILC, *Protection of the Environment in Relation to Armed Conflicts: Draft Principles on Protection of the Environment in Relation to Armed Conflicts* (20/05/2022) A/CN.4/L.968.

¹⁵³ *Ibid*, ILC Draft Principle 9.

¹⁵⁴ *Ibid*, ILC Draft Principle 10.

¹⁵⁵ *Ibid*, ILC Draft Principle 11.

¹⁵⁶ Auden Schendler, 'The Complicity of Corporate Sustainability' (*Stanford Social Innovation Review*, 07/04/2021) https://ssir.org/articles/entry/the_complicity_of_corporate_sustainability accessed 23/01/2023.

¹⁵⁷ See, e.g., Daniëlla Dam-de Jong and Britta Sjostedt, 'Enhancing Environmental Protection in Relation to Armed Conflict: An Assessment of the ILC Draft Principles' (2021) 44(2) *Loyola of Los Angeles International and Comparative Law Review* 129.

¹⁵⁸ *Ibid*, 140.

held responsible at the international level whilst corporations remain criminally liable under domestic law. From the dogmatic perspective, the approach undertaken by the ILC aligns with the current framework of ICL with its ‘Nuremberg’ conception of international criminal justice: ‘crimes against international law are committed by men, not abstract entities’.¹⁵⁹ The doctrine of individual criminal liability still remains the cornerstone of modern ICL as reflected in Article 25 of the Statute,¹⁶⁰ despite the increased interest in international and domestic attitudes to establish some level of corporate liability for complicity in atrocity crimes.¹⁶¹ In the absence of an international criminal tribunal that can adjudge crimes committed by legal actors,¹⁶² the link between economic power and international criminal conduct of non-State actors unalterably remains a matter of academic deliberations. Apart from reaching a consensus on extending the reach of the ICC to cover corporate international criminal misconduct, another challenge for the States Parties would be to single out one approach that would be suitable for holding corporations criminally responsible before the ICC.¹⁶³ Many domestic legal systems recognise a certain level of corporate responsibility,¹⁶⁴ but these systems show wide variations in approach to liability. Thus, another

¹⁵⁹ American Society of International Law, ‘International Military Tribunal Nuremberg, Judgment and Sentences’ (1947) 41 *American Journal of International Law* 172, 221.

¹⁶⁰ This narrative was followed by the IEPLDE with its proposal, although termed a ‘missed opportunity’, omitting to include any reference to corporate criminal responsibility. For its critique, see Jelena Aparac, ‘A Missed Opportunity for Accountability? Corporate Responsibility and the Draft Definition of Ecocide’ (*Voelkerrechtsblog*, 03/07/2022) <https://voelkerrechtsblog.org/a-missed-opportunity-for-accountability/> accessed 23/01/2023.

¹⁶¹ See, e.g., Caroline Kaeb, ‘The Shifting Sands of Corporate Liability Under International Criminal Law’ (2016) 49(2) *The George Washington International Law Review* 351.

¹⁶² Kai Ambos, ‘International Economic Criminal Law’ (2018) 29 *Criminal Law Forum* 499, 510.

¹⁶³ On the discussion on the future of the doctrine of corporate liability within the framework of ICL see *ibid.*

¹⁶⁴ For a comparative analysis of national approaches to corporate criminal liability, see, e.g., James Gobert and Ana-Maria Pascal (eds), *European Developments in Corporate Criminal Liability* (Routledge 2011).

challenge for the States Parties would be to reconcile and balance those varied interests.¹⁶⁵

3.2.4 *Lack of Sufficient Political Will*

Even in the presence of a sufficiently clear definition of ‘ecocide’, its future will depend on the political consensus and the will to bear the ‘cost’ of enforcing ICL for environmental ends. The current status quo is an important reference point for any concrete discussions on potential legal innovations. At the moment, the crime is implemented in the penal codes of nine former Soviet Union countries,¹⁶⁶ Vietnam,¹⁶⁷ also the French¹⁶⁸ and Belgium Parliaments have voted in favour of recognition of the crime of ‘ecocide’.¹⁶⁹ Certainly, there is an amplified interest in ‘ecocide’ that has transgressed academic circles into policy deliberations reaching, to a certain extent, the implementation stage. However, that interest still seems to be limited,

¹⁶⁵ Ricardo M. Pereira, ‘The Internationalisation of Environmental Criminal Law: Rationales, Basis and Prospects’ (2020) 21 *Environmental Criminal Liability and Enforcement in European and International Law* 91, 129.

¹⁶⁶ Criminal Code of the Russian Federation, No. 63-Fz of 12/06/1996 (adopted by the State Duma on 24/05/1996, adopted by the Federation Council on 05/06/1996), Article 358; Criminal Code of the Republic of Kazakhstan, Law No. 167 of 16/07/1997, Article 161; Criminal Code of the Republic of Armenia (adopted 18/04/2003), Article 394; Criminal Code of Georgia, LHG 41(48) (13/08/1999), Article 409; Criminal Code of the Republic of Moldova, No. 985-XV (18/04/2002), Article 136; Criminal Code of the Kyrgyz Republic, No. 68 of 01/10/1997, Article 374; Criminal Code of the Republic of Tajikistan, No. 574 (21/05/1998), Article 400; Criminal Code of the Republic of Belarus of 09/07/1999, No. 275-Z (accepted by the House of Representatives on 02/06/1999, approved by Council of the Republic on 24/06/1999), Article 131; Criminal Code of the Republic of Ukraine, No. 2341-III of 05/04/2001, Article 441.

¹⁶⁷ Criminal Code of the Socialist Republic of Vietnam, No. 100/2015/QH13 (27/11/2015), Article 235.

¹⁶⁸ French Environmental Code, Articles L 173-3 and L 231-1.

¹⁶⁹ ‘Proposition de Résolution Demandant D’Inscrire le Crime D’Écocide Dans le Droit Pénal International’, Document Parlementaire 55K1429 (02/12/2021) <https://www.lachambre.be/kvvcr/showpage.cfm?section=/flwb&language=fr&cfm=/site/wwwcfm/flwb/flwbnc.cfm?lang=F&legislat=55&dossierID=1429> accessed 23/01/2023. For a discussion on the incorporation of ‘ecocide’ into the Belgian Penal Code see Kevin Jon Heller, ‘Belgium Set to Criminalise Ecocide (Kinda Sorta)’ (*OpinioJuris*, 08/11/2022) <http://opiniojuris.org/2022/11/08/belgium-set-to-criminalise-ecocide-kinda-sorta/> accessed 23/01/2023.

as, despite the calls of the European Parliament¹⁷⁰ and the United Nations Environment Programme,¹⁷¹ there is no recorded State practice concerning the investigation and prosecution of the perpetrators of ‘ecocide’. During the 26th UN Climate Change Conference in Glasgow, the progress on international legislation against ‘ecocide’ was also largely under the radar.¹⁷² Although a number of countries have implemented crime within their legal systems, to the knowledge of this author, only one put its provision into operation. In 2012, the Kyrgyz Prosecutor General reportedly charged the head of the Kyrgyz company, which illegally shipped radioactive coal, with ecocide.¹⁷³ This stark lack of state practice can be contrasted with the rapid ‘greening’ of domestic human rights law. Already in 1993, the Philippines Supreme Court described rights to a healthy environment as ‘basic rights’ which ‘predate all governments and constitutions’ and ‘need not be written in the Constitution for they are assumed to exist from the inception of humankind’.¹⁷⁴ In total, more than 80% of States Members of the United Nations legally recognise the right to a safe, clean, healthy and sustainable environment.¹⁷⁵ What is striking about the trajectory of that development is the fact that the right to an environment of a certain quality has evolved domestically vis-à-vis the supra-national legal order. The objective of providing for such a right in international law has been mostly achieved through national

¹⁷⁰ European Parliament ‘Environmental Liability Rules Need Revamping’ (Press Release, 20/05/2021) <https://www.europarl.europa.eu/news/en/press-room/20210517IPR04121/environmental-liability-rules-need-revamping> accessed 23/01/2023.

¹⁷¹ UNEP, ‘Observations on the Scope and Application of Universal Jurisdiction to Environmental Protection’ https://www.un.org/en/ga/sixth/75/universal_jurisdiction/uneep_e.pdf accessed 23/01/2023.

¹⁷² ‘COP26 Glasgow: International Legislation Against Ecocide Not in Pact but Could Be on Horizon’ (*BrusselsTimes*, 16/11/2021) <https://www.brusselstimes.com/193838/cop26-glasgow-international-legislation-against-ecocide-still-distant-goal> accessed 23/01/2023.

¹⁷³ Sanya Khetani, ‘OOPS: Kazakhstan (Accidentally) Sent Radioactive Coal to Kyrgyzstan Orphans’ (*BusinessInsider*, 10/02/2012) <https://www.businessinsider.com/oops-kazakhstan-accidentally-sent-radioactive-coal-to-kyrgyzstan-orphans-2012-2?r=US&IR=T> accessed 23/01/2023.

¹⁷⁴ *Oposa v. Factoran* GR No 101083 (SC 30/07/1993).

¹⁷⁵ UNGA, Right to A Healthy Environment: Good Practices - Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment (30/12/2019) UN Doc A/HRC/43/53, §13.

means, in the absence of a single universally binding source of international law entrenching such a right.¹⁷⁶ The domestic codification had a catalysing effect on international legal actors, not the reverse. Should the development of the prohibition of ‘ecocide’ or mass environmental damage follow the same bottom-up approach to international lawmaking? At the present moment, the lack of political willingness, its scarce existence only in a handful of countries, and the lack of environmentally-driven investigations and prosecutions suggest that the time is simply not yet ripe to seriously take into account any discussions on the subject. Ultimately, the realisation of any substantive amendment procedure will depend on the political will of States which is difficult to surmise.

3.3 *ICC as a Complementary Vehicle for Redress*

This detour to investigate the possibilities for synergies and major conflict points between ICL and IEL endeavoured to showcase how the dominant logics of these two sub-divisions of international law play out against each other. Beyond the highlighted challenges to the effective inclusion of an ‘ecocide’ provision to the framework of the Statute, other difficulties to the effective reconciliation of IEL and ICL include, *inter alia*, the repair of environmental damage,¹⁷⁷ quantification of environmental harm,¹⁷⁸ the geographically-diffuse character of environmental harms such as climate change,¹⁷⁹ or the issue of causation.¹⁸⁰ Environmental issues do not only transgress geopolitical borders but also traditional epistemic approaches to international law litigation, requiring horizontal coordination across several institutions and sectors.¹⁸¹ By far, the most difficult issue that challenges the international ‘ecocide’ movement is how to best align the crime with the primary narratives driving the development of IEL: precaution and prevention. The proposed definition should be in

¹⁷⁶ Louis J Kotzé, ‘In Search of a Right to a Healthy Environment in International Law Jus Cogens Norms’ in John H. Knox and Ramin Pejan (eds), *The Human Right to a Healthy Environment* (CUP 2018), pp. 137–8.

¹⁷⁷ For a discussion on the assessment and reparation of environmental damage see *supra* note 46, pp. 322–4.

¹⁷⁸ *Supra* note 16, p. 3.

¹⁷⁹ *Supra* note 19, 116.

¹⁸⁰ *Supra* note 46, pp. 397–8.

¹⁸¹ Rakhyun E. Kim and Klaus Bosselmann, ‘International Environmental Law in the Anthropocene: Towards a Purposive System of Multilateral Environmental Agreements’ (2013) 2(2) *Transnational Environmental Law* 285, 292, 296.

accord with the rapid changes and innovations driving international environmental governance and, simultaneously, must specify the *actus reus* and the *mens rea* in the corpus criminalizing the conduct.¹⁸² On the one hand, incorporating a prohibition rooted in the logic of precaution and prevention might result in a major substantive disconnect, setting up a ‘sub-system’ within the framework of the Statute. On the other, a definition too conformable with the demands of the ICL could manifest itself in regressive or rigid language, weakening its stand against the remaining ‘core’ crimes. Future deliberations on the types of factual scenarios that should or should not fall within the prohibition might aid further attempts to reduce the conceptual gap between international environmental protection and international criminal justice.

IV THE —ENVIRONMENTAL’ POTENTIAL OF THE CURRENT FRAMEWORK

The questions on the future of ‘ecocide’ in the framework of, the Statute do not put a hold on the ICC from harnessing the potential of the current statutory framework to address environmentally related concerns. Translating environmental protection into and bolstering it by reference to the substantive framework of the Statute can act as a powerful stimulus, drawing international attention to matters related to the environment. The 2016 OTP policy paper on case selection and prioritisation (‘2016 OTP Policy Paper’) provides evidence of an increased interest within the ICC itself in prioritising ‘core’ crimes ‘that are committed by means of (...) the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land’.¹⁸³ Although not binding in itself, the 2016 OTP Policy Paper shows an inclination on the part of the ICC Prosecutor to investigate and prosecute crimes involving illegal natural resource exploitation,

¹⁸² Christopher L. Blakesley, ‘Jurisdiction, Definition of Crimes, and Triggering Mechanisms’ (1997) 25(2) *Denver Journal of International Law and Policy* 233, 249-50.

¹⁸³ The Office of the Prosecutor of the ICC, ‘Policy Paper on Case Selection and Prioritisation’ (15/09/2016), §41.

land grabbing, and environmental damage.¹⁸⁴ Instead of adopting an overly inclusive understanding of the primary legal object of IEL—the ‘environment’¹⁸⁵—too demanding for the limited capabilities of the Court, the ICC should take advantage of the flexible character of that concept and model it in the light of the contextual elements of its core crimes. The following discussion proposes two possible directions for the ICC to move in that direction: (i) more resourceful translation of environmental realities into the substantive prohibitions of war crimes or (ii) more active reliance on and application of Article 21(3) of the Statute in conjunction with Article 7(1)(h). The indirect reliance on the prohibition of genocide as a means to perpetrate environmental harms has received much scholarly attention,¹⁸⁶ thus, it is not addressed below.

4.1 *War Crimes and the Environment*

As discussed above,¹⁸⁷ the excessively high threshold for the operation of Article 8(2)(b)(iv) of the Statute severely undermines its viability prospects in the enhancement of environmental protection through the ICL framework. Other statutory provisions applicable to IACs and NIACs might provide another layer of indirect protection and, in practice, a more feasible means for targeting instances of environmental destruction. Illegal exploitation of the environment can ‘intensify conflict during active hostilities and reignite hostilities in the aftermath of conflict’¹⁸⁸ or even be the main reason fueling the violence. The paradox of the ‘resource curse’ underscores the fact that extraction of natural resources can often bolster corruption,¹⁸⁹ forced

¹⁸⁴ Ibid, §7, 40-1.

¹⁸⁵ The IEPLDE proposed a too comprehensive definition encompassing ‘the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space’. See, *supra* note 9, p. 11.

¹⁸⁶ See, e.g., Ricardo Pereira, ‘After the ICC Office of the Prosecutor’s 2016 Policy Paper on Case Selection and Prioritisation: Towards an International Crime of Ecocide?’ (2020) 31(2) *Criminal Law Forum* 179; Caitlin Lambert, ‘Environmental Destruction in Ecuador: Crimes against Humanity Under the Rome Statute’ (2017) 30(3) *Leiden Journal of International Law* 707.

¹⁸⁷ See Section “**THE TERM ‘ECOCIDE’**”.

¹⁸⁸ *Supra* note 1, p. 223.

¹⁸⁹ Avi Brisman, Nigel South, and Rob White (eds), *Environmental Crime and Social Conflict: Contemporary and Emerging Issues* (Routledge 2015), p. 4.

displacement,¹⁹⁰ and land grabbing,¹⁹¹ ultimately boiling down to political manoeuvring, instability, or even armed conflict. For example, natural resource exploitation is at the heart of many present-day armed conflicts, such as the ongoing hostilities in the Democratic Republic of the Congo ('DRC'), Côte d'Ivoire,¹⁹² or Ukraine.¹⁹³ The three roles of the environment in times of armed insurgencies—a lootable target, a mere tool or an incidental victim—have often been melded indistinctly into one another, making it even more challenging to craft the appropriate strategy paving the way for environmental justice.

4.1.1 *Pillage*

The prohibition of pillage enshrined in Articles 8(2)(b)(xvi) and 8(2)(e)(v) of the Statute is relevant from the environmental perspective, especially within the context of natural resource exploitation. Although its general prohibition has attained the level of a customary principle applicable in IACs and NIACs,¹⁹⁴ there is no official definition of 'pillage'.¹⁹⁵ Within the ICC's framework, the crime penalises appropriation of property without the consent of its owner with the intent to deprive them of the property and appropriate it for private or personal use.¹⁹⁶ The Court's regime further does not require proof

¹⁹⁰ Isabel M. Borges, *Environmental Change, Forced Displacement and International Law: From Legal Protection Gaps to Protection Solutions* (Routledge 2018), pp. 15–43.

¹⁹¹ Christa N. Brunnschweiler and Erwin H. Bulte, 'Natural Resources and Violent Conflict: Resource Abundance, Dependence, and the Onset of Civil Wars' (2009) 61(4) *Oxford Economic Papers* 651, 652.

¹⁹² Daniella Dam-de Jong, 'From Engines for Conflict Into Engines for Sustainable Development: The Potential of International Law to Address Predatory Exploitation of Natural Resources in Situations of Internal Armed Conflict' (2013) 82(1) *Nordic Journal of International Law* 155, 158.

¹⁹³ Anthony Faiola and Dalton Bennett, 'In the Ukraine War, a Battle for the Nation's Mineral and Energy Wealth' (*WashingtonPost*, 10/08/2022) <https://www.washingtonpost.com/world/2022/08/10/ukraine-russia-energy-mineral-wealth/> accessed 23/01/2023.

¹⁹⁴ *Prosecutor v. Enver Hadžihasanović & Amir Kubura*, Case IT-01-47-AR73.3, Appeals Chamber, Decision on Joint Defence Interlocutory Appeal of Trial Chamber Decision on Rule 98bis Motions for Acquittal Case, 11/03/2005, §37.

¹⁹⁵ Robin Geiß and Andreas Zimmermann in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 8, mn. 543.

¹⁹⁶ Articles 8(2)(b)(xvi) and 8(2)(e)(v) Elements of Crimes.

of force or violence as an element of such appropriation.¹⁹⁷ Its *rationae personae* is broad as the crime addresses any individual, without restriction,¹⁹⁸ extending both to acts of looting committed for private gain and ‘to the organized seizure of property undertaken within the framework of a systemic economic exploitation of occupied territory’.¹⁹⁹ Although Footnote 67 might implicitly suggest otherwise,²⁰⁰ pillage and military necessity are ‘mutually exclusive concepts’,²⁰¹ as confirmed by the Trial Chamber in *Bemba*.²⁰² Thus, appropriation of private property belonging to combatants but not justified by military necessity constitutes the crime of pillaging.²⁰³ The major novelty of the ICC’s definition is the addition of the ‘private or personal use’ element, which has been accused of being without foundation in jurisprudence²⁰⁴ and criticised for narrowing its prohibited scope and heightening the evidentiary threshold.²⁰⁵ Although certain components of the environment can be subject to ownership such that they are ‘property’—be they livestock or plots of land—the property requirement limits the possibility of that provision addressing the full extent of the environmental destruction.²⁰⁶ In *Ongwen*, the Trial Chamber emphasised that the concept of private property and the right to property are understood broadly as ‘encompassing not only the property of individuals, but also the communal property of the communities’, taking ‘into consideration the

¹⁹⁷ *Prosecutor v. Jean-Pierre Bemba Gombo*, Case ICC-01/05-01/08, Trial Chamber III, Judgment Pursuant to Article 74 of the Statute, 21/03/2016, §116.

¹⁹⁸ *Supra* note 195, mn. 551.

¹⁹⁹ *Prosecutor v. Zejnil Delalić et al.*, Case IT-96-21, Trial Chamber, Trial Judgment, 16/11/1998, §590.

²⁰⁰ *Supra* note 195, mn. 549.

²⁰¹ Yulia Nuzban, ‘“For Private or Personal Use”: The Meaning of the Special Intent Requirement in the War Crime of Pillage Under the Rome Statute of the International Criminal Court’ (2020) 102(915) *International Review of the Red Cross* 1249, 1266.

²⁰² *Supra* note 197, §124.

²⁰³ *Prosecutor v. Germain Katanga*, Case ICC-01/04-01/07-3436-tENG, Trial Chamber, Judgment Pursuant to Article 74 of the Statute, 07/03/2014, §907.

²⁰⁴ James G. Stewart, *Corporate War Crimes: Prosecuting the Pillage of Natural Resources* (Open Society Institute 2011), §16.

²⁰⁵ *Supra* note 201, p. 1261.

²⁰⁶ *Supra* note 1, pp. 231–2; *Supra* note 2, §185–6.

customary law of the community'.²⁰⁷ The creative extension of property rights to environmental components has already taken root in the jurisprudence of, *inter alia*, the ECtHR²⁰⁸ and the IACtHR.²⁰⁹ Nevertheless, all human rights adjudicators condition the scope for environmental protection upon establishing a more or less demanding 'link' requirement between the impairment of a specific protected right, such as the right to property, and environmental degradation. For instance, the ECtHR rejected the claim for breach of Articles 6 and 8 of the European Convention of Human Rights ('ECHR') as the applicants failed to establish a clear connection between the impact of the project on the ecosystem of the Munzur Valley and their life or property.²¹⁰ In a similar fashion, only if environmental components were appropriated for private or personal use, as in *Katanga*, where pillaging was perpetrated for the sake of individual gain,²¹¹ would the requirement for private or personal use be fulfilled. The question of whether natural resources could constitute civilian property was answered affirmatively by the ICJ in *DRC v Uganda*,²¹² finding the government of Uganda internationally responsible for looting, plundering, and exploiting the DRC's natural resources by failing to prevent members of its army from the commission of these acts. Despite the broad reading of 'property' and the express recognition of systematic looting of gold and diamonds as pillage by international and domestic courts,²¹³ the ICC's 'personal or private use' requirement excludes the range of appropriations committed for other purposes, for example, to fund armed hostilities.²¹⁴ The primary focus on property further factors out a vast portion of environmental

²⁰⁷ *Prosecutor v. Dominic Ongwen*, Case ICC-02/04-01/15-1762-Red, Trial Chamber, Trial Judgement, 04/02/2021, §2766.

²⁰⁸ ECtHR, *Aydin and Others v. Turkey*, Application No. 40806/07, Decision, 15/05/2012.

²⁰⁹ IACtHR, *Case of the Saramaka People v. Suriname*, Judgment, 28/11/2007, §121.

²¹⁰ *Supra* note 208, §28.

²¹¹ *Supra* note 203, §951–2.

²¹² ICJ, Case Concerning Armed Activities on the Territory of the Congo (*Democratic Republic of the Congo v. Uganda*), Judgment, 19/12/2005, ICJ Reports 2005, p. 168, §219, 242–6.

²¹³ *N.V. de Bataafsche Petroleum Maatschappij and Others v. The War Damage Commission* (Singapore Oil Stocks Case), Singapore Court of Appeal, Decision, 13/04/1956, reprinted in *The American Journal of International Law* (1957) 51(4) 802–15.

²¹⁴ *Supra* note 1, p. 231.

damage that is conducted without a view to exercising ownership rights.²¹⁵ It appears very likely that a potential accused could claim that any act of environmental exploitation was carried out for public ends and to fund the military campaign. The second element—proof of ‘specific intent’—further amplifies the evidentiary standard, placing an ‘unduly restrictive’²¹⁶ burden of proof on the ICC Prosecutor. So far, the ICC Prosecutor has not brought charges concerning pillaged property of a strictly environmental nature. In *Ongwen*, the pillaged objects were limited to foodstuffs, clothing,²¹⁷ and households;²¹⁸ in *Katanga*, the attackers seized mattresses, tables, chairs and kitchen equipment and took possession of livestock²¹⁹; similarly, in *Bemba*, the pillaged goods included bicycles, motorcycles, money,²²⁰ and household items such as beds and electrical generators.²²¹ Despite its conceptual limitations, the crime of pillage has the potency to deliver another layer of environmental protection if contextualised intelligently. A more ‘preventative’ interpretation of the principle of permanent sovereignty over natural resources²²² would provide a viable opportunity to deepen the intersection between IEL and the context of armed conflict: viewing it as a sovereign entitlement to exploitation but also as a permanent duty to exercise those inherent economic privileges in the interest of achieving national sustainable development. The powerful statement of the Rio Declaration—of warfare being ‘inherently destructive of sustainable development’²²³—cautions us that any situation involving armed conflict entails regression or, at best, stagnation of the process towards sustainability. By embracing the IEL’s focus on sustainable management of natural resources, the ICC could take a more ‘precautionary’ stance towards anticipatory resource management. Although the Court is yet to break the ‘resource curse’ and contextualise

²¹⁵ *Ibid.*

²¹⁶ *Supra* note 2, §183.

²¹⁷ *Supra* note 207, §1299.

²¹⁸ *Ibid.*, §1300.

²¹⁹ *Supra* note 203, §883.

²²⁰ *Supra* note 197, §497.

²²¹ *Ibid.*, §525.

²²² UNGA, *Permanent Sovereignty Over Natural Resources*, 14/12/1962, UN Doc A/RES/1803/ XVII.

²²³ *Supra* note 44, Principle 24. This statement has been later directly referred to by the ICJ in *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 08/07/1996, ICJ Reports 1996, p. 226, §30.

the war crime of ‘pillage’ as environmental abuse, it may be concluded that the prohibition applies to the exploitation of natural resources committed by members of rebel or foreign forces for personal enrichment. The major weakness of translating the statutory provisions on pillage to the context of natural resource exploitation is the risk of them indiscriminately targeting non-state actors without enlarging it to include the States themselves, the primary owners of natural resources.²²⁴

4.1.2 *Destruction and Appropriation of Property*

The second environmentally relevant IAC wartime prohibition laid in Article 8(2)(a)(iv) of the Statute criminalises conduct against property in the power of the enemy. It prohibits the perpetrator from extensively and wantonly destroying or appropriating property protected under one or more of the Geneva Conventions 1949 and not justified by military necessity.²²⁵ The term ‘destruction’ encompasses, for instance, ‘setting objects on fire, attacking or otherwise seriously damaging them; for appropriation taking, obtaining or withholding property, theft, requisition, plunder, spoliation or pillage’.²²⁶ On the one hand, this prohibition can be regarded as broader than the crime of pillage, as it encompasses the appropriation of civilian property, including its destruction,²²⁷ and without specifying the applicable mental element, it incorporates the default standard of Article 30 of the Statute. The absence of the ‘private or personal use’ criterion allows the prohibition to extend over the systematic exploitation of environmental components, including natural resources, for the purpose of financing military operations. On the other hand, the expressive exception of ‘military necessity’,²²⁸ missing in the definition of pillage, would serve as a significant limitation filtering out all but the most egregious examples of environmental harm.²²⁹

²²⁴ Marco Sassòli, *International Humanitarian Law: Rules, Controversies, and Solutions to Problems Arising in Warfare* (Edward Elgar Publishing 2019), p. 294.

²²⁵ Article 8(2)(a)(iv) Elements of Crimes.

²²⁶ Knut Dörmann in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 8, mn. 118.

²²⁷ Article 8(2)(a)(iv) Elements of Crimes.

²²⁸ *Ibid.*

²²⁹ *Supra* note 1, p. 233.

4.1.3 *Destruction of Objects Indispensable to the Survival of the Civilian Population*

The above-mentioned war crime provisions are complemented by the broader prohibition of starvation, criminalising intentional taking or destruction of objects indispensable to the survival of the civilian population.²³⁰ Its range of prohibited conducts includes, for instance, the destruction of crops and the poisoning of water resources; however, the impeding of relief supplies, covering the transport of food and water, can also satisfy the *actus reus* requirement.²³¹ As the provision resembles an obligation of conduct—‘no result of starvation is required’²³²—the notion of ‘indispensable objects’ extends over the most essential set of resources and includes deprivation of other necessities such as medicine, clothing, or food harvesting products.²³³ The prohibition thereby creates room for a certain level of indirect environmental protection by banning the destruction of objects, albeit *not* forming part of the natural environment, whose damage can result in adverse environmental impacts. In *Al Bashir*, despite the ultimate lack of charges against the war crime of starvation, the prohibited methods included the destruction of the means of survival and usurpation of the land.²³⁴ This inclusion implies the existence of a consequent link between acts of deprivation of that kind and civilian survival. Although the prohibition does not contain the exception of military necessity, it remains a selective tool, shielding environmental components strictly necessary to civilian survival whilst overlooking a substantial portion of the environment falling beyond the realm of ‘indispensable objects’.

4.1.4 *Civilian Objects and Cultural Property*

Article 8(2)(b)(ii) of the Statute encapsulates the customary rule of distinction applicable both in IACs and NIACs,²³⁵ which requires ‘belligerents to conduct operations in a manner that respects the

²³⁰ Article 8(2)(b)(xxv) ICCS.

²³¹ Roberta Arnold, Michael Cottier, Emilia Richard, and Susann Aboueldahab in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 8, mn. 757.

²³² Article 8(2)(b)(xxv) Elements of Crimes.

²³³ *Supra* note 231, mn. 760.

²³⁴ *Prosecutor v. Omar Hassan Ahmad Al Bashir*, Case ICC-02/05-01/09, Pre-Trial Chamber I, Second Decision on the Prosecution’s Application for a Warrant of Arrest, 12/07/2010, §34.

²³⁵ *Supra* note 2, §98.

difference between civilians and civilian objects on the one hand, and combatants and military objectives on the other'.²³⁶ Although components of the environment are most often civilian objects, their protection is 'shaky' as environmental elements can quickly become military objects²³⁷ depending on their use. Beyond the 'civilian object' shield, parts of the environment qualifying as cultural property²³⁸ benefit from the additional level of protection provided under Article 8(2)(b)(ix) of the Statute, mirrored in Article 8(2)(e)(iv) applicable to NIACs. Both provisions are built on the approach introduced by the 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict²³⁹ and its Protocol II,²⁴⁰ without, however, differentiating in gravity for offences against cultural property.²⁴¹ In contrast to the Statute, the regime protecting cultural property during armed conflict offers different degrees of protection depending on the importance of the cultural property:²⁴² a specific object may be reinforced by so-called special or enhanced protection.²⁴³ Whilst the protection of 'civilian' objects is granted to all cultural property not used for military purposes,²⁴⁴ the regime of special protection shields those cultural heritage refuges identified as being 'of very great importance'.²⁴⁵ In addition, through the mechanism of listing, the enhanced protection covers properties 'of the greatest importance for

²³⁶ Ibid, §99.

²³⁷ Michael Bothe et al., 'International Law Protecting the Environment During Armed Conflict: Gaps and Opportunities' (2010) 92(879) *International Review of the Red Cross* 569, 576.

²³⁸ The provisions prohibit attacking 'one or more buildings dedicated to religion, education, art, science or charitable purposes, historic monuments, hospitals or places where the sick and wounded are collected, which were not military objectives'. See Article 8(2)(b)(ix), Elements of Crimes.

²³⁹ *Convention for the Protection of Cultural Property in the Event of Armed Conflict* (adopted 14/05/1954, entered into force 07/08/1956).

²⁴⁰ *Second Protocol to the Hague Convention for the Protection of Cultural Property* (26/03/1999).

²⁴¹ Michael Cottier, Elisabeth Baumgartner, and Stefan Wehrenberg in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 8, mn. 409.

²⁴² Ibid, mn. 400.

²⁴³ *Supra* note 2, §169.

²⁴⁴ Ibid.

²⁴⁵ *Supra* note 239, Article 8(1).

humanity'.²⁴⁶ The statutory absence of such differentiation in gravity between acts perpetrated against the different elements of cultural property prevents the Court from clearly expressing the fact of wrongdoing but also articulating its degree.²⁴⁷ In the only case that directly addressed the destruction of cultural heritage—*Al Mahdi*²⁴⁸—the Court missed the opportunity to clarify the details of the notion of cultural property or the degree of protection recognised by the Statute. The Trial Chamber's reasoning implies that only the UN Educational, Scientific and Cultural Organisation ('UNESCO') World Heritage site designation of those specifically targeted mausoleums and mosques²⁴⁹ was one of the factors reflective of their special importance to international cultural heritage and the need for international protection.²⁵⁰ Though not even indirectly entertaining any environmentally related issue, the judgement remains significant primarily because it found the prohibited conduct to encompass 'any acts of violence against protected objects' whilst stressing that IHL 'protects cultural objects as such from crimes committed both in battle and out of it'.²⁵¹ As the sole precedent for the prosecution of crimes against cultural heritage—the first 'victimless crime'²⁵²—*Al Mahdi's* anthropocentric reading of the crime might set limits on the future internal functioning of the ICC when dealing with crimes against other types of cultural heritage, such as its natural counterpart.²⁵³ The current regime fails 'to capture cultural heritage in a holistic way',²⁵⁴ providing a somewhat rigid characterisation with a

²⁴⁶ *Supra* note 240, Article 10(1).

²⁴⁷ Micaela Frulli, 'The Criminalization of Offences Against Cultural Heritage in Times of Armed Conflict: The Quest for Consistency' (2011) 22(1) *European Journal of International Law* 203, 211–2.

²⁴⁸ *Prosecutor v. Ahmad Al Faqi Al Mahdi*, Case ICC-01/12-01/15, Trial Chamber, Judgment and Sentence, 27/10/2016.

²⁴⁹ *Ibid.*, §46.

²⁵⁰ *Ibid.*

²⁵¹ *Ibid.*, §15.

²⁵² Marina Lostal, 'The Misplaced Emphasis on the Intangible Dimension of Cultural Heritage in the Al Mahdi Case at the ICC' (*InterGentes*, 10/01/2017) <https://intergentes.com/misplaced-emphasis-intangible-dimension-cultural-heritage-al-mahdi-case-icc/> accessed 23/01/2023.

²⁵³ *Ibid.*

²⁵⁴ Lucas Lixinski, 'Environment and War: Lessons From International Cultural Heritage Law' in Rosemary Rayfuse, *War and the Environment: New Approaches to Protecting the Environment in Relation to Armed Conflict* (Brill 2014), p. 166.

prevalent focus on the spatial dimension. Thus, within the regime of cultural property, the ICC might adopt a strategy involving a regulatory approach, focusing on space rather than on the protection of movable natural elements.

4.1.5 *Designation of Protected Zones?*

Next to substantive issues peculiar to each provision, the asymmetric level of protection and the vague divide between IACs and NIACs augments the challenges involved in ascertaining the set of rules to conflicts of a hybrid or erratic nature.²⁵⁵ The major weakness of the war crimes regime is the necessity to balance the already weak level of environmental protection against the subjective and convenient loophole of military necessity.²⁵⁶ More general provisions regarding the preservation of property or objects indispensable to the civilian population could fill some of the gaps, however, without serving primarily environmental purposes.²⁵⁷ In this regard, the ILC in its Draft Principles put forward the possibility of designating areas of major ecological and cultural importance as protected zones in the case of both IACs and NIACs.²⁵⁸ ILC Draft Principle 4 encourages States to enter into agreements designating areas of environmental importance as protected zones in the event of armed conflict.²⁵⁹ Examples of successful designation of such zones include the ‘peace parks’ (i.e. cross-border ecological preserves) jointly managed by Ecuador and Peru as part of peacebuilding efforts to end a long-lasting border dispute²⁶⁰ or cooperation on water resources between

²⁵⁵ See, e.g., David Fuamba, Masako Yonekawa, and Annette Seegers, ‘Managing Spoilers in a Hybrid War: The Democratic Republic of Congo (1996–2010)’ (2013) 40(2) *Politikon (South African Journal of Political Studies)* 319.

²⁵⁶ See, e.g., Craig J. S. Forrest, ‘The Doctrine of Military Necessity and the Protection of Cultural Property During Armed Conflicts’ (2007) 37(2) *California Western International Law Journal* 177, 212.

²⁵⁷ Daniëlla Dam-de Jong, *International Law and Governance of Natural Resources in Conflict and Post-Conflict Situations* (CUP 2015), p. 251.

²⁵⁸ *Supra* note 152, ILC Draft Principle 17.

²⁵⁹ This proposal responds to the disturbing study—‘Warfare in Biodiversity Hotspots’—carried out by Conservation Biology with the finding that over 90% of major armed conflicts between 1950 and 2000 occurred in countries containing biodiversity hotspots, with more than 80% of these conflicts taking place directly in the biodiversity hotspot areas’. See Thor Hanson et al., ‘Warfare in Biodiversity Hotspot’ (2009) 23(3) *Conservation Biology* 578, 580–3.

²⁶⁰ Ecuador and Peru, *The Acta de Brasilia* (26/10/1998), Article 3.

Israel and Jordan following the 1994 peace agreement.²⁶¹ The positive feature of the proposed regime is the broad interpretation of the requisite express agreement on the designation that includes ‘verbal agreements, unilateral or reciprocal and concordant declarations, agreements with non-State actors or designation through an international organization’.²⁶² Under IEL, the designation of protected areas is a commonly used technique to safeguard, for instance, endangered species (CBD),²⁶³ cultural landscapes (World Heritage Convention),²⁶⁴ or ecosystems (Ramsar Convention).²⁶⁵ Furthermore, to rectify its previous omission,²⁶⁶ ILC Draft Principle 13(1) enshrines the presumption of the continued operation of relevant MEAs despite the outburst of armed hostilities, mandating the continuing applicability of IEL and international human rights law (‘IHRL’) obligations in situations of armed conflict. Thus, the ILC’s Draft Principles prevent IHL standards from completely relaxing environmental safeguards during armed hostilities: for example, they shield protected zones that do contain a military objective²⁶⁷ and encourage parties to agree on an additional layer of protection even though the area concerned comprises a military target.²⁶⁸ However, such an *ad hoc* ‘designation’ technique is not free from other potential constraints. The outcome that might result in the model of ‘militarised conservation’²⁶⁹ is argued to be ‘fundamentally unjust’ because it covers specifically chosen areas and species and is not concerned with addressing the broader root causes of environmental

²⁶¹ *Treaty of Peace Between the State of Israel and the Hashemite Kingdom of Jordan* (26/10/1994), Volume 2042, 1-35325, Principle 18.

²⁶² UNGA, Third Report on Protection of the Environment in Relation to Armed Conflicts, by Marja Lehto, Special Rapporteur (16/03/2022) UN Doc A/CN.4/750, §52.

²⁶³ *Supra* note 51, Article 7.

²⁶⁴ *Convention Concerning the Protection of the World Cultural and Natural Heritage* (adopted 16/11/1972, entered into force 17/12/1975) UNTS 1037, Articles 1–2.

²⁶⁵ *Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (02/02/1971) 996 UNTS 245, Article 2(1).

²⁶⁶ *Supra* note 157, 137.

²⁶⁷ *Supra* note 262, §192.

²⁶⁸ *Ibid.*

²⁶⁹ Stavros Pantazopoulos, ‘Conflicts and Conservation—The Promise and Perils of Protected Zones: An Overview of Area-Based Environmental Protection in Relation to Armed Conflicts’ (*CEOBS*, 08/10/2020) <https://ceobs.org/conflicts-and-conservation-the-promise-and-perils-of-protected-zones/> accessed 23/01/2023.

issues such as poaching and trafficking.²⁷⁰ All in all, the ILC's proposal of 'protected zones', which shares similarities with the concept of 'demilitarized zones' in IHL,²⁷¹ can be regarded as a way forward for biodiversity protection in relation to armed conflict.²⁷²

4.2 *Crimes Against Humanity*

Beyond the umbrella of armed hostilities, the regime of CAH can provide a certain level of protection, although, as implied by its title, inherently constrained by the anthropocentric ends of its prohibitions. Its narrow application to cases dealing exclusively with human suffering leaves no prospects of directly weaponizing CAH in the fight against broader environmental degradation. This proposition is not surprising as neither of the existing core crimes was designed with the environment in mind. One could even argue that adopting a more or less homo-centric or eco-centric approach to environmental protection is irrelevant since the failure to adequately protect the environment will almost always result in some level of human suffering. Although this premise is correct, reliance on 'core' prohibitions sanctioning human-centric harm would signify that environmental degradation is only reprehensible as a side-effect of harm to humans. Thus, the major shortcoming of criminalising mass environmental degradation under the mantle of international human rights violations is the outset limitation of the expressivist and utilitarian functions of ICL in increasing awareness of the condemnation of environmentally-harmful conduct.²⁷³

Viewing mass environmental degradation as a means to commit another atrocity may also buttress the accusation of selectivity in

²⁷⁰ Rosaleen Duffy et al., 'Why We Must Question the Militarisation of Conservation' (2019) 232 *Biological Conservation* 66, 67.

²⁷¹ 'IHL Database: Customary IHL' (ICRC), Rule 36. Demilitarized Zones https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule36#:~:text=%5B1%5D%20A%20demilitarized%20zone%20is,in%20time%20of%20armed%20conflict accessed 23/01/2023.

²⁷² As an alternative to green militarisation risks breaching ILC Draft Principle 18's *in bello* protection, Hsiao underscores the need for local community engagement and participation. See: Elaine (Lan Yin) Hsiao, 'Protecting Protected Areas in Bello: Learning From Institutional Design and Conflict Resilience in the Greater Virunga and Kidepo Landscapes' (2020) 10(1) *Goettingen Journal of International Law* 67, 107.

²⁷³ Matthew Gillett, *Prosecuting Environmental Harm Before the International Criminal Court* (CUP 2022), p. 132.

ICL, ‘“the Achilles” heel of the system of international criminal justice’.²⁷⁴ As emphasised above,²⁷⁵ it should not be seen as discouragement in itself, as the vast majority of international environmental conventions are of a ‘sectorial’ nature, with the transversal instruments being less numerous and less developed.²⁷⁶ Cumberlege underlines the issue-specific approach to regulation in MEAs²⁷⁷ based on the common understanding that there is no ‘one-size-fits-all approach’ to international environmental challenges.²⁷⁸ The creation of formal ‘interlinkages’²⁷⁹ between different MEAs and the synergistic cooperation between various international actors of environmental governance attempts to minimise the side effects of that approach. Instead of asymmetrically overburdening the ICC with jurisdiction over *any* act causing mass environmental damage, which at this stage might not produce the desired results, the Court should employ its framework strategically as a means of enforcing certain environmental norms. This approach would also align with that pursued by other environmentally non-specialised ICTs including ITLOS, limiting its environmental purview to maritime degradation,²⁸⁰ and ECtHR, proactively addressing human rights abuses in the context of environmental distress.²⁸¹ Although inherently constraining in its effects, the focus on environmental harms from the perspective of humanity will allow the Court to gradually develop its jurisprudence in a more environmentally-welcoming direction.

²⁷⁴ Elies van Sliedregt, ‘One Rule for Them - Selectivity in International Criminal Law’ (2021) 34(2) *Leiden Journal of International Law* 283, 283.

²⁷⁵ See Section “[A Worthwhile Initiative?](#)”.

²⁷⁶ Bharat H. Desai, *Multilateral Environmental Agreements Legal Status of the Secretariats* (CUP 2013), p. 55.

²⁷⁷ Simone Schiele, *Evolution of International Environmental Regimes. The Case of Climate Change* (CUP 2014), p. 25.

²⁷⁸ Sean Cumberlege, ‘Multilateral Environmental Agreements: From Montreal to Kyoto—A Theoretical Approach to an Improved Climate Change Regime’ (2009) 37(2) *Denver Journal of International Law and Policy* 303, 307.

²⁷⁹ Frank Biermann, Olwen Davies, and Nicolien van der Grijp, ‘Environmental Policy Integration and the Architecture of Global Environmental Governance’ (2009) 9(4) *International Environmental Agreements: Politics, Law and Economics* 351, 352.

²⁸⁰ *Supra* note 90.

²⁸¹ *Supra* note 89.

4.2.1 ‘Environmental’ Potential of Article 21(3) of the Statute

These deficiencies in enforcing environmental protections through anthropocentric ends have to be acknowledged from the outset. Still, its statutory framework offers a certain degree of latitude to the ICC to develop its jurisprudence in a more environmentally-enlightened manner. The eco-centrally most problematic limitation of CAH—its narrow application to cases dealing exclusively with human suffering—builds an important bridge between ICL and IHRL. The victim-centrism of IHRL is compatible with the notion of ‘humanity’, which resides at the ontological heart of ICL,²⁸² notably reflected in the figure of CAH.²⁸³ The protection of the same underlying legal interests establishes a conceptual unity between ICL and IHRL, with both seeking to uphold the ‘oneness and wholeness of humanity’.²⁸⁴ The ICC is not a human rights court in the strict sense, but it has great significance for the global protection of the most fundamental human rights and values.²⁸⁵ In line with Article 21(3) of the Statute, IHRL lays a ‘normative foundation’ for all crimes within the framework of the ICC,²⁸⁶ guiding the Court in its further development. By requiring that the interpretation and application of the law are consistent with internationally recognised human rights standards, Article 21(3) of the Statute subordinates other sources of law described in Article 21²⁸⁷ whilst providing ‘a standard against which

²⁸² Dylan Bushnell, ‘Re-Thinking International Criminal Law: Re-Connecting Theory with Practice in the Search for Justice and Peace’ (2009) 28 *Australian Year Book of International Law* 57, 67.

²⁸³ Richard Vernon, ‘What is Crime Against Humanity?’ (2002) 10(3) *The Journal of Political Philosophy* 231, 231–2.

²⁸⁴ Salim A. Nakhjavani, ‘Violations of Social and Economic Rights and International Crimes’ in Marie-Claire Cordonier Segger and Sébastien Jodoin (eds), *Sustainable Development, International Criminal Justice, and Treaty Implementation* (CUP 2013), p. 109.

²⁸⁵ Hans-Peter Kaul, ‘Human Rights and the International Criminal Court’ (21/01/2011) p. 2 https://www.icc-cpi.int/sites/default/files/NR/rdonlyres/2C496E38-8E14-4ECD-9CC9-5E0D2A0B3FA2/282947/FINAL_Speech_Panel1_HumanRight%20and%20theInternational.pdf accessed 23/01/2023.

²⁸⁶ Marina Aksenova, ‘Human Rights at the International Criminal Court: Testing the Limits of Judicial Discretion’ (2018) 86(1) *Nordic Journal of International Law* 68, 76.

²⁸⁷ Gilbert Bitti, ‘Article 21 of the Statute of the International Criminal Court and the Treatment of Sources of Law in the Jurisprudence of the ICC’ in Carsten Stahn and Göran Sluiter (eds), *The Emerging Practice of the International Criminal Court* (Brill/Nijhoff 2009), p. 302.

all rules applied by the Court should be tested'.²⁸⁸ As the Statute is silent on its scope,²⁸⁹ Article 21(3) can consequently be interpreted as encompassing a rather broad array of rights. The phrase 'internationally recognized human rights' appears to embody something less than universal acceptance—'understandable for an institution that is, after all, not yet universal itself'.²⁹⁰ Although it is rather unlikely that the threshold of 'international recognition' encompasses norms limited to one region,²⁹¹ if the scope of acceptance is wider, permeating over more than one regional legal order, the right in question might attain the requisite level of acceptance. The open-ended terminology of Article 21(3) of the Statute appears to be in common with the evolutive character of most human rights instruments. Its 'malleable'²⁹² but simultaneously dynamic ambit allows judges to draw on norms of IHRL as they develop over time and consider emerging trends within the domestic, regional, and international human rights discourses.

4.2.1.1 *Towards a Universal Right to a Healthy Environment.* As mentioned above,²⁹³ national, regional, and international human rights bodies have already used affirmative human rights to achieve environmental protection.²⁹⁴ From a substantive perspective, the primary factor driving the development of this synergistic relationship has been the increasing recognition of a right to an environment of a certain quality.²⁹⁵ Though not yet recognised in a legally binding global instrument, the right to a healthy environment is explicitly

²⁸⁸ Mahnoush H. Arsanjani, 'The Rome Statute of the International Criminal Court' (1999) 93 *American Journal of International Law* 1, 29.

²⁸⁹ *Supra* note 287, p. 301. For a discussion on its scope see, e.g., Gregor Maučec, 'The International Criminal Court and the Issue of Intersectionality—A Conceptual and Legal Framework for Analysis' (2021) 21(1) *International Criminal Law Review* 42.

²⁹⁰ Daniel Sheppard, 'International Criminal Court and Internationally Recognized Human Rights: Understanding Article 21(3) of the Rome Statute' (2010) 10(1) *International Criminal Law Review* 43, 47.

²⁹¹ *Ibid.*, 66.

²⁹² *Ibid.*, 47.

²⁹³ See Section "[Lack of Sufficient Political Will](#)".

²⁹⁴ *Supra* note 8, 228.

²⁹⁵ *Supra* note 46, p. 375.

included in, *inter alia*, the African Charter on Human and People’s Rights,²⁹⁶ the 1988 Additional Protocol to the American Convention of Human Rights,²⁹⁷ or the Arab Charter on Human Rights.²⁹⁸ Relevant to the European context is the Additional Protocol to the ECHR²⁹⁹ which directly builds upon the inherent interrelationship between environmental protection and human rights³⁰⁰ by highlighting principles such as environmental non-discrimination,³⁰¹ prevention, and non-regression.³⁰² The ‘greened’ understanding of human rights has also reached the UN level, with the UN Human Rights Council (‘HRC’) unequivocally recognising the human right to a clean, healthy and sustainable environment for all people³⁰³ and later the United Nations General Assembly (‘UNGA’) upholding its universal character.³⁰⁴

4.2.1.2 *Right to a Healthy Environment under the Statute.* This mounting evidence explicitly reflects the demand for the universal recognition of an autonomous human right to a healthy environment. Its widespread usage underlines that environmental protection aspires to reach a comparable level of importance as other human interests that are fundamental to human dignity, equality, and freedom. As the current extent of its recognition reaches the status of an ‘internationally recognised human right’, it might be caught by the

²⁹⁶ *African Charter on Human and Peoples’ Rights* (adopted 27/06/1981, entered into force 21/10/1986) 1520 UNTS 217, Article 24.

²⁹⁷ *Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights: Protocol of San Salvador* (adopted 17/11/1988, entered into force 16/11/1999) 28 ILM 161, Article 11(1).

²⁹⁸ *Arab Charter on Human Rights* (adopted 22/05/2004, entered into force 15/03/2008) 12 IHRR 893, Article 38.

²⁹⁹ Committee on Social Affairs, Health and Sustainable Development, ‘Anchoring the Right to Healthy Environment: Need for Enhanced Action by the Council of Europe’ (Report, Doc 15367, 13/09/2021), Preamble, 4.3.3. <https://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=29409&lang=en> accessed 23/01/2023.

³⁰⁰ *Ibid*, Preamble.

³⁰¹ *Ibid*, 4.3.2.

³⁰² *Ibid*, 4.3.3.

³⁰³ ‘Right to Healthy Environment’ (OHCHR, 12/04/2022) <https://www.ohchr.org/en/statements-and-speeches/2022/04/right-healthy-environment> accessed 23/01/2023.

³⁰⁴ UNGA, Resolution Adopted by the General Assembly on 28 July 2022 (01/08/2022) UN Doc A/RES/76/300, p. 3.

breadth of Article 21(3) of the Statute. This provision has the potential to broaden the ICC's powers significantly as it applies to all sources of law in Article 21 of the Statute.³⁰⁵ The effect of that provision has been the subject of vigorous discussion, with some narrowing it to a 'mandatory principle of consistency',³⁰⁶ and others contemplating that it establishes an additional source of law for the Court³⁰⁷ or even creates 'a sort of international super-legality'.³⁰⁸ All in all, Article 21(3) of the Statute establishes a positive roadmap that guides the interpretation and application of other statutory provisions. However, it would be a gross oversimplification to assume a symmetrical development between ICL and IHRL. Whilst mutually reinforcing, both fields do not develop symmetrically to one another. Their exchange prompts 'greater depth of reasoning' and enhances 'the quality of judicial decisions',³⁰⁹ but the Court should avoid their deeper cross-fertilisation as it would misconstrue the ICC's engagement with the regional human rights courts.³¹⁰ The fundamental point of divergence between both is the addressee of the prohibition: ICL focuses on the responsibility of individuals, whilst human rights institutions scrutinise state responsibility.³¹¹ Both fields are not identical, but are not utterly separate, and international criminal courts and tribunals have relied upon human rights jurisprudence quite heavily.³¹² As the Court applies instruments primarily limited to

³⁰⁵ Margaret M deGuzman in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 21, mn. 61.

³⁰⁶ Emma Irving, 'The Other Side of the Article 21(3) Coin: Human Rights in the Rome Statute and the Limits of Article 21(3)' (2019) 32(4) *Leiden Journal of International Law* 837, 846.

³⁰⁷ *Supra* note 287, p. 304.

³⁰⁸ Alain Pellet, 'Applicable Law' in Antonio Cassese, Paola Gaeta, and John R W D Jones, *The Rome Statute of the International Criminal Court: A Commentary* (CUP 2002), p. 1081.

³⁰⁹ Annika Jones, 'Insights into an Emerging Relationship: Use of Human Rights Jurisprudence at the International Criminal Court' (2016) 16(4) *Human Rights Law Review* 701, 705.

³¹⁰ Sergey Vasiliev, 'International Criminal Tribunals in the Shadow of Strasbourg and Politics of Cross-Fertilisation' (2015) 84(3) *Nordic Journal of International Law* 371, 374.

³¹¹ *Supra* note 309, 705.

³¹² Robert Cryer, 'International Criminal Law' in Daniel Moeckli et al. (eds), *International Human Rights Law* (4th ed, OUP 2022), p. 547.

the specific cases before it,³¹³ its case law on the relationship between IHRL and ICL is yet to attain a high level of comprehension. International criminal justice *fora* have usually examined the regime of serious human rights violations within which a legal qualification of some events corresponds to one of their substantive provisions.³¹⁴ This approach aligns with the introduction to the Elements of Crimes which confirms that ‘the provisions of the Statute, including Article 21 (...) are applicable to the Elements of Crimes’.³¹⁵

On this note, it is relevant to highlight the close and complementary relationship between CAH and serious human rights violations. Although having autonomous roots, the CAH framework has progressed into an important manifestation of gross human rights violations³¹⁶ and is regarded as ‘an implementation of human rights norms within international criminal law’.³¹⁷ Out of 11 CAH provisions included in the Statute, the crime of persecution as a CAH is one of the statutory exceptions that is defined in non-exhaustive terms, allowing for the possible extension of its scope in light of the dynamic evolution of IHRL. The Statute defines persecution as ‘intentional and severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity’³¹⁸ that is ‘based on political, racial, national, ethnic, cultural, religious, gender (...) or other grounds that are universally recognized as impermissible under international law’.³¹⁹ 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’.³²⁰ The broad and vague formulation of ‘international and severe deprivation of fundamental rights’ and the open-ended list of other internationally impermissible grounds creates room for interpreting the CAH of persecution in various contexts. As held by the Pre-Trial Chamber I in *Katanga*, when drawing the contours of the crime of persecu-

³¹³ Juan P. Pérez-León Acevedo, ‘The Close Relationship Between Serious Human Rights Violations and Crimes Against Humanity: International Criminalization of Serious Abuses’ (2017) 17(17) *Anuario Mexicano de Derecho Internacional* 145, 174.

³¹⁴ *Ibid.*

³¹⁵ Introduction, Elements of Crimes.

³¹⁶ *Supra* note 313, 147.

³¹⁷ William Schabas, *The International Criminal Court: A Commentary on the Rome Statute* (2nd ed, OUP 2016), p. 147.

³¹⁸ Article 7(1)(h) ICCS.

³¹⁹ *Ibid.*, Articles 7(1)(h), 7(2)(g); Article 7(1)(h) Elements of Crimes.

³²⁰ Article 7(1)(h) ICCS.

tion,³²¹ judges can resort to IHRL to delimit the specific acts that fall within its prohibited ambit. For instance, there have been academic proposals to extend the CAH of persecution to incitement to hatred³²² or adopt a more ‘intersectional approach to interpret the complexity’ of the discriminatory effects of persecution.³²³ Whilst not militating in favour of the symmetrical development between ICL and IHRL, this section calls for a more holistic and ‘greener’ analysis of two foundational requirements of the prohibition of persecution: (i) the intentional deprivation of one’s fundamental rights, and (ii) the occurrence of a discriminatory act or omission based on any of the listed grounds such as race, religion or politics.³²⁴ With regards to the former, it seems possible to extend the open-ended list of ‘rights’ recognised as ‘fundamental’ under international law to cover the right to a healthy environment. In terms of the latter, an environmentally-minded read of ‘other grounds universally recognized as impermissible under international law’ would allow judges to highlight multiple forms of discrimination that occur at the intersection of one another, thus, bringing about a more comprehensive understanding of the discrimination in question. Operating from that perspective, one can more readily accept the prospects of expanding the crime of persecution to prohibit discriminatory human rights violations arising from environmental degradation.

First, the concept of ‘severe and intentional deprivation of fundamental rights’, according to *Stakić*, may subsume rights other than non-derogable rights,³²⁵ that embrace acts or omissions of varying severity. Infringements on freedom, such as restrictions on family

³²¹ *Prosecutor v. Germain Katanga*, Case ICC-01/04–01/07, Pre-Trial Chamber I, Decision on the Joinder of the Cases Against Germain Katanga and Mathieu Ngudjolo Chui, 10/03/2008, §7.

³²² Mohamed Badar and Polona Florijančič, ‘Assessing Incitement to Hatred as a Crime Against Humanity of Persecution’ (2019) 24(5) *The International Journal of Human Rights* 656.

³²³ Ana Martín, ‘The Potential of Gender Persecution in ICC Case Abd-Al-Rahman: A Twofold Opportunity to Interpret Its Customary Status and Intersectional Discrimination’ (*OpinioJuris*, 24/03/2022) <http://opiniojuris.org/2022/03/24/the-potential-of-gender-persecution-in-icc-case-abd-al-rahman-a-twofold-opportunity-to-interpret-its-customary-status-and-intersectional-discrimination/> accessed 23/01/2023.

³²⁴ *Prosecutor v. Duško Tadić*, Case IT-94-1-T, Trial Chamber, Opinion and Judgment, 07/05/1997, §715

³²⁵ *Prosecutor v. Milomir Stakić*, Case IT-97-24-T, Trial Chamber, Trial Judgment, 31/07/2003, §773.

life³²⁶ and other infringements upon individual freedom,³²⁷ can also constitute a CAH of persecution. This relatively broad understanding of ‘fundamental’ human rights gives judges a sufficient level of discretion to take advantage of the ‘guiding effect’ of IHRL over the ICC.³²⁸ As the ambit of ‘fundamental rights’ appears to represent a much broader category of human rights that does not have to reach the level of ‘universal jurisdiction’, it subsumes all ‘internationally recognized human rights’. Thus, by virtue of Article 21(3) of the Statute, the ICC judges could possibly weaponise the CAH of persecution against widespread or systematic violations of the right to a healthy environment. A detractor could question whether human rights law could, in fact, provide a basis for individual criminal responsibility. As rightly underlined by Cryer, it would be contrary to the principle of *nullum crimen sine lege* to convict someone of persecution based on a definition found in IHRL that was created for different purposes.³²⁹ In *Krajišnik*, the Trial Chamber I confirmed that ‘not every denial of a fundamental human right will be serious enough to constitute a crime against humanity’.³³⁰ This, however, has not prevented the ICTY Chambers from expanding the scope of the prohibition of persecution to cover socio-economic rights, including the rights of employment, freedom of movement, proper medical care, and proper judicial process.³³¹ Along these lines, and keeping in mind that a violation that forms the basis of persecutive acts needs not necessarily be criminalised under international law,³³² mass violations of the right to a healthy environment reaching the threshold of statutory severity could form part of the *actus reus* of persecution. In

³²⁶ International Military Tribunal, Judgment and Sentences, 01/10/1946 reprinted in *The American Journal of International Law* (1947) 41(1) 172, 244.

³²⁷ *Prosecutor v. Mladen Naletilić and Vinko Martinović*, Case IT-98-34-T, Trial Chamber, Trial Judgment, 31/03/2003, §642.

³²⁸ Valentina Milano, ‘The International Law of Human Trafficking: At the Forefront of the Convergence Between Transnational Criminal Law and International Human Rights Law?’ in Paul De Hert, Stefaan Smis, and Mathias Holvoet, *Convergences and Divergences Between International Human Rights, International Humanitarian and International Criminal Law* (Intersentia 2018), p. 128.

³²⁹ *Supra* note 312, p. 553.

³³⁰ *Prosecutor v. Momčilo Krajišnik*, Case IT-00-39-T, Trial Chamber I, Judgment, 27/09/2006, §735.

³³¹ *Prosecutor v. Radoslav Brđanin*, Case IT-99-36-A, Appeals Chamber, Judgment, 03/04/2007, §296.

³³² *Prosecutor v. Miroslav Kvočka et al.*, Case IT-98-30/1-A, Appeals Chamber, Appeal Judgement, 28/02/2005, §323.

such a case, the ICC Prosecutor would have to prove that such abuse was of equal gravity to the crimes listed in Article 7(1) of the Statute.³³³

Second, the expanding scope of ‘other grounds that are universally recognized as impermissible under international law’ allows for the inclusion of other persecutory grounds, including environmental discrimination. Article 7(1)(h) of the Statute encompasses all ‘widely recognized’ grounds without requiring all States to acknowledge a particular ground as impermissible.³³⁴ In terms of other, not-explicitly mentioned discriminatory grounds, Nakhjavani, for example, proposed including ‘the ground of wrongful discrimination on the basis of disability’,³³⁵ with the Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities³³⁶ reflective of its ‘universal’ recognition as impermissible under international law.³³⁷ Whilst drawing attention to the widespread issue of maltreatment of environmental human rights defenders, the HRC has already highlighted that environmentally-related persecution often arises from the interplay of multiple and intersecting forms of violence, including discrimination based on sex, gender, race, or religion.³³⁸ Therefore, discrimination on environmentally-related grounds would seldom ensue from one persecutory ground; instead, it is likely to occur because of the simultaneous concurrence of two or more prohibited factors. For a successful charge of persecution, one

³³³ Ibid, §321-3. As the drafters of the Elements of Crimes were concerned that CAH could be used to criminalise all human rights violations, they included a statement in those elements designed to limit that possibility. See Introduction to Crimes Against Humanity, §1, Elements of Crimes.

³³⁴ Christopher K Hall, Joseph Powderly, and Niamh Hayes in Kai Ambos and Otto Triffterer (eds), *The Rome Statute of the International Criminal Court: A Commentary* (3rd edn, C H Beck/Nomos/Hart 2016), Article 7, mn. 85. See also Joseph Powderly and Niamh Hayes in Kai Ambos (ed), *The Rome Statute of the International Criminal Court: Article-by-Article Commentary* (4th edn, C H Beck/Nomos/Hart 2022), Article 7, mns 252–65.

³³⁵ *Supra* note 284, p. 108.

³³⁶ *Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities* (24/01/2007) UN Doc A/RES/61/106.

³³⁷ *Supra* note 284, p. 108, fn. 33.

³³⁸ HRC, Resolution Adopted by the Human Rights Council on 21 March 2019 (02/04/2019) UN Doc A/HRC/RES/40/1, p. 2.

discriminatory ground will suffice, ‘although a combination of more than one may equally form the basis for the discrimination’.³³⁹ The additional consideration of persecution on environmentally-related grounds could thus improve the overall understanding of the kind of discrimination a particular group or minority has faced. Such an intersectional approach to discrimination is self-evident in the label ‘environmental racism’. The term dates back to the 1987 ‘Toxic Wastes and Race’ Case Study,³⁴⁰ covering acts of ‘intentional or unintentional racial discrimination’ in, for example, environmental policy or law-making.³⁴¹ It brings attention to the heightened environmental threats faced by minority groups: higher levels of lead exposure, higher risks of facing catastrophic flooding, or poorer air quality.³⁴² The 2001 Durban Declaration already underlined the need to view environmental issues through the lens of racial discrimination,³⁴³ and the Chair of the UN Working Group of Experts on People of African Descent called for recognition of the racial dimension of the climate crisis.³⁴⁴

Persecution on account of systematic environmental degradation or sustained failure of state protection in relation to the right to a healthy environment—which might, but does not have to, intersect with other discriminatory grounds—could result, for example, in forced displacements driven by environmental injustice.³⁴⁵ By way of illustration, in Iran, water scarcity is a significant environmental stressor driving Rojhelati Kurds from their ancestral lands. The 2014 environmental report revealed that 26 of 30 dams constructed in the

³³⁹ *Prosecutor v. Bosco Ntaganda*, Case ICC-01/04-02/06, Trial Chamber VI, Trial Judgment, 08/07/2019, §1009.

³⁴⁰ Justin Worland, ‘Why the Larger Climate Movement is Finally Embracing the Fight Against Environmental Racism’ (*TIME*, 09/07/2020) <https://time.com/5864704/environmental-racism-climate-change/> accessed 23/01/2023.

³⁴¹ Glenn S. Johnson, Shirley A. Rainey, and Laila Scaife Johnson, ‘Dickson, Tennessee and Toxic Wells: An Environmental Racism Case Study’ (2008) 15(3/4) *Race, Gender and Class* 204, 219.

³⁴² *Ibid.*

³⁴³ UN Department of Public Information, *World Conference Against Racism, Racial Discrimination, Xenophobia and Related Intolerance—Declaration and Programme of Action* (New York, 2002), §23.

³⁴⁴ UN HRC, ‘Environmental Justice, the Climate Crisis and People of African Descent—Report of the Working Group of Experts on People of African Descent’ (21/09/2021) UN Doc A/HRC/48/78, §26.

³⁴⁵ *Prosecutor v. Milorad Krnojelac*, Case IT-97-25-A, Appeals Chamber, Judgment, 17/09/2003, §218.

provinces of West Azerbaijan, East Azerbaijan, and Kurdistan benefit Azeri Turks, a predominantly Shi'a ethnic group, while Kurdish-majority areas are frequently denied infrastructure projects.³⁴⁶ Such deliberate discriminatory policies clearly deprive the targeted community members of their right to a healthy environment. As highlighted above,³⁴⁷ apart from environmentally driven relocation, persecution on environmentally-related grounds could be utilised as a tool to combat repression towards environmental activists and land campaigners.³⁴⁸ Mexico, the Philippines, and Colombia recorded widespread targeting, including lethal attacks on defenders of environmental human rights and communities across the countries.³⁴⁹ Numerous activists have been persecuted for protests against nuclear power plant constructions in Belarus and Russia.³⁵⁰ All these examples of persecutory acts could be potentially caught by the breadth of Article 7(1)(h) of the Statute. This conclusion aligns with the latest report of the Special Rapporteur on human rights obligations relating to the enjoyment of a healthy environment in which he calls on States to protect environmental human rights defenders from 'intimidation, criminalization and violence' and 'diligently investigate, prosecute and punish the perpetrators of those crimes'.³⁵¹

4.2.1.3 *An Enriching Possibility?.* Reading the open-ended scope of CAH of persecution alongside a 'greener' interpretation and application of Article 21(3) of the Statute would allow judges to build an important grounding for a re-orientation of ICL towards a broader, multidimensional environmental protection. The evolutive scope of Article 21(3) of the Statute invites creative engagement with IHRL but cautions against crossing the dichotomy between IHRL and ICL

³⁴⁶ Azad Henareh Khalyani et al., 'Water Flows Toward Power: Socioecological Degradation of Lake Urmia, Iran' (2014) 27(7) *Society and Natural Resources: An International Journal* 759, 762–3.

³⁴⁷ *Supra* note 338.

³⁴⁸ Philippe Le Billona and Päivi Lujala, 'Environmental and Land Defenders: Global Patterns and Determinants of Repression' (2020) 65 *Global Environmental Change* 102163.

³⁴⁹ 'Last Line of Defence' (*Global Witness*, 13/09/2021) <https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/> accessed 23/01/2023.

³⁵⁰ Crude Accountability, FracTracker Alliance, and Ecoforum, 'Dangerous Work: Reprisals Against Environmental Defenders' (2019), pp. 22–4.

³⁵¹ UNGA, Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment: Note by the Secretary-General (10/08/2022) UN Doc A/77/284, §41(i).

as it would ultimately strip one or the other of carrying a particular function. As the ICC is ‘bound to adhere to the letter of the provisions aimed at only reprimanding conduct the drafters expressly intended to criminalise’,³⁵² the primary difficulty facing judges would be to strike a proper balance between the effects of IHRL over ICL. Gebhard calls for ‘precaution when invoking human rights law in substantive ICL’ and argues that Article 21(3) of the Statute cannot be relied upon for applying extra-statutory substantive law.³⁵³ This premise is convincing, but it seems to disregard the fact that few provisions, including the prohibition of persecution, are listed non-exhaustively in the Statute, thus creating room for judges to expand their substantive ambit by reference to IHRL.

Such an extension, however, can be regarded as a stark contravention of *nullum crimen sine lege*. On the one hand, one could argue that the ‘accessorial design’ of the crime—conditioning a finding of a charge of persecution on the presence of any act referred to in paragraph of Article 7 or any crime within the jurisdiction of the Court—already limits the breadth of the prohibition.³⁵⁴ Additionally, the qualifier of a ‘fundamental’ human rights violation and the threshold clause of ‘severe deprivation’ are further attempts towards reconciling the dynamic development of IHRL with *nullum crimen sine lege*.³⁵⁵ On the other hand, from a strictly legalistic viewpoint, directly transplanting IHRL corpus to the field of international criminal justice to (re)define international crimes remains highly dubious. The application of the IHRL on the right to a healthy environment to the interpretation of the CAH of persecution would lead to the creation of a new fundamental violation under the Statute, criminalizing what was initially perceived to be a human rights violation. That technique of directly incorporating IHRL norms to ICL is not alien to the practice of the ICC and other international criminal courts and tribunals alike. The *Akayesu* Trial Judgement was one of

³⁵² *Supra* note 197, §83.

³⁵³ Julia Gebhard, *Necessity or Nuisance? Recourse to Human Rights in Substantive International Criminal Law* (Nomos 2018), p. 81.

³⁵⁴ Gerhard Werle and Florian Jessberger, *Principles of International Criminal Law* (4th edn, OUP 2020), p. 427.

³⁵⁵ *Prosecutor v. Zoran Kupreškić et al.*, Case IT-95-16-T, Trial Chamber, Judgement, 14/01/2000, §618.

the first ICL decisions in which the ICTR judges relied directly on IHRL instruments to define and broaden the remits of the CAH of rape.³⁵⁶ Most recently, whilst interpreting the scope of Article 7(1)(k) of the Statute, the Myanmar PTC I directly transposed the right to return from IHRL to find that its violation caused ‘great suffering, or serious injury [...] to mental [...] health’, deepening the anguish of the victims and compelling them to live in deplorable conditions.³⁵⁷ In a similar vein, the Appeal Chamber in *Ongwen*, after restating that the scope of the CAH of other inhumane acts can be delineated by reference to any relevant IHRL instrument,³⁵⁸ reaffirmed that forcing one to freely enter into a marriage violates the fundamental right to marry and amounts to an inhumane act.³⁵⁹ Thus, the regime of IHRL already serves a gap-filling function in the practice of international criminal courts and tribunals, and it has provided significant guidance in (re)interpreting the definitions of certain international crimes. Yet, as underlined above, if this cross-fertilisation develops in an unbridled manner, it risks crossing the dichotomy between both subdivisions of international law and might lead to arbitrary expansion of ICL’s reach. Legal borrowings from different regimes are not per se objectionable if re-contextualised to the recipient system.³⁶⁰ Accordingly, without adjusting the remits of the borrowed IHRL’s definition, such as on the right to a healthy environment, the ICC judges would be granted unparalleled power to adjudge what should be unjust and hence criminalised. That being said, this section detracts from advocating in favour of literally importing the IHRL’s rationale on the right to a healthy environment to the field of ICL. Instead, from the perspective of legality, any such proposition demands utmost caution and will have to be abandoned if its inclusion costs diluting the integrity of ICL. Another cogent argument against

³⁵⁶ *Prosecutor v. Jean-Paul Akayesu*, Case ICTR-96-4-T, Trial Chamber, Judgment, 02/09/1998, §597.

³⁵⁷ *Situation in Bangladesh/Myanmar*, Case ICC-RoC46(3)-01/18, Pre-Trial Chamber I, Decision on the Prosecution’s Request for a Ruling on Jurisdiction Under Article 19(3), 06/09/2018, §77.

³⁵⁸ *Prosecutor v. Dominic Ongwen*, Case ICC-02/04-01/15 A, Appeals Chamber, Judgment on the Appeal of Mr Ongwen Against the Decision of Trial Chamber IX of 4 February 2021 Entitled “Trial Judgment”, 15/12/2022, §1021.

³⁵⁹ *Ibid*, §1024.

³⁶⁰ Alexandre Skander Galand, ‘The Systemic Effect of International Human Rights Law on International Criminal Law’ in Martin Scheinin (ed), *Human Rights Norms in ‘Other’ International Courts* (CUP 2019), p. 130.

the practice of gleaning from IHRL different human rights violations that arise to ‘crimes of an international concern’ is that it endangers the inflation of ICL and undermines one of the primary justifications fueling its developments: the focus on ‘the most serious crimes’. This counter-argument will have to be revisited in case any material debates on the future place of the right to a healthy environment in the framework of international criminal justice unfold.

Although a purely theoretical avenue, this argument highlights a possible line of progressing with regard to the right to a healthy environment and persecution on environmentally-related grounds within the framework of the ICC. Such a human-centric recourse strategy would allow the ICC to enrich its legal system by reference to a more ‘experienced’ and environmentally welcoming sub-system—IHRL—that has directly relied upon the principles of environmental to specify human rights obligations.³⁶¹ Again, it has to be re-emphasised that any such legal transplantation would require appropriate re-contextualisation to the needs and demands of ICL.

4.2.2 *Contextual Elements*

Even though CAH framework creates a certain degree of latitude for the ICC Prosecutor to propose creative avenues for delivering environmental justice, the possible level of environmental protection is curtailed by the specific context necessary to support a conviction. In line with Article 7(1) of the Statute, the contemporary definition of CAH requires the commission of a listed prohibited act in the context of ‘a widespread or systematic attack directed against any civilian population, with knowledge of the attack’.³⁶² According to their ordinary meaning, CAH are contingent upon showing harm to humans and their property.³⁶³ Most prominently, the requisite element of ‘an ‘attack’ against any civilian population’ effectively precludes any extension of the objects of criminal protection. Thus, the only feasible strategy is to consider environmental degradation as a means to target civilian populations. The requirement of ‘a State or organizational policy to commit such attack’ provides another limitation to the effective reliance on CAH provisions. The Elements of Crimes explain that a “‘policy to commit such attack’” requires that the State or organization actively promotes or encourages such an attack

³⁶¹ See, e.g., Stefan Theil, *Towards the Environmental Minimum: Environmental Protection Through Human Rights* (CUP 2021).

³⁶² Article 7(1) ICCS.

³⁶³ *Supra* note 1, p. 226.

against a civilian population'.³⁶⁴ According to the *ad hoc* tribunals, '[t]here is no requirement that this policy must be adopted formally as the policy of a state',³⁶⁵ nor must the policy or plan 'necessarily be declared expressly or even stated clearly and precisely'.³⁶⁶ Iran's policy of torturing and executing environmental activists who campaigned against development policies destroying Iran's biggest lake,³⁶⁷ would potentially meet the formal requirements of organisational structure and control. In the context of attacks on environmental human rights defenders, the data reflects that, in most instances, it is the State and its actors which initiate acts of persecution, punishment, and harassment of environmentalists.³⁶⁸ The implementation of deliberately tough legislative and regulatory measures against NGOs and their members, including those defending the environment, is part of a growing trend.³⁶⁹ In addition, such a policy 'may, in exceptional circumstances, be implemented by a deliberate failure to take action, which is consciously aimed at encouraging such attack'.³⁷⁰ In the context of economically beneficial developmental activities, one could consider holding governments to account for their systematic omission to provide effective protection and remedies. Finally, the ICC Prosecutor would have to demonstrate the existence of the remaining contextual elements which demand that such 'an attack' be 'widespread' or 'systematic' and consistent with a 'course of conduct involving the multiple commission of acts'.³⁷¹ In the context of acts of persecution on the grounds of environmentally-related persecution, the possible extension and

³⁶⁴ Introduction to Crimes Against Humanity, §3, Elements of Crimes.

³⁶⁵ *Prosecutor v. Jean-Paul Akayesu*, Case ICTR-96-4-T, Trial Chamber, Judgment, 02/09/1998, §580.

³⁶⁶ *Supra* note 94, §204.

³⁶⁷ Peter Schwartzstein, 'How Iran is Destroying Its Once Thriving Environmental Movement' (*National Geographic*, 12/11/2020) <https://www.nationalgeographic.com/environment/article/how-iran-destroying-once-thriving-environmental-movement> accessed 23/01/2023.

³⁶⁸ *Supra* note 350, p. 10.

³⁶⁹ *Ibid*, p. 11.

³⁷⁰ Introduction to Crimes Against Humanity, fn. 6, Elements of Crimes.

³⁷¹ *Ibid*, §3.

systematic nature of such conduct ‘may in itself amount to a widespread or systematic attack’.³⁷²

V CONCLUDING REMARKS

The entangled character of environmental hazards—occurring at the intersection of different branches of international law with distinct approaches, values, and expertise—precludes any environmentally unspecialised body from fusing those different perspectives into a cohesive whole. This narrative aligns with the current mainstream understanding of the role of ICTs, yielding an essential yet secondary function in addressing environmental concerns. The figure of ‘humanity’ at the heart of ICL, IHRL and IHL likewise, encapsulated in different elements depending on the context of the offence (eg CAH and the ‘civilian population’ element or war crimes and ‘the principle of humanity’), compounded by the legal rigidity and specificity of ICL provisions, undermines effective reconciliation between ICL and IEL.

This discussion proposed a middle-ground solution: instead of surrendering the pursuit of environmental justice before the ICC or risking the implementation of too hasty innovations, the focus should be re-oriented on maximising the ‘environmental’ potential of the current substantive framework. The mechanisms of prosecutorial and judicial discretion ought to be employed in a more progressive and environmentally-enlightened manner to underscore the codependency between global peace and environmental health. As the ICC is not a ‘closed system’ but an organ having a broader expressive function³⁷³ with the ability to catalyse normative developments, its symbolic and deterrent functions should not be underestimated in the fight for environmental justice. Integrating an environmentally-friendly perspective into the interpretation and application of its statutory prohibitions, reinforced by a ‘greened’ analysis of other sub-divisions of international law richer in environmentally-minded case law, would push ICL’s further developments in a more holistic direction. Such an

³⁷² Herman von Hebel and Darryl Robinson, ‘Crimes Within the Jurisdiction of the Court’ in Roy S. K. Lee (ed), *The International Criminal Court: The Making of the Rome Statute: Issues, Negotiations and Results* (Brill|Nijhoff 1999), p. 102.

³⁷³ For an overview of the typology of expressivist perspectives within the field of international criminal justice see Barrie Sander, ‘The Expressive Turn of International Criminal Justice: A Field in Search of Meaning’(2019) 32(4) *Leiden Journal of International Law* 851.

explicit recognition of significant adverse impacts of environmental insecurity and fragility of the ecosystem would further reinforce IEL's principle of prevention through the prism of 'humanity'. The *Al Bashir* case provides an important precedent in this regard, which should initiate further investigations and prosecutions in that environmentally-inclusive direction. The dynamic proliferation of domestic, regional, and international instruments on the right to a healthy environment also merits the closer attention of the Court. Although a violation of the right to a healthy environment remains not a criminal but human rights issue, its rapid and widespread development seems to merit the prediction that there might come a time when it will become enforceable through national, regional, or international criminal sanctions. The approach of enforcing environmental protection via anthropocentrically-minded prohibitions is not free of limitations. It might neglect the expressive value of ICL by reducing the environment to an indirect victim of harm veering towards selective environmental protection without looking beyond its substantive surface. These constraints have to be accepted from the outset as the 'Statute is not an environmental document'.³⁷⁴

It must be noted that the inclusion of an 'ecocide' provision would not necessarily provide a viable solution to the selectivity dilemma. If adopted, it would only be applicable against the gravest instances of environmental degradation, reaching the threshold of severe and either widespread or long-term damage to the environment, whilst bypassing a vast number of cases falling outside the requisite scope of gravity. Furthermore, the successful addition of an amendment might not automatically result in the ICC's being readily able and willing to address mass international environmental degradation. In a similar manner to Article 8(2)(b)(iv) of the Statute, the Prosecutor might be reluctant to propose the first 'ecocide' charge, reducing the amendment to a purely symbolic success. So far, apart from *Al Bashir*,³⁷⁵ the ICC Prosecutor has not focused on environmental attacks as a means 'to achieve a destructive humanitarian impact'.³⁷⁶ Once this *status quo* is broken, the evidence of the ICC becoming attentive to mass

³⁷⁴ *Supra* note 11, 217.

³⁷⁵ The ICC found that intentional contamination of water supplies can be prosecuted before it as a weapon used to destroy a protected group. *Supra* note 234, §37–40.

³⁷⁶ Tara Weinstein, 'Prosecuting Attacks that Destroy the Environment: Environmental Crimes or Humanitarian Atrocities' (2005) 17(4) *Georgetown International Environmental Law Review* 697, 714.

environmental hazards might have instrumental effects on the future of 'ecocide' within the domestic and international legal frameworks.

This article does not attempt to undermine the 'ecocide' debate acknowledging that there might come a moment when the time would be right to harness the power of ICL to protect the environment, whether before the ICC or any other mechanism. Before any serious steps are taken in this direction, the relationship between precaution and legality and the questions of *mens rea* and individual or (possibly) corporate liability in the context of mass environmental damage ought to be clarified. States must also take a more active stance on the issue by introducing domestic provisions penalizing mass environmental damage and initiating investigations and prosecutions on their possible violations. In the meantime, with the general ICE remaining an insurmountable normative ambition, the orientations should be altered to optimise the potential of existing legal frameworks, buttressing each other in that collective environmentally-minded effort. Any such cross-sectoral interactions ought to be steered by the principle of legality in order to maintain the integrity of ICL. This boils down to one conclusion: at present, simple reliance on the current statutory framework might be better and more effective than an elaborate embellishment.

OPEN ACCESS

This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.