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Introduction

International Law, Violence, and Visibility

If a war leaves in its wake terrifying polluted lands and mangled genetic codes, any victory will be pyrrhic, as death by indirection becomes the ultimate form of friendly fire. No homeland can be secure if we convert the earth into a biological weapon that threatens biology itself.¹

1.1 INTERNATIONAL LAW, VIOLENCE, AND VISIBILITY: WAR'S
HIDDEN SOCIO-ECOLOGICAL LEGACY

At the turn of the twentieth century, scientists in the United Kingdom, Germany, the Netherlands, and the United States started studying how chemical herbicides could be used to increase agricultural productivity.² This early research led to the isolation of the hormone that controls plant growth and its synthetic reproduction. Scientists found that, while in small doses the artificial hormone greatly stimulated plant growth, in large doses it inhibited the plants' development.³ During World War II the full military and agricultural applications of these herbicides (and other pesticides, such as the insecticide DDT) were studied in academic institutions in the US and the United Kingdom,⁴ as well as, infamously, in Nazi concentration camps by the German chemical corporation IG Farben.⁵ It was this research that resulted in the development

¹ R. Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press 2011), at 232.

² D. 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), at 33–5.

³ M. Robin, *The World According to Monsanto: Pollution, Corruption, and the Control of Our Food Supply* (The New Press 2010), at 36.

⁴ See Zierler, *supra* note 2, at 33–47.

⁵ D. Jeffreys, *Hell's Cartel: IG Farben and the Making of Hitler's War Machine* (Henry Holt 2008).

of chemical defoliants that were later used in Southeast Asia before and during the Vietnam War. Although herbicides were not employed as a military weapon in World War II, their use for destroying crops and forests in the Pacific theatre was explored as an important part of the emerging chemical and biological research programme conducted by the US army. The military did spray various insecticides (including DDT) for mosquito control in the Pacific and lice control in Europe during World War II.⁶ Before the army could deploy herbicides as a weapon in the Pacific, the war ended and moral qualms emerged about the use of chemical and biological weapons.⁷

In the 1950s, Britain became involved in the Malayan Emergency, an insurgency in the former British colony, what is now Malaysia. In an attempt to starve out Communist insurgents, British troops sprayed the lush forests with herbicides.⁸ The insurgents fell, but the chemical spray had other long-lasting effects, such as soil degradation, erosion, and severe health problems for the local population. On the other side of the Atlantic, after the end of World War II, the US Department of Defense worked on the development of the so-called rainbow herbicides, including Agent Orange, Agent White, and Agent Blue. As Dow Chemical and Monsanto had been involved from the outset in the production of herbicides for agricultural and military use, they naturally became the major suppliers to the Pentagon.⁹ During the Vietnam War, they were contracted, together with five other corporations, to produce rainbow herbicides for Operation Ranch Hand.

Operation Ranch Hand officially started in January 1962 and ended in January 1971. For nine years, herbicides were sprayed from cargo planes over forests, cropland, roads, villages in South Vietnam, and along the demilitarised zone. Although the exact quantity remains unknown, it is estimated that at least 20 million gallons of herbicides were sprayed over 5 million acres of forests and fields, an area representing more than 10 per cent of South Vietnam.¹⁰ Demand for the herbicides was so high during the height of the

⁶ F. P. Cecil, *Herbicide Warfare: The Ranch Hand Project in Vietnam* (Praeger 1986), at 13–16.

⁷ Zierler, *supra* note 2, at 42–3.

⁸ R. S. Frey, 'Agent Orange and America at War in Vietnam and Southeast Asia', 20(1) *Human Ecology Review* (2013) 1, at 4.

⁹ See generally Robin, *supra* note 3, at 30–47.

¹⁰ Frey, *supra* note 8, at 3. The United States was neither the first country nor the last to use herbicides in war but the magnitude of US use during the Vietnam War was unprecedented. In addition to the UK, Israel used herbicides in 1972 for crop destruction in Jordan on at least one occasion. Portugal used herbicides against insurgents in Angola during the 1970s. Various high-tech defoliants were used by the Soviets in the Soviet-Afghan war of the late 1970s and early 1980s. The United States used chemical defoliants in its 'war on drugs' in Central America during the 1980s and afterwards. *Ibid.*, at 4.

Vietnam War that factories producing them operated 24 hours a day. While corporations made millions of dollars during that period, the risks for human health and the environment were not disclosed to the larger public.¹¹ The image of the spraying of herbicides – like images of napalm victims such as the young Kim Phuc running naked on a road in Vietnam – became the symbol of one of the most controversial wars of the twentieth century.

The story of the development and military use of herbicides underscores the different issues that will be explored in this book. The first is the less visible, but more pervasive, socio-ecological legacy of militarism and warfare. The massive use of herbicides in Vietnam resulted in soil and water contamination, loss of forests, livelihoods, and biodiversity. Chemical defoliants contain a high dose of dioxin, which is associated with several cancers, birth defects, respiratory problems, liver damage, and other grave illnesses.¹² During the war, between 2.1 million and 4.8 million Vietnamese were directly exposed to high levels of herbicides without being aware of the risks.¹³ Furthermore, the US Ministry of Labor, War Invalids, and Social Affairs estimated that around 365,000 veterans, their children, and grandchildren have suffered from dioxin-related conditions.¹⁴ Considering that dioxin can persist for 100 years or more once it penetrates the soil, aquifers, and food chain, since the end of the war, millions more Vietnamese people have been exposed to dioxin remnants in the land and water.¹⁵ Stories of young Vietnamese suffering from conditions related to dioxin exposure¹⁶ show how Operation Ranch Hand continues to inflict ‘casualties’ more than fifty years after it was launched.

The issue of unequal distribution of environmental problems between wealthy and poor nations, which is illustrated by the involvement of Western corporations and governments in the development of herbicides and their subsequent deployment in Vietnam, is also at the core of this book. As contemporary wars are primarily fought in the Global South,¹⁷ the human and

¹¹ Robin, *supra* note 3, at 48–68.

¹² Frey, *supra* note 8, at 3.

¹³ M. F. Martin, ‘Vietnamese Victims of Agent Orange and U.S.-Vietnam Relations’ (Report, Congressional Research Service, 29 August 2012), <https://fas.org/sgp/crs/row/RL34761.pdf>.

¹⁴ E. A. Martini, *Agent Orange: History, Science, and the Politics of Uncertainty* (University of Massachusetts Press 2012), at 227.

¹⁵ Martin, *supra* note 13.

¹⁶ Viet Thanh Nguyen and Richard Hughes, ‘The Forgotten Victims of Agent Orange’, *New York Times*, 15 September 2017, <https://nyti.ms/3fC2kvw>.

¹⁷ While recognising that they are contested terms, this book uses the concepts of Global North and Global South to distinguish between wealthy countries from the less prosperous ones in Asia, Africa, and Latin America. Although the countries that comprise the Global South are heterogeneous, with different levels of economic development, they share a history of Northern

ecological tolls of warfare are transferred to the most vulnerable peoples and places. One may think of armed conflicts in Afghanistan, Iraq, Syria, and Yemen, where cluster bombs and depleted uranium weapons have been widely used, often in association with the idea of ‘smart wars’. Like dioxin, depleted uranium and other remnants of war can seep into the soil and groundwater and enter the food chain, posing threats that span across time and space. The increasing use of armed drones raises similar concerns, given that airstrikes from drones typically use explosive weapons, which may generate toxic remnants and of which the long-term ecological effects are still unknown,¹⁸ as were unknown, in the 1960s, at least to the larger public, the effects of dioxin. These dynamics need to be placed within the broader political and economic order. Globalisation processes tend to concentrate the negative impacts of environmental degradation and resource depletion along the margins of the world or project them into the future, where their effects on the most vulnerable are virtually invisible to the centres of wealth: invisible until they erupt in humanitarian crises or violent conflicts – outcomes that, according to relevant literature, may grow in frequency.¹⁹

In *Slow Violence and the Environmentalism of the Poor*, Rob Nixon claims that there are forms of violence, notably those associated with climate change, deforestation, and the environmental aftermath of war, that take place gradually and often invisibly, which he terms ‘slow violence’. The violence associated with these phenomena, he argues, is ‘neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales’,²⁰ and this raises several political, theoretical, and legal questions. Nixon observes that the casualties of slow violence are ‘most likely not to be seen, not to be counted’ as they take years or decades to occur.²¹ The slow violence associated with conflict-related environmental issues is, however, no less harmful than other forms of violence. It aggravates the vulnerability of ecosystems on which, as humans, we depend and of individuals who are already at the margins of society (in our

economic and political domination. This study also acknowledges the existence of elites in the Global South, as well as marginalised communities in the Global North. Nonetheless, the Global North-South framework remains a useful tool to explore the linkages between ecological degradation, economic inequality, and violent conflict in a globalised world.

¹⁸ R. Acheson et al. (eds.), ‘The Humanitarian Impact of Drones’ (Report, Women’s International League for Peace and Freedom, International Disarmament Institute, Pace University and Article 36, October 2017) 29–47.

¹⁹ R. A. Matthew, *Resource Scarcity: Responding to the Security Challenge* (International Peace Institute 2008), at 1. See also the discussion and literature canvassed in Chapter 2.

²⁰ Nixon, *supra* note 1, at 2.

²¹ Nixon, *ibid.*, at 13.

context, peoples in war-torn countries in the Global South) and may fuel grievances that, in turn, could result in further conflict.²² As put by Nixon, ‘like most forms of pollution, cluster bombs and landmine pollution [are] only semirandom. Just as in Western nations toxic waste sites tend to be placed near poor or minority communities, so too unexploded ordnance pollution is concentrated in the world’s most impoverished societies’.²³

Being a book about the law, the overarching question at the core of this study pertains to the role of international law in regulating, redressing, and even producing some of these environmental injustices. Despite the environmentally destructive character of military tactics deployed during World War II, not least the use of nuclear bombs over Hiroshima and Nagasaki, the 1949 Geneva Conventions did not include any explicit reference to the ‘environment’. Official legal histories of the environmental dimensions of war began in the 1970s in reaction to the use of Agent Orange over Vietnamese forests and croplands.²⁴ Grassroot mobilisation against the Vietnam war and the broad condemnation of herbicidal warfare led the United States and the Soviet Union to explore the possibility of jointly declaring voluntary restraints on ‘environmental warfare’. This eventually resulted in the adoption of the ENMOD Convention²⁵ and the inclusion of the word ‘environment’ in the laws of armed conflict.²⁶ Thereafter, and for several years, environmental concerns disappeared from legal debates on the consequences of war. Another conflict was necessary to bring the issue (back) to the fore. This time it was the 1990–1 Gulf War, with the burning of hundreds of Kuwaiti oil wells and the spillage of gallons of crude oil into the Persian Gulf that prompted the United Nations Security Council (UNSC) to hold Iraq liable *inter alia* for ‘environmental damage and depletion of natural resources’.²⁷ Yet, while many commentators hail the international response to the reckless conduct of Iraqi forces, it is often forgotten that the first Gulf War was also the conflict that gave us Gulf War syndrome and the first armed conflict in which depleted uranium munitions were deployed on a large scale.²⁸

²² Nixon, *ibid.*, at 225.

²³ Nixon, *ibid.*, at 226.

²⁴ To my knowledge, the first international legal analysis of the environmental impact of warfare is that of R. Falk, ‘Environmental Warfare and Ecocide, Facts, Appraisal and Proposals’, 4 *Bulletin of Peace Proposals* (1973) 80.

²⁵ See Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques [ENMOD Convention], 10 December 1976, 1108 UNTS 151.

²⁶ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the protection of victims of international armed conflicts [Additional Protocol I], 8 June 1977, 1125 UNTS 3, particularly Articles 35(3) and 55.

²⁷ See UNSC Resolution 687, 1991.

²⁸ Nixon, *supra* note 1, at 200.

Hilary Charlesworth has famously argued that the discipline of international law often develops in response to crises.²⁹ She observes that one problem with the ‘crisis model’ is that it leads scholars to concentrate on single events or issues, while frequently missing the larger picture.³⁰ In turn, this narrow attitude results in a poor understanding of the complexity and interconnectedness of global concerns and, thus, in partial or unsatisfactory approaches. Another problem concerns the silence of the crisis model on structural injustices, which thus remain sidelined in mainstream discourses and practices.³¹ International law’s deployment of the crisis narrative is, therefore, never neutral: by elevating certain crises, international law may distract from other pressing issues. While there are many implications of understanding international law as a crisis discourse, in this book I will focus on what that discourse obscures. The emergence of academic discussions and legal efforts to regulate the environment-conflict ‘nexus’³² can be explained by the same logic: the ecological ‘crisis’ caused by the Vietnam and the Gulf Wars prompted an expansion of international legal frameworks and reignited scholarly debates on the environmental impacts of armed conflict. However, while provisions were added to the laws of war to account for egregious environmental damage caused by means and methods of warfare (through the prohibition of ‘widespread, long-term, and severe environmental damage’),³³ the less direct ways in which conflict entails environmental degradation and resource depletion, thereby exacerbating vulnerabilities, have been largely overlooked. As this book will argue, one reason for this silence is the inability of international rules governing war to solve the tension between the destructive logic of militarism and warfare, on the one side, and ecological sustainability, on the other.

In addition to the effect of modern warfare upon the environment, a related issue addressed in this book, which has attracted sizeable scholarly attention, is the exploitation of natural resources in conflict zones. Access to resource commodities³⁴ has been a driver of armed violence and military interventions

²⁹ H. Charlesworth, ‘International Law: A Discipline of Crisis’, 65 *The Modern Law Review* (2002) 377.

³⁰ *Ibid.*, at 384.

³¹ *Ibid.*, at 388 et passim.

³² While refusing to assign power of causation to the natural world, this book will employ the terms environment-conflict ‘nexus’ or environment-conflict ‘link’ to describe the interrelation of ecological issues and violent conflict/warfare, as outlined in this and Chapter 2.

³³ See Articles 35 and 55 of Additional Protocol I, and Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court, 17 July 1998, UN Doc. A/CONF. 183/9.

³⁴ According to the *Oxford Dictionary of English*, a commodity is ‘a raw material or primary agricultural product that can be bought and sold, such as copper or coffee’. Karl Marx is the most famous theoriser of ‘commodification’. As Marx argued, in order for anything to become

since olden times. One can think of how the high demand for spices in Europe (pepper, cinnamon, nutmeg, cloves) paved the way not only for exploration and trade-related globalisation but also for conquest, wars, and colonial empires.³⁵ However, since the 1990s, accumulating evidence on how trade in ‘conflict resources’³⁶ fuelled wars and abuses in ‘fragile’ countries led to a proliferation of international initiatives in this domain. The most notable examples include commodity and targeted sanctions adopted by the UNSC³⁷ and global regulatory regimes, such as the Kimberley Process Certification Scheme for Diamonds,³⁸ the Extractive Industry Transparency Initiative,³⁹ and the OECD Due Diligence Guidance on Responsible Supply Chain of Minerals from Conflict-Affected and High-Risk Areas.⁴⁰ Like the story of the military use of herbicides exposes the economic interests behind their development, resource exploitation brings to the fore the role of the extractive industry and transnational corporations as powerful actors operating in conflict settings. As this book will claim, while legal arrangements were developed to ‘securitise’ the extraction of natural resources and introduce ‘good governance’ reforms in countries emerging from resource-driven wars, the systemic poverty, socio-economic inequality, and ecological degradation associated with exploitation practices rarely feature within present academic discussions and regulatory frameworks.

Why does it matter that these less visible forms of violence are recognised? What are the theoretical and practical obstacles impeding their recognition in international law? What can we learn about international law if we pay

a commodity, it has to be disentangled from a web of other social relationships and interests, and the rights to own and trade it have to be established. See Karl Marx, *Capital: A Critique of Political Economy* (Penguin Books 1990), at 163–77. For an insightful discussion on the relevance of Marx’s work to understand the role of law in the commodification of food, see A. Chadwick, *Law and the Political Economy of Hunger* (Oxford University Press 2019), at 11–12.

³⁵ See S. Zweig, *Magellan* (tr. Alzir Hella, Le Livre de Poche 2012).

³⁶ Whereas there is no universal definition, the term ‘conflict resources’ is commonly used to indicate natural resources, such as oil, timber, and minerals, extracted in conflict zones and traded to finance the fighting. See UNEP, *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment* (2009), at 7. See further Chapter 2, Section 2.2.2.

³⁷ See for example UNSC Res. 1173, 1998 and UNSC Res. 1176, 1998 (Angola); UNSC Res. 1306, 2000 (Sierra Leone); UNSC Res. 1493, 2001 (Democratic Republic of the Congo); UNSC Res. 1343, 2001 and UNSC Res. 1408, 2002 (Liberia); UNSC Res. 2134, 2014 (Central African Republic).

³⁸ www.kimberleyprocess.com/.

³⁹ <https://eiti.org/>.

⁴⁰ OECD, *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (3rd ed., OECD Publishing 2016), available at <https://bit.ly/3uhfFNM>.

attention to its engagement (or lack thereof) with the slow and structural ecological violence occurring in conflict situations?

1.2 PUSHING THE CONVERSATION FORWARD

In questioning international law's role vis-à-vis the ecological dimensions of violent conflict, this book intervenes in a relatively crowded field. Over the last couple of decades, a prolific debate on the 'protection of the environment in relation to armed conflict'⁴¹ has emerged, driven by the need to fill gaps and clarify ambiguities in the international legal landscape. The culmination of such debate has been the adoption by the International Law Commission (ILC) of the 28 Draft Principles on the Protection of the Environment in Relation to Armed Conflict.⁴² At the risk of oversimplifying, it is possible to divide legal scholars' interventions on the topic into three main 'generations'.⁴³ This heuristic helps contextualise the present book and the reasons why we should welcome a fourth generation of scholarship, one that pushes an analysis of the issues even further.

First, writing in reaction to the Vietnam War and the 1990–1 Gulf War (but one may find also more recent examples), one group of commentators focuses on the protection of the environment from warfare methods and techniques, through a study of the traditional *jus in bello*⁴⁴ and international criminal law (ICL).⁴⁵ A second area of enquiry, which has emerged in tandem with United

⁴¹ This is the expression used by the International Law Commission (ILC) Special Rapporteurs in their work on the subject. The topic 'protection of the environment in relation to armed conflict' was included in the work of the ILC in 2011. See Report of the International Law Commission on the Work of its Sixty-third Sessions (26 April–3 June and 4 July–12 August 2011), UN Doc. A/66/10 Annex E, at 347. For a comprehensive overview of the work of the ILC on the topic, see M. Jacobsson and M. Lehto, 'Protection of the Environment in Relation to Armed Conflicts: An Overview of the International Law Commission's Ongoing Work', 10 *Goettingen Journal of International Law* (2020) 27.

⁴² Text and Titles of the Draft Principles Provisionally Adopted by the Drafting Committee of the International Law Commission on First Reading to the Seventy-First Session, Protection of the Environment in Relation to Armed Conflicts, UN Doc. A/CN.4/L.937, 6 June 2019.

⁴³ Of course, it should be kept in mind that these three groups do not necessarily correspond to neatly divisible periods in history, and scholars sometimes fall into one or more groups.

⁴⁴ While acknowledging their different origins and usages, in this book I use the terms *jus in bello*, international humanitarian law (IHL), laws of armed conflict, and laws of war interchangeably, as indicating the international legal framework governing the rights and duties of belligerent parties in situations of armed conflict.

⁴⁵ See for example A. Roberts, 'Environmental Destruction in the 1991 Gulf War', 32(291) *International Review of the Red Cross* (1992) 538; J. Austin and C. Bruch (eds.), *The Environmental Consequences of War: Legal, Scientific, and Economic Perspectives* (Cambridge University Press 2000); K. Hulme, *War-Torn Environment: Interpreting the*

Nations responses and NGO advocacy campaigns against ‘illegal’ resource exploitation in conflict situations, is concerned with resource plunder, which is predominantly explored from the perspective of the laws of armed conflict and war crimes provisions.⁴⁶ A third strand is characterised by a more inclusive perspective on other sub-fields of international law, notably international environmental law (IEL), human rights law (HRL), international peace and security, and global governance regimes.⁴⁷

Yet, a common feature of past and contemporary scholarly debates is their focus on exposing gaps in the discipline and finding ways to fill them, for instance through the parallel application of HRL and IEL, evolutionary interpretation of the *jus in bello* or ICL, and legal reforms. As such, the objective of existing studies is prescriptive, that is, to provide normative or policy solutions to the ‘problem’ understood in predefined (and often narrow) terms. While the recent work of the ILC takes a broader temporal and normative scope, and represents the most comprehensive treatment of the topic until now, it avoids engaging with the most controversial and political matters related to the ‘protection of the environment in relation to armed conflict’.⁴⁸ These include the root causes of armed conflict and use of specific weapons (such as nuclear weapons).⁴⁹

Legal Threshold (Brill 2004); E. Koppe, *The Use of Nuclear Weapons and the Protection of the Environment during International Armed Conflict* (Hart 2008); S. Freeland, *Addressing the Intentional Destruction of the Environment during Warfare under the Rome Statute of the International Criminal Court* (Intersentia 2015).

⁴⁶ See for example M. Lundberg, ‘The Plunder of Natural Resources during War: A War Crime?’ 39 *Georgetown Journal of International Law* (2008) 495; J. G. Steward, *Corporate War Crimes: Prosecuting Pillage of Natural Resources* (Open Society Justice Initiative 2011); L. van den Herik and D. Dam-de Jong, ‘Revitalizing the Antique War Crime of Pillage: The Potential and Pitfalls of Using International Criminal Law to Address Illegal Resources Exploitation during Armed Conflict’, 22(4) *Criminal Law Forum* (2011) 237; O. Radics and C. Bruch, ‘The Law of Pillage, Conflict Resources, and *Jus Post Bellum*’, in C. Stahn, J. Iverson, and J. Easterday (eds.), *Environmental Protection and Transitions from Conflict to Peace* (Oxford University Press 2017) 141.

⁴⁷ See for example P. Okowa, ‘Natural Resources in Situations of Armed Conflict: Is there a Coherent Framework for Protection?’, 9 *International Community Law Review* (2007) 237; O. Das, *Environmental Protection, Security and Armed Conflict: A Sustainable Development Perspective* (Edward Elgar 2013); R. Rayfuse (ed.), *War and the Environment: New Approaches to Protecting the Environment in Relation to Armed Conflict* (Brill 2014); D. Dam-de Jong, *International Law and Governance of Natural Resources in Conflict and Post-Conflict Situations* (Cambridge University Press 2015); Stahn, Iverson, and Easterday (eds.), *supra* note 46.

⁴⁸ See B. Sjöstedt and A. Dienelt, ‘Enhancing the Protection of the Environment in Relation to Armed Conflicts: The Draft Principles of the International Law Commission and Beyond’, 10 *Goettingen Journal of International Law* (2020) 13, at 15.

⁴⁹ Jacobsson and Lehto, *supra* note 42, at 32.

This book starts from a different perspective. It argues that the complexity of the issues discussed here require to move beyond a mindset of ‘problem-solving’. The analysis will not offer legal solutions to the ecological challenges faced by conflict and post-conflict countries. Rather, the objective is to unpack and problematise some of the assumptions about the ‘environment’,⁵⁰ its relationship with violent conflict, and the justification for its protection underlying current debates and institutional practices. By paying attention to the ideas and theories that have shaped existing approaches to conflict-related environmental protection and ‘illegal’ resource exploitation, this book will offer a critique of international law’s engagement with the slow and structural violence of contemporary wars (or what we may call ‘new wars’).

In order to expand current understandings of these issues and assess legal practices, this book will draw upon and benefit from discussions in other academic disciplines. The correlation between violent conflict and the natural world has been the object of extensive study by political ecologists, scientists, and economists. The diverse literature on environmental security, the resource curse, the political economy of war, and environmental peacebuilding is the starting point to explore the assumptions and choices that underlie international law.⁵¹ The core idea of peace and conflict studies is that environmental degradation and natural resource depletion/scarcity may create a fertile ground for violence and, often, armed conflict, hence addressing conflict-related environmental matters and usurpation of natural resources is paramount to strengthen peace. Recognition of these issues has grown over the last decade and international efforts to ‘manage’ them have risen. Ongoing debates framing the ‘climate crisis’ as an international peace and security issue are a clear indication of this trend.⁵² However, different criticisms of theories on environmental scarcity/abundance have also emerged in recent years,

⁵⁰ By recognising that the ‘environment’ is a term that everyone understands, and no one can actually define, this book does not seek to redefine it. Rather, it focuses on how international legal practices promoted (or produced) discrete conceptualisations of the ‘environment’ in relation to conflict. The term ‘nature’ will also be used throughout this study sometimes in opposition to that of ‘environment’, sometimes interchangeably. In doing so, I am aware of the semantic difference between nature and environment. While the former presumably includes humankind, ‘environment’, which literally means the surrounding, does not. For a discussion on the origins of the separation between humankind and the natural world, see S. Humphrey and Y. Otomo, ‘Theorizing International Environmental Law’, in A. Orford and F. Hoffmann (eds.), *The Oxford Handbook on the Theory of International Law* (Oxford University Press 2016) 798.

⁵¹ A review of the different theories in peace and conflict studies, and their critique, is provided in Chapter 2.

⁵² See for example Report of the Secretary-General on Climate Change and its Possible Security Implications, UN Doc. A/64/350, 11 September 2009. In the literature, see for example S. V. Scott and C. Ku, *Climate Change and the UN Security Council* (Edward Elgar 2018).