

**FROM ECOCIDE TO VOLUNTARY REMEDIATION
PROJECTS:
LEGAL RESPONSES TO ‘ENVIRONMENTAL WARFARE’ IN
VIETNAM AND THE SPECTRE OF COLONIALISM**

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This article examines legal responses to the pervasive legacy of ‘environmental warfare’ during the Vietnam War, most notably the use of Agent Orange and other chemical herbicides. It engages in a historical analysis of the different efforts to establish American accountability under international law, including within the United Nations General Assembly and before American courts, until the more recent United States-funded environmental remediation projects in dioxin contaminated areas and assistance to persons with disabilities. In doing so, the article draws attention to the unaccomplished quest for justice of the Vietnamese people and to some problematic dimensions of legal debates surrounding the environmental and human consequences of the Vietnam conflict. Borrowing insights from the postcolonial critique of international law, it suggests that the ‘dynamics of exclusion’ embedded in the laws of armed conflict may help to explain not only the way in which the war was fought in Vietnam, but also the reaction of the US and legal institutions to its deleterious impacts on humans and ecosystems. Revisiting past and current initiatives to address the effects of ‘environmental warfare’ in Vietnam raises hard questions on the role of international law and remedies vis-a-vis environmental degradation associated with contemporary conflicts in the Global South. It invites also to reflect on unintended consequences of proposals for law reforms that seek to reinforce environmental protection in war-torn countries, while reproducing injustices and discrimination.

CONTENTS

I	Introduction.....	2
II	‘Environmental Warfare’ in Vietnam and Its Legacy.....	5
III	The Long Quest for Justice: Efforts to Establish Accountability for Human and Environmental Devastation	7
	A The Mobilisation of the Academic Community against ‘Ecocide’	7
	B More than Words? UNGA Resolutions and the International War Crimes Tribunal for the Vietnam War	9
	C Seeking Redress before American Domestic Courts.....	12
IV	The Turn to ‘Voluntary Remediation’: The US-Funded Environmental and Health Projects in Vietnam	13
V	Understanding the Exclusion of the ‘Savage’ and Her Environment from the Protection of the Laws of War.....	20
VI	Conclusion: Vietnam and Beyond	26

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I INTRODUCTION

Pham Thi Phuong Khanh, 21, is another such patient. She quietly pulls a towel over her face as a visitor to the Peace Village ward in Tu Du Hospital in Ho Chi Minh City, starts to take a picture of her enlarged, hydrocephalic head. ... Perhaps Ms Khanh does not want strangers to stare at her. Perhaps she feels ashamed. But if she does feel shame, why is it that those who should do not?¹

Recent decades have witnessed a growing interest among scholars, international institutions and civil society in the adverse environmental impact of armed conflict.² This focus on environmental protection in the context of warfare can be explained in light of a broader concern of states and peoples about the ecological challenges of our interconnected world, including severe pollution, natural resource scarcity and climate change. From earlier legal debates centred on the direct impact of means and methods of warfare upon the environment, a wider approach is slowly emerging which examines the multiple correlations between environmental issues and violent conflict.³ Yet at a closer look, a story is absent within the larger narrative on the topic: the Vietnam War. This is particularly surprising given the massive use of chemical herbicides (eg Agent Orange) and other environmentally harmful tactics during the war, and the enduring legacy of that conflict. Dioxin contamination caused by deployment of Agent Orange has been (and is still) affecting the lives and health of millions of Vietnamese people. Extant discussions recognise that the Vietnam War is the 'event' that led to the adoption of specific provisions in the laws of armed conflict proscribing 'widespread, long-term, and severe environmental damage'.⁴ In other words, in the literature, the Vietnam conflict is relegated to the past, to a time where international law was still underdeveloped and international institutions had their hands tied due to the Cold War confrontation. As a result,

¹ Viet Thanh Nguyen and Richard Hughes, 'The Forgotten Victims of Agent Orange', *The New York Times* (online), 15 September 2017 <<https://www.nytimes.com/2017/09/15/opinion/agent-orange-vietnam-effects.html>> archived at <<https://perma.cc/4F33-JJNV>>.

² See, eg, Elizabeth Maruma Mrema, Carl Bruch and Jordan Diamond, *Protecting the Environment during Armed Conflict: An Inventory and Analysis of International Law* (United Nations Environment Programme, 2009); Richard Matthew and David Jensen, *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment* (United Nations Environment Programme, 2009). The topic 'protection of the environment in relation to armed conflict' has been included in the work of the International Law Commission in 2011. See International Law Commission, *Report of the International Law Commission on the Work of its Sixty-Third Session (26 April – 3 June and 4 July – 12 August 2011)*, UN GAOR, 66th sess, Supp No 10, UN Doc A/66/10 (2011) annex E.

³ See, eg, Onita Das, *Environmental Protection, Security and Armed Conflict: A Sustainable Development Perspective* (Edward Elgar, 2013); Rosemary Rayfuse (ed), *War and the Environment: New Approaches to Protecting the Environment in Relation to Armed Conflict* (Brill, 2014) vol 45; Daniëlla Dam-de Jong, *International Law and Governance of Natural Resources in Conflict and Post-Conflict Situations* (Cambridge University Press, 2015); Carsten Stahn, Jens Iverson and Jennifer S Easterday (eds), *Environmental Protection and Transitions from Conflict to Peace* (Oxford University Press, 2017).

⁴ See *Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I)*, opened for signature 8 June 1977, 1125 UNTS 3 (entered into force 7 December 1978) arts 35(3), 55 ('Additional Protocol I').

present-day scholarship often discusses it as part of the historical context or in a footnote.⁵

This article moves the Vietnam War from the peripheries to the core of international debates and practices and, by doing so, aims to show its importance to a deeper understanding of how international law regulates conflict-related environmental issues. Through a historical analysis of the different efforts to establish American responsibility for the use of chemical herbicides, until the more recent implementation of environmental remediation projects in dioxin contaminated areas and assistance to persons with disabilities, this article revisits the long quest for justice of Vietnamese victims and thereby illuminates the limitations of legal avenues for redress. In 2006, based on a renewed economic and political cooperation between the American and Vietnamese governments, a Joint Advisory Committee was established and the United States started to fund environmental remediation projects in areas characterised as ‘hot spots’ for the high dioxin contamination. Given the controversies surrounding the use of Agent Orange during the conflict, the recent practice of the US raises the question of the legal nature of these initiatives under international law. Although the US has consistently denied any liability and qualified the funding of environmental restoration and health programmes in Vietnam as a form of development aid, a closer look at the features of these programmes may lead to a different conclusion. Ongoing initiatives to address dioxin contamination and human suffering in Vietnam also pose broader concerns. Borrowing insights from the postcolonial critique of international law,⁶ this article suggests that the dynamics of exclusion embedded in the laws of armed conflict may help to explain not only the massive use of herbicides in Vietnam, but also the reaction of the US and the international institutions to its deleterious impact on humans and ecosystems, including the recent turn to ‘voluntary remediation’.⁷

Revisiting past and present responses to ‘environmental warfare’ in Vietnam raises novel questions on the relevance of international law vis-a-vis the hidden

⁵ An exception is the work of Richard Falk. See, eg, Richard A Falk, ‘Environmental Warfare and Ecocide — Facts, Appraisal, and Proposals’ (1973) 4 *Bulletin of Peace Proposals* 80; Richard Falk, ‘The Inadequacy of the Existing Legal Approach to Environmental Protection in Wartime’ in Jay E Austin and Carl E Bruch (eds), *The Environmental Consequences of War: Legal, Economic and Scientific Perspectives* (Cambridge University Press, 2000) 137.

⁶ I am profoundly indebted to the teaching of Professor Antony Anghie for everything I know about the postcolonial critique of international law and Third World Approaches to International Law (‘TWAAIL’) scholarship. Among his vast contribution, see, eg, Antony Anghie, ‘Finding the Peripheries: Sovereignty and Colonialism in Nineteenth-Century International Law’ (1999) 40 *Harvard International Law Journal* 1; Antony Anghie, ‘The Heart of My Home: Colonialism, Environmental Damage, and the Nauru Case’ (1993) 34 *Harvard International Law Journal* 445; Antony Anghie and B S Chimni, ‘Third World Approaches to International Law and Individual Responsibility in Internal Conflicts’ (2003) 2 *Chinese Journal of International Law* 77; Antony Anghie, *Imperialism, Sovereignty and the Making of International Law* (Cambridge University Press, 2004); Antony Anghie, ‘Imperialism and International Legal Theory’ in Anne Orford and Florian Hoffmann with Martin Clark (eds), *The Oxford Handbook of The Theory of International Law* (Oxford University Press, 2016) 156.

⁷ For this part of the analysis, I borrow from the scholarship of Frédéric Mégret. See especially Frédéric Mégret, ‘Theorizing the Laws of War’ in Anne Orford and Florian Hoffmann with Martin Clark (eds), *The Oxford Handbook of The Theory of International Law* (Oxford University Press, 2016) 762; Frédéric Mégret, ‘From “Savages” to “Unlawful Combatants”: A Postcolonial Look at International Humanitarian Law’s “Other”’, in Anne Orford (ed), *International Law and its Others* (Cambridge University Press, 2006) 265.

ecological and human costs of contemporary armed conflict. This analysis will especially resonate with ongoing discussions on more pragmatic approaches to environmental degradation and pollution associated with modern warfare. Acknowledging the difficulties in implementing ex post facto responsibility for conflict-related environmental harms, some scholars claim that, in the environmental field, priority should be given to remedial measures adopted voluntarily by the wrongdoer or through multilateral cooperation.⁸ It cannot be denied that international law faces challenges in addressing environmental damage. From the vagueness of primary rules, to the need to establish attribution and causation, to evidence collection and assessment,⁹ it may be apposite to start a reflection on alternative ways to confront environmental harm and the threats it poses to human health and survival. Nonetheless, a voluntary approach to post-conflict environmental remediation, like the one implemented in Vietnam and discussed in this article, is also problematic. By exposing the dark sides of the idea of ‘voluntary remediation’, this article hopes to pave the way for more just and contextualised approaches to the ecological consequences of war.

The remainder of the article proceeds as follows. Part II provides a brief overview of ‘environmental warfare’ in Vietnam and its persistent legacy. Part III explores the different efforts to establish accountability for the environmental and human costs of the US military strategy, namely: first, the mobilisation of the academic community against ecocide; second, the United Nations General Assembly’s (‘UNGA’) resolutions and the International War Crimes Tribunal for the Vietnam War (‘Russell Tribunal’); third, domestic litigation before American courts under the *Alien Tort Claims Act* (‘ATCA’).¹⁰ One of the purposes of this

⁸ See, eg, Cymie R Payne, ‘The Norm of Environmental Integrity in Post-Conflict Legal Regimes’ in Carsten Stahn, Jennifer S Easterday and Jens Iverson (eds), *Jus Post Bellum: Mapping the Normative Foundations* (Oxford University Press, 2014) 502, 505, suggesting that there are two approaches to the topic: one asks ‘what is moral?’, while the other focuses on ‘what works?’. In her view, ‘[d]eterrence, revenge, and accountability ... are not the primary aim’ in relation to the environment. The conclusion is that ‘*jus post bellum* theories that prioritize peacebuilding over retribution accord best with environmental integrity, in terms of explanatory power and consonance with goals’. The importance of post-conflict remediation is also emphasised by the International Law Commission Special Rapporteur on the Protection of the Environment in Relation to Armed Conflict. Among the draft principles applicable to the post-conflict phase, draft principle 15 ‘Post-armed conflict environmental assessments and remedial measures’, encourages the establishment of forms of cooperation ‘among relevant actors’, including international organizations, in the area of post-conflict environmental assessment and remedial measures. The principle refers to forms of cooperation and leaves unaddressed the issue of who (if anyone) should bear the responsibility for damage. See Marie G Jacobsson, Special Rapporteur, *Third Report on the Protection of the Environment in Relation to Armed Conflicts*, 68th sess, UN Doc A/CN.4/700 (3 June 2016) annex I (‘*Protection of the Environment in Relation to Armed Conflicts: Proposed Draft Principles*’).

⁹ For some references on this debate, see, eg, Alexandre Kiss, ‘Present Limits to the Enforcement of State Responsibility for Environmental Damage’ in Francesco Francioni and Tullio Scovazzi (eds), *International Responsibility for Environmental Harm* (Kluwer Law International, 1991) 3; Tullio Scovazzi, ‘Some Remarks on International Responsibility in the Field of Environmental Protection’, in Maurizio Ragazzi (ed), *International Responsibility Today: Essays in Memory of Oscar Schachter* (Koninklijke Brill, 2005) 209; Catherine Redgwell, ‘The Wrong Trousers: State Responsibility and International Environmental Law’ in Malcolm Evans and Panos Koutrakos (eds), *The International Responsibility of the European Union: European and International Perspectives* (Hart, 2013) 257.

¹⁰ *Alien Tort Claims Act*, 28 USC § 1350 (1789) (‘ATCA’).

historical excursus is to outline how legal arguments, which draw upon the laws of war, were used both to affirm and to deny the responsibility of the US for 'environmental warfare' and related harms. Part IV considers the more recent cooperation between the American and Vietnamese governments in the area of dioxin contamination removal and reflects on the legal nature, under international law, of ongoing environmental and health projects funded by the US government. This discussion lays the foundation for the introduction of the concept of 'voluntary remediation'. Part V draws upon the postcolonial critique of the laws of armed conflict (and international law more generally) to argue that the use of herbicides during the Vietnam War and its legal justifications posit a vision of the enemy and her environment as 'savage', while the turn to 'voluntary remediation' for environmental war damage may reproduce a similar postcolonial mindset. Part VI concludes.

II 'ENVIRONMENTAL WARFARE' IN VIETNAM AND ITS LEGACY

The Vietnam War of 1961–75 is notorious for the disastrous environmental and human impact of the US counterinsurgency warfare.¹¹ Having to confront guerrilla tactics by its enemy, with which it was not particularly familiar, and relying on a relatively small ground force, the US Army compensated this deficit by employing technologically advanced weaponry to manipulate the environment for hostile purposes.¹² In other words, it engaged in what has been called 'environmental warfare'.¹³ According to commentators, three military tactics were responsible for extensive environmental damage: the use of chemical herbicides, 'Rome Plows' and high-explosive bombs.¹⁴ Their declared military rationale was essentially twofold: first, removing the vegetation cover to facilitate the enemy's targeting and limit the enemy's freedom of movement and second, destroying crops and thereby denying the enemy food supply and support from the civilian population.¹⁵

There can be scarcely any doubt as to the severity and long-term nature of the damage caused to the Vietnamese environment. High-explosive munitions (14 million tonnes, according to an estimate) destroyed the flora and fauna and left moonscape-like craters in the Vietnamese landscape, with a consequent increase of soil erosion.¹⁶ 'Rome Plows', which are heavy caterpillar bulldozers (33 000

¹¹ Richard Falk argues that the deliberate targeting of the environment was based on the consideration that the only way to defeat the enemy 'was to deny him the cover, the food and the life-support of the countryside' and that 'just as counter-insurgency warfare tends toward genocide with respect to the people, so it tends toward ecocide with respect to the environment'. See Falk, 'Environmental Warfare', above n 5, 80. I will return to this point in Part V.

¹² Arthur H Westing, *Arthur H Westing: Pioneer on the Environmental Impact of War* (Springer, 2013) 40.

¹³ The term is defined by Falk as denoting 'all those weapons and tactics which either intend to destroy the environment per se or disrupt normal relationship between man and nature on sustained basis'. See Falk, 'Environmental Warfare', above n 5, 85. See also Arthur Westing, 'Environmental Warfare' (1985) 15 *Environmental Law* 645, 646: conceptualising environmental warfare as 'warfare in which the environment is manipulated for hostile military purposes'.

¹⁴ Karen Hulme, *War Torn Environment: Interpreting the Legal Threshold* (Koninklijke Brill, 2004) 5.

¹⁵ Westing, above n 12, 48.

¹⁶ Hulme, above n 14, 5.

kilograms) employed to remove trees and destroy cropland, cleared 325 000 hectares of South Vietnamese forest and thousands of hectares of agricultural areas.¹⁷ Yet it was the massive use of herbicides that received the strongest condemnation for its devastating effects on ecosystems and human health.¹⁸ The most widely used herbicides were Agent Orange, Agent White and Agent Blue, the latter employed against crops and the formers against the forest vegetation.¹⁹ The infamous Operation Ranch Hand started in January 1962 and ended in January 1971.²⁰ During these 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 around 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.²¹ Even after the end of Operation Ranch Hand, herbicides continued to be used around military bases and stored in local facilities.²²

Further to its ecological impact (eg in terms of soil and water pollution, loss of forests and biodiversity), it has been demonstrated that exposure to herbicides increases the risk of contracting serious diseases. Chemical defoliant contains a high dose of dioxin, which is associated with several cancers, birth defects, respiratory problems, liver damage and other grave illnesses.²³ Considering that the alleged quantity of herbicides sprayed over Vietnam was 25 times the normal range of agricultural use in the US, and that dioxin can persist for 100 years or more once it penetrates the soil and aquifers,²⁴ the impacts of 'environmental warfare' in Vietnam can only be described as dramatic. Millions of people, both civilians and soldiers, were exposed to high levels of herbicides without being aware of the health risks; hence, precautions were not adopted. Since the end of the war, millions more Vietnamese people have been exposed to dioxin remnants in the soil and the water.²⁵ It remains difficult to determine the exact number of

¹⁷ Westing, above n 12, 47.

¹⁸ For a history of the development and military use of herbicides, see R Scott Frey, 'Agent Orange and America at War in Vietnam and Southeast Asia' (2013) 20 *Human Ecology Review* 1, 2–3. Frey explains that, although scientists started to develop herbicides to increase agricultural productivity since the beginning of 20th century, it was during World War II that the major Western powers, notably the US and the UK, conducted studies on the military use of herbicides. Herbicides were not employed as weapons during World War II, but only for mosquito control in the Pacific theatre of warfare and lice control in Europe. In the post-World War II period the US Department of Defence developed the so-called 'Rainbow Herbicides' that were used as weapons in South-East Asia. Dow Chemical and Monsanto were among the corporations involved in the production and supply of herbicides for Operation Ranch Hand.

¹⁹ Falk, 'Environmental Warfare', above n 5, 85.

²⁰ More precisely, in 1971 herbicides were substituted with Rome Plows. See Hulme, above n 14, 5.

²¹ Frey, above n 18, 3. See also 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) 85.

²² Frey, above n 18, 3.

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ Michael F Martin, 'Vietnamese Victims of Agent Orange and US–Vietnam Relations' (Report, Congressional Research Service, 29 August 2012) 15 <<https://fas.org/sgp/crs/row/RL34761.pdf>> archived at <<https://perma.cc/F8LQ-R8X7>> ('*Vietnamese Victims*').

deaths and diseases that can be attributed to the use of Agent Orange and other toxic substances.²⁶ Nonetheless, scientists have identified health conditions directly linked to herbicide exposure, such as leukemia, non-Hodgkinson lymphoma and sarcoma, recurrent among the Vietnamese population.²⁷ The US Department of Veteran Affairs compiled a list of diseases and conditions associated with Agent Orange/dioxin exposure, which includes Hodgkin's disease, prostate cancer, respiratory cancers and soft tissue sarcoma, as well as diseases and malformations in the children of exposed parents.²⁸ Stories of young Vietnamese people still suffering from conditions supposedly related to dioxin contamination, which are reported in international media,²⁹ show how Operation Ranch Hand continues to inflict 'casualties' more than 50 years after it was launched.

III THE LONG QUEST FOR JUSTICE: EFFORTS TO ESTABLISH ACCOUNTABILITY FOR HUMAN AND ENVIRONMENTAL DEVASTATION

A *The Mobilisation of the Academic Community against 'Ecocide'*

'Environmental warfare' in Vietnam, and most notably the massive use of chemical herbicides, spawned condemnation across the civil society. The term 'ecocide' started to be employed to describe the devastating environmental and human impact of American military tactics in Vietnam. The concept was first coined by a plant biologist and chair of the department of botany at Yale University, Arthur Galston, to characterise the 'wilful and permanent destruction of the environment in which people can live in a manner of their own choosing'.³⁰ At a conference on 'War Crimes and the American Conscience' held in 1970, Galston condemned Operation Ranch Hand and asked the international community, through the United Nations, to come together against ecocide like the world did after World War II against genocide and crimes against humanity.³¹

Richard Falk developed this set of ideas and framed them in legal terms. In his 1973 publication, 'Environmental Warfare, Facts, Appraisal and Proposals', Falk proceeded in two steps: first, he explored whether the laws of war proscribed 'environmental warfare' (ie the use of herbicides, bulldozers and high-explosive bombs); second, he proposed legal reforms to address ecological devastation in Vietnam.³² Falk concluded that, by deploying herbicides, the US

²⁶ According to the Vietnam Association of Victims of Agent Orange/Dioxin, 2.1 million to 4.8 million Vietnamese were exposed to herbicides during the war, and at least 3 million suffered diseases related to the exposure: *ibid* 22.

²⁷ Frey, above n 18, 5.

²⁸ *Vietnamese Victims*, above n 25, 22. The list of diseases is also available online at US Department of Veterans Affairs, *Veterans' Diseases Associated with Agent Orange* (3 June 2015) <<https://www.publichealth.va.gov/exposures/agentorange/conditions/>> archived at <<https://perma.cc/8GYJ-J48W>>.

²⁹ See, eg, Nguyen and Hughes, above n 1. An entire section of the War Remnants Museum in Ho Chi Minh City displays pictures documenting the effects of Agent Orange and other defoliants on Vietnamese people across generations.

³⁰ Zierler, above n 21, 19, 114.

³¹ Bronwyn Leebaw, 'Scorched Earth: Environmental War Crimes and International Justice' (2014) 12 *Perspectives on Politics* 770, 777.

³² Falk, 'Environmental Warfare', above n 5.

violated the 1925 *Geneva Protocol on Gas, Chemical and Bacteriological Warfare* ('*Geneva Protocol*').³³ In relation to the targeting of cropland, Falk contended that the military use of herbicide was also in violation of the *jus in bello* principle of discrimination.³⁴ As for the use of bulldozing tractors and bombs over extensive areas covered by forests, Falk observed that the legal standards in force did not prohibit these tactics, as pure environmental considerations were alien to the law's purview.³⁵ Falk's analysis captures well the ambivalent character of *jus in bello* as it stood in the 1970s. On the one hand, it appeared to proscribe the use of chemical defoliants to destroy crops as contrary to the principle of discrimination; on the other, it ended up justifying different forms of environmental destruction and related human suffering if proportional and necessary to achieve the war's objectives.

To fill gaps in the legal landscape, Falk called for the development of new instruments, namely an International Convention on the Crime of Ecocide and a Draft Protocol on Environmental Warfare.³⁶ He argued that such normative agenda had gained momentum and that

[t]he Indochina context, given the public outrage over the desecration of the land at a time of rising environmental consciousness, creates a target of opportunity comparable to Nuremberg. Surely it is no exaggeration to consider the forests and plantations treated by Agent Orange as an Auschwitz for environmental values, certainly not from the perspective of such a distinct environmental species as the mangrove tree or nipa palm. And just as the *Genocide Convention* came along to formalize part of what has already been condemned and punished at Nuremberg, so an Ecocide Convention could help carry forward into the future a legal condemnation of environmental warfare in Indochina.³⁷

Falk's Convention on the Crime of Ecocide defined ecocide as encompassing 'acts committed with intent to destroy, in whole or in part, a human ecosystem', both in peacetime or wartime.³⁸ The Draft Protocol on Environmental Warfare proscribed conduct of the type described above (eg use of chemicals, bombs and bulldozing) and made violations of its provisions international crimes.³⁹

Despite the advocacy from the scientific and legal communities, a far less ambitious result was achieved. The *Convention on the Prohibition of Military or Any Other Hostile Uses of Environmental Modification Techniques* ('*ENMOD Convention*') was adopted in 1976, the scope of which was limited to military and hostile environmental modification techniques (ie the use of the environment

³³ Ibid 87; *Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare*, opened for signature 17 June 1925, 94 LNTS 65 (entered into force 9 May 1926) ('*Geneva Protocol*').

³⁴ Falk, 'Environmental Warfare', above n 5, 87.

³⁵ Ibid 88.

³⁶ Ibid 91.

³⁷ Ibid 84.

³⁸ Ibid 93 app 1.

³⁹ Ibid 95 app 2.

as a ‘weapon’).⁴⁰ Further, two provisions proscribing ‘widespread, long-term and severe’ environmental damage were included in the 1977 *Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I)* (‘*Additional Protocol I*’), namely arts 35(3) and 55.⁴¹ Compared with the calls for the introduction of an international crime of ecocide, the protection outlined in the *ENMOD Convention and Additional Protocol I* was more modest and did not entail any criminal sanction.⁴² Only in 1998 was a specific provision criminalising environmental damage as a war crime included in the *Rome Statute of the International Criminal Court*, which nonetheless has been criticised for its high threshold of damage and applicability only to international armed conflict.⁴³

B *More than Words? UNGA Resolutions and the International War Crimes Tribunal for the Vietnam War*

The reaction of international institutions to ‘environmental warfare’ was tepid, although a few attempts were made to establish accountability for the US’s conduct of warfare. With the UN Security Council blocked by the Cold War confrontation, the UNGA emerged as the place for advancing legal and political struggles. In 1966 a debate started within the UNGA, with Hungary accusing the US of violating international law and the *Geneva Protocol* by using herbicides in Vietnam.⁴⁴ The UNGA passed *Resolution 2162 (XXI)*, calling for a ‘strict observance by all States of the principles and objectives of the Protocol’ and

⁴⁰ Michael Bothe, ‘The Protection of the Environment in Times of Armed Conflict: Legal Rules, Uncertainty, Deficiencies and Possible Developments’ (1991) 34 *German Yearbook of International Law* 54, 57; *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*, opened for signature 10 December 1976, 1108 UNTS 151 (entered into force 5 October 1978) (‘*ENMOD Convention*’). A non-exclusive list of ‘phenomena that could be caused by the use of environmental modifications techniques’ is included in the Understanding Relating to Article II of the *ENMOD Convention* and includes ‘earthquake, tsunamis; an upset in the ecological balance of a region; changes in weather patterns ... changes in climate patterns, changes in ocean currents; changes in the state of the ozone layer; changes in the state of the ionosphere’. See *Report of the Conference on the Committee on Disarmament, Volume I*, UN GAOR, 31st sess, Supp No 27, UN Doc A/31/27 (1976) 92.

⁴¹ *Additional Protocol I* arts 35(3), 55.

⁴² Violations of arts 35(3) and 55(1) of *Additional Protocol I* were not listed as grave breaches and the *ENMOD Convention* did not impose individual criminal liability for the violation of its provisions.

⁴³ See *Rome Statute of the International Criminal Court*, opened for signature 17 July 1998, 2187 UNTS 90 (entered into force 1 July 2002) art 8(2)(b)(iv) (‘*Rome Statute*’). For a discussion on the role of the International Criminal Court (‘ICC’) in relation to environmental degradation and the limitations of international criminal justice in the ecological field, see, eg, Eliana Cusato, ‘Beyond Symbolism: Problems and Prospects with Prosecuting Environmental Destruction Before the ICC’ (2017) 15 *Journal of International Criminal Justice* 491.

⁴⁴ *Question of General and Complete Disarmament*, UN GAOR, 21st session, 1st Comm, 1451st mtg, UN Doc A/C.1/SR.1451 (11 November 1966) paras 27–37; *Geneva Protocol*. The Hungarian delegation also submitted a draft resolution proposing that the United Nations General Assembly, after recalling that the *Geneva Protocol* of 1925 had been recognised by many states, would declare that the use of chemical and bacteriological weapons for the purpose of destroying human beings and the means of their existence constituted and international crime. See *Hungarian Draft Resolution Submitted to the First Committee of the General Assembly: Use of Chemical and Bacteriological Weapons*, UN GAOR, 21st sess, 1st Comm, UN Doc A/C.1/L.374 (7 November 1966).

condemning 'all actions contrary to those objectives'.⁴⁵ Although the resolution did not address the scope of the *Geneva Protocol* with regard to specific weapons and used general language, it marked the first time that the US had to defend its military strategies in Vietnam before the international community.⁴⁶ In 1969 the UNGA went further and adopted *Resolution 2603* to clarify the scope of the *Geneva Protocol*.⁴⁷ It declared as

contrary to the generally recognized rules of international law, as embodied in the *Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases and of Bacteriological Methods of Warfare*, signed at Geneva on 17 June 1925, the use in international armed conflicts of: a) *Any chemical agent of warfare* — chemical substances, whether gaseous, liquid or solid — *which might be employed because of their direct toxic effects on man, animals, or plants*.⁴⁸

The significance of this paragraph is twofold. First, it recognises that the *Geneva Protocol* embodies 'generally recognized rules of international law', hence binding even those states that did not ratify the instrument (ie the US); second, it expressly includes within the scope of the Protocol 'any chemical agent[s] of warfare', notably those which might be employed for their toxic effects on plants.⁴⁹ Both statements, however, were opposed by the American government, whose official position was that the rules of international law, including the *Geneva Protocol*, did not prohibit the military use of herbicides.⁵⁰

The silence of international institutions was broken by a group of philosophers, lawyers and activists that in 1966 created the Russell Tribunal. The founder of the tribunal was the English philosopher Bertrand Russell and Jean-Paul Sartre was the executive president.⁵¹ The reference was the Nuremberg Tribunal, but, lacking any international support, the Russell Tribunal was obviously unable to enforce its decisions.⁵² Its declared purpose was to expose the truth about what was happening in Vietnam to 'arouse the conscience of the world'.⁵³ The indirect objective was to put pressure on the US to end the war, which was still ongoing.⁵⁴ Because of the obstacles in finding a seat for the tribunal, the initial idea of establishing the criminal responsibility of the

⁴⁵ *Question of General and Complete Disarmament*, GA Res 2162 (XXI), UN GAOR, 21st sess, 1484th plen mtg, Supp No 16, UN Doc A/RES/2162(XXI) (5 December 1966) pt B.

⁴⁶ Zierler, above n 21, 145.

⁴⁷ *Question of Chemical and Bacteriological (Biological) Weapons*, GA Res 2603(XXIV), UN GAOR, 24th sess, 1836th plen mtg, Supp No 30, UN Doc A/RES/2603(XXIV) (16 December 1969) pt A ('*Resolution 2603*').

⁴⁸ *Ibid* (emphasis added).

⁴⁹ *Ibid*.

⁵⁰ Falk, 'Environmental Warfare', above n 5, 86. It should be noted that, on 22 January 1975, the US President Gerald Ford signed the instrument of ratification of the 1925 *Geneva Protocol*. See Zierler, above n 21, 157.

⁵¹ John Duffett (ed), *Against the Crime of Silence: Proceedings of the Russell International War Crimes Tribunal* (Bertrand Russell Peace Foundation, 1968) 17.

⁵² 'Jean Paul Sartre's Inaugural Statement to the Tribunal' in Duffett (ed), above n 51, 40, 42–3: affirming, however, that the 'Russell tribunal considers ... that its legitimacy derives equally from its total powerlessness, and from its universality': at 43.

⁵³ 'Aims and Objectives of the Tribunal' in Duffett (ed), above n 51, 14, 15.

⁵⁴ 'Bertrand Russell's Final Address to the Tribunal: Copenhagen, December 1967' in Duffett (ed), above n 51, 654.

American President and other leaders was abandoned; rather, the Russell Tribunal focused on state responsibility for international crimes.⁵⁵

In 1967 the Russell Tribunal held multiple sessions in Stockholm, Sweden and Roskilde, Denmark. At the end of the first group of sessions, it found the US responsible for aggression against Vietnam, deliberate attacks against the civilian population and violation of Cambodian territorial sovereignty.⁵⁶ The session in Denmark dealt with the charges for genocide and violations of the laws of war.⁵⁷ The issue of chemical warfare was addressed inter alia by Edgar Lederer, a French professor of biology.⁵⁸ Lederer described the environmental devastation and human suffering caused by the herbicidal warfare in Vietnam and argued that Operation Ranch Hand captured the criminal dimension of the American war in South Vietnam.⁵⁹ He concluded that ‘there can be no doubt that defoliation of the forests, the jungle and the bush are already having dangerous repercussions on the conditions of human environment’.⁶⁰ In its second verdict, the Russell Tribunal found the US responsible for genocide against the Vietnamese people and for the use of prohibited weapons.⁶¹ The US and its allies refused to be involved with the work of the tribunal, whereas the government of North Vietnam praised its efforts, allowed witnesses to participate in its sessions and even funded the tribunal’s trips to Vietnam to collect evidence.⁶²

The Russell Tribunal can be regarded as an attempt to expose a different ‘truth’ about the Vietnam conflict and to provide accountability for the American conduct of warfare, including for Operation Ranch Hand. It gave a voice to the Vietnamese victims of ‘environmental warfare’, whose suffering international law was unable to fully capture.⁶³ Although in the short run the Russell Tribunal was not successful in bringing the conflict to an end, it received international attention and media coverage thanks to the reputation and standing of its members.⁶⁴ As such it brought to the public attention what was happening in South-East Asia, because, to use Russell’s words, ‘silence is complicity, a lie, a crime’.⁶⁵ Together with the movement against ecocide, the Russell Tribunal contributed to ‘arouse the conscience’ of antiwar activists in the West and, ultimately, to the termination of the military use of herbicides in 1971.

⁵⁵ Marcos Zunino, ‘Subversive Justice: The Russell Vietnam War Crimes Tribunal and Transitional Justice’ (2016) 10 *International Journal of Transitional Justice* 211, 213–14.

⁵⁶ ‘Verdict of the Stockholm Session’ in Duffett (ed), above n 51, 302, 303–5.

⁵⁷ Jean Paul Sartre, ‘Opening Address to the Second Session’ in Duffett (ed), above n 51, 315.

⁵⁸ Edgar Lederer, ‘Report of the Sub-Committee on Chemical Warfare in Vietnam’ in Duffett (ed), above n 51, 338–66.

⁵⁹ Zierler above n 21, 20.

⁶⁰ ‘Report of the Sub-Committee on Chemical Warfare in Vietnam’ in Duffett (ed), above n 51, 363.

⁶¹ Dave Dellinger, ‘Summary and Verdict of the Second Session’ in Duffett (ed), above n 51, 650.

⁶² Zunino above n 55, 214.

⁶³ For an insightful and inspiring discussion on people’s tribunals and their different conceptualisation of justice, see Dianne Otto, ‘Beyond Legal Justice: Some Personal Reflections on People’s Tribunals, Listening and Responsibility’ (2017) 5 *London Review of International Law* 225.

⁶⁴ Zunino, above n 55, 228.

⁶⁵ ‘Bertrand Russell’s Final Address to the Tribunal: Copenhagen, December 1967’ in Duffett (ed), above n 51, 653.

C Seeking Redress before American Domestic Courts

More recently, some (unsuccessful) attempts were made by Vietnamese victims to seek justice before the American Courts. In 2004, relying on the ACTA, the Vietnam Association for Victims of Agent Orange/Dioxin started a civil lawsuit against the corporations that manufactured and sold Agent Orange and other herbicides to the US government during the Vietnam War.⁶⁶ The ATCA, a statute passed in 1789, grants American district court's jurisdiction over any civil action by an alien claiming damages for a tort committed 'in violation of the law of nations or a treaty of the United States'.⁶⁷ The American corporations were sued for violation of international law and war crimes, and for domestic tort law and strict product liability under US laws. Plaintiffs sought monetary and punitive damages for personal injuries, wrongful death and birth defects, as well as injunctive relief in the form of environmental clean-up of contaminated areas in Vietnam.⁶⁸

The district court, however, upheld the government-contractor defence invoked by the chemical corporations to dismiss the domestic law claims.⁶⁹ As for international law, the court concluded that the military use of Agent Orange did not violate a 'well-defined and universally-accepted international norm'.⁷⁰ Central in the district court's reasoning is the argument that Agent Orange was used to protect United States troops against ambush and not as a weapon against human populations.⁷¹ In other words, the toxic effects of Agent Orange were collateral, unintended consequences, and as such, the military use of herbicides did not entail a violation of international law.

Interestingly, years before, in 1979, the same district court in New York was called to decide on a lawsuit brought by a group of American war veterans who became ill from the effects of Agent Orange and other defoliants.⁷² In 1984, there was a settlement with the manufacturing companies that led to the payment of USD180 million, without any admission of liability.⁷³ After this settlement,

⁶⁶ *Nguyen Thang Loi v Dow Chemical Co (In re Agent Orange Product Liability Litigation)*, 373 F Supp 2d 7 (ED NY, 2005) ('*Product Liability Litigation*').

⁶⁷ ATCA.

⁶⁸ Edwin A Martini, *Agent Orange: History, Science, and the Politics of Uncertainty* (University of Massachusetts Press, 2012) 222.

⁶⁹ Takesh Uesugi, 'Is Agent Orange a Poison? Vietnamese Agent Orange Litigation and the New Paradigm of Poison' (2013) 24 *The Japanese Journal of American Studies* 203, 208.

⁷⁰ See *Vietnam Association for Victims of Agent Orange v Dow Chemical Company*, 517 F 3d 114 (Miner J) (2nd Cir, 2008) ('*Vietnam Association Case*'). See generally Martini, above n 68, 223–4.

⁷¹ *Product Liability Litigation*, 373 F Supp 2d 7, 121 (Weinstein J) (ED NY, 2005).

⁷² The legal history of Agent Orange litigation involving war veterans is very complex. It started with *In re Agent Orange Product Liability Litigation*, 475 F Supp 928 (ED NY, 1979). For a list of all subsequent decisions, see Dennis K Rhoades, Michael R Leaveck and James C Hudson (eds), *The Legacy of Vietnam Veterans and Their Families: Survivors of War, Catalysts for Change* (Agent Orange Class Assistance Program, 1995) 489–92 app G.

⁷³ Many Vietnam War veterans reported dissatisfaction with the settlement, claiming that the money received was too little and that the settlement left many questions unanswered about the responsibility of the manufacturers. See Alexis Abboud, *In re Agent Orange Product Liability Litigation (1979–1984)* (3 July 2018) Embryo Project Encyclopedia <<http://embryo.asu.edu/handle/10776/11471>> archived at <<https://perma.cc/67GS-RDLN>>.

other individual lawsuits were brought by war veterans, but they were all dismissed because of lack of evidence of causation.⁷⁴

Even less successful were the efforts of obtaining compensation by the Vietnamese victims. On 22 February 2008, the Court of Appeals confirmed the decision of the lower court and found in a similar vein that

[t]he sources of international law relied on by Plaintiffs do not support a universally-accepted norm prohibiting the wartime use of Agent Orange that is defined with the degree of specificity required by *Sosa*. Although the herbicide campaign may have been controversial, the record before us supports the conclusion that *Agent Orange was used as a defoliant and not as a poison designed for or targeting human populations*. Inasmuch as Agent Orange was intended for defoliation and for destruction of crops only, its use did not violate the international norms relied upon here, since those norms would not necessarily prohibit the deployment of materials that are *only secondarily, and not intentionally, harmful to humans*.⁷⁵

Like the district court, the Court of Appeal reaffirmed the distinction between the use of substances ‘intentionally’ harmful to humans (ie poisons) and those ‘only secondarily’ harmful (ie defoliant).⁷⁶ According to the Court, it was controversial within the international community whether the prohibition on the use of poisons, enshrined inter alia in art 23 of the 1907 *Hague Regulations Concerning the Laws and Customs of War on Land* (‘*Hague Regulations*’), would apply to defoliants that ‘had possible unintended toxic side effects’.⁷⁷ Other provisions in the laws of war relied on by the plaintiff (eg the norm of proportionality and the prohibition of unnecessary suffering) were found to be ‘too indefinite’ to support the specificity requirement set out by the Supreme Court in the *Sosa Case*.⁷⁸ In 2009 the Supreme Court declined to hear the case, putting an end to the Vietnamese victims’ civil lawsuit.⁷⁹

IV THE TURN TO ‘VOLUNTARY REMEDIATION’: THE US-FUNDED ENVIRONMENTAL AND HEALTH PROJECTS IN VIETNAM

For decades the legacy of Agent Orange has been a major issue in the bilateral relations between the US and Vietnam. Things started to change only very recently. In 2000, when President Bill Clinton visited Vietnam, the two

⁷⁴ See *Vietnamese Victims*, above n 25, 30; Uesugi above n 69, 207–8.

⁷⁵ *Vietnam Association Case*, 517 F 3d 104, 119–20 (Miner J) (2nd Cir, 2008) (emphasis added).

⁷⁶ *Ibid*.

⁷⁷ *Ibid* 120; *Convention (IV) Respecting the Laws and Customs of War on Land*, opened for signature 18 October 1907, 205 ConTS 227 (entered into force 26 January 1910) annex (‘*Regulation Concerning the Laws and Customs of War on Land*’) art 23.

⁷⁸ *Vietnam Association Case*, 517 F 3d 104, 122 (Miner J) (2nd Cir, 2008). See *Sosa v Alvarez-Machain*, 542 US 692, 725 (Souter J) (2004), maintaining that ‘courts should require any claim based on the present-day law of nations to rest on a norm of international character accepted by the civilized world and defined with a specificity comparable to the features of the 18th-century paradigms’ that informed the *ATCA* legislation.

⁷⁹ It is worth noting that, in the recent case of *Jesner v Arab Bank PLC*, the US Supreme Court ruled that aliens cannot bring a suit under the *ATCA* against foreign corporations. See *Jesner et al v Arab Bank PLC* 138 S Ct 1386 (2018). Before that, in *Kiobel v Royal Dutch Petroleum*, the Supreme Court held that aliens cannot bring a suit in a United States court for conduct that occurred entirely, or primarily, in another country. See *Kiobel v Royal Dutch Petroleum Co*, 569 US 108 (2013).

governments agreed on a joint scientific research project to assess the impact of herbicides in Vietnam, but the project fell apart.⁸⁰ In 2006 President George W Bush and President Nguyen Minh Triet signed a joint statement, in which they pleaded that '[f]urther joint efforts to address the environmental contamination near former dioxin storage sites would make a valuable contribution to the continued development of bilateral relations'.⁸¹ Based on the renewed economic and political cooperation between the two governments, a Joint Advisory Committee was established and the US started to fund environmental remediation programmes in areas characterised as 'hot spots' for the high dioxin contamination.⁸² Since 2007, the US Congress has appropriated more than USD130 million to address the environmental and health consequences of the Agent Orange/dioxin contamination.⁸³ The projects funded by the US Congress have been administered by the US State Department and the US Agency for International Development ('USAID'), together with Vietnamese partners, such as ministries and governmental agencies.⁸⁴

These initiatives include the clean-up of the area surrounding Danang Airport, which was the main US military base during the Vietnam War and where huge stock piles of defoliants were stored. In 2009, the US State Department and the Vietnamese Ministry of Natural Resources and the Environment signed an agreement establishing the framework for the environmental remediation project in Danang.⁸⁵ According to the project timeline, the remediation activity was completed at the end of 2017 and the treatment structure dismantled in early 2018.⁸⁶ The American and Vietnamese governments have recently agreed on a further environmental remediation project involving Bien Hoa airbase, which is considered another dioxin 'hot spot' due to the vast quantity of herbicides stored there during the war.⁸⁷ Whilst some mitigation measures were implemented in the past by the Vietnamese government, the contaminated area is wide and requires further clean-up efforts.⁸⁸

In addition to environmental remediation, USAID has used the funds Congress appropriated to finance health and disability programmes in areas contaminated with dioxin as part of a broader programme to support persons with disabilities. Assisting Vietnamese with disabilities, regardless of the cause of their disability, is one of the oldest USAID programmes in Vietnam, active

⁸⁰ Martini, above n 68, 207.

⁸¹ Ibid 208.

⁸² *Vietnamese Victims*, above n 25, 5.

⁸³ Michael F Martin, 'US Agent Orange/Dioxin Assistance to Vietnam' (Report, Congressional Research Service, 13 November 2015) 2 <<https://fas.org/sgp/crs/row/R44268.pdf>> archived at <<https://perma.cc/3G5C-3DJH>> ('*US Agent Orange/Dioxin*').

⁸⁴ Ibid 4.

⁸⁵ Ibid 10.

⁸⁶ The environmental remediation project timeline is available online at US Agency for International Development, *Environmental Remediation: Project Timeline* (17 September 2018) <<https://www.usaid.gov/vietnam/environmental-remediation-project-timeline>> archived at <<https://perma.cc/6VAU-R583>>.

⁸⁷ See United States Agency for International Development, 'United States and Vietnam Sign Memorandum of Intent to Begin Dioxin Remediation at Bien Hoa' (Press Release, 23 January 2018) <<https://www.usaid.gov/vietnam/press-releases/jan-23-2018-united-states-and-vietnam-sign-memorandum-intent-begin>> archived at <<https://perma.cc/Y536-SY9M>>.

⁸⁸ *US Agent Orange/Dioxin*, above n 83, 14.

since 1989.⁸⁹ Between 2007 and 2010, USAID worked with local governmental and non-governmental organisations to fund health and rehabilitation programmes in Danang.⁹⁰ However, commentators observe that the majority of US funds have been directed at environmental clean-up, as the American government remains reluctant to support initiatives meant to address health conditions attributed to Agent Orange.⁹¹

A question raised by the recent practice of the US concerns the legal nature of these initiatives under international law. Although the US's official position is that the funding of environmental remediation and health programmes in Vietnam is a form of development aid (the fact that USAID oversees their implementation being a clear indication thereof), the question deserves further attention. In what follows, I reflect on whether these projects may be qualified as reparation, in its established meaning in international law before suggesting that the category of *ex gratia* payments may better capture American practice in Vietnam. This analysis paves the way for the subsequent critique of 'voluntary remediation', which will draw upon postcolonial legal theory.

It is a well-established rule of international law that reparation must be made for breaches of international obligations.⁹² In the laws of armed conflict, art 91 of *Additional Protocol I* provides that: '[a] party to the conflict which violates the provisions of the *Conventions* or of this *Protocol* shall, if the case demands, be liable to pay compensation. It shall be responsible for all acts committed by persons forming part of its armed forces'.⁹³ Article 31 of the International Law Commission's *Articles on the Responsibility of States for Internationally Wrongful Acts* codifies the rule in the following terms: '[t]he responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act'.⁹⁴ The duty to make reparation ensues from a breach of an international obligation binding upon the state. Conversely, in the absence of an international obligation or of a breach thereof, there is no reparation, strictly speaking.

Attaching the label of reparation to environmental remediation and disability projects funded by the US is problematic. To begin with, reparations are distinguished from reconstruction and victim assistance first 'by their roots as a

⁸⁹ For more details on the Persons with Disabilities Support Programme, see information available at United States Agency for International Development, *Persons with Disabilities Support Program (2012–2015)* (17 September 2018) <<https://www.usaid.gov/vietnam/persons-with-disabilities-support-program>> archived at <<https://perma.cc/H34U-SHVW>>.

⁹⁰ *US Agent Orange/Dioxin*, above n 83, 12.

⁹¹ *Vietnamese Victims*, above n 25, 8.

⁹² In the *Chorzów Factory* case, the Permanent Court of International Justice held that: 'it is a principle of international law, and even a general conception of the law, that any breach of an engagement involves an obligation to make reparation ... Reparation is the indispensable complement of a failure to apply a convention, and there is no necessity for this to be stated in the convention itself'. See *Factory at Chorzów (Germany v Poland) (Claim for Indemnity) (Merits)* [1928] PCIJ (ser A) No 17, 29.

⁹³ See also *Convention (IV) Respecting the Laws and Customs of War on Land*, opened for signature 18 October 1907, 205 ConTS 227 (entered into force 26 January 1910) art 3.

⁹⁴ *Responsibility of States for Internationally Wrongful Acts*, GA Res 56/83, UN GAOR, 56th sess, 83rd plen mtg, Agenda Item 162, UN Doc A/RES/56/83 (28 January 2002, adopted 12 December 2001) annex ('*Responsibility of States for Internationally Wrongful Acts*') art 31 ('*Articles on Responsibility of States for Internationally Wrongful Acts*').

legal entitlement based on an obligation to repair harm, and second, by an element of *recognition of wrongdoing*, as well as harm, atonement or making good'.⁹⁵ The position of the US government has always been that no rule of international law prohibited, at the time, the military use of chemical herbicides, nor proscribed the destruction of crops intended for use only by the enemy forces. Further, the US has repeatedly denied any scientific evidence of a direct causal link between the exposure to Agent Orange and diseases affecting the Vietnamese population.⁹⁶ The US-funded environmental remediation programmes and assistance to Vietnamese people suffering from disabilities have been accompanied by the unequivocal denial of any legal liability for the use of Agent Orange or 'wrongdoing'. As seen before, in the official narrative, the remediation projects have been framed as forms of development assistance to Vietnam. Interestingly, the US has been unwilling to provide direct assistance to purported victims of herbicides;⁹⁷ the disability projects recalled above have been designed with a broad scope, not limited to Agent Orange victims but embracing the broader category of 'vulnerable populations'.⁹⁸ In a recent press release, the US government recognised that:

Since 2000, the United States has worked with Vietnam to *resolve humanitarian and wartime legacy issues*. These include the removal of unexploded ordinance, the identification of remains of missing personnel, *remediation of dioxin, and addressing health consequences of the war*.⁹⁹

This statement seems to acknowledge a correlation between the war, the use of dioxin and health consequences for Vietnamese peoples. However, it does not change the position of the American government that there is no legal compulsion for its ongoing efforts to 'resolve wartime legacy'.

The attitude of the Vietnamese government vis-a-vis the legacy of dioxin contamination has also been ambivalent and shifted over time. In the past, the government expressed concern over the condition of Vietnamese peoples suffering from diseases correlated to the exposure to Agent Orange and requested the US to take responsibility, especially considering the different treatment of American veterans at home.¹⁰⁰ In the last decades, however, political, security and economic considerations have taken priority over the legacy of Agent Orange. Since the bilateral relations between the two countries were re-established in the mid-1990s, the Vietnamese government has taken a

⁹⁵ Naomi Roht-Arriaza and Katharine Orlovsky, 'A Complementary Relationship: Reparations and Development' in Pablo De Greiff and Roger Duthie (eds), *Transitional Justice and Development: Making Connections* (Social Science Research Council, 2009) 170, 172 (emphasis added).

⁹⁶ In 2007 the US Ambassador to Vietnam affirmed that 'honestly, I cannot say whether or not I have myself seen a victim of Agent Orange. The reason for that is that we still lack good scientific definitions of the causes of disabilities ... that have occurred in Vietnam ... We just don't have the scientific evidence to make that statement with certainty'. See Embassy of the United States in Vietnam, 'Remarks by Ambassador Michael W Marine' (Press Release, 5 February 2007), quoted in *Vietnamese Victims*, above n 25, 7–8.

⁹⁷ *Ibid* 37.

⁹⁸ *US Agent Orange/Dioxin*, above n 83, 15–16.

⁹⁹ See United States Agency for International Development, above n 87 (emphasis added).

¹⁰⁰ *Vietnamese Victims*, above n 25, 36–37.

prudent stand to avoid the Agent Orange issue to affect the renewed cooperation with the powerful commercial partner.¹⁰¹

The conduct and statements of both parties (the US and, more recently, Vietnam) indicate that ongoing initiatives to address wartime legacies cannot be framed as reparation. Even if one wanted to claim that the American government's intention to 'make good' could be implied *facta concludentia*, the ways these programmes are implemented, and who their beneficiaries are, raise further questions. The issue of whether individuals have rights under the laws of armed conflict, including the right to reparation in case of violation, is highly debated in the literature.¹⁰² Historically, war reparations were settled through inter-state agreements, which included the payment of a lump sum and waiver of individual claims. As such, the beneficiary of the international obligation to provide reparation remained the injured state.¹⁰³ Yet, in the last couple of decades, a different perspective has emerged. In a few cases, individual victims were granted the right to bring claims and ultimately awarded compensation for violations of the laws of armed conflict.¹⁰⁴ In 2005, the UNGA *Basic Principles and Guidelines on the Right to a Remedy* formally recognised that victims of serious violations of international humanitarian law, occurring both in

¹⁰¹ Ibid 1–3.

¹⁰² For a review of debates in this field, see Lawrence Hill-Cawthorne, 'Rights under International Humanitarian Law' (2017) 28 *European Journal of International Law* 1187. This issue was also at the core of *Jurisdictional Immunities of the State (Italy v Germany) (Judgment)* [2012] ICJ Rep 99.

¹⁰³ See, eg, Marco Sassòli, 'State Responsibility for Violations of International Humanitarian Law' (2002) 84 *International Review of the Red Cross* 401, 418. This is also the view expressed by the American government in the context of the lawsuit filed by the Vietnamese victims of Agent Orange before its domestic courts:

In light of the traditional rule of international law that war reparations are the subject of government-to-government negotiations, and not individual claims, recognizing such federal common law claims would be truly extraordinary ... Claims based upon the United States' use of chemical herbicides as a tool of war readily fall within the scope of war reparations claims.

See Statement of Interest of the United States, *Product Liability Litigation*, 373 F Supp 2d 7, 48–9 (ED NY, 2005).

¹⁰⁴ Two examples are noteworthy: first, the United Nations Compensation Commission, created by the UN Security Council, which awarded compensation to individuals and corporations that claimed damage resulting from Iraq's illegal invasion and occupation of Kuwait; second, the Eritrea–Ethiopia Claims Commission, which heard claims of individual victims against the other State for violations of international humanitarian law, although the claims were submitted by the respective governments. For a recent analysis of the former, see Eliana Cusato, 'Overcoming the "Logic of Exception": A Critique of United Nations Security Council's Response to Environmental Damage from the 1990–1991 Gulf War' (2018) 9 *Asian Journal of International Law*. The different treatment of Iraq, which was held liable *inter alia* for environmental damage caused by its illegal invasion and occupation of Kuwait, compared with the voluntary nature of US's initiatives to redress the impacts of Agent Orange may be explained by a postcolonial logic. I will further develop this argument in Part V of the present article.

international and internal armed conflict, have the right to an ‘adequate, effective and prompt reparation for the harm suffered’.¹⁰⁵

Although the Vietnamese people living in dioxin contaminated areas may be the final beneficiaries of the US programmes, the sums are not directly handled over to individual victims, nor to the affected communities. The recipients of the funds appropriated by the US Congress and administered by USAID are local and international NGOs helping people with disabilities, and private contractors (mostly American corporations) implementing environmental remediation projects.¹⁰⁶ Ultimately, given their features and scope, ongoing environmental and disabilities projects cannot be qualified as reparation. If not reparation, then what?

The funding of environmental clean-up projects in Vietnam presents some similarity with the practice of *ex gratia* payments, often associated with episodes of transboundary environmental damage or incidents involving the shutting-down of civilian or military airplanes.¹⁰⁷ The offer to make *ex gratia* payments, with no acknowledgment and irrespective of any legal liability, is frequent in the

¹⁰⁵ See *Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law*, GA Res 60/147, 60th sess, UN Doc A/Res/60/147 (21 March 2006) para 11 (‘*Basic Principles*’). According to the *Basic Principles*, reparation may take the forms of restitution, compensation, rehabilitation, satisfaction and guarantees of non-repetition: at para 18. While the US–Vietnam scenario falls within the ambit of state responsibility, individual perpetrators of international crimes may also be ordered to provide reparation to victims. As a result of a guilty sentence, the ICC may impose individual or collective reparations, or both. Under art 75 of the *Rome Statute*, reparations may be ordered by the Court against a convicted person or may be made through the Trust Fund established pursuant to art 79 of the *Rome Statute*. The Trust Fund for Victims has a two-fold mandate: first, to implement reparations orders issued by the Court; and second, to provide physical, psychological, and material support to victims and their families. See The Trust Fund for Victims, *Home Page* <<https://www.trustfundforvictims.org/en/>> archived at <<https://perma.cc/LU2W-FTET>>. When collective reparations are deemed more appropriate, the Court can order that an award for reparation against the convicted person be made through the Trust Fund. The Fund is financed by voluntary contributions from donors; it can also receive and manage ‘money and other property collected through fines or forfeiture’ by the ICC. See *Rome Statute* arts 75, 79.

¹⁰⁶ *Vietnamese Victims*, above n 25, 12–13. See especially Table 2.

¹⁰⁷ See Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (Cambridge University Press, 3rd ed, 2012) 717–18, citing Emanuel Margolis, ‘The Hydrogen Bomb Experiments and International Law’ (1955) 64 *Yale Law Journal* 629, 638–9: referring to USD2 million paid by the US to Japan in 1955 for ‘the purposes of compensation for the injuries or damage sustained’ by Japanese nationals as a consequence of the thermonuclear tests carried out near the Marshall Island. Further, following the crash of the satellite Cosmo 954 on Canadian territory, the Soviet Union and Canada agreed on an *ex gratia* payment of CAD3 million for damage related to locating, recovering, removing and testing radioactive debris and for cleaning up the affected area: at 718. See also the examples of *ex gratia* payments for shooting down airlines mentioned in Marian Nash Leich, ‘Denial of Liability: Ex Gratia Compensation on a Humanitarian Basis’ (1989) 83 *American Journal of International Law* 319, 322–3.

international practice of states.¹⁰⁸ In such instances, the voluntary payment of a sum by a state is commonly seen as a diplomatic gesture without any legal connotation. As noted in the literature, when states ‘act merely ex gratia, without acknowledging legal compulsion, then the act is not evidence of consent to a legal requirement to act in the way selected’.¹⁰⁹ The notion of ex gratia payment seems to better fit the US’s approach vis-a-vis the legacy of Agent Orange in Vietnam, notwithstanding two minor differences. First, the US and the Vietnamese government have agreed to implement these projects on the basis of a bilateral agreement; in other words, the environmental remediation and disability programmes are not properly the result of a unilateral gesture by the US. Second, the US does not only provide the funding necessary, but through USAID, it is directly involved in the execution of the projects.¹¹⁰

Given the peculiarities of the Vietnamese case, the term ‘voluntary remediation’ may be appropriate to describe current efforts to address the negative impacts of Agent Orange. The adjective ‘voluntary’ reflects the US’s constant denial of any liability and emphasis on the humanitarian, rather than legal motivation for assistance to the Vietnamese people and government through environmental restoration and disability programmes. The difference, however, with development assistance is that ‘voluntary remediation’, like ex gratia payments, is linked to a specific event (or accident), not to general development concerns. In both cases the state making the payment acts on humanitarian grounds, not based on legal compulsion, but the rationale is different. Qualifying the US’s projects as ‘voluntary remediation’ at least underscores the reasons why they are in place, ie the military use of chemical defoliants during the Vietnam War.

The turn to ‘voluntary remediation’ as a possible response to the environmental impact of armed conflict may be appealing, given the legal, political and practical difficulties in establishing a breach of international obligation and enforcing the laws of war, as exemplified by the Vietnamese

¹⁰⁸ The US seems to be a supporter of the practice of compensating States for damage caused by warfare, without admission of fault. A notable example is the payment by the American government of USD28 million to China for the accidental bombing of the Chinese embassy in Belgrade during NATO intervention in 1999. See Payne, above n 8, 513 n 59, citing ‘US to Pay China for Bombing’, *New York Times* (New York), 16 December 1999. It is however apposite to acknowledge that ‘out of court’ dispute-settlement, or payment of compensation without admission of fault, is not unique to international law. This practice is also common at the domestic level and in relation to different types of claims, notably in cases involving human rights violations by corporate actors. For a discussion on the ethical and theoretical implications of settlement agreements in cases of corporate violations of human rights, see Justin Jos, ‘Access to Remedies and the Emerging Ethical Dilemmas: Changing Contours within the Business–Human Rights Debate’ (2018) 15 *Revista de Direito Internacional* 116.

¹⁰⁹ Harold G Maier, ‘Ex Gratia Payments and the Iranian Airline Tragedy’ (1989) 83 *American Journal of International Law* 325, 325. Maier argues that the utility of ex gratia payment rests in the possibility of offering ‘de facto aid to the victims in circumstances where the actual facts cannot be found and interpreted or where, for other reasons, acknowledging legal liability might be politically unacceptable to the nation involved’: at 329.

¹¹⁰ For instance, the environmental remediation project around Danang airport has been followed by USAID through completion, as illustrated by the different reports published on its website. See United States Agency for International Development, *Progress Highlights* (1 October 2018) <<https://www.usaid.gov/vietnam/progress-reports-environmental-remediation-dioxin-contamination-danang-airport>> archived at <<https://perma.cc/M8D5-RP4Z>>.

case.¹¹¹ Yet, it is also questionable for several reasons. One order of concern pertains to the weakening of the law's capacity to influence the behaviour of relevant actors, thereby compromising the goals that the laws of armed conflict are purported to achieve, ie the regulation of the use of force and protection of the civilian population and objects. While it may be true that 'formal enforcement remains, in international law as in domestic, of only partial significance in securing compliance with law',¹¹² pursuing remediation initiatives that have no formal legal grounding would undermine the law's preventive and expressivist functions (ie social disapproval). Both functions are considered essential in the environmental field, as environmental harm is often irreparable and its injurious consequences may last years, if not decades.¹¹³ That said, there is another way of approaching the turn to 'voluntary remediation' in the case of Vietnam and the implications it bears for contemporary armed conflict. Part V focuses on a subtler risk associated with the idea of 'voluntary remediation' and on some problematic assumptions implicit in 'soft' responses (ie without legal compulsion) to the environmental consequences of conflicts.

V UNDERSTANDING THE EXCLUSION OF THE 'SAVAGE' AND HER ENVIRONMENT FROM THE PROTECTION OF THE LAWS OF WAR

Scholars have demonstrated that colonialism has been central to the formation of international law and that many of its fundamental doctrines, notably sovereignty, have been created through the colonial encounter.¹¹⁴ More essentially, this scholarship suggests that existing legal discourses and practices still contain traces of the colonial foundations of the discipline and reproduce patterns of exclusion, which are justified by the idea of the 'other' as savage or

¹¹¹ Payne, above n 8, 514: Payne claims that the 'unilateral reparations practice' of the US (eg in Kosovo) can be regarded as 'an effort to do justice', although she recognises that it could also be seen as 'an exercise of power by other means' and that 'the United States likely does not consider it legally mandated'. Nonetheless, she contends that 'in the field of environment, which is perhaps more focused on physical results than on moral and ethical concerns, the practical incentives to make the conquered land habitable and productive might predominate and make it easier for powerful states to conform their behaviour to the modes of justice'.

¹¹² Deborah Pearlstein, 'Armed Conflict at the Threshold?' (Research Paper No 537, Cardozo Legal Studies, 26 February 2018) 17.

¹¹³ See, eg, *Gabcikovo-Nagymaros Project (Hungary v Slovakia) (Judgment)* [1997] ICJ Rep 7, 78: '[t]he Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage'.

¹¹⁴ See the fundamental work of Anghie cited above: see especially Anghie, *Imperialism, Sovereignty and the Making of International Law*, above n 6.

primitive.¹¹⁵ Arguably, a postcolonial look at the laws of armed conflict may help to explain American ‘environmental warfare’ in Vietnam and the legal arguments supporting the use of chemical herbicides during that conflict. Further, the civilised versus uncivilised divide, at the core of the postcolonial critiques of international law,¹¹⁶ may offer a different conceptual framework to explain American denial of responsibility for the use of Agent Orange and the turn to voluntary responses to dioxin contamination and human suffering in Vietnam.

As illustrated by Frédéric Mégret, despite the humanitarian impulse of some scholars that argued for the universal character of the laws of war, the idea that they did not apply beyond the European world was well accepted until the early 20th century.¹¹⁷ A notable example is given by the use of chemical weapons and poisonous gases during the war in Ethiopia by Italian troops. Interestingly, the use of chemical weapons against Ethiopians led some commentators to expect their employment during World War II. Yet it soon became clear that:

war among the industrialized nations of Europe was a different matter than conflicts involving less technologically advanced areas, such as the colonies. The surprising lack of gas warfare during World War II can thus be understood as implicated in a process by which the conduct of war among ‘civilized’ nations was demarcated from that involving ‘uncivilized’ nations ... [Chemical weapons]

¹¹⁵ In relation to the human rights discourse, see, eg, Makau Mutua, ‘Savages, Victims, and Saviors: The Metaphors of Human Rights’ (2001) 42 *Harvard International Law Journal* 201; Ratna Kapur, ‘Human Rights in the 21st Century: Take a Walk on the Dark Side’ (2006) 28 *Sydney Law Review* 665. For a TWAIL critique of the field of international environmental law, see, eg, Usha Natarajan and Kishan Khoday, ‘Locating Nature: Making and Unmaking International Law’ (2014) 27 *Leiden Journal of International Law* 573; Julia Dehm, ‘Carbon Colonialism or Climate Justice? Interrogating the International Climate Regime from a TWAIL Perspective’ (2016) 33(3) *Windsor Yearbook of Access to Justice* 129. For a postcolonial analysis of international criminal law, see, eg, John Reynolds and Sujith Xavier, ‘The Dark Corners of the World: TWAIL and International Criminal Justice’ (2016) 14 *Journal of International Criminal Justice* 959. On the impact of international institutions on peoples in Third World countries and a critique thereof, see B S Chimni, ‘International Institutions Today: An Imperial Global State in the Making’ (2004) 15 *European Journal of International Law* 1. For a critical approach to international law and development, see, eg, Sundhya Pahuja, *Decolonising International Law: Development, Economic Growth and the Politics of Universality* (Cambridge University Press, 2011). And to international investment law, see M S Sornarajah, *The International Law on Foreign Investment* (Cambridge University Press, 1994).

¹¹⁶ For a historical analysis of the concept of ‘civilisation’ in international law, see, eg, Liliana Obregón Tarazona, ‘The Civilized and the Uncivilized’ in Bardo Fassbender and Anne Peters (eds), *The Oxford Handbook of the History of International Law* (Oxford University Press, 2012) 917. Anghie uses the term ‘dynamic of difference’ to indicate the ‘endless process of creating a gap between two cultures’: see Anghie, *Imperialism, Sovereignty, and the Making of International Law*, above n 6, 4. See also Martti Koskenniemi, *The Gentle Civilizer of Nations: Rise and Fall of International Law 1870–1960* (Cambridge University Press, 2002).

¹¹⁷ Mégret, ‘From “Savages” to “Unlawful Combatants”’, above n 7, 275. The 1914 British military manual, co-authored by Oppenheim, made it clear that ‘the rules of international law apply only to warfare between civilized nations ... they do not apply in wars with uncivilized States and tribes’: at 279, quoting J E Edmonds and L Oppenheim, *Land Warfare: An Exposition of the Laws and Usages of War on Land, for the Guidance of Officers of His Majesty’s Army* (His Majesty’s Stationery Office, 1912) 14 [7].

were implicated in the process of the hierarchical ordering of international politics into the civilized and uncivilized arenas.¹¹⁸

In other words, means and methods of warfare that were formally or practically outlawed in Europe, were used across the non-European world, and new weapons were tested in these 'far away and isolated countries'.¹¹⁹ The underlying assumption was that war against savage or inferior populations had to be more brutal, because those savages 'were incapable of showing restraint in warfare'.¹²⁰ Similar dynamics seem to underpin the massive use of chemical defoliants and other environmentally harmful techniques in Vietnam, which would not have been acceptable in a war opposing Western States, particularly in the 1960s. To be fair, according to one commentator, the US was neither the first country nor the last to use herbicides in war and was inspired by the British, who used these substances in the 1950s to destroy forests and crops during the Malaya insurgency.¹²¹ Likewise, 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; and the US used chemical defoliants in its 'war on drugs' in Central America during the 1980s and afterwards.¹²² It is nonetheless telling that all these military conflicts or operations took place in distant, Third World countries.

In addition to the geographical and cultural distance, as observed by Falk, 'environmental warfare' in Vietnam cannot be understood without referring to the counterinsurgency doctrine, 'which seek[s] to dry up the sea of civilians in which the insurgent fish attempt to swim. This drying up process is translated militarily into making the countryside unfit for civilian habitation'.¹²³ The systemic destruction of the environment in Vietnam was aimed at denying to the enemy food, cover and support from the population. Such rationale was clearly recognised by the US military:

There have been three choices open to the peasantry. One, to stay where they are; two, to move into the areas controlled by us; three, to move off into the interior towards the Vietcong. The application of our air power since February (1965) has made the first choice impossible from now on. It is not possible to stay in the line of fire and live. Our operations [eg Operation Ranch Hand] have been designed to make the first choice impossible, the second attractive, and to reduce the likelihood of anyone choosing the third to zero.¹²⁴

A vision transpires from this statement, and from the entire logic behind the counterinsurgency doctrine, of the enemy and of Vietnamese peasants as

¹¹⁸ Richard Price, 'A Genealogy of the Chemical Weapons Taboo' (1995) 49 *International Organization* 73, 96–7.

¹¹⁹ Giorgio Rochat, 'L'impiego dei gas nella Guerra d'Etiopia 1935–1936' (1988) 1 *Rivista di Storia Contemporanea* 74, 103.

¹²⁰ Mégret, 'From "Savages" to "Unlawful Combatants"', above n 7, 289 (emphasis altered) (citation omitted).

¹²¹ Frey, above n 18, 4.

¹²² Ibid.

¹²³ See Falk, above n 5, 80.

¹²⁴ US military spokesman quoted in Robert Guillain, *Vietnam: The Dirty War* (A Carter trans, Housman's, 1966), cited in Malvern Lumsden, "'Conventional' War and Human Ecology' (1975) 4 *Ambio* 223, 226.

‘uncivilised’ or ‘savage’, which justified the use of hazardous weapons and tactics, the deleterious long-term impact of which was still unknown.¹²⁵ The massive spraying of herbicides in Vietnam was done, in effect, without regard to dioxin’s possible effect on human beings or its virulent afterlife.

A further step needs to be taken to illustrate how legal arguments were developed and employed to deny the protection of the laws of war in relation to the means and methods of warfare described above (highly explosive bombs, Rome Plows, and chemical herbicides). After World War II, the 1949 *Geneva Conventions* came into force to impose further restrictions on the conduct of hostilities.¹²⁶ Indiscriminate attacks against the Vietnamese environment would be, in principle, questionable under the tenets of *jus in bello*, notably distinction, proportionality and humanity (or prohibition of unnecessary suffering). Nevertheless, counterarguments were soon crafted by the US and its allies to exclude from the protection of international law peoples and ecosystems. According to the General Counsel to the US Department of Defense:

Neither The *Hague Regulations* nor the rules of customary international law applicable to the conduct of war prohibit the use of anti-plant chemicals for defoliation or the destruction of crops, provided that their use against crops does not cause such crops as food to be poisoned by direct contact, and such use must not cause unnecessary destruction of enemy property. The *Geneva Protocol* of 1925 adds no prohibitions relating either to the use of chemical herbicides or to crop destruction to those above. Bearing in view that neither the legislative history nor the practice of States draw chemical herbicides within its prohibitions, any attempt by the United States to include such agents within the Protocol would be the result of its own policy determination, amounting to a self-denial of the use of weapons. Such a determination is not compelled by the 1907 *Hague Regulations*, the *Geneva Protocol* of 1925, or the rules of customary international law.¹²⁷

Similarly, as observed above, legal positivism arguments, grounded on the principle of legal certainty, were used by the US during the UNGA debates in the 1960s to dismiss the relevance of the *Geneva Protocol* and, later, by American courts in the context of the *ATCA* litigation to reject victims’ claims for compensation. To dismiss the relevance of the *Hague Convention IV* as a basis for a common law cause of action against the defendants, the District Court relied on ‘the imprecise scope of the *Hague Convention IV*’s prohibition on the use of “poison or poisoned weapons”, and the uncertainty as to whether that

¹²⁵ For a discussion on the scientific uncertainty surrounding the toxicity of chemical herbicides in 1960s–1970s and lack of appropriate studies on their latent health effects, see Uesugi above n 69, 213–14.

¹²⁶ *Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field*, opened for signature 12 August 1949, 75 UNTS 31 (entered into force 21 October 1950) (*‘Geneva Convention I’*); *Geneva Convention for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of the Armed Forces at Sea*, opened for signature 12 August 1949, 75 UNTS 85 (entered into force 21 October 1950) (*‘Geneva Convention II’*); *Geneva Convention Relative to the Treatment of Prisoners of War*, opened for signature 12 August 1949, 75 UNTS 135 (entered into force 21 October 1950) (*‘Geneva Convention III’*); *Geneva Convention Relative to the Protection of Civilian Persons in Time of War*, opened for signature 12 August 1949, 75 UNTS 135 (entered into force 21 October 1950) (*‘Geneva Convention IV’*).

¹²⁷ Letter from J Fred Buzhardt, General Counsel to the Department of Defense to Senator J William Fulbright, 5 April 1971, quoted in Falk, ‘Environmental Warfare’, above n 5, 86.

prohibition even applies to lethal chemical weapons designed to kill human beings'.¹²⁸ Notable also is the contention of the US Court of Appeals that the deployment of Agent Orange did not violate international law, because 'the deployment of materials that are only secondarily, and not intentionally, harmful to humans' was not clearly proscribed at the time of the Vietnam War.¹²⁹ Notwithstanding the recognition by the UNGA that chemical herbicides 'which might be employed because of their toxic effects on (...) plants'¹³⁰ would fall within the scope of the *Geneva Protocol*, the Court found that the definition of 'poison' remained unsettled with respect to chemical agents not used as a weapon of war (ie intentionally against humans).¹³¹

One must bear in mind that, in the traditional doctrine of sources, UNGA resolutions are not legally binding and that other efforts pursued by Third World states through the UNGA have been constantly resisted by powerful states.¹³² Although UNGA resolutions may provide some evidence of customary international law, UNGA *Resolution 2603* was not unanimous, with major military powers and other states either opposing it or abstaining.¹³³ The absence of universal acceptance for the prohibition, and significantly the persistent objection by the US, were, in other words, essential to reach the conclusion that the conduct of the American government was not in clear violation of international law (at least at that time). As for the argument, upheld by the American courts, that defoliants were used to destroy crops intended only for consumption by armed forces, and as such they complied with international legal standards in force at the time, other evidence showed that, on the contrary, those who suffered the most from such tactics were civilians.¹³⁴

Present-day projects to clean-up the environment and assist persons with disability in Vietnam can also be read from a postcolonial perspective. Mégrét has forcefully argued that, historically, the application of the laws of war to 'savages' or non-European people has been discretionary, as a result of charity or chivalry rather than legal compulsion.¹³⁵ Even after the adoption of the *Hague*

¹²⁸ *Product Liability Litigation*, 373 F Supp 2d 7, 117 (Weinstein J) (ED NY, 2005).

¹²⁹ *Vietnam Association Case*, 517 F 3d 104 (2nd Cir, 2008).

¹³⁰ *Question of Chemical and Bacteriological (Biological) Weapons*, GA Res 2603(XXIV), UN GAOR, 24th sess, 1836th plen mtg, Supp No 30, UN Doc A/RES/2603(XXIV) (16 December 1969) pt A.

¹³¹ *Vietnam Association Case*, 517 F 3d 104, 119–23 (Miner J) (2nd Cir, 2008).

¹³² Anghie, *Imperialism, Sovereignty, and the Making of International Law*, above n 6, 236–7.

¹³³ The resolution was opposed by Australia and Portugal, while 36 other states abstained. See Zierler, above n 21, 146.

¹³⁴ The effects of crop destruction were described by a former high official in the so-called pacification program in Vietnam in the following terms:

In the course of investigations of the program in Saigon and in the provinces of Vietnam, I found that the program was having much more profound effects on civilian non-combatants than on the enemy. Evaluations sponsored by a number of official and unofficial agencies have all concluded that a very high percentage of all the food destroyed under the crop destruction program had been destined for civilian, not military use. The program had its greatest effects on the enemy-controlled civilian populations of central and northern South Vietnam. In Vietnam the crop destruction program created widespread misery and many refugees.

See L Craig Johnstone, 'Ecocide and the Geneva Protocol' (1971) 49 *Foreign Affairs* 711, 719, quoted in Falk, 'Environmental Warfare', above n 5, 87.

¹³⁵ Mégrét, 'From "Savages" to "Unlawful Combatants"', above n 7, 281–3.

Regulations, positive law was considered as not applicable to warfare with non-European nations. Rather, it was ‘natural law’ that regulated the relations with ‘barbarians’, through reference to European ideals such as honour and decency.¹³⁶ To put it differently, European states were not bound by hard-law obligations vis-a-vis uncivilised peoples, but nonetheless they could choose to behave in a ‘good way’ on the basis of voluntary commitments. A similar rhetoric continues to underpin current responses to the pervasive legacy of ‘environmental warfare’ in Vietnam. As discussed earlier, past and ongoing efforts to restore the environment in Vietnam have been consistently justified on humanitarian grounds, with the unequivocal denial of any legal responsibility or compulsion on the part of the US. The way in which dioxin-removal and disabilities projects are designed and implemented through USAID confirms that these are not forms of reparation for past wrongs, but they would fall within the category of *ex gratia* payments.

This narrative of the non-applicability of the laws of war to the use of Agent Orange has become so established (also thanks to the jurisprudence of American courts in the *ATCA* litigation case) that even the Vietnamese government has abandoned the old language of ‘responsibility’ and welcomed the renewed ‘cooperation’ with the US government. The times of the Russell Tribunal are far away, the term ecocide is forgotten and the two governments express satisfaction for the successful implementation of very expensive clean-up projects around Danang military base and plan further remediation initiatives. Perhaps this is the best result that the Vietnamese people and government could have expected to achieve, given the complex historical, geopolitical and legal factors at play. A pragmatic approach would indeed recognise that, after decades of inaction, the projects funded by the US Congress represent a first step towards addressing the ongoing impact of Agent Orange and, particularly, dioxin contamination in the most polluted sites.

Yet there is a different way to look at the Vietnamese case that I sought to suggest; that is, as a story of exclusion from the protection of the law, which tends to repeat itself. As critical scholars have demonstrated, the dormant logic of colonialism periodically re-emerges in legal debates and doctrines.¹³⁷ Likewise, the old distinction between legal obligations vis-a-vis other ‘civilised’ states and voluntary/discretionary application of the laws of war to ‘savages’ is illustrated by the nature of current efforts to address the consequences of ‘environmental warfare’ in Vietnam. Looking at these issues through a

¹³⁶ Ibid 283, citing Friedrich de Martens, ‘*La Russie et l’Angleterre dans l’Asie Centrale*’ (1879) 11 *Revue de droit international et de législation comparée* 227, 241: de Martens claimed that ‘[i]t is natural law, not international law, which is applicable to the relations between civilized nations with the nations of Asia ... In Asia, international law transforms itself into natural law’ [Frédéric Mégret trans].

¹³⁷ For instance, scholars have argued that the ‘war on terror’ replicates similar exclusionary dynamics through a selective application of human rights law, the *jus ad bellum* and the *jus in bello* and the development of new doctrines. On this point, see, eg, Anghie, *Imperialism, Sovereignty and the Making of International Law*, above n 6, ch 6; Antony Anghie, ‘On Critique and the Other’ in Anne Orford (ed) *International Law and its Others* (Cambridge University Press, 2006) 389; Mégret, ‘From “Savages” to “Unlawful Combatants”’, above n 7, 298–308; Obiara Chinedu Okafor, ‘Globalism, Memory and 9/11: A Critical Third World Perspective’ in Fleur Johns, Richard Joyce and Sundhya Pahuja (eds), *Events: The Force of International Law* (Taylor & Francis, 2010) 234.

postcolonial lens provides key analytical tools to understand the failure of justice for the Vietnamese people and the enduring denial of recognition of rights and responsibility.¹³⁸ At a more general level, reflecting on the problematic dimensions of ‘voluntary remediation’ in Vietnam helps shed light on some unintended consequences of well-meaning arguments or legal proposals to redress the environmental impact of contemporary armed conflict. While the idea of remedial measures implemented unilaterally or through multilateral cooperation may look appealing on an abstract level and offer practical solutions to the environmental challenges faced by countries emerging from violent conflict, it also has a less visible dark-side, which must be exposed.

Ultimately, the arguments above have implications for present-day military conflicts, which are primarily fought in the Global South. One might think of the 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’. Yet those ‘technologies, when they compromise the environment, morph into long-term killers, creating landscapes that inflict lingering, off-camera casualties’.¹³⁹ Depleted uranium and other toxic 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 environmental and human effects are still unknown;¹⁴⁰ as were, in the 1960s, the effects of dioxin. The limited attention that the environmental costs of ‘smart wars’ has attracted so far in mainstream legal debates and practices raises the question of who counts as a war casualty. This question has a clear postcolonial dimension. As Rob Nixon compellingly argues,

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 ...¹⁴¹

VI CONCLUSION: VIETNAM AND BEYOND

The Vietnam War, with its disastrous ecological and human impact, and the quest for justice of the Vietnamese victims are worth revisiting, as they offer the opportunity to reflect on the limitations of existing avenues of legal redress. A review of academic debates and judicial and non-judicial initiatives to establish accountability for ‘environmental warfare’ suggests that international law

¹³⁸ For a postcolonial critique of the continued disapplication of legal norms and remedies in the Chagos Case, see Kinnari Bhatt, ‘A Post-Colonial Legal Approach to the Chagos Case and the (Dis)Application of Land Rights Norms’ (2018) *International Journal of Law in Context* <<https://doi.org/10.1017/S1744552318000095>> archived at <<https://perma.cc/V9RR-XWEN>>.

¹³⁹ Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press, 2011) 210.

¹⁴⁰ See, eg, Ray 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.

¹⁴¹ Nixon, above n 139, 226.

remains a powerful language, which may be used to ‘frame problems, suggest fault and responsibility, [and] propose solutions and remedies’.¹⁴² In 2004, the Honorary President of the Vietnamese Association of Victims of Agent Orange said that

[n]o excuse can justify that those who set on the planes and spread toxics have been considered as catching or contracting disease, while those who had been spread toxics on their heads or had to use the food and water mixed with toxics have not been recognized. This is an extremely severe *violation of human rights* ... The aspirations and requests of Vietnam are extremely legitimate, being in accordance with ethics and *international laws*.¹⁴³

Yet the opposite is also true.¹⁴⁴ This article shows how legal arguments grounded in the laws of war have been used to exclude the Vietnamese people and their environment from the protection of international rules. Borrowing from the postcolonial critique of international law, I claim that a similar exclusionary dynamic is entrenched in ongoing efforts to address the legacy of Agent Orange in Vietnam. Environmental restoration and health projects funded by the US and implemented on the basis of a bilateral agreement with the Vietnamese government are not forms of reparation under international law. They do not imply any recognition of wrongdoing or legal responsibility and cannot be regarded as efforts to do justice. Rather, they are justified by generic humanitarian and development concerns, and present some similarities with the category of *ex gratia* payments, as discussed above. The idea of ‘voluntary remediation’ (ie reparation without legal compulsion), translated from the Vietnamese case to instances of environmental degradation associated with present-day conflicts, raises difficult questions of what compliance, prevention and redress mean in situations of asymmetric warfare. Moving the abstract idea to the practical reality of military conflicts fought in Third World countries and keeping in mind the critical insights of postcolonial scholars help illuminate problematic assumptions implicit in well-meaning legal proposals aimed at reinforcing the protection of the environment in war-torn countries. This is arguably the first step in rethinking what justice for conflict-related ecological harms means and imagining a different international law that ‘fulfils its promise of advancing the cause of justice’.¹⁴⁵

¹⁴² See Anghie and Chimni, above n 6, 101. Koskenniemi also argues that international law can ‘give voice to those who have been excluded from decision-making positions and are regularly treated as the objects of other peoples’ policies; it provides a platform on which claims about violence, injustice, and social deprivation may be made even against the dominant elements’. See Martti Koskenniemi, *The Politics of International Law* (Hart Publishing, 2011) 265–6.

¹⁴³ Quote from the speech delivered by Mrs Nguyen Thi Binh at the Conference in Support of Vietnamese Victims of Agent Orange, held on 25 July 2004 in Ho Chi Minh City. Reference to the speech is taken from a picture at the War Remnants Museum in Ho Chi Minh City, visited by the author in February 2016.

¹⁴⁴ On the duality of international law and how ‘it is both regulatory and emancipatory, both imperial and anti-imperial’, see Sundhya Pahuja, ‘Decolonization and the Eventness of International Law’ in Johns, Joyce, and Pahuja, above n 138, 92.

¹⁴⁵ Anghie, ‘Finding the Peripheries’, above n 6, 33.