

International Humanitarian Law under the Light of the Right to a Healthy, Clean and Sustainable Environment: The Role of Human Rights in the Proportionality Principle

by

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Contents

Acknowledgment	6
Abstract	7
Introduction	8
Chapter one: R2HE in the IHRL system	10
Existence of the R2HE as an International Human Rights:	10
Conceptual Scope of the R2HE: What is the Definition of the R2HE?	12
The R2HE in Regional and Domestic Laws	13
Regional law	13
Domestic law	14
Substantive elements of the R2HE	15
Clean air	15
Safe water	17
Healthy and sustainable food	17
Non-toxic environments	18
Safe Climate and a Healthy Ecosystem	19
Procedural Elements	19
Anthropocentric and <i>Ecocentric</i> perspectives and the R2HE	20
The R2HE in the IHRL system	21

R2HE: Qualified or absolute right.....	21
R2HE: The Issue of the Threshold.....	23
R2HE: Collective Dimension and Intergenerational Equity	24
Positive and negative human rights obligations concerning the R2HE	25
Obligation to respect the R2HE	25
Obligation to protect and fulfill the R2HE.....	26
Chapter Conclusion.....	27
Chapter Two: Legal Status of Environment under IHL	28
Relevance of the concept of object to different elements of the natural environment.....	29
Environment as an object	30
Environment: civilian object or military objective.....	31
Military Objectives and the Environment.....	32
Environmental Protection under IHL.....	34
The correlation between Art. 55 and 35	34
Environment as the specially protected objects.....	36
Environment: survival of the civilian population	36
Environment and the protection of cultural objects	39
Chapter Conclusion.....	41
Chapter Three: The relationship between IHRL and IHL	41
The applicability of the IHRL during International Armed Conflict (IAC)	42

The relationship between IHRL and IHL	45
The relationship between IHRL and IHL: The Lex Specialis	45
The relationship between IHRL and IHL: The complementary theory	48
Relationship between IHL and IHRL and The ICRC Guideline 2020	49
Extraterritorial Obligation.....	50
Interaction between IHL and IHRL concerning the R2HE	51
Conclusion.....	53
Chapter Four: Application of the R2HE on the Proportionality in Conduct of Hostilities .	53
The principle of proportionality and its components	54
Collateral damage and Incidental harm.....	56
Concrete and direct military advantage anticipated	57
Excessiveness.....	58
Excessiveness under the light of Article 35.....	59
The proportionality assessment	60
The existing gap in proportionality Interpretation and a need for the R2HE	61
Cumulative Harm of Individual Attacks	61
Reverberating Effects.....	63
Why the R2HE?	64
The Contemporary Armed Conflicts and The R2HE	68
Chapter Conclusion.....	69

Thesis Conclusion	70
Bibliography	71

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Abstract

It is an undeniable fact that international and non-international armed conflicts have become a threat to a healthy, clean and sustainable environment, creating long-term and often irreversible impacts for current and future generations. While the right to a healthy, clean and sustainable environment has been recognized and is increasingly being developed nationally, regionally, and internationally, the law governing armed conflicts, International Humanitarian Law, is not yet well-equipped to protect the natural environment.

The present thesis examines the role of the right to a healthy, clean and sustainable environment in the proportionality principle. The main question is what the role and relevance of the right to a healthy, clean and sustainable environment is in proportionality assessment. The innovation of this thesis lies in the intersection and application of this right during armed conflicts, addressing how the right to a healthy, clean and sustainable environment can make a difference in the assessment of the proportionality principle. Another focal point of this thesis is examining the status of the mentioned right in international human rights law. Drawing from this analysis, this research examines the interaction between international humanitarian law and international human rights law.

The overall aim is to provide greater protection for the environment during armed conflicts. A doctrinal research method with a human rights approach is used in this thesis. Findings of this research will contribute to the discourse on the protection of the environment during armed conflicts.

Keywords: Right to a Healthy, Clean, and Sustainable Environment (R2HE), The Proportionality Principle, International Human Rights Law (IHRL), International Humanitarian Law (IHL)

Introduction

Armed conflict entails devastating and long-term consequences for the environment.¹ For example, in armed conflicts in Gaza, ecosystems, soil, air and freshwater have been damaged considerably.² The United Nations Environment Programme (UNEP) assessed that during armed conflicts, there has been significant environmental degradation in Ukraine.³

The increasingly destructive consequences of war on the environment have led to several developments in international law and policy to increase protection of the environment. This includes the International Committee of the Red Cross Guidelines in 2020,⁴ and most recently, the report of the Special Rapporteur on the human right to a clean, healthy, and sustainable environment that pointed to war and armed conflict as significant obstacles to implementing the R2HE.⁵

This thesis will explore the applicability of the right to a healthy, clean and sustainable environment (R2HE) during war, with a specific focus on its role and relevance in the interpretation and application of the proportionality principle, which is a central tenet of IHL. This issue is important because it is still a matter of debate to what extent environmental harm is included in the proportionality assessment.⁶

¹ James Dayani, Fruzsina Straus and Atila Uras, 'From Crisis to Recovery: Managing the Environmental Impacts of Armed Conflict' (2025) *Humanitarian Law and Policy* <<https://blogs.icrc.org/app/uploads/sites/102/2025/12/from-crisis-to-recovery-managing-the-environmental-impacts-of-armed-conflict-2.pdf>>.

² United Nations Environment Programme, 'Environmental Impact of the Conflict in Gaza: Preliminary Assessment of Environmental Impacts' (UN Environment Programme 2024) 12 <<https://wedocs.unep.org/rest/api/core/bitstreams/241fbeat-4f28-4c11-8451-894d62218de3/content>>.

³ United Nations Environment Programme, 'The Environmental Impact of Conflict in Ukraine, Preliminary Review' 5 <<https://wedocs.unep.org/rest/api/core/bitstreams/f7ab9710-344b-4899-beb6-ca5c333a556e/content>> accessed 26 December 2025.

⁴ ICRC, 'Guidelines on the Protection of the Natural Environment in Armed Conflict' <<https://www.icrc.org/en/publication/4382-guidelines-protection-natural-environment-armed-conflict>>.

⁵ Astrid Puentes Riaño, 'Overview of the Implementation of the Human Right to a Clean, Healthy and Sustainable Environment: Note' 19 <<https://digitallibrary.un.org/record/4060254>> accessed 26 December 2025.

⁶ Alberto Costi, 'Reverberating Effects in Armed Conflicts: An Environmental Analysis' (2022) 39 *Arizona Journal of International & Comparative Law* 317, 325 <<http://hdl.handle.net/10150/667964>>.

The thesis's main question is what the role and relevance of the R2HE is in the proportionality assessment under international humanitarian law (IHL). This thesis argues that the R2HE is applicable during armed conflicts and can develop the interpretation of the principle of proportionality. In order to answer the main question, there are three specific sub-questions that need to be answered. First, the legal status, content, and scope of the R2HE under international human rights law (IHRL) must be determined. Second, the legal status of the environment under IHL needs to be addressed. Third, the relationship between IHL and IHRL at the time of armed conflict should be clarified. The doctrinal legal analysis research method is employed to research this nuanced issue.

This research is structured into four chapters. Each includes one of the subsidiary questions identified. The first chapter seeks to answer the question of what the legal status of the R2HE in the IHRL system is. The answer to this question is important because the IHRL system governs different dimensions of a right, including the content of a right and the scope of applicability, imposing limitations and different types of obligations arising from a right. To this end, the first chapter will explore international, regional, and national law, case law and policy related to the R2HE. Chapter two will examine the legal status of the environment within IHL. This is of critical importance because under IHL, the legal status determination is required to identify the degree of protection afforded. The third chapter explores the theoretical framework that governs the interplay between IHRL and IHL during armed conflict. In particular, it will explore competing theories, the *lex specialis* and the complementary, and their advantages and criticisms. Chapter four will unpack and examine the proportionality principle in IHL, examine the long-lasting and reverberating effects of environmental destruction, and analyze how R2HE can be used to interpret the proportionality principle.

The bounds of the present research do not allow for a detailed exploration of all related issues, which means some relevant issues will not be examined. For example, it is worth noting that the precautionary principle and proportionality principle in IHL govern targeting. However, this research exclusively concentrates on the proportionality analysis, and the precautionary principle is beyond the current research.

Chapter one: R2HE in the IHRL system

Historically, it has been 50 years since the R2HE was raised as an evolving idea and gained widespread recognition.⁷ This chapter aims to unpack the R2HE's definitions, different approaches, constituent elements and its status in the IHRL system. The content and scope of the R2HE in IHRL will be examined.

Existence of the R2HE as an International Human Rights:

In July 2022, the United Nations General Assembly (UNGA) formally recognized the R2HE as a fundamental human right.⁸ This was built on the earlier adoption of a Resolution of the Human Rights Council, in October 2021, which initially affirmed this right.⁹ In July 2025, the International Court of Justice (ICJ) issued an advisory opinion on *Obligations of States in respect of Climate Change*, in which the acceptance of the R2HE as an international human right was argued.¹⁰ In this opinion, the ICJ recognized that the R2HE has been widely accepted and different constitutions and national and regional laws have addressed this right in different and various

⁷ David R Boyd, 'The Constitutional Right to a Healthy Environment Feature: Environmental Causes and the Law' (2012) 37 *LawNow* 9, 9

⁸ UNGA, 'Resolution Adopted by the General Assembly on 28 July 2022, The Human Right to a Clean, Healthy and Sustainable Environment' UN Doc A/RES/76/300, 3 <<https://docs.un.org/en/a/res/76/300>> accessed 26 December 2025.

⁹ *ibid* 3.

¹⁰ *Obligations of States in respect of Climate Change* [2025] ICJ No. 2025/36 [390] <<https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf>>.

wording.¹¹ The ICJ referred to the Special Rapporteur on the issue of human rights obligations relating to this right, as relevant instruments concerning the R2HE.¹² The court explained that more than 100 states have included this right in their domestic laws and constitutions, and the UNGA resolution is evidence of acceptance of this right.¹³ The court concluded that the R2HE is prerequisite for many human rights and stems from the interconnectedness between human rights and environmental protection.¹⁴ Some commentators have hailed this advisory opinion, while others have criticized it. Indeed, there is a criticism over the issue of explicit recognition of this right as a norm of customary international law in the mentioned advisory opinion.¹⁵ However, the fact is that this right has been recognized in a UNGA and the United Nations Human Rights Council (UNHRC) resolution.¹⁶ While the General Assembly resolutions do not impose binding obligations on states, they have some normative significance.¹⁷ In the view of this thesis, the R2HE is a norm of customary international law. This perspective has also been emphasized by Judge Aurescu in a separate opinion on the *advisory opinion on the obligation of states in respect of climate change*, arguing that all the different regional and domestic conventions and case laws constitute a persuasive set of evidence for the recognition of the R2HE as a legal duty for a state.¹⁸ Customary international law is one of the international laws that indicates the general practice of States which

¹¹ *ibid.*

¹² *ibid.* 391.

¹³ *ibid.* 392.

¹⁴ *ibid.* 393.

¹⁵ ‘Separate Opinion of Judge Aurescu’ 11 <<https://icj-web.leman.un-icc.cloud/sites/default/files/case-related/187/187-20250723-adv-01-11-en.pdf>>.

¹⁶ UN Human Rights Council, ‘The Human Right to a Clean, Healthy and Sustainable Environment: Resolution’ [2021] United Nations <<https://digitallibrary.un.org/record/3945636>> accessed 27 December 2025; UNGA (n 8) 3.

¹⁷ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion* [1996] ICJ 95 [70].

¹⁸ ‘Separate Opinion of Judge Aurescu’ (n 15) 17.

has been accepted as law.¹⁹ The voting pattern on the UNGA resolution recognizing the R2HE, among others, strengthens the normative character of this right.²⁰

Conceptual Scope of the R2HE: What is the Definition of the R2HE?

As for the definition of the right, while often described as a right to a healthy environment, the text of various manifestations reveals important nuances. For example, both the UNHRC resolution and the UNGA resolution include the adjectives “clean” and “sustainable,” attached to “healthy environment.”²¹ In effect, the precise meaning and scope of the terms “clean,” “healthy,” and “sustainable” within the R2HE represent different concepts. None of the mentioned resolutions provides definitions for these adjectives. The word “clean” is a primary objective for this right, which often means a lack of contaminants and other harmful substances.²² In the Canadian Environmental Protection Act, a healthy environment has been defined as “an environment that is clean, healthy and sustainable.”²³ A healthy environment has also been defined by the World Health Organization as one where there is good air quality and where sufficient drinking water and sanitation are accessible for all.²⁴ In essence, a healthy environment is one in which different elements, such as air and water, are life-supportive.²⁵ As for the word ‘sustainability’, it is defined

¹⁹ Michael Wood and Omri Sender, ‘Customary International Law’ (*Oxford Public International Law*) <<https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1393>> accessed 31 December 2025.

²⁰ ‘Separate Opinion of Judge Aurescu’ (n 15) 15.

²¹ UN Human Rights Council (n 16); UNGA (n 8) 3.

²² Băina Ubushieva and Christophe Golay, ‘The Human Right to a Clean, Healthy and Sustainable Environment: Understanding Its Scope, States’ Obligations and Links with Other Human Rights, Research Brief [2024] Geneva Academy of International Humanitarian Law and Human Rights 4 <<https://archives.geneva-academy.ch/joomlatools-files/docman-files/The%20Human%20Right%20to%20a%20Clean,%20Healthy%20and%20Sustainable%20Environment.pdf>>.

²³ Canadian Environmental Protection Act, 1999 (SC 1999, c 33). <<https://laws-lois.justice.gc.ca/eng/acts/c-15.31/page-1.html#h-63244>>

²⁴ ‘Healthy Environments to Promote Health and Sustainable Societies’ (*World Health Organization*) <<https://www.who.int/about/accountability/results/who-results-report-2022-mtr/2022/healthy-environments-to-promote-health-and-sustainable-societies>> accessed 27 December 2025.

²⁵ Lily F Roberts and others, ‘Healthy Environments: Understanding Perceptions of Underrepresented Communities in the United Kingdom’ (2022) 19 *International journal of environmental research and public health* 9643, 1; ‘Healthy Environments to Promote Health and Sustainable Societies’ (n 24).

as “the quality of causing little or no damage to the environment and therefore able to continue for a long time.”²⁶ As a result, the R2HE can be defined as the right to have a non-polluted environment, which is in a good situation and life-supportive, having the quality to continue for a long period of time.

The R2HE in Regional and Domestic Laws

The UNGA, while recognizing the R2HE as a right, determined that it relates to other human rights and current international law.²⁷ However, since there is no exact definition of the content of the R2HE, it is necessary to consider the totality of evidence, including regional and domestic case laws, to understand the content of the R2HE. This method also helps to inform the scope of this right. Hence, the following includes a brief explanation of the R2HE at different levels.

Regional law

At the regional level, the R2HE has been incorporated in binding treaties.²⁸ For example, the *African Charter on Human and Peoples’ Rights* indicates “All peoples shall have the right to a general satisfactory environment favourable to their development.”²⁹ The word “satisfactory” as an adjective for the environment in this article can show a less robust language compared to the right to a healthy, clean and sustainable environment. Article 38 of the *Arab Charter of Human Rights* states that: “Every person has the right to an adequate standard of living for himself and his family, which ensures their well-being and a decent life, including food, clothing, housing, services

²⁶ ‘SUSTAINABLE, English Meaning - Cambridge Dictionary’ <<https://dictionary.cambridge.org/dictionary/english/sustainable>> accessed 27 December 2025.

²⁷ UNGA (n 8) 3.

²⁸ César Rodríguez-Garavito, ‘A Human Right to a Healthy Environment? Moral, Legal, and Empirical Considerations’ in John H Knox and Ramin Pejan (eds), *The Human Right to a Healthy Environment* (Cambridge University Press 2018) 161 <<https://www.cambridge.org/core/books/human-right-to-a-healthy-environment/human-right-to-a-healthy-environment/DBBEED7764CA31A52C48DC2F6B17586A>> accessed 23 December 2025.

²⁹ ‘African Charter on Human and Peoples’ Rights (“Banjul Charter”), entered into force, 1986, art 24 <<https://www.refworld.org/legal/agreements/oau/1981/en/17306>> accessed 27 December 2025.

and the right to a healthy environment.”³⁰ This highlights the close relationship between the right to an adequate standard of living and R2HE, the latter a necessary predicate of the former. It is evident that in this Article, the R2HE has been enumerated along with other fundamental rights, especially the right to food. Similarly, Article 11 of the *Protocol of San Salvador* explicitly states that “everyone shall have the right to live in a healthy environment.”³¹ These recognitions in the African and American conventions are significant.

Domestic law

The constitutional R2HE has long been widely codified before international recognition and provides international human rights law with some concepts and meaning related to this right.³² For example, the Brazilian Federal Constitution provides that “All have the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations.”³³ The wording of this provision does expressly cover the R2HE and identifies a balanced environment as a requirement for a healthy quality of life. Argentina’s 1853 Constitution recognizes the right of all individuals to a healthy and balanced environment and emphasizes the need to meet the needs of both present and future generations.³⁴ The Kenyan

³⁰ UN. Office of the High Commissioner for Human Rights and League of Arab States, *Arab Charter on Human Rights* (Office of the UN High Commissioner for Human Rights 2004) art 38 <<https://digitallibrary.un.org/record/551368>> accessed 27 December 2025.

³¹ ‘Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights “Protocol of San Salvador”’ art 11 <<https://www.oas.org/juridico/english/treaties/a-52.html>> accessed 27 December 2025.

³² Erin Daly and James R May, ‘Learning from Constitutional Environmental Rights’ in John H Knox and Ramin Pejan (eds), *The Human Right to a Healthy Environment* (Cambridge University Press, 2018) 51 <<https://www.cambridge.org/core/books/human-right-to-a-healthy-environment/learning-from-constitutional-environmental-rights/E02839D729B2107118ADC59563AC54F9>> accessed 27 December 2025.

³³ ‘Constitution of the Federative Republic of Brazil’ art 255 <<https://www.globalhealthrights.org/wp-content/uploads/2013/09/Brazil-constitution-English.pdf>> accessed 27 December 2025.

³⁴ ‘Argentina 1853 (Reinst. 1983, Rev. 1994) Constitution - Constitute’ art 41 <https://www.constituteproject.org/constitution/Argentina_1994> accessed 27 December 2025.

constitution recognized this right for each individual by stating that “every person has the right to a clean and healthy environment.”³⁵

As the foregoing demonstrates, the R2HE is found across national, regional and international law. Accordingly, it is applicable in different jurisdictions, demonstrating the scope of applicability of this right.

Substantive elements of the R2HE

This section will unpack and examine the substantive elements of the R2HE. The elements here include “clean air, safe and sufficient water, healthy and sustainable food, a safe climate, non-toxic environments in which to live, work and play, healthy ecosystems,” according to the Report of the Special Rapporteur.³⁶ The mentioned report has summarized good practices in the implementation and recognition of this right. The ICJ has referred to this report as a related source regarding this right.³⁷ Accordingly, this subsection relies on this report as an appropriate source in human rights law to enumerate different elements of the R2HE. This subsection unpacks each element of the R2HE, enumerated in the mentioned report. This subsection also provides factual examples in case law for each element.

Clean air

Clean air is an element of the R2HE.³⁸ However, most people live in areas that are not of good air quality.³⁹ An illustrative example from case law is *H.M. Henares, Jr. et al. v. Land*

³⁵ ‘The Constitution of Kenya’ art 42 <<https://faolex.fao.org/docs/pdf/ken127322.pdf>> accessed 27 December 2025.

³⁶ UN Human Rights Council, ‘Right to a Healthy Environment: Good Practices Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment’ (United Nations Human Rights Council 2020) A/HRC/43/53 1.

³⁷ *Obligations of States in respect of Climate Change* (n 10) [391].

³⁸ UN Human Rights Council (n 36) 3, 8.

³⁹ *ibid* 8.

Transportation Franchising and Regulatory Board et al. in the Supreme Court of Manila.⁴⁰ petitioners contended that the mixtures of dust, dirt, smoke, and liquid droplets emitted into the air from engine combustion have caused detrimental effects on health and overall quality of life.⁴¹ The Petitioners grounded their contention on upholding clean air based on the constitutional right to a balanced and healthful ecology and the Clean Air Act.⁴²

Another example is the *La Oroya v. Peru* case, where the Inter-American Court of Human Rights (IACtHR) recognized that individuals have the right to breathe clean air as a part of the R2HE.⁴³ The court stated:

“People enjoy the right to breathe air with pollution levels that do not pose a significant risk to the enjoyment of their human rights, particularly the rights to a healthy environment, health, personal integrity and life. People are entitled to the right to breathe clean air as a substantive component of the right to a healthy environment.”⁴⁴

To conclude the discussion on clean air as an element of the R2HE, case law establishes that different jurisdictions believe that clean air forms a component of the R2HE, and its pollution constitutes a violation of the R2HE. Importantly, however, not every act of pollution amounts to a violation of the R2HE. The threshold for determining when pollution violates the R2HE might be interpreted in different ways in various cases. The issue of the threshold will be explained in a separate subsection below.

⁴⁰ ‘HM Henares, Jr et al v Land Transportation Franchising and Regulatory Board et al [2006] Supreme Court at Manila 158290. Merits and Procedure.’ <https://lawphil.net/judjuris/juri2006/oct2006/gr_158290_2006.html> accessed 27 December 2025.

⁴¹ *ibid.*

⁴² *ibid.*

⁴³ *Case of the Inhabitants of La Oroya v Peru: Judgment Preliminary Objections, Merits, Reparations and Costs* (Inter-American Court of Human Rights) [120].

⁴⁴ *ibid* 120.

Safe water

“Access to safe and sufficient water” is an element of the R2HE.⁴⁵ This component seems to be multifaceted and can be examined from economic, social, and cultural rights and is a component of R2HE.⁴⁶ From the R2HE perspective, water should be pollution-free.⁴⁷ From the economic, social, and cultural rights perspective, water should be accessible, available and free from pollution.⁴⁸ It seems that the feature of “quality”, which ensures safe water without harmful substances for human beings⁴⁹ is the common theme between safe water as R2HE and the right to water as a separate right. Along the same line, in *La Oroya v. Peru*, “the Court has emphasized that a close relationship exists between the right to water as a substantive aspect of the right to a healthy environment and the right to water as an autonomous right.”⁵⁰

To sum up, while it appears that there is a difference between interpreting the right to water as a separate right or as a component of the R2HE, the obligations derived from each one mainly overlap and reinforce each other. In effect, the obligation to protect clean water affects the right to safe water and the R2HE.⁵¹

Healthy and sustainable food

The concept of ‘healthy and sustainable food’ has also been enumerated as a component of the R2HE.⁵² From the R2HE perspective, sustainable food requires a quality of environment which persists for a long time. A healthy environment is the main prerequisite to achieve sustainable food,

⁴⁵ UN Human Rights Council (n 36) 3, 13–14.

⁴⁶ *Case of the Inhabitants of La Oroya v. Peru: Judgment. Preliminary Objections, Merits, Reparations and Costs* (n 43) [124].

⁴⁷ *ibid* 121.

⁴⁸ UN Economic and Social Council, ‘General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)’ 5–6.

⁴⁹ *ibid* 5.

⁵⁰ *Case of the Inhabitants of La Oroya v. Peru: Judgment. Preliminary Objections, Merits, Reparations and Costs* (n 40) [124].

⁵¹ *ibid*.

⁵² UN Human Rights Council (n 36) 3, 12.

and the connection between the R2HE and sustainable food lies in the clean soil, air, and water. For instance, pollution of water and destruction of agricultural lands and facilities and pollution resulting from the war, have led to a lack of food in Gaza and disrupted the food security chain.⁵³ To conclude, as the foregoing discussion demonstrates, it is not unreasonable to argue that the R2HE is partially composite rights because the two important parts of the R2HE, including safe water and healthy and sustainable food, are already defined.

Non-toxic environments

A “non-toxic environment” is another substantive element of the R2HE.⁵⁴ A toxic environment endangers individuals’ right to health and life, as well as their ability to live in a safe and healthy environment.⁵⁵ The phrase “in which to live, work, study and play” has been added to this element of the right in the report of the Right to a healthy environment: good practices⁵⁶ can demonstrate the tight relationship between a non-toxic environment and human beings’ daily life.

An example of a toxic environment violating individuals’ rights to health and live and work in safe conditions is shown in *Fadeyeva v. Russia*, where the applicant claimed that the congestion of toxic substances in the air near her home had risen above the safety limit established by law.⁵⁷ The observation of the medical expert in this case demonstrated that “working in conditions of vibration, toxic pollution and an unfavourable climate” worsens health issues.⁵⁸ Hence, this shows that clean air is an important component of this right.

⁵³ Abdo Hassoun and others, ‘The Implications of the Ongoing War on Gaza for Food Sustainability’ (2025) 9 Sustainable Futures 100473, 3 <<https://www.sciencedirect.com/science/article/pii/S2666188825000437>>.

⁵⁴ UN Human Rights Council (n 36) 3, 12.

⁵⁵ *ibid* 15.

⁵⁶ *ibid*.

⁵⁷ *Fadeyeva v Russia* [2005] ECHR Application no. 55723/0 [31] <<https://hudoc.echr.coe.int/eng?i=001-69315>>.

⁵⁸ *ibid* 45.

Safe Climate and a Healthy Ecosystem

A Safe climate and a healthy ecosystem are other substantive elements of the R2HE.⁵⁹ Greenhouse gases are a threat to the climate system and endanger human rights.⁶⁰ It is of critical importance to identify what exactly constitutes a ‘safe climate’. Looking at case law, the Supreme Court of Montana in *Held v State of Montana* declared that “Plaintiffs have a fundamental constitutional right to a clean and healthful environment, which includes climate as part of the environmental life-support system.”⁶¹ From the court’s perspective, the “stable climate system” constitutes the right to a healthful environment.⁶² In this regard, it can be concluded that a safe climate is one that is life-supporting.

In sum, the substantive component of the R2HE includes clean air, safe and sufficient water, healthy and sustainable food, a safe climate, non-toxic environments, and healthy ecosystems.⁶³ These distinct elements are correlated. A violation of one element can lead to a violation of another. In effect, these elements constitute the R2HE as an autonomous right.

Procedural Elements

After reviewing the substantive elements of the R2HE, it turns to elaborating the procedural elements. Within the context of the R2HE, access to information about the environment⁶⁴ and participation in decision-making in environmental matters is part of the procedural elements.⁶⁵ Access to justice is also a procedural element of the R2HE.⁶⁶ In this regard, access to justice

⁵⁹ UN Human Rights Council (n 36) 3, 17.

⁶⁰ *ibid* 17.

⁶¹ *Held v State of Montana* [2024] Montana Supreme Court DA 23-0575 [30]. <https://www.climatecasechart.com/documents/montana-supreme-court-ruled-that-state-law-restricting-consideration-of-climate-change-in-environmental-reviews-violated-youth-plaintiffs-right-to-a-clean-and-healthful-environment_0758>

⁶² *ibid*.

⁶³ UN Human Rights Council (n 36) 1.

⁶⁴ *ibid* 5.

⁶⁵ *ibid* 6.

⁶⁶ *ibid* 7.

includes access to courts, nationally, regionally and internationally.⁶⁷ Accordingly, the implementation of the procedural elements is of critical importance since they assure the implementation and enforceability of the R2HE.

Anthropocentric and *Ecocentric* perspectives and the R2HE

The anthropocentric approach toward the environment focuses primarily on the benefits that nature brings for human beings.⁶⁸ In this regard, a sustainable environment must be incorporated into the human right to life, since clean air and water and arable soil have an undeniable role in human survival.⁶⁹ From an *ecocentric* viewpoint, every species or component of nature has value because of its existence.⁷⁰

A brightline distinction between the two approaches is not always evident, and at times there seems to be a degree of overlap between the *ecocentric* and the anthropocentric perspectives, which can make them complementary. Indeed, the interdependence of people and environment means that an environment which is healthy for its own value will lead to healthy living for people.⁷¹ For this reason, this thesis considers these two approaches complementary. In essence, the human being is part of nature, and the rights of nature essentially include humanity's right to

⁶⁷ *ibid* 8.

⁶⁸ Malcolm L Hunter JR, Kent H Redford and David B Lindenmayer, 'The Complementary Niches of Anthropocentric and Biocentric Conservationists' 28 *Conservation Biology* 641, 643 <<https://doi.org/10.1111/cobi.12296>>.

⁶⁹ David R Boyd, 'The Implicit Constitutional Right to Live in a Healthy Environment' (2011) 20 *Review of European Community & International Environmental Law* 171, 171 <<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9388.2011.00701.x>> accessed 23 December 2024.

⁷⁰ Hunter JR, Redford and Lindenmayer (n 68) 643; Azadeh Chalabi, 'A New Theoretical Model of the Right to Environment and Its Practical Advantages' (2023) 23 *Human Rights Law Review* 6 <<https://doi.org/10.1093/hrlr/ngad023>>.

⁷¹ Natalia Kobylarz, 'Anchoring the Right to a Healthy Environment in the European Convention on Human Rights: What Concretized Normative Consequences Can Be Anticipated for the Strasbourg Court?' in Giovanni Antonelli and others (eds), *Environmental Law Before the Courts: A US-EU Narrative* (Springer International Publishing 2023) 158 <https://doi.org/10.1007/978-3-031-41527-2_7> accessed 29 December 2024.

existence as a species.⁷² In the *Los Cedros Decision*, the court reasoned that there is an inherent connection between humanity and nature, and human beings are a part of nature.⁷³

A similar perspective can be seen in the advisory opinion of the Inter American Court of Human Rights (IACtHR), which articulates “...the right to a healthy environment, unlike other rights, protects the components of the environment, such as forests, rivers and seas, as legal interests in themselves...”⁷⁴ The court also believes that the R2HE not only safeguards different elements of the environment but also protects various human rights.⁷⁵ As a result, both approaches are equally important and can be considered complementary.

The R2HE in the IHRL system

The previous subsection explained different elements of the R2HE. The following section will focus on the legal status of the R2HE, including whether it is an absolute or qualified right, and the required threshold for its violation.

R2HE: Qualified or absolute right

Providing a comprehensive analysis of this right’s content and scope necessitates assessing whether this right is absolute or qualified. As opposed to the absolute rights, the qualified rights are those from which the lawful restrictions of the right are justifiable.⁷⁶ An absolute right must always be followed in every situation, and any infringement will lead to the right’s violation.⁷⁷

⁷² *Collateral Review Case, Los Cedros Protected Forest* [2021] Constitutional Court of Ecuador No. 1149-19-JP/21 [30] <<https://celdf.org/wp-content/uploads/2015/08/Los-Cedros-Decision-ENGLISH-Final.pdf>>.

⁷³ *ibid.*

⁷⁴ *Advisory Opinion OC-23/17, Requested by the Republic of Colombia; The Environment and Human Rights* (Inter-American Court of Human Rights) [62] <https://www.corteidh.or.cr/docs/opiniones/seriea_23_ing.pdf>.

⁷⁵ *ibid.*

⁷⁶ Dawood Ahmed and Elliot Bulmer, *Limitation Clauses* (International Institute for Democracy and Electoral Assistance 2017) 8 <<https://www.idea.int/sites/default/files/publications/limitation-clauses-primer.pdf>>; Natasa Mavronicola, ‘What Is an “Absolute Right”? Deciphering Absoluteness in the Context of Article 3 of the European Convention on Human Rights’ (2012) 12 723, 730.

⁷⁷ Mavronicola (n 76) 730.

Hence, defining the R2HE as absolute or qualified is crucial since it determines the scope of implementing this right. Currently, there is no specific definition of whether the R2HE is absolute or qualified, and it needs to be determined under IHRL. In this regard, Article 29 of the *Universal Declaration of Human Rights* (UDHR) and Article 6 (1) of the *International Covenant on Civil and Political Rights* (ICCPR)⁷⁸ make it evident that the presumption is that most human rights are qualified and can be subject to limitation. Article 29 (2) of the UDHR states:

“In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society.”⁷⁹

This provision makes it evident that the presumption is that most human rights are qualified and are subject to limitation. However, limitations are common in conventions, treaties and charters, and constitutions with limitation clauses.⁸⁰

Looking at the regional convention, the *Protocol of San Salvador*, under the title of the right to a healthy environment, states that “The States Parties shall promote the protection, preservation, and improvement of the environment.”⁸¹ The textual analysis of this provision demonstrates that the implementation of the R2HE may be subject to restrictions, such as the level of states’ development.

⁷⁸ ‘International Covenant on Civil and Political Rights’ (ICCPR) (1966) 999 UNTS 171 art 6 (1).

⁷⁹ ‘Universal Declaration of Human Rights’ (UDHR) (1948) UNGA Res 217 A(III), art 29 (2) <<https://www.un.org/sites/un2.un.org/files/2021/03/udhr.pdf>>.

⁸⁰ Ahmed and Bulmer (n 76) 6.

⁸¹ ‘Additional Protocol to The American Convention On Human Rights in the Area Of Economic, Social And Cultural Rights “Protocol of San Salvador’ (n 31) art 11.

R2HE: The Issue of the Threshold

This section aims to clarify the threshold necessary to establish a breach of the R2HE. The UNHRC Resolution recognized that the R2HE is related to other rights.⁸² Hence, when the R2HE is violated, other rights are also implicated and directly or indirectly violated. The example is the *López Ostra v. Spain* case, where the applicant alleged a violation of the right to respect for private and family life due to toxic fumes and noise pollution created by a plant.⁸³ In this case, it was noted that pollution had passed the permitted restriction and could threaten the health of those living near.⁸⁴ The nuisance resulting from fumes was persistent, and in the view of the ECtHR, ‘severe’ pollution can threaten an individual’s health and negatively impact the right to private and family life.⁸⁵ The ECtHR, finally, held that the mentioned right had been violated.⁸⁶

Another example relates to the pollution of the soil and groundwater by the unlawful dumping of waste and the risk to individuals’ health.⁸⁷ In this example, the persistent illegal waste disposal was argued to create large-scale pollution of the environment and affect people’s health.⁸⁸ The court assessed that a specific type of pollution in this case, such as heavy metals and burying waste, makes the situation inherently dangerous for people in that environment.⁸⁹ The court determined that the situation caused “imminent” risk and is “sufficiently serious, genuine and ascertainable” to threaten life.⁹⁰ Another example relates to a case concerning poor air quality and the breach of the R2HE in South Africa. The High Court of South Africa highlighted that “not all air pollution

⁸² UNGA (n 8) 3.

⁸³ *López Ostra v Spain* [1994] ECHR 39666/16, 27733/21, 57905/21 [7], [8].[9] <<https://hudoc.echr.coe.int/eng?i=001-57905>>

⁸⁴ *ibid* 50.

⁸⁵ *ibid* 50–51.

⁸⁶ *ibid* 58.

⁸⁷ *Cannavacciuolo and Others v Italy* [2025] ECtHR 51567/14, 39742/14, 74208/14, 21215/15 [1]– [14] <<https://hudoc.echr.coe.int/eng?i=001-241395>>.

⁸⁸ *ibid* 259–231.

⁸⁹ *ibid* 384–385.

⁹⁰ *ibid* 289.

violates a right to a healthy environment, but if it reaches the ‘National Ambient Air Quality Standards’, it is a *prima facie* violation of the right.”⁹¹

The discussion on the required threshold for violation of the R2HE shows that not any level of pollution violates this right, and pollution needs to reach a threshold. accordingly, a level of pollution on some components of the environment may not violate this right.

R2HE: Collective Dimension and Intergenerational Equity

This subsection addresses the collective aspect of the R2HE and the intergenerational equity. The intergenerational equity involves protecting a sustainable environment for future generations.⁹² The intergenerational equity intersects with the sustainability aspect of the R2HE. It is of critical importance and strengthens the protection of this right for the present and those yet to be born.⁹³ The collective dimensions of this right necessitate that states respect the environment.⁹⁴ The collective aspect of this right has been explained by the IACtHR by highlighting that “The human right to a healthy environment has been understood as a right with individual as well as collective connotations.”⁹⁵ It is further of critical importance to explain that R2HE is related to the *Jus Cogens* norm.⁹⁶ Indeed, safeguarding the environment from arbitrary actions with long-lasting effects on the environment needs to be recognized as a peremptory

⁹¹ *Groundwork Trust and Vukani Environmental Justice Movement in Action v Minister of Environmental Affairs and Others (South Africa) Judgment* [2022] High Court of South Africa 39724/2019 [10] <<https://cer.org.za/wp-content/uploads/2022/03/DeadlyAir-High-court-judgment-18-March-2022.pdf>>.

⁹² UNGA (n 8) 2.

⁹³ *Case of the Inhabitants of La Oroya v. Peru: Judgment. Preliminary Objections, Merits, Reparations and Costs* (n 43) [129].

⁹⁴ *Advisory Opinion OC-23/17, Requested by the Republic of Colombia; The Environment and Human Rights* (n 74) [313].

⁹⁵ *Advisory Opinion AO 32/25 Requested by the Republic of Chile and the Republic of Colombia, ‘climate emergency and Human Rights* (Inter American Court of Human Rights) [272].<https://www.corteidh.or.cr/docs/opiniones/seriea_32_en.pdf>.

⁹⁶ *Case of the Inhabitants of La Oroya v. Peru: Judgment. Preliminary Objections, Merits, Reparations and Costs* (n 43) [129].

norm.⁹⁷ *Jus Cogens* norm is defined as “ a norm accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.”⁹⁸

To conclude, recognition of the R2HE in its collective dimension and intergenerational aspect can result in creating specific policies to protect each element of the environment from irreversible harm and damage.

Positive and negative human rights obligations concerning the R2HE

For each human right, there is a corresponding obligation(s). Within a state, each individual is the primary rights bearer, and the state is the duty bearer.⁹⁹ Obligations under IHRL have three dimensions: respect, protect, and fulfill.¹⁰⁰ Each of these will be examined below.

Obligation to respect the R2HE

In the human rights system, the obligation to respect is consistent with states’ negative human rights obligations.¹⁰¹ Indeed, under this obligation, states have a negative obligation to avoid acts which are intrusive on human rights.¹⁰² In essence, the state should not allow acts or omissions interfering with the exercise of a right within its territory and not pollute different elements of the R2HE, such as the right to clean air, through its own action.¹⁰³ Preserving each element of the

⁹⁷ *ibid.*

⁹⁸ ‘Chapter V: Peremptory Norms of General International Law (Jus Cogens) -- Report of the International Law Commission: Seventy-First Session (29 April–7 June and 8 July–9 August 2019)’ 142 <<https://legal.un.org/ilc/reports/2019/english/chp5.pdf>> accessed 31 December 2025.

⁹⁹ United Nations High Commissioner for Human Rights, ‘Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework’ 3 <https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf>.

¹⁰⁰ *ibid.*

¹⁰¹ Dinah Shelton and Ariel Gould, ‘Positive and Negative Obligations’ in Dinah Shelton (ed), *The Oxford Handbook of International Human Rights Law* (2013) 563.

¹⁰² *ibid.*

¹⁰³ Brian J. Preston, ‘The Nature, Content and Realisation of the Right to a Clean, Healthy and Sustainable Environment’ (2024) 36 159, 164.

environment from pollution simultaneously fulfills a positive obligation for other rights, such as the right to life.¹⁰⁴ The ICJ advisory opinion affirmed that the R2HE is a requirement for the realization of other human rights.¹⁰⁵ Given that, infringing R2HE's substantive elements not only results in a violation of that right but also could lead to other human rights violations.

Obligation to protect and fulfill the R2HE

The obligation to protect and fulfil contains a positive obligation for duty bearers.¹⁰⁶ Recognizing this right as an autonomous right in a state's constitution can be an instance of positive action. The obligation to fulfill a right entails the obligation of progressive realization.¹⁰⁷ Hence, states' positive obligations regarding the R2HE require protecting different elements of the natural environment. For example, the obligation to fulfill clean air and water, as part of the R2HE, requires establishing laws and regulations and monitoring policies, ensuring the quality of air and water.¹⁰⁸

States must continuously impose standards to prevent environmental harm to fulfil their due diligence obligation and meet their positive obligation.¹⁰⁹ Another example of positive obligation is to implement the procedural aspect of the right; states must ensure that each individual has

¹⁰⁴ United Nations Human Rights Committee, 'General Comment No. 36; Article 6, Right to Life' (2019) 13 <<https://documents.un.org/doc/undoc/gen/g19/261/15/pdf/g1926115.pdf>> accessed 28 December 2025.

¹⁰⁵ *Obligations of States in respect of Climate Change* (n 10) [393].

¹⁰⁶ Elsabé Boshoff, 'Positive Obligations on the State to Safeguard Environmental Human Rights' (*Human Rights Pulse*, 12 January 2021) <<https://www.humanrightspulse.com/mastercontentblog/positive-obligations-on-the-state-to-safeguard-environmental-human-rights>> accessed 28 December 2025.

¹⁰⁷ Olivier De Schutter (ed), 'The Progressive Realization of Human Rights and the Obligation to Fulfill', *International Human Rights Law: Cases, Materials, Commentary* (Cambridge University Press 2010) 527 <<https://www.cambridge.org/core/books/international-human-rights-law/progressive-realization-of-human-rights-and-the-obligation-to-fulfil/B8F5989CDB9FDD7F5F32982656645273>> accessed 28 December 2025.

¹⁰⁸ *Case of the Inhabitants of La Oroya v. Peru: Judgment. Preliminary Objections, Merits, Reparations and Costs* (n 43) 125.

¹⁰⁹ Rigmor Argren, 'The Obligation to Prevent Environmental Harm in Relation to Armed Conflict' (2023) 105 *International Review of the Red Cross* 1208, 1223 <<http://international-review.icrc.org/articles/the-obligation-to-prevent-environmental-harm-in-relation-to-armed-conflict-924>> accessed 28 December 2025.

access to information regarding all activities that may endanger the R2HE.¹¹⁰ In contrast, the failure to adopt appropriate policies and strategies can constitute a state's omission to fulfill this right. Looking at the case law, to implement the right to work in healthy and safe conditions.¹¹¹ In this vein, the continuous use of high-polluting technologies is an instance of a lack of compliance with the best available technology requirements to tackle air pollution generated from industrial plants.¹¹² There is a clear link between air pollution, a toxic environment, and work in a healthy and safe workplace.¹¹³ Regular development of comprehensive laws and policies related to the environment, and identifying and updating reasonable thresholds of pollution in local areas, are other instances of the obligation to fulfill the R2HE.¹¹⁴

Arguably, the R2HE can link the obligation *erga omnes*, which is defined as an obligation that all countries have an interest in protecting.¹¹⁵ Indeed, the recognition of an obligation as one *erga omnes* for the implementation of this right has some important outcomes. The implementation of the R2HE as an *erga omnes* obligation is supported by referring to the R2HE's main purpose and object, which is the protection of all humankind and the environment.¹¹⁶

Chapter Conclusion

This chapter examined the definition, content, and scope of the R2HE. It became evident that this right has not been widely referred to as “clean,” “healthy,” and “sustainable.” However, the

¹¹⁰ *Case of the Inhabitants of La Oroya v. Peru: Judgment. Preliminary Objections, Merits, Reparations and Costs* (n 43) [148].

¹¹¹ *Marangopoulos Foundation for Human Rights (MFHR) v Greece* [2007] European Committee on Social Rights Complaint No. 30/2005 [1], [3] <<https://hudoc.esc.coe.int/eng/?i=cc-30-2005-dmerits-en>>.

¹¹² *ibid* 24.

¹¹³ *ibid* [3],[202].

¹¹⁴ *ibid* 203.

¹¹⁵ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory (Advisory Opinion)* [2004] (ICJ) [156] <<https://www.icj-cij.org/sites/default/files/case-related/131/131-20040709-ADV-01-00-EN.pdf>>.

¹¹⁶ ‘Written Statement of the Republic of Slovenia, Obligations of States in Respect of Climate Change (Request For Advisory Opinion)’ 20 <<https://www.icj-cij.org/sites/default/files/case-related/187/187-20240322-wri-42-00-en.pdf>>.

content and scope of this right can be deduced from UN reports, regional conventions and existing case law, addressing the R2HE and the human rights impact of the environment. More importantly, it was clarified that the intergenerational equity principle intersects with the sustainability feature and collective dimension of this right. The analysis in this chapter establishes that this right is not absolute and can be subject to limitation. States and their executive organs should take all positive and negative obligations to limit the harmful impacts of different activities on the environment. The suggested substantive elements, enumerated above, mandate states to take a different range of positive and negative obligations to implement this right.

Chapter Two: Legal Status of Environment under IHL

This Chapter seeks to clarify the natural environment's legal status under IHL. After the legal status of the environment under IHL is clarified, it will become evident whether, how, and when IHL rules apply to the environment during armed conflict. This chapter solely discusses the current International Armed Conflicts laws (henceforth IAC), with particular focus on the environmental regulations of Customary IHL and Additional Protocol 1 (henceforth AP I). To this end, determining the legal status of the environment under IHL involves two steps. The first step is to determine whether the environment and its components can be recognized as an 'object' under IHL, and subsequently whether as a military or civilian object. If the environment is recognized as a civilian object, it is crucial to identify if, and when, it may qualify as a military objective and lose protection from attack.

The analysis in this chapter includes the existing provisions of IHL concerning the environment; hence, both hard and soft law applicable during international armed conflicts (hereinafter IAC) will be critically reviewed. The treaty and customary IHL, along with the recent International Committee of the Red Cross (ICRC) Guidelines of 2020 (hereinafter ICRC Guideline 2020) about

the protection of the environment during armed conflict, are reviewed.¹¹⁷ The review of this Guideline is crucial since it aims to provide recommendations to safeguard the natural environment during armed conflict. While the guideline is soft law and does not have a binding impact, it includes recommendations, and soft law can be used to enhance the interpretation of binding rules and treaties.¹¹⁸

This chapter is categorized under four subsections; the first subsection specifically examines the relevance of the concept of object and civilian objects to the different elements of the natural environment. The second subsection examines the definition of military objective and its correlation to the environment. Following this, the provisions providing environmental protection within the IHL system will be reviewed, and it will be explained whether the protection under IHL is absolute or qualified.

Relevance of the concept of object to different elements of the natural environment

The first step in assessing the environment's legal status under IHL is to determine whether various elements of the environment can be recognized as objects. The importance of status under IHL is that the legal status of a person or object determines whether they are liable or immune from attack.¹¹⁹ In treaty IHL, AP I does not include an explicit definition of the term object.

¹¹⁷ ICRC (n 4).

¹¹⁸ Matthias Goldman, 'We Need to Cut Off the Head of the King: Past, Present, and Future Approaches to International Soft Law' (2012) 25 Cambridge University Press 335, 336 <<https://doi.org/10.1017/S0922156512000064>>.

¹¹⁹ Marco Sassòli and Lindsey Cameron, 'The Protection of Civilian Objects: Current State of the Law and Issues de Lege Ferenda' in Ronzitti, Natalino and Venturini, Gabriella (eds), *The Law of Air Warfare: Contemporary Issues* (The Hague: Eleven International 2006) 35. <<https://archive-ouverte.unige.ch/unige:9742>>

Environment as an object

From a theoretical perspective, it is a matter of debate whether elements of the environment which are neither visible nor tangible can be classified as “objects” under IHL.¹²⁰ It may be argued that certain environmental aspects, which are not material, including the atmosphere, climate and air, are challenging to consider as single objects.¹²¹ This interpretation appears to rely on the concept of tangibility and visibility as requirements for considering something as an object, rooted in the ICRC commentary to AP I on the definition of object, which defines objects as “what may be seen or perceived; a material thing.”¹²² However, the commentary has broadly interpreted the environment, explaining that it is not limited to “foodstuffs, agricultural areas, drinking water,”¹²³ and can include vegetation and forests.¹²⁴ Therefore, considering different components of the environment as objects under IHL would be consistent with the primary intention of the authoritative ICRC commentary on the issue.

In treaty IHL, there is no definition of natural environments.¹²⁵ Examining this issue through the lens of the Vienna Convention on the Law of Treaties, “a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”¹²⁶ The environment could be defined as “the air, water, and land in or on which people, animals, and plants live.” As a result, all natural environment components, without exception, must qualify as objects under IHL. Indeed, interpreting this

¹²⁰ Cordula Droege and Marie-Louise Tougas, ‘The Protection of the Natural Environment in Armed Conflict – Existing Rules and Need for Further Legal Protection’ (2013) 82 *Nordic Journal of International Law* 21, 25–26 <DOI:10.1163/15718107-08201003>

¹²¹ *ibid* 26.

¹²² Yves Sandoz and others (eds), *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (International Committee of Red Cross Martinus Nijhoff Publishers 1987) 633

<https://tile.loc.gov/storage-services/service/l1/l1mlp/Commentary_GC_Protocols/Commentary_GC_Protocols.pdf>.

¹²³ *ibid* 662.

¹²⁴ *ibid*.

¹²⁵ ICRC (n 4) 15.

¹²⁶ ‘Vienna Convention on the Law of Treaties’ United Nations, Treaty Series, vol 1155, p. 331 art 31 <<https://www.refworld.org/legal/agreements/un/1969/en/73676>>.

definition within the context and purpose of AP1 requires including different elements of the natural environment. Any other approach would undermine comprehensive environmental protection and contradict the purpose and object of the API.

Environment: civilian object or military objective

Having defined the components of the environment as objects under IHL, the next step is to identify their nature and determine whether they are civilian or military objects. Article 52 of API prohibits attacks on civilian objects and articulates that “Civilian objects shall not be the object of attack or of reprisals. Civilian objects are all objects which are not military objectives as defined in paragraph 2.”¹²⁷ This subsection addresses identifying the environment as a civilian object.

The first argument that can show the environment is civilian objects is legal classification.¹²⁸ In fact, Article 55(1), which is associated with the safeguarding of the natural environment, within Part IV, titled “Protection of the Civilian Population,”¹²⁹ demonstrates the intention of recognizing the environment as a civilian object. Literally, part IV includes the general protection of various civilian objects and cultural properties.¹³⁰ In fact, the way of arrangement of environmental protection within API is indicative of the ICRC’s intention to consider it as a civilian object. Article 54 of this section also considers agricultural areas as an object(s) indispensable to the survival of the civilian population.¹³¹ Hence, AP1, through such categorizing, implicitly defines the environment as a civilian object. Similarly, the commentary to the ICRC Guideline 2020 explains

¹²⁷ *Protocol Additional to the Geneva Conventions of 12 August 1949* (International Committee of the Red Cross 2010) art 52 (1) <https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/icrc_002_0321.pdf>.

¹²⁸ Rigmor Argren (n 109) 1213.

¹²⁹ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 52; Rigmor Argren (n 109) 1213.

¹³⁰ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 52,53.

¹³¹ *ibid* 54.

that AP I locates the natural environment as a civilian object within Chapter IV.¹³² Drawing from this, the “natural environment” in the IHL system must be understood as a civilian object.

Another argument supporting the view that the environment should be treated as an inherent civilian object can be found in soft law. Indeed, Rule 8 of the ICRC Guideline 2020 explicitly includes the natural environment as an example of a civilian object entitled to the duty of constant care.¹³³ Accordingly, the natural environment is recognized as an inherent civilian object that should be protected, in a manner akin to that afforded to civilians and their property.¹³⁴

To conclude the object and civilian object discussion, it is clear that the environment is an object and meets the requirements to be classified as a civilian object because of the arguments mentioned above, and any other interpretation would produce the unreasonable result that the environment is always liable to direct attack.

Military Objectives and the Environment

As a civilian object, the natural environment enjoys protection from attack under IHL. However, civilian objects may lose such protection if they become military objectives.¹³⁵ According to Article 52 of AP I:

“Attacks shall be limited strictly to military objectives. Insofar as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”¹³⁶

¹³² ICRC (n 4) 17.

¹³³ *ibid* 7.

¹³⁴ Rigmor Argren (n 109) 1215.

¹³⁵ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 52.

¹³⁶ *ibid*.

Accordingly, protecting the environment as a civilian object will face challenges and weaknesses when nature, location, purpose, or use of a portion of the environment effectively supports military action.¹³⁷ Here, some assumptions and instances of the time when the environment becomes a military objective are elaborated.

Regarding the *nature* criterion, objects that are directly used by the military, such as military equipment, are considered military objectives.¹³⁸ Application of this criterion on the environment is rare because, as explained earlier, the environment is inherently civilian. Some examples can include digging and setting up mines in some parts of the environment.¹³⁹

Regarding the *use* criterion, the use of an object can turn an otherwise civilian object into a military objective.¹⁴⁰ An example is using a part of a forest for military actions, such as to conceal troops or store munitions; in such a case, that part of the environment could be qualified as a military objective.¹⁴¹

With respect to the *location* criterion, an object may be civilian in nature but, due to its location, make an effective contribution to military action, for example, a bridge.¹⁴² In this vein, if the elements of the natural environment, such as a part of the forest, are used due to their strategic location or for military purposes, that part of the forest may lose its protection.¹⁴³ After that, whether it would be lawful to target will depend on the proportionality assessment, which will be

¹³⁷ Anne Dienelt, *Armed Conflicts and the Environment Complementing the Laws of Armed Conflict with Human Rights Law and International Environmental Law* (Springer 2022) 52.

¹³⁸ Sandoz and others (n 122) 636.

¹³⁹ For example - Luke Harding and Alessio Mamo, “‘We’ve Lost Some Parts of Nature Forever’: Ukraine War’s Impact on Environment – Photo Essay” *The Guardian* (24 February 2025) <<https://www.theguardian.com/world/2025/feb/24/ukraine-war-impact-on-environment-nature-photo-essay>> accessed 28 December 2025.

¹⁴⁰ Sandoz and others (n 122) 636; *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 52.

¹⁴¹ Anne Dienelt (n 137) 72.

¹⁴² Sandoz and others (n 122) 636.

¹⁴³ Anne Dienelt (n 137) 72; *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) 52.

explained in the last chapter of this research. From a legal standpoint, to further protect each element of the environment that is argued to provide a military advantage, the notion of the effective contribution and military advantage must be carefully and strictly assessed in each circumstance.¹⁴⁴

It is now well-established that, while the environment benefits from the protection granted to civilian objects, there are instances where parts of it may transform into targets and lose that protection. Nevertheless, it is worth noting that some provisions of IHL specifically protect the environment.

Environmental Protection under IHL

The protection of the environment under IHL includes several provisions. These provisions include Article 35(3) of API,¹⁴⁵ which provides basic protection for the environment in the IHL. Art. 55 also includes environmental protection.¹⁴⁶ Moreover, the environment has been identified as an indispensable object to the civilian population's survival.¹⁴⁷ Furthermore, the ICRC Guideline 2020 has enumerated protection of the environment when they constitute cultural objects.¹⁴⁸ The following first addresses the correlation between Articles 35(3) and 55 of the API. The rules of specially protected objects will then be reviewed.

The correlation between Art. 55 and 35

This section examines the correlation between these two provisions. Article 35(3) of API prohibits the employment of the “methods and means of warfare which are intended or may be

¹⁴⁴ Droege and Tougas (n 120) 28.

¹⁴⁵ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 35.

¹⁴⁶ *ibid* 55.

¹⁴⁷ *ibid* 54.

¹⁴⁸ ICRC (n 4) 44.

expected to cause widespread, long-term and severe damage to the natural environment.”¹⁴⁹ Article 55(1) states that “care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage.”¹⁵⁰ It specifies that it “includes a prohibition of the use of methods and means of warfare which are intended or may be expected to cause such damage to the environment and thereby to prejudice the health or survival of the population.”¹⁵¹ Both provisions of the API have attained customary international law status.¹⁵²

Methods and means of war can be referred to as the strategies and weapons utilized in war, respectively.¹⁵³ Article 55 obliges parties to comply with the duty of continuous care.¹⁵⁴ The prohibition on using methods and means of war that cause such damage is included in Article 55 as an example of continuous care to protect the environment. Hence, there is an overlap between these two provisions.¹⁵⁵ However, the coverage between these two does not mean these two address the same issue. Indeed, under Article 35, the prohibition applies to the intentional use of strategies and weapons that cause such damage. Hence, if such damage occurs by accident, the protection given to this provision will be questioned. As for the threshold, the adjectives on Art 35 (3) and 55 (1) - widespread, long-term and severe- indicate a cumulative and high threshold.¹⁵⁶ The “long-term” threshold has been defined by some commentators as referring to a period lasting decades,¹⁵⁷ “widespread” refers to an area covering several kilometres,¹⁵⁸ and “severe” refers to a

¹⁴⁹ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 35 (3).

¹⁵⁰ *ibid* 55 (1).

¹⁵¹ *ibid*.

¹⁵² Stavros-Evdokimos Pantazopoulos, ‘Reflections on the Legality of Attacks against the Natural Environment by Way of Reprisals’ (2020) 10 *Goettingen Journal of International Law* 47, 62.<10.3249/1868-1581-10-1-pantazopoulos>

¹⁵³ ‘Doctors without Borders | The Practical Guide to Humanitarian Law’ <<https://guide-humanitarian-law.org/content/article/3/methods-and-means-of-warfare/>> accessed 28 December 2025.

¹⁵⁴ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) 55.

¹⁵⁵ Sandoz and others (n 122) 663.

¹⁵⁶ Rigmor Argren (n 109) 1214.

¹⁵⁷ *ibid* 1213.

¹⁵⁸ *ibid*; Droege and Tougas (n 120) 25.

significant disruption that often exceeds the normal damage expected during armed conflict.¹⁵⁹ It should be noted that the word “sever” mainly includes environmental concerns.¹⁶⁰ However, such a threshold is not straightforward and clear enough.¹⁶¹ Looking at Article 55(1), the removal of the word “civilians” from “the population” in this article implicitly means the damage will not only harm civilians immediately but also affect the entire population, including those living in the broader area.¹⁶²

Environment as the specially protected objects

There are also some provisions in AP I that protect the environment as specially protected objects. The following addresses the related provisions.

Environment: survival of the civilian population

The notion of an object essential to the survival of the civilian population creates another ground for protecting the environment in IHL. Pursuant to Article 54 (2) of AP1, “It is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations.”¹⁶³ At first glance, this clause does not explicitly safeguard all elements of the natural environment; only agricultural land and irrigation supplies have been described as essential to survival.¹⁶⁴ Critically, drawing from this provision, it appears to consider the possibility of incidental damage. For example, incidental damage to air quality might be possible, provided it did not render the air useless. Hence, this article seems to confine the crucial elements of the

¹⁵⁹ Saeed Bagheri and Gerhard Kemp, ‘Damage to and Destruction of the Natural Environment-Terraforming Warfare in Gaza and Accountability for Ecocentric Crimes’ (2025) 23 *Journal of International Criminal Justice* 427, 436 <<https://doi.org/10.1093/jicj/mqaf049>>

¹⁶⁰ *ibid* 438.

¹⁶¹ *ibid*.

¹⁶² Sandoz and others (n 122) 662.

¹⁶³ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 112) art 54 (2).

¹⁶⁴ *ibid* 54.

environment to those necessary for survival, such as safe food and clean water. For example, farming and agriculture are considered indispensable for civilian survival under this provision and are essential for providing basic human needs. Hence, other parts and elements of the environment seem beyond the scope of this provision. Nonetheless, the commentary to AP 1 interpreted the environment as non-exhaustive language, which means that different elements of the environment are also protected under this article.¹⁶⁵

It seems that the main reason Article 54 presents agricultural lands and farms as such an object is that instances in which the destruction of farms and agricultural lands has impacted food production and civilian survival are more common than other parts of the environment. For example, a water-diversion system was used in an armed conflict in Iraq to flood large parts of agricultural areas in 2014.¹⁶⁶ This resulted in significant and serious land degradation and the forced relocation of families and people living in that area.¹⁶⁷

Discussion about the extent of the objects indispensable to the survival of the civilian population is important because a broader range of natural elements indispensable to civilian survival will provide greater protection for the environment. Based on Rule 10 of the ICRC Guideline 2020, “Attacking, destroying, removing or rendering useless objects indispensable to the survival of the civilian population is prohibited, including when such objects are part of the natural environment.”¹⁶⁸ Drawing from this provision, it seems that soft law is moving toward broadening the link between more elements of the natural environment and human lives. Indeed, based on this

¹⁶⁵ Sandoz and others (n 122) 662.

¹⁶⁶ United Nations Environmental Programme, ‘Environmental Issues in Areas Retaken from ISIL, Mosul, Iraq; Technical Note’ (United Nations Environment 2017) 21 <<https://wedocs.unep.org/rest/api/core/bitstreams/ada369ba-cba7-483b-b288-e8d03a4cce2b/content>>.

¹⁶⁷ *ibid* 22.

¹⁶⁸ ICRC (n 4) r 10.

rule, it can be argued that all parts of the natural environment can be included in this provision as long as they have a necessary role for civilian survival. From the R2HE perspective, it seems that the ICRC Guideline 2020 can establish a closer link between R2HE and environmental protection during war. To support this idea, it can be argued that the ICRC Guideline 2020 provides direct and indirect protection by preventing attacks on various parts of the environment.¹⁶⁹ Indirect protection extends the scope of protection by requiring the preservation of objects or systems that have a critical role in achieving the objectives of this provision, even if this equipment is not inherently part of the environment.¹⁷⁰ That is to say, disrupting an irrigation system, wastewater treatment plants, or installations that support and are necessary for agricultural lands must be protected based on this rule because they safeguard parts of the environment essential for civilian survival.¹⁷¹ In fact, it can be argued that protecting man-made objects that support the elements specifically mentioned in the article carries greater significance and differs from protecting man-made objects that protect parts of the natural environment which are not linked to the parts of the natural environment mentioned in the article. This argument relies on a purposive interpretation of the mentioned article, which necessitates specific protection of objects indispensable for the survival of the civilian population. In this context, the UN Security Council, in a 2021 Resolution, indicates that any use of means and methods of war that destroy such objects violates IHL.¹⁷² The example is the destruction of the Harsile water in 1999 through bombing.¹⁷³ In this example, the Harsile water reservoir, as a part of the environment, was a source of drinking water which

¹⁶⁹ ICRC, ‘Guidelines on the Protection of the Natural Environment in Armed Conflict’ 64 <<https://www.icrc.org/en/publication/4382-guidelines-protection-natural-environment-armed-conflict>>.

¹⁷⁰ *ibid.*

¹⁷¹ *ibid.*

¹⁷² United Nations Security Council, ‘Resolution 2573’ (2021), UN Doc S/RES/2573, 1 <<https://digitallibrary.un.org/record/3924402?ln=en&v=pdf>>.

¹⁷³ ICRC (n 169) 63.

contained drinking water supplies.¹⁷⁴ While the mentioned supplies were man-made objects, they supported objects indispensable for survival and are considered protected by this rule.¹⁷⁵

However, the protection of indispensable objects in IHL is not absolute.¹⁷⁶ There are some situations under which they might be attacked.¹⁷⁷ The first is when these objects are identified as military objectives, especially when they are primarily used by the military.¹⁷⁸ At this point, the significance of recognizing specific environmental protection is to prevent direct destruction in the event of doubt. Indeed, if there is doubt that such objects are being used exclusively for military purposes, the specific protection requires a narrow interpretation.¹⁷⁹ The second situation in which these objects may be destroyed is when they are not directly targeted but rendered useless by the reverberating effects of attacks. This situation relates to the application of proportionality, and the reverberating effects will be explained in the fourth chapter of this research.

Environment and the protection of cultural objects

Another environmental protection measure in API concerns cultural objects.¹⁸⁰ In fact, in some cases, certain aspects of the environment, such as parts of the forest, can be valued for their cultural significance. For example, the sacred grove forests, which UNESCO has listed as a representation of all Yoruba people's identity, are part of their culture.¹⁸¹ Accordingly, some parts of the

¹⁷⁴ *ibid* 64.

¹⁷⁵ *ibid*.

¹⁷⁶ Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law. Vol. 1: Rules* (Cambridge University Press 2009) 192 <https://www.onlinelibrary.ihl.org/wp-content/uploads/2021/06/Cust-Intl-Hum-Law_Vol-I_Rules.pdf>.

¹⁷⁷ *ibid*.

¹⁷⁸ *ibid*.

¹⁷⁹ *ibid* 193.

¹⁸⁰ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 53.

¹⁸¹ 'Osun-Osogbo Sacred Grove - UNESCO World Heritage Centre' <<https://whc.unesco.org/en/list/1118/>> accessed 28 December 2025.

environment may need greater protection, not only because of their impact on humanity but also because of their role in a culture.

Turning to IHL, cultural property is given special protection under Article 53 of API.¹⁸² Nonetheless, Article 53 appears to adopt a narrow construction of what may amount to cultural property, highlighting “historic monuments, works of art or places of worship.”¹⁸³ It seems that the ICRC Guideline 2020 has provided more protection for elements of the natural environment when they constitute cultural objects.¹⁸⁴ Rule 12 in the Guidelines addressed the protection of the environment as cultural property.¹⁸⁵ This protection seems to be twofold.¹⁸⁶ While the ICRC Guideline 2020 has provided greater protection for the natural environment as a cultural object, there is still a situation where those objects might be destroyed. Indeed, the first part of the mentioned rule implied that these objects could be turned into legitimate targets if imperative military necessity required them.¹⁸⁷ Although most cultural objects are man-made and not part of the natural environment, there are some instances, such as a cave with paintings, that constitute a part of the environment and are therefore cultural objects.¹⁸⁸ Accordingly, a part of the natural environment can be considered a cultural object when it provides cultural or heritage significance for a people.¹⁸⁹

Looking at rule 12, it seems that the protection given to the environment as a cultural object under the second part of the provision, which says that “directing acts of hostility against historic monuments, works of art or places of worship which constitute the cultural or spiritual heritage of

¹⁸² *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 53.

¹⁸³ *ibid.*

¹⁸⁴ ICRC (n 169) r 12.

¹⁸⁵ *ibid.*

¹⁸⁶ *ibid.*

¹⁸⁷ *ibid.*

¹⁸⁸ ICRC (n 169) 70.

¹⁸⁹ *ibid.* 71.

peoples, including when these are part of the natural environment ... is prohibited.”¹⁹⁰ On this occasion, it is not subject to exemption and can be absolute. Indeed, when part of the natural environment simultaneously embodies historical value and holds spiritual significance, it deserves greater protection.¹⁹¹

Chapter Conclusion

To summarize the discussion on the legal status of the environment under IHL, the first stage in protecting the environment under the IHL system is to define it as an object. Second, the object in question needs to be classified as either military or civilian. This chapter established that the environment is undoubtedly an object under the IHL system and, more importantly, is entitled to the protection granted to civilian objects. In the provisions explaining the fundamental rules of IHL, it became evident that the basic rules of this legal system set a high threshold for prohibiting damage to the environment. Following this, the environment is elaborated as an object that requires specific environmental protection, based on the protection given to objects indispensable to the survival of the civilian population and to cultural objects. However, such protection may be subject to exemptions, and the environment may lose the protection.

Chapter Three: The relationship between IHRL and IHL

In the last two chapters, the legal status of the environment under IHRL and IHL was examined. At this stage, it is important to determine how IHRL and IHL interact and what is the correlation between these two legal systems. To achieve this, it must be determined if IHRL is applicable during armed conflict. Accordingly, the first subsection addresses the applicability of IHRL during armed conflict. Later, the subsequent subsections will address different approaches and theories

¹⁹⁰ ICRC (n 169) r 12.

¹⁹¹ *ibid* 70.

regarding the relationship between these two branches of law during armed conflict. This is necessary to make a connection between R2HE, as a human right, and the application of the proportionality principle. The main argument in this chapter is that R2HE continues to apply during armed conflicts and can provide more details about the protection of the environment.

The applicability of the IHRL during International Armed Conflict (IAC)

IHRL and IHL are two independent bodies of law.¹⁹² Traditionally, it has been argued that these two branches of law differ, as IHRL aims to protect human rights and, more importantly, has been designated to preserve these rights against abusive power.¹⁹³ IHL has been created to regulate the acts of parties during armed conflicts.¹⁹⁴ But in the view of this thesis, these two branches of law cannot be thought of as thoroughly separated or opposed. In essence, the protection of human beings is a common concept which is at the center of both bodies of law. Indeed, there are several points of intersection between them, such as protecting persons' dignity and integrity and the right to life.¹⁹⁵

There are several arguments supporting the applicability and interaction of IHRL with IHL. First, human rights norms were frequently invoked by UN bodies in relation to the applicability of IHL.¹⁹⁶ For example, in Resolution 2675, it indicated that “fundamental human rights as accepted in international law continue to apply fully in situations of armed conflict.”¹⁹⁷ This resolution is

¹⁹² Cordula Droege, ‘The Interplay between International Humanitarian Law and International Human Rights Law in Situations of Armed Conflict’ (2007) 40 *Israel Law Review* 310, 310 <https://www.cambridge.org/core/product/identifier/S0021223700013376/type/journal_article> accessed 29 December 2025.

¹⁹³ *ibid.*

¹⁹⁴ *ibid.*

¹⁹⁵ *ibid.* 312.

¹⁹⁶ Raphael Van Steenberghe, ‘The Impacts of Human Rights Law on the Regulation of Armed Conflict: A Coherence-Based Approach to Dealing with Both the “Interpretation” and “Application” Processes’ 104 *International Review of Red Cross* 1345, 1347.

¹⁹⁷ UN. General Assembly, ‘Resolution 2675; Basic principles for the protection of civilian populations in armed conflicts’ UN Doc A_RES_2675(XXV) <<https://digitallibrary.un.org/record/201888>> accessed 29 December 2025.

evidence of the normative development of IHL based on human rights consideration and the possibility of the coexistence of these two legal systems.¹⁹⁸

Another important reason indicating the applicability of IHRL during armed conflicts concerns the ICJ's decisions. In 1996, the ICJ, in the advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*, identified that the protection of the ICCPR does not terminate at the time of armed conflict.¹⁹⁹ This perspective was maintained in the subsequent case law and has established a basis for the concurrent application of IHL and IHRL.²⁰⁰ In 2004, in another case, the ICJ again reasoned that “the protection offered by human rights conventions does not cease in case of armed conflict.”²⁰¹ While the court's approach regarding the way these bodies of law interact with each other differs in these cases, they are the same in terms of the continuous application of IHRL alongside IHL. These two primary cases, which will be described in the following subsections, demonstrate the continued application of IHRL and IHL.

Third, the reference to human rights interpretation by the international bodies is not limited to the ICJ's case law. The International Criminal Tribunal for the former Yugoslavia (ICTY) in the case of *Prosecutor v Milorad Krnojelac*, has indicated that distinct functions of IHRL and IHL do not necessarily prevent human rights from being referred to in aspects that are common in IHL and IHRL.²⁰² In this case, the ICTY indicated that the criteria used by the ECtHR regarding the gravity of the act of torture and its connection with other suffering could be adapted. In the mentioned

¹⁹⁸ Raphael Steenberghe (n 196) 1347.

¹⁹⁹ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion* (n 17) 25.

²⁰⁰ Yuval Shany, ‘Co-Application and Harmonization of IHL and IHRL: Are Rumours about the Death of Lex Specialis Premature?’ in Robert Kolb, Gloria Gaggioli, and Pavle Kilibarda (eds), *Research Handbook on Human Rights and Humanitarian Law* (Edward Elgar, forthcoming 2020) 17.

²⁰¹ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory (advisory opinion)* [2004] International Court of Justice [105].

²⁰² *Prosecutor v Milorad Krnojelac (Trial Judgement)* [2002] International Criminal Tribunal for the former Yugoslavia (ICTY) IT-97-25-T [181].

example, it was highlighted that “Trial Chamber regards the general reasoning and criteria used by the European Court of Human Rights to assess the gravity of the act of torture as well as its relationship with other less serious offences.”²⁰³ As a result, this can establish common ground for recognizing the use of human rights interpretation in determining the definition of a specific matter. In the same line, the recent policy on addressing environmental damage through the Rome Statute has indicated that the interpretation of the Rome Statute’s provisions should be compatible with the human rights recognized in international law, and R2HE is related to assessing environmental crimes.²⁰⁴ While IHL and international criminal law are not the same bodies of law, and the former is relevant to the interpretation and development of the latter, referring to human rights to interpret a crime by a court arguably demonstrates the importance of the applicability of human rights norms during armed conflicts.

Last but not least, the International Law Commission (ILC) viewpoint is that the mere presence of an armed conflict does not halt or suspend the application of international treaties.²⁰⁵ Article 3 of the Draft Articles on the Effects of Armed Conflicts on Treaties states that “the existence of an armed conflict does not *ipso facto* terminate or suspend the operation of treaties.”²⁰⁶ This Draft Article is of high importance because it demonstrates the continued application of human rights and environmental treaties and conventions to which parties of armed conflict are members.²⁰⁷

²⁰³ *ibid.*

²⁰⁴ Office of the Prosecutor, ‘Policy on Addressing Environmental Damage Through The Rome Statute’ (International Criminal Court 2025)12 <<https://www.icc-cpi.int/sites/default/files/2025-12/2025-env-eng.pdf>> accessed 29 December 2025.

²⁰⁵ Marko Milanovic, ‘The Lost Origins of Lex Specialis: Rethinking the Relationship between Human Rights and International Humanitarian Law’ in *Theoretical Boundaries of Armed Conflict and Human Rights* (Cambridge University Press 2016) 78, 103.

²⁰⁶ International Law Commission, ‘Draft Articles on the Effects of Armed Conflicts on Treaties, with Commentaries’ art 3 <https://legal.un.org/ilc/texts/instruments/english/commentaries/1_10_2011.pdf>.

²⁰⁷ *ibid* arts 6, 7.

The relationship between IHRL and IHL

Having established the continued applicability of IHRL during conflict, it is necessary to identify how these bodies of law interact with one another. In effect, the primary question is how they can coexist. There are different theories on the relationship between these two bodies of law.²⁰⁸ The following subsection aims to scrutinize two dominant theories, *lex specialis* and complementary application, along with their advantages and disadvantages. The intention is to determine the most appropriate theory regarding the connection between IHL and IHRL to apply to the proportionality principle in the subsequent chapter. In this regard, the *lex specialis* theory will be defined at the first stage. The strengths and weaknesses of this theory will be examined. Later, the theory of complementary application will be explained. At the end, the relationship between IHRL and IHL regarding R2HE is discussed.

The relationship between IHRL and IHL: The Lex Specialis

In definition, the maxim of *lex specialis* refers to a rule that is used to solve a conflict between different norms or laws.²⁰⁹ Indeed, two different laws or norms may apply to a single situation but contradict each other: one as a general rule and the other as a specific one. This contradiction may occur between individual norms or an entire body of law.²¹⁰ Here, the '*lex specialis derogat legi generali*' means the more general rule is replaced by the more specific rule.²¹¹ In the context of IHL and IHRL, one area of law may provide more detail on a specific matter.²¹² It is believed that

²⁰⁸ Droege (n 192) 335.

²⁰⁹ Dorota Marianna Banaszewska, 'Oxford Public International Law: Lex Specialis' <<https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e2171>> accessed 29 December 2025.

²¹⁰ *ibid.*

²¹¹ Sassoli Marco, *International Humanitarian Law: Rules, Controversies, and Solutions to Problems Arising in Warfare* (Second eds, Edward Elgar Publishing, 2024) ISBN: 978 1 80088 690 2, 471.

²¹² *ibid* 471–472.

IHL prevails in the context of armed conflict.²¹³ For instance, the right to life, at the time of the conflict, is subject to more detailed rules.²¹⁴

Two assumptions exist regarding the *lex specialis* theory.²¹⁵ One view is that the specific law is given priority over the more general law; in this context, the general law remains the default, and a more detailed law or special norm renders the general law inapplicable to the specific situation.²¹⁶ The application of the *lex specialis* theory as an overriding rule requires two main criteria. First is the existence of actual inconsistency between different rules regarding a subject matter.²¹⁷ Second, a specific rule must have the intention to exclude another.²¹⁸ Another view of *lex specialis* is that it serves as an interpretative mechanism.²¹⁹ Examining case law, the Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons* is the case that ICJ introduced the *lex specialis* theory to govern the interactions between IHL and IHRL. The ICJ stated that:

“The Court observes that the protection of the International Covenant of Civil and Political Rights does not cease in times of war, except by operation of Article 4 of the Covenant whereby certain provisions may be derogated from in a time of national emergency... The test of what is an arbitrary deprivation of life, however, then falls to be determined by the applicable *lex specialis*, namely, the law applicable in armed conflict, which is designed to regulate the conduct of hostilities.”²²⁰

²¹³ *ibid* 472.

²¹⁴ *ibid* 460.

²¹⁵ Banaszewska (n 209) 3.

²¹⁶ *ibid*.

²¹⁷ *Obligations of States in respect of Climate Change* (n 10) [167].

²¹⁸ *ibid*.

²¹⁹ Banaszewska (n 209) 3, 4.

²²⁰ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion* (n 17) [25].

As this statement demonstrates, the criteria for arbitrariness in the arbitrary deprivation of the right to life and for non-arbitrary violations of the right to life during war were analyzed in light of the applicable law, which was the law of armed conflict in that case.²²¹ However, in the view of the current thesis, the mentioned approach is subject to criticism for several reasons. First, it is not apparent what the required criterion is for determining the more general and specific rules within these two legal systems.²²² Second, the fact that IHL includes details regarding the deprivation of the right to life does not mean that it can provide details of any other rights, such as R2HE. For example, IHL may include provisions to safeguard the health of civilians, but IHRL provides more specific details on the right to health and helps to understand the right to health.²²³ The third criticism of the reliance on the *lex specialis* as the governing rule between IHL and IHRL is that when both bodies of law provide specific regulations for a given situation simultaneously, it remains unclear which law should be prioritized under the principle of *lex posteriori derogat legi priori*.²²⁴ The mentioned principle is different than *lex specialis derogate lex generalis*, and relates to the applicability of earlier law.²²⁵ This principle is of significant importance in the current thesis since it can support the IHL rules' interpretation in light of the R2HE.

²²¹ Christopher Greenwood, 'The Advisory Opinion on Nuclear Weapons and the Contribution of the International Court to International Humanitarian Law' (1997) 37 *International Review of the Red Cross* 65, 68 <https://www.cambridge.org/core/product/identifier/S002086040008431X/type/journal_article> accessed 29 December 2025; *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion* (n 17) [25].

²²² Nancie Prud'homme, 'Lex Specialis: Oversimplifying a More Complex and Multifaceted Relationship?' 40 *Israel Law Review* 2007 355, 382 <<https://papers.ssrn.com/abstract=1032156>> accessed 29 December 2025.

²²³ *ibid.*

²²⁴ Yuval Shany (n 200) 10.

²²⁵ Aaron X Fellmeth and Maurice Horwitz, 'Lex Posterior Derogat (Legi) Priori' *Guide to Latin in International Law* (Oxford University Press 2011) <<https://www.oxfordreference.com/display/10.1093/acref/9780195369380.001.0001/acref-9780195369380-e-1282>> accessed 29 December 2025.

The relationship between IHRL and IHL: The complementary theory

Another theory is to apply both bodies of law cumulatively.²²⁶ In this view, these two bodies are believed to complement each other and do not exclude each other from application.²²⁷ The ICJ, in its advisory opinion concerning the *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, in relation to the questions relating to the right to life during armed conflict, declared that:

“... some rights may be exclusively matters of international humanitarian law; others may be exclusively matters of human rights law; yet others may be matters of both these branches of international law. To answer the question put to it, the Court will have to take into consideration both these branches of international law, namely human rights law and, as *lex specialis*, international humanitarian law.”²²⁸

Unfortunately, however, the court did not provide any insight into which rights (matters) fell into which categories of law.²²⁹ The most crucial point in this case is that IHL did not override human rights law, and that human rights law should not always be interpreted through the lens of IHL.²³⁰ In 2005, in another case, the ICJ adopted this perspective when addressing the interaction of IHRL and IHL.²³¹ However, the court avoided using the term *lex specialis*.²³² The ICJ concluded that: “... both branches of international law, namely international human rights law and

²²⁶ Yuval Shany (n 200) 2, 12.

²²⁷ United Nations Human Rights Committee (n 104) 13.

²²⁸ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* (ICJ) [106].

²²⁹ Prud’homme (n 222) 377.

²³⁰ Louise Doswald-Beck, ‘The Role of International Humanitarian Law in Human Rights Law’ *Human Rights in Times of Conflict and Terrorism* (1st edn, Oxford University Press 2011) 106, 107. <<https://doi.org/10.1093/law/9780199578931.003.0005>> accessed 29 December 2025.

²³¹ *Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)* [2005] International Court of Justice [216].

²³² Doswald-Beck (n 230) 107.

international humanitarian law, would have to be taken into consideration...”²³³ The court elaborated that the applicable laws in this case between the DRC and Uganda included the African Charter on Human and Peoples’ Rights, the Convention on the Rights of the Child, the ICCPR, and the Fourth Geneva Convention.²³⁴

Further, in the ICJ's view, as stated in *Legality of the Threat or Use of Nuclear Weapons Advisory Opinion*, the environment is essential to the quality of life of current and future generations.²³⁵ The court referred to the states’ general environmental obligation under international law. In this case, the court noted that environmental considerations were relevant to the assessment of necessity and proportionality.²³⁶ The Court accordingly indicated that States’ international obligations regarding the environment should be followed during war.²³⁷

To conclude, the interaction of IHL and IHRL, as *lex specialis* and *lex generalis*, may change in different contexts. *Lex specialis*, as a tool of interpretation, applies norm-by-norm and does not entirely replace a legal system.²³⁸ To this end, this theory needs to be applied contextually, and a norm that is determined to be *lex specialis* does not completely replace another regime. But it can be applied to determine whether IHRL or IHL is to be used for interpretation.²³⁹

Relationship between IHL and IHRL and The ICRC Guideline 2020

The argument, here, is that the IHL system concerning environmental protection has been influenced by the normative development of the R2HE in IHRL. Furthermore, the introduction of

²³³ *Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)* (n 231) [216].

²³⁴ *ibid* 217.

²³⁵ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion* (n 17) [29].

²³⁶ *ibid*.

²³⁷ *ibid* 20.

²³⁸ *Case of Ukraine and the Netherlands v Russia* [2025] European Court of Human Rights, Grand Chamber Applications nos. 8019/16, 43800/14, 28525/20 and 11055/22 [383] <<https://hudoc.echr.coe.int/?i=001-244292>>.

²³⁹ *ibid*; Yuval Shany (n 182) 11.

the ICRC Guideline 2020 has pointed to the fact that several resolutions have been adopted by the UNHRC regarding the environment and human rights, and a Special Rapporteur on the R2HE has been appointed to determine best practices for human rights obligations arising from this right.²⁴⁰ Given this, it can be contended that acknowledging the progressive development of the R2HE in the introduction of the Guideline could be evidence of the further possible influence of the normative progression of this right on the development of IHL. This argument is reinforced by the statement in the guideline articulating:

“...The interplay between humanitarian and human rights law is such that in some cases both legal regimes will apply simultaneously, with determinations on the exact nature of their relationship having to be made on a case-by-case basis depending on the circumstances at hand. The interface of humanitarian and human rights law remains a complex issue that will undoubtedly evolve and be clarified going forward...”²⁴¹

The evolution of the interplay between these two legal systems can be understood from this statement. Consequently, this paved the way for adopting a deeper, evolving human rights approach to IHL rules.

Extraterritorial Obligation

Extraterritoriality is an important issue concerning the interaction between IHL and IHRL. For example, it is important to clarify if country A invades country B, whether country A’s human rights obligations apply in country B.

²⁴⁰ ICRC (n 169) 24.

²⁴¹ *ibid* 25.

According to the ICCPR, states are committed to protecting the human rights of individuals who are within their jurisdiction or territory.²⁴² This could mean that states are not considered the duty holders for those outside their territory or jurisdiction.²⁴³ However, under IHRL, jurisdiction and territory are not the same. In essence, jurisdiction includes territory.²⁴⁴ Extraterritorial jurisdiction can manifest when states apply a degree of control over other states or individuals beyond their own territory.²⁴⁵ When a state carries out effective control over another state, its obligations remain applicable.²⁴⁶ At this point, states will have extraterritorial human rights obligations. The military actions of the State's forces in the other territory often demonstrate a degree of control in the execution of extraterritorial conduct.²⁴⁷ The obligation to prevent environmental harm prevents states from carrying out the activities which produce extraterritorial environmental impacts.²⁴⁸ It applies when environmental activity in a territory is associated with environmental harm in other states. At this point, the state needs to take positive obligations and due diligence to prevent transboundary harm.²⁴⁹

Interaction between IHL and IHRL concerning the R2HE

This subsection aims to provide an analysis of the application of the theories and approaches to the R2HE. Applying the *lex specialis* theory to the R2HE during an international armed conflict is complex, as mentioned above, the *lex specialis* in this context requires the application of the most

²⁴² 'International Covenant on Civil and Political Rights' (n 78) art 71.

²⁴³ Philipp Janig, 'Extraterritorial Application of Human Rights' (2021) 2 Edward Elgar Publishing 2022 1 <<https://papers.ssrn.com/abstract=3906741>> accessed 31 December 2025.

²⁴⁴ *ibid* 3.

²⁴⁵ *ibid* 3, 4.

²⁴⁶ *ibid*.

²⁴⁷ *ibid* 4; *Advisory Opinion OC-23/17, Requested by the Republic of Colombia; The Environment and Human Rights* (n 74) [79], [80].

²⁴⁸ *Pulp Mills on the River Uruguay (Argentina v Uruguay) Judgment* [2010] International Court of Justice [101] <<https://www.icj-cij.org/sites/default/files/case-related/135/135-20100420-JUD-01-00-EN.pdf>>.

²⁴⁹ *ibid*; *Advisory Opinion OC-23/17, Requested by the Republic of Colombia; The Environment and Human Rights* (n 74) [174].

specific legal framework in each situation for interpretation. In practice, this may involve three bodies of law, including IHRL, IHL, and IEL. In this regard, the R2HE has more details regarding substantive elements of R2HE, the collective dimension and the sustainability of the environment for future generations.²⁵⁰ On the other hand, environmental law and standards can serve as a means of implementation of the R2HE and the prevention of environmental harm as positive human rights obligations of states to protect and fulfill this right.²⁵¹ Hence, the application of the rule of targeting in IHL means that conduct prohibited by the R2HE might be permitted – or at least tolerated - during armed conflict.

Looking at case law, the ECtHR decided that the right to liberty and security of a person, which is defined in Article 5 of the ECHR, was interpreted in light of the IHL's related provisions.²⁵² Indeed, Article 5 is not derogated from but is interpreted in accordance with the IHL regulation. The ECtHR, however, noted that the procedural aspect of Article 5 concerning internment must be preserved.²⁵³ Indeed, the procedural aspects of the internment are covered by human rights law. In analogy with the R2HE, it can be argued that, while the *lex specialis* can be used to interpret human rights, IHRL can be used as a complementary source concurrently. This means that, even if harm to the environment and violations of the R2HE are interpreted under IHL to prioritize military objectives as *lex specialis*, the R2HE's procedural aspects, access to information, will remain within the auspices of IHRL. In essence, R2HE can fortify the protection afforded under IHL for

²⁵⁰ 'Unpacking the Rights to a Healthy Environment: How National and Regional Laws and Jurisprudence Clarify the Scope and Content of the Universal Right.' 18 <<https://r2he.info/wp-content/uploads/2024/07/Unpacking-20-06-23.pdf>>.

²⁵¹ John H Knox, 'Framework Principles on Human Rights and the Environment' 18, 19 <<https://www.ohchr.org/sites/default/files/Documents/Issues/Environment/SREnvironment/FrameworkPrinciplesUserFriendlyVersion.pdf>>; UNGA, 'Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment' (2016) A/HRC/37/59, 15 <<https://docs.un.org/en/a/hrc/37/59>> accessed 29 December 2025.

²⁵² *Hassan v the United Kingdom [GC] Judgment* [2014] ECtHR Application no. 29750/09 [107] <<https://hudoc.echr.coe.int/fre?i=001-146501>>.

²⁵³ *ibid* 106.

the environment. For example, AP I protects agricultural lands and areas for the production of foodstuffs as an indispensable object for survival.²⁵⁴ Hence, the application of the R2HE during armed conflict can reinforce the protection of objects indispensable for survival.

Conclusion

This chapter examined the distinction and relationship between IHL and IHRL. It became evident that IHRL will not cease when armed conflicts start, and both bodies of law continue to apply. Having reviewed various cases, it became evident that the idea of overriding IHL during armed conflict is outdated, and the *lex specialis* principle is primarily used as an interpretive rule. The theory of complementary application and *lex specialis* are both applicable during armed conflicts, depending on the context. The complementary theory holds that both legal systems can be considered simultaneously, each addressing issues not covered by the other. The chapter suggestion is to take both theories regarding the R2HE to address the proportionality principle. This might be the central premise when examining the proportionality principle and the long-lasting incidental harm of an attack. Such an assumption will be even more aligned with the overall purpose of the Additional Protocol to protect the environment.

Chapter Four: Application of the R2HE on the Proportionality in Conduct of Hostilities

The main aim of this chapter is to examine the role and relevance of the R2HE within the targeting process, both generally and specifically, in the interpretation of the proportionality principle. This chapter aims to figure out why and how the R2HE can be used to inform and interpret the proportionality assessment. To do so, the proportionality principle and its components will be briefly explained first. Then, the cumulative effects of different attacks on the environment

²⁵⁴ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) para 54.

and the reverberating effect of environmental destruction will be examined. Third, the role and relevance of the R2HE, and why the R2HE needs to be used to analyze the proportionality principle, will be explained. Contemporary armed conflicts are scrutinized with the view of the R2HE and incidental harm. To explore these issues, this chapter adopts a constructive legal method, aiming to interpret the proportionality principle and its elements through the lens of IHRL.

The principle of proportionality and its components

The fundamental principle in IHL to protect civilians is the principle of distinction.²⁵⁵ The principle of distinction necessitates discriminating between civilian persons or objects and military objectives.²⁵⁶ The precautionary principle is another principle of IHL, which is associated with the obligation to take constant care during the military operation to protect the civilian population and objects.²⁵⁷ In practical terms, this requires taking all possible precautions during military operations, such as choosing the least destructive means and methods of attack or providing advanced warning.²⁵⁸ The proportionality principle is another principle in IHL which originates from customary IHL and applies to both international and non-international armed conflicts.²⁵⁹ This principle prohibits “an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”²⁶⁰

²⁵⁵ Jonathan Crowe and Kylie Weston-Scheuber, ‘Protection of Civilians’, *Principles of International Humanitarian Law* (Edward Elgar Publishing 2013) 70, 71 <<https://doi.org/10.4337/9781781002735.00008>> accessed 1 January 2026.

²⁵⁶ *ibid*; *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 130) art 48.

²⁵⁷ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 130) art 57 (1).

²⁵⁸ Crowe and Weston-Scheuber (n 255) 78; *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 57 (2)(c).

²⁵⁹ Henckaerts and Doswald-Beck (n 176) 48, 49.

²⁶⁰ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 51 (5) (b).

The principle of proportionality is intended to protect civilians and civilian objects and limit the incidental harm resulting from an attack on a legitimate target.²⁶¹ However, it is worth mentioning that this principle pertains to protecting civilian persons and objects during hostilities and applies to attacks only.²⁶² As discussed in the second chapter, the direct destruction and targeting of a civilian object or person is prohibited unless the nature, location, or purpose of the object effectively contributes to military action, at which point it becomes a military objective. At this point, the incidental casualties or damage that may result from the destruction or neutralization of a target need to be assessed, and if they are foreseeably excessive, the attack will be disproportionate.²⁶³

Looking at Rule 7 of the ICRC Guideline 2020,²⁶⁴ it seems that it has made an effort to protect the environment through this principle. It articulates that: “Launching an attack against a military objective which may be expected to cause incidental damage to the natural environment which would be excessive in relation to the concrete and direct military advantage anticipated is prohibited.”²⁶⁵ Nonetheless, the extent of the incidental harm protected by this principle remains unclear and is still a matter of debate.²⁶⁶ In practical terms, these are the non-immediate effects of an attack and the combined effects of several attacks.²⁶⁷ These two issues will be further explained and analyzed in this chapter. At first, it is necessary to briefly examine the principle’s variables

²⁶¹ Amichai Cohen and David Zlotogorski, ‘A General Overview of Proportionality in IHL’, *Proportionality in International Humanitarian law; consequences, precautions and Principles* (Oxford University Press 2021) 23, 23–26. <<https://doi.org/10.1093/oso/9780197556726.003.0003>>

²⁶² Anaïs Maroonian, ‘Proportionality in International Humanitarian Law: A Principle and a Rule’ (*Lieber Institute West Point*, 24 October 2022) <<https://lieber.westpoint.edu/proportionality-international-humanitarian-law-principle-rule/>> accessed 1 January 2026.

²⁶³ Aurel Sari, ‘Indiscriminate Attacks and the Proportionality Rule: What Is Incidental Civilian Harm?’ (2025) 30 *Journal of Conflict & Security Law* 203, 218.

²⁶⁴ ICRC (n 169) r 7.

²⁶⁵ *ibid.*

²⁶⁶ Costi (n 6) 320.

²⁶⁷ Amichai Cohen and David Zlotogorski, ‘Incidental Harm and Analysis of Proportionality’, *Proportionality in International Humanitarian law; consequences, precautions and Principles* (Oxford University Press 2021) 83, 84.

and components, in particular the concepts of incidental damage, concrete and direct military advantage anticipated, and excessiveness.

Collateral damage and Incidental harm

In general, the term collateral damage has not been mentioned in AP I. Collateral damage refers to incidental and unintentional harm to civilians and civilian objects arising from an attack.²⁶⁸ Collateral damage contains two different scopes of effects: direct and indirect.²⁶⁹ While direct effects are immediate, such as the destruction of a hospital, indirect effects are those that result from an attack and its consequences, but are not immediate results of the attack.²⁷⁰ An example of an indirect effect is the malfunctioning of a water installation, which resulted from an attack on a nearby station.²⁷¹

Within the context of the environment during targeting operations, the concept of collateral damage refers not only to pollution of different elements of the natural environment but also to the effects on human health and life resulting from an attack on a target.²⁷² Indeed, while the primary target of the attack is another object, the collateral damage includes soil, water and air pollution.²⁷³ For example, an attack and destruction of a ship pollutes a river or marine ecosystem.²⁷⁴ This may also impact the health of people who rely on it for food.

²⁶⁸ Daniel Berchev, 'Collateral Damage and International Humanitarian Law: Legal and Ethical Considerations', *Proceedings of the annual proceeding Conference* (2025) 229, 229–230.

²⁶⁹ Costi (n 6) 320.

²⁷⁰ *ibid.*

²⁷¹ Robert Kolb, 'Indirect or Reverberating Excessive Collateral Damage in Modern IHL' (*Lieber Institute West Point*, 13 August 2025) <<https://lieber.westpoint.edu/indirect-reverberating-excessive-collateral-damage-modern-ihl/>> accessed 1 January 2026.

²⁷² Costi (n 6) 325.

²⁷³ *ibid.*

²⁷⁴ See more examples - 'How Does War Damage the Environment?' (*CEOBS*, 5 May 2025) <<https://ceobs.org/how-does-war-damage-the-environment/>> accessed 1 January 2026.

In treaty IHL, incidental harm has not been defined. In legal doctrine, it is believed that incidental harm can be defined as the anticipated consequences of an attack that are incidental in character.²⁷⁵ Incidentally refers to the situation where the side effects are not intentional.²⁷⁶ An example is the attack on industrial sites during the Kosovo conflict, which led to environmental damage, including polluting freshwater and reports of dead fish floating in the Danube.²⁷⁷ As a result, in this instance, the lack of healthy and sustainable food had reverberating effects and was an indirect environmental effect, resulting from the bombing.

Driven by the impacts of environmental destruction, it can be argued that the reverberating and indirect effects of the attack are connected not only to the violation of elements of the R2HE as an autonomous right but also to the right to life and health.²⁷⁸ Unlike the direct effects of armed conflict, the indirect effects are not immediately evident in most cases.²⁷⁹ There is currently disagreement over whether indirect effects are considered when evaluating proportionality.²⁸⁰

Concrete and direct military advantage anticipated

The concrete and direct military advantage is the second variable, and the attacks' collateral damage needs to be assessed compared with the anticipated advantage. However, as is evident from this principle, "concrete" and "direct" are the main features of the anticipated military advantage.²⁸¹ Direct means a direct causal link between the attack and the anticipated military

²⁷⁵ Sari (n 263) 204.

²⁷⁶ *ibid* 203.

²⁷⁷ Ada L Bostian, 'The Environmental Consequences of the Kosovo Conflict and the NATO Bombing of Serbia' (2000) *Colorado Environmental Law Journal* 230, 237 <<https://scholar.law.colorado.edu/cej/vol11/iss3/20>>.

²⁷⁸ Analysis driven from - Costi (n 6) 325; 'A Healthy Environment Must Be a Human Right – Especially in Armed Conflict' (*CEOBS*, 3 March 2016) <<https://ceobs.org/a-healthy-environment-must-be-a-human-right-especially-in-armed-conflict/>> accessed 1 January 2026.

²⁷⁹ Clark Orr, 'Reverberating Effects and International Law' (*Center for Civilians in Conflict*, 28 September 2021) <<https://civiliansinconflict.org/blog/reverberating-effects-and-international-law/>> accessed 1 January 2026.

²⁸⁰ Costi (n 6) 229, 331.

²⁸¹ International Committee of the Red Cross, 'The Principle of Proportionality' <https://www.icrc.org/sites/default/files/wysiwyg/war-and-law/04_proportionality-0.pdf>.

advantage, and concrete refers to the fact that the anticipated advantage should not be vague or general.²⁸² The key criterion for balancing the mentioned factors of the proportionality principle is the concept of excessiveness.²⁸³ This could mean that, if the incidental damage is not excessive in comparison with the expected concrete and direct military advantage, then the attack will be proportionate.

Excessiveness

Excessiveness is a criterion for evaluation. The concept of excessiveness is context-dependent and is evaluated through comparison of the above-mentioned variables.²⁸⁴ This means that the excessive incidental losses and damages are assessed in each separate attack.²⁸⁵

There is a difference between extensive and excessive collateral damage, meaning that the military advantage may justify extensive collateral damage, according to some.²⁸⁶ There is no agreed-upon definition of ‘excessiveness’ and what results in excessive collateral damage.²⁸⁷ It has been defined as “too much” and “too many” in the Cambridge dictionary.²⁸⁸ A significant imbalance is how a group of experts define the term.²⁸⁹ The word extensive means “covering a large area; having or being a large amount.”²⁹⁰ For instance, in the war in Ukraine, contamination resulted from attacks on factories, and the water and sewage infrastructure has

²⁸² *ibid.*

²⁸³ Jason D Wright, “‘Excessive’ Ambiguity: Analyzing and Refining the Proportionality Standard” (2012) 94 *International Review of the Red Cross* 819, 833 doi:10.1017/S1816383113000143 <<https://international-review.icrc.org/sites/default/files/irrc-886-wright.pdf>> accessed 8 November 2025.

²⁸⁴ ICRC (n 169) 55.

²⁸⁵ Wright (n 283) 853.

²⁸⁶ Cohen and Zlotogroski (n 267) 100.

²⁸⁷ Wright (n 283) 837.

²⁸⁸ ‘Excessive’ (31 December 2025) <<https://dictionary.cambridge.org/dictionary/english/excessive>> accessed 1 January 2026.

²⁸⁹ Cohen and Zlotogorski (n 267) 94; Wright (n 283) 841.

²⁹⁰ ‘Extensive’ (31 December 2025) <<https://dictionary.cambridge.org/dictionary/english/extensive>> accessed 1 January 2026.

covered one-third of the protected areas. In this regard, the extensive environmental destruction has been described as ecocide by some commentators in Ukraine's conflict.²⁹¹

The critical issue is how the criteria of excessiveness can strike a balance between the variables mentioned above.²⁹² Regarding the balance between military advantage and incidental damage, there are various views and approaches.²⁹³ One is to interpret the lawfulness of incidental harm broadly, arguing that the incidental harm that is clearly disproportionate is prohibited.²⁹⁴ Under this approach, the environmental consequences resulting from the destruction of oil facilities, such as pollution and the release of toxic substances into the air, soil, and water, as happened in the Persian Gulf War, are excessive.²⁹⁵

In contrast, another analysis assesses the lawfulness of the incidental damage more narrowly. Based on this perspective, when there is doubt and uncertainty about the excessiveness of incidental damage, the humanitarian interest should dominate.²⁹⁶ While the exact meaning of 'humanitarian interest' in this context is unclear, it appears to align more closely with the protection of the environment as a civilian object and is more consistent with the obligation to protect the R2HE under human rights law.

Excessiveness under the light of Article 35

This subsection addresses the correlation between Article 51 and Article 35, regarding the threshold of environmental damages and the extent of protection afforded to the environment. Article 51 (5) (b), addressing the proportionality principle, governs attack, which is defined as

²⁹¹ 'From Ecocide to Resource-Stripping: War's Collateral Damage on the Planet' (15 August 2024) <<https://www.thenewhumanitarian.org/feature/2024/08/15/ecocide-resource-stripping-wars-collateral-damage-planet>> accessed 1 January 2026.

²⁹² Sari (n 263) 204.

²⁹³ Cohen and Zlotogorski (n 267) 93.

²⁹⁴ *ibid.*

²⁹⁵ ICRC (n 169) 55.

²⁹⁶ Cohen and Zlotogorski (n 267) 93.

“means acts of violence against the adversary, whether in offence or in defence.”²⁹⁷ Art 35 prohibits “methods and means of war” having a widespread, long-lasting and severe impact on the environment.²⁹⁸ Examining the relationship between these two provisions, it can be argued that Article 51 can be included and interpreted in light of Article 35 since an attack is part of the means and methods of war. Indeed, Article 35 is a cardinal provision concerning environmental protection in IHL.²⁹⁹ Accordingly, the excessive criteria in Article 52 need to be interpreted under the purpose and object of Article 35. This could mean that, in assessing excessive harm to the natural environment, a reasonable decision-maker should consider widespread, long-lasting, and severe damage to the natural environment, which each separate attack may contribute to. Accordingly, the duration of the reverberating and indirect effects of each attack should be incorporated in proportionality assessment to avoid arriving at the threshold articulated in Article 35 of API. To conclude the discussion on the relationship between Article 51(5)(b) and Article 35’ threshold, some commentators believe the existing regime of permissible harm to the environment in IHL is to prevent a grave magnitude. But the environment might be harmed severely before reaching this cumulative threshold.³⁰⁰

The proportionality assessment

There are various assessments of the proportionality assessment. Different assumptions have been offered to examine the relationship between these two variables.³⁰¹ In this vein, the three different assumptions—minor, moderate, and significant — can be applied to collateral damage and military advantage.³⁰² In an assumption that the collateral damage is significant in comparison

²⁹⁷ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 40.

²⁹⁸ *ibid* 35.

²⁹⁹ Saeed Bagheri and Kemp (n 159) 435.

³⁰⁰ Costi (n 6) 327.

³⁰¹ Wright (n 283) 852.

³⁰² *ibid*.

with the expected military advantage, the attack will be inconsistent with the proportionality principle per IHL, accordingly.³⁰³ The analysis in the current thesis focuses on situations where the expected incidental harm is minor or marginal, but the anticipated military advantage is moderate or significant. In these situations, the proportionality principle may consider the attack lawful and proportionate, since the incidental harm does not outweigh the expected military advantage.³⁰⁴ Nonetheless, arguably, the analysis may change if either the cumulative effects of multiple attacks or the reverberating effects of a single attack are factored in. In effect, the repeated attack on a part of the environment, or the combined impacts of the attack on different objects in the same area, may result in a breach of the R2HE, while every single destruction may not. The following subsection addresses the existing gap concerning cumulative harm and reverberation.

The existing gap in proportionality Interpretation and a need for the R2HE

Having defined the different elements of the proportionality principle, it is now necessary to explain the existing gap in IHL. The cumulative harms and reverberating effects are going to be addressed in this section, respectively.

Cumulative Harm of Individual Attacks

The first gap regarding proportionality concerns cumulative harm. In fact, environmental degradation resulting from armed conflict is covered by neither the proportionality under *jus in bello*, balancing the incidental harm against the concrete and direct military advantage of each attack under IHL, nor under the *jus ad bello*.³⁰⁵ Indeed, the current IHL proportionality rule seems to be inappropriate for addressing overall and cumulative harms.³⁰⁶ To clarify, with the current

³⁰³ *ibid.*

³⁰⁴ *ibid.*

³⁰⁵ Noam Lubell and Amichai Cohen, 'Strategic Proportionality: Limitations on the Use of Force in Modern Armed Conflicts' (2020) 96 *International Law Studies* 160, 169.

³⁰⁶ *ibid.* 162.

interpretation of this principle, the collateral damage and side effects of each separate attack might be deemed as non-excessive concerning the concrete and direct military advantage in the circumstances ruling at the time.³⁰⁷ Arguably, from the lens of the R2HE, a violation of this may stem from pollution or incidental harm to the elements of the natural environment.

An example of repeated attacks on an object is the frequent cuts of electricity or multiple temporary shutdowns of the electric power plants. In the individual assessment of this example, each shutdown may seem justifiable in isolation, but all the temporary disruptions may later lead to the complete cessation of power plant operations.³⁰⁸ In the cumulative assessment, the direct and concrete causal link between the multiple temporal shutdowns of an object and the advantage anticipated will not be justifiable. In this example, these multiple shutdowns will result in a permanent future shutdown and cause further harm to civilians, such as an interruption in the sewage system.³⁰⁹ In analogy, while the incidental harm originating from an attack may not be foreseeable, the cumulative effects of repeated attacks or multiple attacks can give rise to excessive harm to the environment. The argument here is that the R2HE is violated as a result of the incidental destruction of the environment. For example, in a case related to the impact of logging and construction on the lands of the tribal communities, debris resulting from different activities in the forest blocked creeks and polluted the primary source of potable water used by the community.³¹⁰ In this case, water for drinking, irrigation, gardening, and fishing will not be available to people, and the surrounding farms will become less productive as a result.³¹¹ In

³⁰⁷ *ibid.*

³⁰⁸ Example inspired by - Cohen and Zlotogorski (n 270) 83–87.

³⁰⁹ Example Inspired by - Droege and Tougas (n 120) 30.

³¹⁰ *Case of the Saramaka People v Suriname Judgment of November 28, 2007: (Preliminary Objections, Merits, Reparations, and Costs)* Inter-American Court of Human Rights, [135],[150],[152].

³¹¹ *ibid* 152.

analogy, the incidental harm resulting from different attacks on a part of the environment, resulting in producing debris, may cumulatively violate the R2HE for surrounding people.

Reverberating Effects

Another issue with proportionality analysis is the extent to which the incidental harm arising from the reverberating effects of an attack is included in Article 51(5)(b).³¹² Reverberating effects are the long-term, less visible, and indirect consequences of an armed conflict that lack a specific definition and scope.³¹³ To make the issue clear, the example is to shut down the local electricity plant, which will have a side effect on energy production.³¹⁴ However, the effects of such a cessation will be associated with the impact on the population, which will lead to other results, such as forcing bakeries to reduce their bread production and reduction in a reduction in food supply.³¹⁵ The textual analysis of Article 51(5) (b) shows that the prohibition of excessive incidental harm in this principle is not absolute.³¹⁶ The incidental harm in API, as well as the ICRC Guideline 2020, is qualified by expectation and foreseeability.³¹⁷ The phrase “*may be expected*” makes the reverberating effects’ incorporation in this principle doubtful in some cases. Indeed, theoretically, incidental harm is inherently those harms which occur as a result of chains of events and in delayed time.³¹⁸ In some instances, the foreseeability of causation in assessing reverberating effects is challenging.³¹⁹ Accordingly, the incidental harm, which is not expected from the individual attack, might not be factored into the assessment, but may still have prolonged impacts on the

³¹² Emanuela-Chiara Gillard, ‘Some Reflections on the “Incidental Harm” Side of Proportionality Assessments’ (2021) 51 827, 831 <<https://scholarship.law.vanderbilt.edu/vjtl/vol51/iss3/11>>.

³¹³ Orr (n 279).

³¹⁴ Rober Kolb ‘Indirect or Reverberating Excessive Collateral Damage in Modern IHL - Lieber Institute West Point’ <<https://lieber.westpoint.edu/indirect-reverberating-excessive-collateral-damage-modern-ihl/>> accessed 1 January 2026.

³¹⁵ *ibid.*

³¹⁶ *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 51 (5)(b).

³¹⁷ ICRC (n 169) r 7; *Protocol Additional to the Geneva Conventions of 12 August 1949* (n 127) art 51(5)(b).

³¹⁸ Droege and Tougas (n 120) 45.

³¹⁹ Costi (n 6) 336.

environment, human health and life.³²⁰ In some instances, the inclusion of reverberating effects in the proportionality is straightforward, such as using explosive weapons in crowded areas or burning oil.³²¹

The reverberation could contain two types of harm. First, harm that may arise indirectly from damage to other objects.³²² Another type of reverberating effect is the time when damage is immediate, but its outcomes continue over time.³²³ The example is that damage to coastal infrastructure can result in the release of harmful substances into the marine environment. This is the case of the bombing of the Jiyeh power plant during armed conflict.³²⁴ The destruction of this infrastructure caused pollution of the Mediterranean Sea, which not only affected the local coastline but also extended into Syria. The long-lasting indirect impacts of pollution persisted over time and have caused the pollution of marine life.³²⁵

Why the R2HE?

This thesis argues that the R2HE can be used in interpreting the principle of proportionality, fortifying the inclusion of reverberating environmental effects and the cumulative effect of each separate attack in this principle. Several arguments support this idea. The following parts will elaborate on the evidence and reasons why the R2HE can fill the current gaps in IHL.

The first argument is that there is a link between the greater environmental protection that the R2HE affords and purposive interpretation of the proportionality principle. In this regard, releasing and publicizing the environmental information, which is a positive obligation of states to

³²⁰ Droege and Tougas (n 120) 45.

³²¹ Costi (n 6) 338.

³²² Gillard (n 312) 832.

³²³ *ibid.*

³²⁴ United Nations, 'How Conflict Impacts Our Environment' (*United Nations*) <<https://www.un.org/en/peace-and-security/how-conflict-impacts-our-environment>> accessed 1 January 2026.

³²⁵ *ibid.*

implement the R2HE,³²⁶ informs decision-makers about the environmental issues. This also aligns with the prevention and mitigation of environmental harm, which is a positive obligation to protect R2HE.³²⁷ Further, if the reverberating effects of the attack are not considered in the proportionality assessment, the implementation of different human rights will be denied. The textual analysis of the proportionality also fortifies this perspective, since there is no qualifier of “direct” for incidental damage.³²⁸

Looking at the soft law in IHL, under the prohibition on using herbicides as a means of warfare, the ICRC Guideline 2020 refers to the foreseeability of the excessive incidental harm and reverberating effects of using such a weapon.³²⁹ Even when vegetation turns into a military objective, the incidental harm and reverberating effects on different components of the environment can be foreseeable when using such a weapon.³³⁰ It appears that the basis of the reasoning in the ICRC Guidelines (2020) is that the indirect effects on several components of the environment, such as vegetation, the removal of animals, and long-term impacts on food supply, water, and human health, can be foreseeable when herbicides are used. Such a rationale can provide a common basis when examining the cumulative environmental harm and destruction of different components of the R2HE.

Another argument relates to the collective dimension of this right. In essence, the collective aspect of the right will reinforce the special protection afforded by IHL. The collective connotation here emphasizes the belonging of the R2HE to a group of individuals or to a population.³³¹ Hence,

³²⁶ ‘Unpacking the Rights to a Healthy Environment: How National and Regional Laws and Jurisprudence Clarify the Scope and Content of the Universal Right.’ (n 250) 44.

³²⁷ *ibid* 17.

³²⁸ Costi (n 6) 330, 331.

³²⁹ ICRC (n 169) 92.

³³⁰ *ibid*.

³³¹ ‘Unpacking the Rights to a Healthy Environment: How National and Regional Laws and Jurisprudence Clarify the Scope and Content of the Universal Right.’ (n 250) 20.

it is not reasonable to argue that the collective dimension of the R2HE and its effects on the entire community and region necessitate incorporating cumulative impacts and reverberating effects of environmental destruction into the analysis of the principle.

Another argument for considering the R2HE in interpreting the proportionality principle concerns the temporal scope of anticipated incidental harm. Indeed, the principle does not indicate how long incidental harms can usually be predicted. In fact, one characteristic of environmental harm is that it usually persists for many years or perhaps decades after the armed conflict finishes.³³² While long-lasting pollution and the unsustainable effects of the armed conflict may manifest for several days, months, and years after the attack, the exact extent of foreseeable incidental harm is left behind in the IHL. Accordingly, if IHL is considered *lex specialis*, a specific legal regime for environmental protection in armed conflict, it may only provide temporary and therefore limited protection. As a consequence, the incremental and cumulative pollution from each attack will likely result in harm, violating the R2HE for both the current population and future generations. From a human rights perspective, intergenerational equity includes justice and commitment to future generations.³³³ Therefore, the intergenerational equity and a sustainable environment for future generations, which are established dimensions of the R2HE,³³⁴ can make the reverberating effects of combined attacks foreseeable. The intergenerational equity and the R2HE's sustainability feature can be used to interpret the temporal extent of safeguarding the environment in the proportionality assessment.

³³² Droege and Tougas (n 120) 22.

³³³ 'Safeguarding Rights of Future Generations' <<https://www.thebeyondlab.org/article/commentary-safeguarding-rights-of-future-generations-for-long-term-sustainability>> accessed 1 January 2026.

³³⁴ 'Unpacking the Rights to a Healthy Environment: How National and Regional Laws and Jurisprudence Clarify the Scope and Content of the Universal Right.' (n 250) 52.

Last but not least, the human rights conventions and treaties serve as the enforcement mechanism, whereas the IHL system lacks adequate enforcement mechanisms.³³⁵ In the Ukraine case, the ECtHR indicates that human rights conventions not only define rights, but also provide enforcement mechanisms.³³⁶ In fact, violations of the proportionality principle and excessive incidental harm can constitute war crimes and are addressed by the International Criminal Court.³³⁷ Hence, the human rights enforcement mechanism allows individuals to seek reparations outside of International Criminal Law.

Legal precedent regarding the reverberating and indirect effects of environmental destruction is still rare. However, the displacement of a community or population can be an instance of the reverberating effects of environmental harm.³³⁸ The example is the Marsh Arabs, a group of people whose traditional means of survival, including farming and fishing, depended on the marshes.³³⁹ The Marshlands were an expansive wetland in southern Iraq.³⁴⁰ This area was significant not only for its unique ecosystem but also for its impact on local people, serving as a valuable source of freshwater.³⁴¹ In 1970, due to its strategic location and the military operation, the marshland turned into a desert. The water sources in the Marshlands were polluted and poisoned. The pollution and destruction of this wetland resulted in the displacement.³⁴²

³³⁵See the discussion in the ECtHR grand chamber *case of Ukraine And The Netherlands v. Russia* (n 241) [348].

³³⁶ *ibid.*

³³⁷ *ibid* 113.

³³⁸ Costi (n 6) 326.

³³⁹ Sam Kuba, *The Iraqi Marshlands and the Marsh Arabs: The Ma'dan, Their Culture and the Environment* (Trans Pacific Press 2011) 1.

³⁴⁰ *ibid.*

³⁴¹ *ibid.*

³⁴² *ibid* 2.

The Contemporary Armed Conflicts and The R2HE

Having reviewed the role of the R2HE in interpreting the proportionality principle and reinforcing environmental protection, this subsection illustrates how the R2HE may be violated during armed conflict through factual contemporary examples.

Looking at the Gaza case, various aspects of the R2HE, such as safe and clean water, sustainable food, clean air, and a non-toxic environment, are implicated in Gaza.³⁴³ The destruction of trees, farms, and wildlife in implicate sustainable food.³⁴⁴ While as part of this right, the climate should be safe and life-supporting, the loss of vegetation and farms in Gaza has exposed people to famine.³⁴⁵ The agricultural areas, which are the main example of objects indispensable to the survival of a civilian population and require specific protection, are affected by the absorption of toxic materials into the soil.³⁴⁶ Further, the cumulative effects of physical destruction involve different elements of the R2HE, such as the lack of clean water and sustainable food.³⁴⁷ Such cumulative effects contradict sustainability and create an unhealthy, unsustainable environment, undermining the R2HE and right to health for the current and future generations.³⁴⁸ Destruction and contamination of the mentioned substantive aspects cumulatively contribute to the violation of the R2HE.³⁴⁹

³⁴³ Ahlam Abuawad and others, 'The Ongoing Environmental Destruction and Degradation of Gaza: The Resulting Public Health Crisis' (2025) 115 *American Journal of Public Health* 1053, 1053 <<https://doi.org/10.2105/AJPH.2025.308140>> accessed 9 November 2025.

³⁴⁴ *ibid* 1056, 1057.

³⁴⁵ *United Nations Environment Programme* (n 2) 14, 35.

³⁴⁶ *ibid* 22.

³⁴⁷ *ibid* 22, 35.

³⁴⁸ Cavit Isık Yavuz and Sevilcan Basak Unal, 'War and Environmental Health in Gaza' (2025) 31 *Eastern Mediterranean Health Journal* 151, 152 <<https://applications.emro.who.int/EMHJ/V31/02/1020-3397-2025-3102-151-153-eng.pdf>> accessed 2 January 2026.

³⁴⁹ UN Human Rights Council, 'Written statement submitted by Institute of Sustainable Development, a non-governmental organization in special consultative status' A/HRC/60/NGO/217, 2

Another contemporary factual example is Ukraine. According to the UNEP, the cumulative effects of physical destruction, pollution, and the presence of explosives in Ukraine will have long-term consequences on the environment.³⁵⁰ Such cumulative effects will be linked to the ripple effects that go beyond the war zone and cause extraterritorial environmental impacts.³⁵¹ An example of an incidental harm is soil pollution by explosions and shelling.³⁵² Another prevailing outcome in the Ukraine case is the destruction of ecosystems and natural habitats.³⁵³ Damage and pollution to forests, protected areas, and the river ecosystem in Ukraine have made their restoration impossible. Several components of the R2HE, such as clean air and a healthy ecosystem, have been degraded and severely impacted by different military activities.³⁵⁴

Chapter Conclusion

This chapter took advantage of the *lex specialis* theory to examine proportionality from the R2HE perspective. This chapter scrutinized and delved into this principle and its constituent elements, and different assumptions concerning the excessiveness criterion were examined. The *lex specialis* was used to interpret the concept of incidental harm, arguing that the R2HE contains more details regarding the sustainability of the environment, the threshold of violation, and the collective nature of the right. The complementary approach was also taken to complement IHL with the enforcement mechanism. Through factual contemporary examples, the impact of the attack on different substantive components of the R2HE was explained. The examples demonstrated that both aspects of the R2HE, anthropocentric and ecocentric, are subject to

³⁵⁰ United Nations Environment Programme (n 3) 10.

³⁵¹ *ibid.*

³⁵² Walter Leal Filho and others, 'The Environment as the First Victim: The Impacts of the War on the Preservation Areas in Ukraine' (2024) 364 *Journal of Environmental Management* 121399, 2 <<https://www.sciencedirect.com/science/article/pii/S0301479724013859>> accessed 2 January 2026.

³⁵³ *ibid* 1, 2.

³⁵⁴ *ibid.*

violation during armed conflicts. This chapter suggested that cumulative harms and reverberating effects need to be included in the proportionality examination.

Thesis Conclusion

This thesis addressed the intersection of human rights law with the law governing targeting during armed conflicts concerning the protection of the environment and the R2HE. The first chapter exclusively addressed the definition of the R2HE, its content and scope in the human rights system. The R2HE has been recognized as an autonomous right and is also related to other rights and international law. The intersection of R2HE with the intergenerational equity principle matches with the most prevalent feature of this right, sustainability. It was established that R2HE encompasses both individual and collective aspects, which has widened the domain of protection. This right is qualified and may be limited, but such a limitation needs to be based on law in pursuit of a legitimate aim.

The second chapter examined the existing provisions in IHL regarding the protection of the environment and determined that the environment is a civilian object under IHL. While the AP I and the ICRC guideline 2020 include provisions to protect the environment during war, they are not absolute and adequate. The existing provisions in IHL to safeguard the environment will be questioned and challenged when the incidental harm and reverberating effects arise.

The third chapter provided the theoretical framework in relation to the interplay of these two legal regimes. At first, it was established that IHRL will not stop applying during armed conflicts. The human rights impact on the normative development of IHL was explained. The sole reliance on *lex specialis* as an overriding rule was challenged critically. The approach to the *lex specialis* as a means of interpretation was followed in this chapter. It was argued that the R2HE can be used

as an interpretive tool, and in some areas, such as procedural elements, the IHRL can complement IHL.

Chapter four enumerated the cumulative harm and reverberations as current challenges and gaps in the targeting process. This chapter concluded that this principle has potential for refinement since IHL rules can be developed by human rights norms. The current contemporary examples of armed conflicts demonstrate that the R2HE is violated during armed conflicts. This chapter also concluded that, with regard to specific features of the R2HE, the collective aspect and intergenerational dimension of the right, along with the procedural elements and positive and negative obligations arising from this right, the reverberating environmental harm has to be factored into the proportionality assessment. The analysis in this chapter drew on different aspects of the R2HE and concluded that the cumulative harm resulting from multiple attacks is foreseeable.

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