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SCORCHED EARTH WARFARE AND ECOCIDE: REASSESSING THE IHL FRAMEWORK

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ABSTRACT

Scorched-earth warfare represents one of the most destructive intersections between armed conflict and environmental degradation. The deliberate destruction of forests, agricultural land, water resources, industrial infrastructure and other ecological assets can produce consequences extending far beyond the immediate battlefield, affecting civilian survival, public health, livelihoods and future generations. International humanitarian law (IHL) provides several mechanisms for addressing such conduct, including the principles of distinction, proportionality and precaution, the protection of objects indispensable to civilian survival, and the specific prohibition against methods and means of warfare expected to cause widespread, long-term and severe damage to the natural environment. Nevertheless, the existing framework remains fragmented and subject to significant evidentiary and interpretive limitations. In particular, the cumulative requirement of “widespread, long-term and severe” environmental damage and the predominantly human-centred structure of existing international criminal law may leave serious forms of ecological destruction insufficiently addressed. This article examines whether the emerging concept of “ecocide” can provide a meaningful response to these limitations. It analyses the treatment of environmental destruction under Additional Protocol I, customary international humanitarian law, the Rome Statute of the International Criminal Court and the International Law Commission’s Draft Principles on Protection of the Environment in Relation to Armed Conflicts. The article argues that ecocide should not be understood as a replacement for existing IHL rules but as a potential development capable of addressing exceptionally serious environmental destruction that falls outside traditional categories of war crimes. It concludes that effective protection of the environment during armed conflict requires a more integrated framework in which ecological integrity, civilian protection, military necessity, proportionality and precaution are assessed together. Such an approach would strengthen accountability for scorched-earth practices while preserving the fundamental structure and operational requirements of international humanitarian law.

Keywords: Scorched-Earth Warfare; Ecocide; International Humanitarian Law; Environmental Protection; Armed Conflict; Military Necessity; War Crimes; Environmental Destruction.

Introduction

Armed conflict has historically been understood primarily through the human consequences of warfare: death, injury, displacement, destruction of homes and violations of civilian life. The natural environment has often occupied a secondary position within this legal imagination, treated either as collateral damage or as an object whose destruction becomes legally relevant only when it directly affects human beings or military operations. Yet contemporary warfare demonstrates that environmental destruction can itself become a method of warfare. The deliberate burning of forests and agricultural land, destruction of water infrastructure, poisoning of soil and rivers, release of industrial chemicals, destruction of oil installations, contamination of groundwater and deliberate alteration of ecosystems may be employed to deprive an adversary of resources, facilitate military operations, induce displacement or make territory economically and physically unusable. The phenomenon commonly described as “scorched earth” therefore presents a distinctive challenge to international humanitarian law (IHL), because it occupies the space between conventional military necessity and deliberate destruction of the ecological conditions upon which civilian populations depend. The legal problem becomes still more difficult when environmental devastation is extensive, irreversible or deliberately pursued as an objective in itself. The emerging concept of “ecocide” seeks to capture precisely this category of conduct, but international law has not yet transformed ecocide into a generally applicable autonomous international crime. The present legal framework instead operates through a combination of rules concerning the conduct of hostilities, protection of civilian objects, military necessity, proportionality, distinction, starvation, natural resources, occupation, State responsibility and individual criminal responsibility. The International Law Commission’s 2022 Draft Principles on Protection of the Environment in Relation to Armed Conflicts represent an important development in consolidating and systematising these obligations, while the International Criminal Court’s 2024 Policy on Environmental Crimes under the Rome Statute demonstrates an increasingly explicit prosecutorial recognition of environmental destruction as a matter relevant to international criminal law.¹ The central argument of this article is that the existing IHL framework is not devoid of protection, but it remains fragmented and structurally anthropocentric. Scorched-earth warfare can already violate several established rules, particularly where environmental destruction is connected

with attacks on civilians, civilian objects, objects indispensable to civilian survival, unlawful destruction of property or disproportionate attacks. However, the framework becomes significantly weaker when environmental harm is diffuse, cumulative, delayed or directed primarily against ecological systems rather than immediately against persons or conventional civilian objects. The traditional “widespread, long-term and severe” threshold applicable to certain environmental warfare prohibitions further creates an exceptionally demanding evidentiary and normative barrier. Ecocide consequently exposes not the complete absence of law, but a structural insufficiency in the manner in which existing law conceptualises environmental harm. Reassessing the IHL framework therefore requires moving from an exclusively human-centred understanding of environmental protection towards a model in which ecological integrity is recognised as a legally significant interest while retaining the operational principles of distinction, proportionality, precaution and military necessity.

Scorched Earth Warfare as a Method of Armed Conflict

The expression “scorched earth warfare” does not constitute a separate legal category under contemporary international humanitarian law. It describes a method or strategy in which resources, infrastructure, territory or objects capable of sustaining an adversary are deliberately destroyed or rendered unusable. Historically, scorched-earth practices have included the burning of crops, destruction of livestock, poisoning of wells, demolition of houses and infrastructure, destruction of forests and evacuation or depopulation of territory. Modern warfare has expanded the possible environmental consequences considerably because military forces can target oil facilities, dams, industrial installations, chemical plants, power infrastructure and transportation systems whose destruction may generate environmental consequences extending far beyond the immediate battlefield. The central legal question is therefore not whether a particular operation can be labelled “scorched earth”, but whether the underlying conduct complies with the rules governing the means and methods of warfare and the protection of civilians and civilian objects. This distinction is important because IHL does not prohibit every form of destruction occurring during armed conflict. Military operations necessarily involve destruction, and the law recognises that military objectives may lawfully be attacked subject to the applicable rules. The legality of destruction depends upon the status of the object, the purpose and circumstances of the attack, the expected effects, the anticipated military advantage, and the applicable limitations imposed by international humanitarian law. The legal difficulty arises where destruction is deliberately directed at the ecological capacity of territory rather than a discrete military objective. A campaign that burns agricultural land in

order to deprive a civilian population of food, for example, implicates rules concerning starvation and objects indispensable to civilian survival. A campaign that destroys an industrial complex because it is making an effective contribution to military action may implicate distinction and proportionality, even though the resulting contamination extends beyond the target itself. A deliberate poisoning of water sources may simultaneously affect civilian survival, environmental protection and the prohibition of poisoning. Thus, “scorched earth” is best understood as an operational strategy whose legality must be assessed through multiple rules rather than as an independent offence.² The historical significance of scorched-earth tactics also demonstrates why environmental protection cannot be separated from the protection of civilians. The destruction of crops, livestock, wells and forests may not immediately kill civilians, yet it can deprive them of the means of subsistence, force displacement and generate long-term deprivation. The law of armed conflict has increasingly recognised this connection. Article 54 of Additional Protocol I prohibits starvation of civilians as a method of warfare and protects objects indispensable to civilian survival, including foodstuffs, agricultural areas, crops, livestock, drinking-water installations and irrigation works.³ Additional Protocol II contains a corresponding rule for non-international armed conflicts.⁴ These provisions illustrate an important conceptual development: the object of protection is not simply the civilian body but the material and ecological conditions necessary for civilian survival. This principle provides a significant legal basis for addressing environmental dimensions of scorched-earth warfare even where the environment itself is not independently recognised as the victim of a crime.

The Natural Environment under International Humanitarian Law

The protection of the natural environment under IHL is distributed across both specific environmental provisions and general rules applicable to the conduct of hostilities. Additional Protocol I contains two particularly important provisions. Article 35(3) prohibits the employment of methods or means of warfare intended, or which may be expected, to cause widespread, long-term and severe damage to the natural environment. Article 55 further requires care to protect the natural environment against such damage and links environmental protection to the health or survival of the population.⁵ These provisions represent a specialised environmental dimension of IHL, but their wording has generated substantial uncertainty. The cumulative requirement of “widespread, long-term and severe” damage establishes a demanding threshold. The three conditions are generally understood as cumulative rather than alternative, meaning that an environmental attack may have to satisfy all three characteristics

before falling within the specific prohibition. The legal difficulty is compounded by uncertainty concerning the precise temporal, geographical and qualitative meaning of the terms. The ICRC's customary IHL study identifies protection of the natural environment through rules requiring the application of distinction, proportionality and precautions, as well as a rule concerning serious environmental damage.⁶ At the same time, the customary status and precise scope of the strict "widespread, long-term and severe" prohibition have historically been subject to disagreement among States, particularly concerning the interpretation of the relevant thresholds and their application to different weapons and methods of warfare.⁷ This uncertainty has significant consequences for scorched-earth warfare. A military campaign may destroy large areas of agricultural land, contaminate water sources and damage ecosystems without immediately satisfying all three elements of the specialised environmental threshold. Environmental harm can also be cumulative: individual acts may each appear limited when examined separately, while their aggregate effect renders an ecosystem unusable. The traditional structure of IHL, however, often evaluates individual attacks, individual objects and immediate military effects. Environmental destruction does not always conform to those categories. Pollution can migrate across borders; groundwater contamination can continue for decades; soil degradation may become visible only after the conflict; and destruction of biodiversity may not be adequately reflected through conventional calculations of physical damage. The International Court of Justice has nevertheless recognised that international law requires States to take environmental considerations into account in the context of armed conflict. In its 1996 Advisory Opinion on the legality of the threat or use of nuclear weapons, the Court stated that environmental considerations are relevant to the application of the principles and rules of armed conflict, while observing that existing international law did not specifically prohibit the use of nuclear weapons solely by reference to environmental law.⁸ The significance of this reasoning extends beyond nuclear weapons. It confirms that environmental law and IHL cannot be treated as entirely separate normative spheres and that the natural environment constitutes a legally relevant consideration when military force is employed.

Distinction, Military Objectives and Environmental Objects

One of the most important difficulties in applying IHL to environmental destruction concerns the legal classification of the environment itself. The natural environment is not ordinarily treated as a single civilian object capable of being protected through a blanket prohibition on attack. Elements of the environment can acquire different legal statuses depending upon their relationship to military operations. Forests, rivers, agricultural land, water systems, oil facilities

and other natural or infrastructure-based resources may constitute civilian objects unless and for such time as they qualify as military objectives under the applicable rules. The principle of distinction therefore remains central. Under Article 48 of Additional Protocol I, parties must distinguish between the civilian population and combatants and between civilian objects and military objectives and direct operations only against military objectives.⁹ The application of this principle to the environment means that environmental components cannot simply be destroyed because they are located within territory controlled by an adversary. A forest does not become a legitimate military objective merely because it is situated behind enemy lines. A river cannot lawfully be contaminated merely because it crosses military territory. An agricultural field cannot automatically be destroyed merely because an opposing armed force might benefit economically from its produce. There must be a legally sufficient connection between the object and military action. Article 52(2) of Additional Protocol I defines military objectives in terms of objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralisation offers a definite military advantage in the circumstances ruling at the time.¹⁰ This requirement creates a crucial barrier against broad territorial destruction. At the same time, it also reveals a weakness in the legal framework where environmental harm is indirect. Suppose, for example, that an attacking force destroys a petroleum refinery that is supplying fuel to enemy forces. The refinery may clearly constitute a military objective, yet the resulting release of toxic substances may damage surrounding soil, groundwater and civilian settlements. The legality of the attack must then be assessed through proportionality and precautions rather than through a simplistic conclusion that all resulting environmental harm is prohibited. The IHL principle of proportionality prohibits attacks 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.¹¹ Environmental damage creates a difficult interpretive question because Article 51(5)(b) and Article 57 do not expressly establish an independent proportionality category for environmental harm. Nevertheless, where environmental damage affects civilian health, homes, agricultural production, water supplies or other civilian objects, it can enter the proportionality analysis through those protected interests. The more difficult case is ecological damage that does not immediately translate into identifiable civilian loss. The environment may sustain severe injury even where the immediate civilian consequences are uncertain. A strictly anthropocentric reading would therefore under-protect ecological interests. A more environmentally sensitive interpretation should treat foreseeable environmental damage as relevant to the assessment of civilian harm and to the

precautionary obligation, while avoiding an interpretation that effectively prohibits ordinary military operations merely because they generate some ecological consequences.

Military Necessity and the Limits of Destruction

Military necessity is frequently invoked in discussions concerning environmental destruction, but it cannot operate as an unrestricted licence for ecological devastation. IHL assumes that military operations may involve destruction, yet such destruction must remain within the limits established by the law. Article 53 of the Fourth Geneva Convention and related rules concerning property destruction, for example, prohibit certain forms of destruction unless rendered absolutely necessary by military operations. The principle is also reflected in customary rules concerning the protection of property and the prohibition of wanton destruction. The relationship between military necessity and environmental destruction became particularly visible in the aftermath of the Second World War. The Hostages Trial involving General Lothar Rendulic is often discussed in connection with the destruction of territory under a perceived military necessity, particularly the German retreat and destruction in Finnmark. The case demonstrates the difficulty of assessing military necessity retrospectively where commanders act on information available at the time.¹² Contemporary law, however, does not permit military necessity to override express prohibitions. Where IHL specifically prohibits starvation, indiscriminate attacks, destruction of indispensable civilian objects or particular environmental methods of warfare, a general invocation of military necessity cannot automatically legalise the conduct. The problem is more acute with scorched-earth strategies because the claimed military purpose may be framed broadly. A commander may argue that destroying crops prevents enemy forces from obtaining food, burning forests denies concealment, destroying bridges obstructs military movement, or disabling industrial facilities prevents military production. Such objectives may in some circumstances possess genuine military relevance. Yet the legality of the means remains subject to distinction, proportionality and precautions. The IHL framework therefore rejects a simple binary between “military necessity” and “environmental protection”. The relevant question is whether the anticipated military advantage justifies the particular method employed within the constraints of applicable law. This becomes especially important where less destructive alternatives exist. The precautionary principle under Article 57 of Additional Protocol I requires constant care to spare civilians and civilian objects and requires those planning or deciding upon an attack to take all feasible precautions in the choice of means and methods of attack with a view to avoiding or minimising incidental civilian harm.¹³ Environmental consequences should logically form part

of this assessment where they are foreseeable and where they threaten civilians or protected civilian objects. The International Criminal Tribunal for the former Yugoslavia Prosecutor's Committee examining the NATO bombing campaign similarly recognised that environmental damage may enter the proportionality analysis and observed the difficulty of establishing criminal responsibility where commanders lack sufficiently certain knowledge of environmental consequences.¹⁴ This demonstrates the evidentiary problem at the heart of environmental warfare: the law may recognise environmental consequences, but criminal prosecution requires proof concerning the foreseeable nature, scale and legal significance of those consequences.

Ecocide and the Problem of International Criminalisation

The concept of ecocide has developed partly because existing legal categories do not always capture the gravity of deliberate environmental destruction. Although there is no universally accepted treaty definition establishing ecocide as an autonomous international crime, the term is increasingly used to describe unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term environmental damage. The contemporary debate is closely associated with proposals to amend the Rome Statute of the International Criminal Court to recognise ecocide as a separate crime. The significance of this proposal should not be overstated. As of 2026, ecocide is not an autonomous crime within the jurisdiction of the ICC merely by virtue of being described as such. The Rome Statute nevertheless already contains important environmental protection through existing war-crime provisions. Article 8(2)(b)(iv) criminalises intentionally launching an attack in the knowledge that it will cause incidental death or injury to civilians or damage to civilian objects, or widespread, long-term and severe damage to the natural environment, where such damage would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.¹⁵ This provision is significant because it directly incorporates environmental damage into the architecture of individual criminal responsibility. Yet it also illustrates the limits of the current approach. The environmental damage must satisfy the exceptionally demanding combination of widespread, long-term and severe harm; the perpetrator must possess the requisite knowledge; the conduct must constitute an attack; and the environmental damage must be clearly excessive in relation to the anticipated military advantage. Consequently, the Rome Statute does not criminalise all serious environmental destruction during armed conflict. It criminalises a narrower category of conduct. The International Criminal Court's 2024 Policy on Environmental Crimes under the Rome Statute is nevertheless

important because it indicates that environmental harm is being considered across several existing crimes, including war crimes, crimes against humanity, genocide, aggression and other offences depending upon the facts.¹⁶ The policy expressly recognises that aggression can generate environmental destruction and states that environmental damage may be relevant to assessing the gravity of an act of aggression.¹⁷ The ecocide debate therefore should not be framed simply as a choice between “existing law” and “a new crime”. Existing international criminal law already provides several routes for prosecuting environmentally destructive conduct. The real question is whether those routes adequately reflect environmental harm where destruction is systematic, autonomous and ecologically catastrophic but does not fit neatly within the existing protected categories. Ecocide could fill this conceptual gap by treating severe environmental destruction as an international wrong in its own right. However, any future offence would require careful attention to legality, precision, causation, mens rea and the relationship between lawful military activity and criminal environmental destruction. An overly vague ecocide offence could conflict with the principle of legality, while an excessively narrow offence would merely reproduce the weaknesses of the existing environmental provisions.

The Human Consequences of Environmental Destruction

The strongest existing legal route for addressing scorched-earth environmental destruction remains the connection between environmental harm and human protection. This does not mean that ecological interests lack independent legal significance, but it explains why many existing IHL rules become applicable when environmental damage threatens civilian survival. The destruction of agricultural land, livestock, water systems and food supplies may constitute unlawful attacks on objects indispensable to civilian survival. The deliberate destruction of such objects for the purpose of denying sustenance is expressly prohibited under Article 54 of Additional Protocol I.¹⁸ Environmental destruction can therefore become unlawful even when the perpetrator's immediate objective is not ecological destruction but the weakening or displacement of a population. This is particularly important in modern conflicts where control over water, agricultural production, forests, energy infrastructure and mineral resources can determine whether civilian communities remain capable of sustaining themselves. Environmental destruction may also facilitate forced displacement. If an armed force deliberately destroys homes, crops, water supplies and agricultural capacity, the resulting displacement cannot be analysed solely through property destruction. The cumulative effect may amount to coercive displacement, persecution or other international crimes depending on

the circumstances. The International Criminal Tribunal for the former Yugoslavia's jurisprudence illustrates how destruction of homes and property can contribute to broader criminal conduct directed against civilian populations.¹⁹ The environmental dimension is often embedded within these offences rather than separately recognised. This anthropocentric structure has both strengths and weaknesses. Its strength is practical: environmental destruction frequently produces identifiable consequences for persons, property and civilian survival, allowing prosecutors to rely upon established offences. Its weakness is that it may undervalue environmental injury that does not immediately produce measurable human harm. The destruction of a wetland, forest ecosystem or biodiversity corridor may have profound ecological consequences even if the short-term effect on civilians is limited. An ecosystem may also possess transboundary significance, meaning that environmental harm may spread into neighbouring States long after the attack. International environmental law has developed principles concerning transboundary harm, cooperation, due diligence and environmental impact assessment, and the International Court of Justice has recognised the relevance of environmental protection in interstate relations.²⁰ The International Law Commission's 2022 Draft Principles similarly adopt a broad temporal approach, addressing environmental protection before, during and after armed conflict, including post-conflict environmental assessments, remedial measures and the management of remnants of war.²¹ This broader approach is particularly important because environmental destruction does not end when hostilities cease. Toxic contamination, unexploded ordnance, damaged industrial infrastructure and destroyed water systems can continue to produce environmental and humanitarian consequences for decades. A legal framework focused only on the moment of attack therefore fails to capture the temporal reality of environmental warfare.

The Gulf War and the Legal Recognition of Environmental Damage

The environmental consequences of Iraq's 1990–1991 invasion and occupation of Kuwait provide one of the clearest examples of large-scale environmental destruction becoming a matter of international responsibility. Iraqi forces set fire to more than 700 oil wells during their withdrawal from Kuwait, while oil was deliberately released into the Gulf and extensive military activity damaged desert and marine ecosystems.²² The United Nations Security Council, through Resolution 687 (1991), affirmed Iraq's liability under international law for direct loss or damage, including environmental damage and depletion of natural resources, resulting from its unlawful invasion and occupation of Kuwait.²³ The United Nations Compensation Commission subsequently processed environmental claims and awarded

substantial compensation for ecological damage and natural-resource depletion.²⁴ The Kuwait claims included damage to groundwater, desert ecosystems, coastal areas and marine environments. The Commission ultimately supported approximately US\$3 billion in compensation for environmental remediation and restoration projects for Kuwait.²⁵ The significance of the Gulf War experience lies less in the creation of a new international environmental crime than in the recognition that environmental damage can constitute compensable international injury. It demonstrated that environmental harm may be assessed through restoration, remediation and ecological-service considerations rather than solely through conventional property loss. The experience also exposed the difference between State responsibility and individual criminal responsibility. The UN Compensation Commission operated as a claims-resolution mechanism rather than as a criminal tribunal. Its findings therefore do not establish that every form of scorched-earth environmental destruction constitutes an international crime. They nevertheless provide evidence that environmental damage caused by armed conflict can generate legal responsibility independently of traditional physical property loss. The Gulf War also demonstrates the cumulative nature of environmental destruction. Oil fires, oil lakes, contaminated groundwater, damaged coastal ecosystems, military fortifications and unexploded ordnance created overlapping forms of environmental harm whose effects continued after the cessation of active hostilities.²⁶ Such harm challenges a legal methodology that evaluates each attack in isolation. The environmental consequences of a conflict are often produced through a chain of acts: destruction of industrial facilities leads to contamination; contamination affects agriculture and water; damaged infrastructure impedes remediation; displaced populations place additional pressure on natural resources; and unexploded ordnance continues to prevent land restoration. The law must therefore recognise cumulative and long-term effects when assessing the legality and responsibility associated with environmental warfare. The Gulf War experience supports a broader conception of environmental damage within IHL and State responsibility, while simultaneously showing why a future ecocide regime would need to establish a coherent system of causation and attribution capable of addressing complex environmental processes.

The International Law Commission and the Emerging Environmental IHL Framework

The International Law Commission's work on protection of the environment in relation to armed conflicts represents one of the most systematic attempts to integrate environmental

protection across the entire conflict cycle. In 2022, the Commission adopted a final set of twenty-seven draft principles addressing the protection of the environment before, during and after armed conflict. The principles cover general protection, environmental considerations in armed conflict, occupation, protected zones, environmental modification techniques, pillage, natural resources, transboundary harm, post-conflict environmental assessment and remediation, relief and assistance, and remnants of war.²⁷ The General Assembly subsequently took note of the principles through Resolution 77/104 and encouraged their widest possible dissemination.²⁸ The importance of the ILC Principles is that they move beyond the narrow question of whether a particular attack satisfies the “widespread, long-term and severe” test. They instead construct environmental protection as a continuing legal concern that operates before, during and after armed conflict. This approach is particularly relevant to scorched-earth warfare because the environmental consequences of deliberate destruction cannot always be separated neatly from the broader conduct of military operations. The principles also reinforce the idea that environmental considerations should be incorporated into military planning and decision-making rather than considered only after destruction has occurred. This preventative approach complements the precautionary principle already embedded within IHL. The ILC framework also recognises the significance of environmental protection during occupation, a context in which natural resources and infrastructure may become instruments of control. Occupying powers are subject to legal restrictions concerning the exploitation and administration of territory, and environmental degradation can implicate obligations relating to natural resources, civilian welfare and the administration of occupied territory. The inclusion of post-conflict remediation is equally significant. A legal regime that merely determines whether an attack was lawful does not answer the subsequent question of who must restore contaminated land, remove unexploded ordnance, rehabilitate water systems or compensate affected populations. Environmental damage can persist for generations, making restoration and remediation central components of legal responsibility. The ILC’s work therefore supports a conception of environmental protection that is broader than criminal prohibition. This is important because criminal law should remain a measure of individual responsibility for the most serious conduct, while State responsibility, reparation, environmental restoration and preventive obligations address the wider consequences of armed conflict. The future development of ecocide should consequently complement rather than replace the existing IHL and State-responsibility framework.²⁹ A mature legal regime would distinguish between lawful incidental environmental damage, unlawful environmental damage constituting a violation of existing IHL rules, and exceptionally grave environmental destruction warranting individual

criminal responsibility as an autonomous or specially recognised international crime.

Reconceptualising Environmental Protection in Armed Conflict

The existing international humanitarian law framework provides a substantial but incomplete legal response to scorched-earth warfare. Its strengths are considerable. The principles of distinction, proportionality and precaution restrict attacks that threaten civilians and civilian objects; Article 54 of Additional Protocol I protects objects indispensable to civilian survival; Articles 35(3) and 55 directly address severe environmental damage; customary IHL recognises the need to protect the natural environment; the Rome Statute incorporates environmental destruction into the definition of certain war crimes; and the ILC's 2022 Draft Principles provide a comprehensive framework extending across the conflict cycle. Yet these rules remain fragmented. Environmental harm is often legally relevant only because it affects civilians, civilian objects or military operations. The specialised environmental threshold is demanding, and the absence of a universally accepted autonomous crime of ecocide leaves a significant gap where environmental destruction is catastrophic but does not satisfy existing criminal-law categories. Reassessment should therefore begin with the recognition that the environment is neither simply a civilian object nor merely an instrument of human survival. It possesses ecological characteristics whose destruction may have independent significance. This does not require abandoning the existing IHL architecture. Instead, the law should progressively incorporate environmental integrity into the interpretation and application of distinction, proportionality, precaution and military necessity. Environmental damage should be assessed not only by immediate human casualties but also by foreseeable long-term effects on ecosystems, natural resources, civilian livelihoods and intergenerational interests. Secondly, the evidentiary framework should recognise cumulative environmental damage. Where several operations form part of a coherent strategy, their combined environmental consequences should not automatically be fragmented into isolated incidents. Thirdly, military planners should be required to integrate environmental assessments into targeting decisions where significant environmental consequences are reasonably foreseeable. Fourthly, the law should develop clearer standards concerning intentional environmental destruction that is not justified by military necessity and that is pursued as a method of weakening, displacing or punishing a population. Fifthly, the relationship between ecocide and existing international crimes must be carefully defined. An autonomous ecocide offence should not become a vague moral category; it must contain precise material and mental elements compatible with the principle of legality. A possible future standard could focus upon unlawful conduct committed intentionally or with

knowledge of a substantial likelihood of causing severe and either widespread or long-term environmental damage, while incorporating an appropriate connection to armed conflict where the offence is situated within international criminal law. Such a formulation would need to preserve the distinction between deliberate environmental destruction and unavoidable incidental effects of lawful military operations. The most important reform, however, may not be the immediate creation of a new crime but the development of a coherent interpretive framework that treats environmental protection as an integral part of IHL rather than as a peripheral humanitarian concern. The environment should enter the legal analysis at the targeting stage, the proportionality stage, the precautionary stage, the assessment of military necessity, the determination of criminal responsibility and the calculation of reparation. Scorched-earth warfare demonstrates why such integration is necessary. The destruction of a forest, field, river, aquifer or ecosystem may simultaneously destroy livelihoods, displace communities, damage civilian objects, undermine food security and generate effects extending beyond the duration of the conflict. Treating these consequences as legally separate phenomena obscures the actual nature of environmental warfare. Ecocide, whether eventually recognised as a distinct international crime or developed through existing legal categories, therefore represents a broader challenge to the architecture of international humanitarian law: the law must determine not merely when human beings are harmed through environmental destruction, but when the destruction of the ecological foundations of human life itself becomes an unacceptable method of warfare. The appropriate future direction is consequently not the abandonment of military necessity or the creation of an absolute prohibition on environmental damage, but the establishment of a more coherent legal hierarchy in which military objectives, civilian protection and ecological integrity are assessed together. International humanitarian law has already begun this transition. The next stage is to ensure that its rules are sufficiently precise, comprehensive and enforceable to address environmental destruction whose consequences may outlast the conflict, cross national boundaries and affect generations that had no participation in the hostilities.

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