

INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES

[ISSN 2581-5369]

Volume 6 | Issue 6

2023

© 2023 *International Journal of Law Management & Humanities*

Follow this and additional works at: <https://www.ijlmh.com/>

Under the aegis of VidhiAagaz – Inking Your Brain (<https://www.vidhiaagaz.com/>)

This article is brought to you for “free” and “open access” by the International Journal of Law Management & Humanities at VidhiAagaz. It has been accepted for inclusion in the International Journal of Law Management & Humanities after due review.

In case of **any suggestions or complaints**, kindly contact Gyan@vidhiaagaz.com.

To submit your Manuscript for Publication in the **International Journal of Law Management & Humanities**, kindly email your Manuscript to submission@ijlmh.com.

Assessing the Draft Principles on Environmental Protection in Armed Conflict: Strengths, Weaknesses, and Innovations

JINCHUN WANG¹

ABSTRACT

The International Law Commission (ILC) has recently issued new principles for the Protection of the Environment, which address environmental issues in armed conflict. The principles are intended to fill the gaps in the existing international legal framework in this area, and represent the most significant legal advancement on this issue in 50 years, but rather they are intended to raise the profile of the issue and make the environment a priority in the aftermath of conflict. This paper critically analyses the strengths, weaknesses and potential problems of these principles, demonstrating their practical application through case studies. Their effectiveness depends on their adoption and implementation by parties to armed conflict, as well as on international regulatory mechanisms, which to a large extent constrain the principles; A structured approach was adopted to critically examine the ILC's basic principles in detail using four case studies: the 1938 Yellow River Flood, the FUDS programme, the Vietnam War, and the Russo- Ukrainian War, revealing how these principles may affect the legal environment.

Keywords: *International Law Commission (ILC), Protection of the Environment, Armed Conflict Principles, Legal Framework.*

I. INTRODUCTION

Recent events have resulted in the International Law Commission (ILC) issuing a set of basic principles on environmental matters pertaining to armed conflicts. These principles recognize the critical role environmental protection has in armed conflicts and aim to fill any gaps in the existing legal framework in this regard.² Its purpose is to emphasise the significance of environmental protection during armed conflicts. That goal of international humanitarian law aims to mitigate the environmental repercussions of war often causes irreversible environmental

¹ Author is a student at the University of Sydney, Australia.

² Chimène I Keitner, 'Horizontal Enforcement and the ILC's Proposed Draft Articles on the Immunity of State Officials from Foreign Criminal Jurisdiction' (2015) 109 *AJIL Unbound* 161 <<http://dx.doi.org/10.1017/s2398772300001367>>.

destruction, leading to this innovative draft being put forward as part of an effort to safeguard natural environments.³

This essay seeks to conduct a critical examination of the ILC's fundamental principles by outlining their merits and flaws, along with any new issues they bring up for discussion. By making use of a range of case studies, it is hoped that this investigation will uncover how these principles might impact the legal landscape pertaining to environmental protection in the context of armed conflict.⁴

The first section will examine the strengths of draft principles by drawing from cases like the Yellow River flood of 1938 in China, as well as the United States Formerly Used Defense Sites (FUDS) program, as examples to illustrate possible efficacy. Next, flaws will be examined using Vietnam War and Russo-Ukrainian War as focal points to illuminate potential concerns and possible areas for reformation. Next, this study will shift its attention to the unique elements of draft principles, analyzing how they differ from established legal norms and frameworks as well as their consequences on environmental protection. Finally, it will be worth highlighting that these elements hold significant potential to radically transform the existing frameworks of IHL. At the conclusion of this essay, these draft principles will be analysed in terms of their overall effectiveness and how they could be potentially applied to both historical and ongoing case studies. Furthermore, this essay will shed light on their potential to effectively contribute to environmental protection and make proposals for further refining and developing them.⁵ The intention is to present, utilizing structured methodologies, a thorough investigation of basic principles of the ILC draft as well as their potential to alter the dynamic between environmental protection and conflict.

II. STRENGTHS OF DRAFT PRINCIPLES

(A) A holistic solution for environmental damage in Armed Conflict and 1938 Yellow River flood

The principles outlined in the ILC draft show several crucial strengths that deserve further examination, most notably as they represent a holistic solution for environmental damage during times of armed conflict and contribute to allowing IHL to more effectively respond to

³ B Graefrath, 'The International Law Commission Tomorrow: Improving Its Organization and Methods of Work' (1991) 85(4) *American Journal of International Law* 595 <<http://dx.doi.org/10.2307/2203268>>.

⁴ Yibeltal Assefa et al, 'Community Health Extension Program of Ethiopia, 2003-2018: Successes and Challenges toward Universal Coverage for Primary Healthcare Services' (2019) 15(1) *Globalization and health* 24 <<https://pubmed.ncbi.nlm.nih.gov/30914055>>.

⁵ Dan Svantesson and Roger Clarke, 'THE TRADE PRACTICES ACT A HARD ACT TO FOLLOW? ONLINE CONSUMERS AND THE NEW AUSTRALIAN CONSUMER LAW LANDSCAPE'.

modern-day struggles.

The Flooding of the Yellow River in 1938 is a notable example where comprehensive thinking about humanitarian outcomes, especially in relation to the environment, was severely neglected. The ILC has developed a set of basic principles on environmental concerns in armed conflicts. A major advantage of these principles is their comprehensive and holistic approach to mitigating environmental damage caused by battle, taking into account human, environmental and security considerations during times of war.⁶

The military operation that planned and implemented that flooding of the Yellow River in 1938 served as a devastating example of how military actions during times of armed conflict can cause irreparable environmental damage. The Chinese National Army intentionally destroyed dikes along the Yellow River with the intention of slowing the advance of the Imperial Japanese Army. However, this military strategy ultimately had disastrous consequences for the civilian populations it was meant to protect, both directly through drowning and indirectly through famine and plague caused by the destruction of the agricultural environment by the plague, and it is estimated that up to half a million civilians perished as a result of this decision.

The most recently released eight principles on the Environment in Armed Conflict (EPIC), provide an effective framework to deal with such complicated cases of environmental harm, offering direction for preventing, mitigating, and repairing environmental damage caused by conflict.⁷ They adopt an all-inclusive approach that facilitates the type of complex planning required to prevent those environmental and humanitarian disasters as the Yellow River flood.⁸

Recognizing that military activities may have serious and long-lasting environmental effects is essential to creating a comprehensive strategy and should be one of its defining characteristics. Draft principles place emphasis on causing minimal environmental harm, and to this end, taking both short-term and long-term into consideration is of equal importance.⁹ Even if environmental damage cannot be eliminated from military decisions in the first place, these principles provide a framework for rebuilding damaged ecosystems, rehabilitating affected communities, and maintaining long-term viability of regions, such as those along the Yellow River in the years following 1938. One way in which these principles address the long-term repercussions of

⁶ Natalie Y MORRIS-SHARMA, 'The ILC's Draft Articles Before the 69th Session of the UNGA: A Reawakening?' (2015) 7(1) *Asian Journal of International Law* 1 <<http://dx.doi.org/10.1017/s204425131500017x>>.

⁷ Hay-Edie David, 'A Briefing Paper for States and Non-Governmental Organisations' <<http://www.ipb.org/wp-content/uploads/2017/03/briefing-paper.pdf>>.

⁸ Keitner (n 1).

⁹ Bill Ganzel, 'Vietnam War | Wessels Living History Farm' (2007) <<https://livinghistoryfarm.org/farminginthe50s/farm-life/vietnam-war/>>.

environmental destruction and spur efforts to restore it back to its pre-conflict condition is through including internationally agreed-upon requirements related to post-conflict environmental assistance and collaboration.¹⁰

Being able to take into account accumulated environmental repercussions is one of the major benefits of adopting a comprehensive approach. Basic principles recognize the necessity of conducting an evaluation of the cumulative effects of armed conflict in these settings, with particular attention paid to how damage caused by war exacerbates preexisting environmental conditions.¹¹ Moreover, it must be noted the 1938 case study is particularly illustrative of how such principles are readily applied in reality, as military planners in a defensive war have a much greater incentive to prevent environmental and humanitarian catastrophe.

The draft principles on environmental damage during armed conflict take a holistic approach that allows effective handling of wartime environmental harm, which was developed by the UN. The 1938 Yellow River flooding provides a perfect example of the devastating consequences that military activity can have on both the environment and civilian populations. The principles provide guidance for preventing, minimising, and rectifying damage of this kind, taking into account both short-term and long-term effects.¹² They offer an all-encompassing framework for conserving and repairing the environment during times of conflict by including postwar environmental assistance commitments as well as considering cumulative damage.¹³

(B) Recognition of Environmental Impact in Armed Conflict and Case Study - FUDS

Recognizing the destructive impacts of warfare on its surrounding environment is very closely connected to the concept of necessity, conventionally held to be one of the five principles of international humanitarian law. Such awareness is absolutely crucial in order to tackle the complex issues that result from military activities in terms of ecosystems and human health.¹⁴ In accordance with Principle 24, the United States FUDS program attempts to address properties formerly designated for military use and contaminated with harmful substances, pollutants, or

¹⁰ Zhaohui Su et al, 'Mental Health Consequences of COVID-19 Media Coverage: The Need for Effective Crisis Communication Practices' (2021) 17(1) *Globalization and health* 4 <<https://pubmed.ncbi.nlm.nih.gov/33402169/>>.

¹¹ Alain Pierret, Guillaume Lacombe, and Chu Thai Hoanh, 'Environmental and Migratory Consequences of the Vietnam War | Environmental Migration Portal' <<https://environmentalmigration.iom.int/blogs/environmental-and-migratory-consequences-vietnam-war/>>.

¹² Benny TAN Zhi Peng, 'The International Law Commission's Draft Articles on the Effects of Armed Conflicts on Treaties: Evaluating the Applicability of Impossibility of Performance and Fundamental Change' (2013) 3(1) *Asian Journal of International Law* 51 <<http://dx.doi.org/10.1017/s204425131200032x>>.

¹³ Philip Alston, 'Ships Passing in the Night: The Current State of the Human Rights and Development Debate Seen through the Lens of the Millennium Development Goals' (2005) 27(3) *Human Rights Quarterly* 755 <<http://dx.doi.org/10.1353/hrq.2005.0030>>.

¹⁴ Panos Merkouris, 'Debating the Ouroboros of International Law: The Drafting History of Article 31(3)(c)' (2007) 9(1) *International Community Law Review* 1 <<http://dx.doi.org/10.1163/187197407x196721>>.

unexploded ordnance, of which 10,000 have been evaluated to be included in the program. Once their military use has ceased, such environments can unnecessarily present major environmental and health concerns for neighbouring communities or ecosystems. This is a widely recognized precedent, as the United Nations Principles on the Environment in Armed Conflict recognises this fact and mandate commitments that aim to limit damage and restore places affected.¹⁵

Understanding that armed conflicts have an effect on the surrounding environment is key to responsible behavior, protecting ecosystems, and maintaining human health. The multiple principles mentioned in Part Five of the draft, Principle 24 in particular, provide a framework for evaluating and correcting environmental damage caused by military activities - such as contamination of former military installations like FUDS by active-duty service members as well as former members.

Actions taken to remediate environmental damage in relation to armed conflict or military activities can also be regarded as taking precautions against future conflict further exacerbating that damage. A preventative approach would limit environmental destruction from occurring in the first place and ought to adhere to principles which promote responsible conduct among parties.¹⁶ By adopting such measures, environmental damage and its long-term implications can be reduced significantly. Identification can lead to improved practices in military operations, ensuring sites are appropriately maintained to avoid contamination and minimize threats to ecosystems and local communities. Thus, FUDS could contribute to better practices in military operations and reduce the worsening of prior environmental damage.¹⁷

The fundamental principles for environmental consideration in armed conflicts emphasize the significance of environmental cleanup and restoration as part of military activity. They create obligations to clean up polluted sites as well as repair ecosystems damaged due to military activities.¹⁸ In terms of FUDS, its principles serve as guidelines for remediation operations such as the removal of hazardous substances, risk assessment and restoration to pre-conflict conditions.

¹⁵ Yu Jia et al, 'How Does Internal and External CSR Affect Employees' Work Engagement? Exploring Multiple Mediation Mechanisms and Boundary Conditions' (2019) 16(14) *International journal of environmental research and public health* 2476 <<https://pubmed.ncbi.nlm.nih.gov/31336754>>.

¹⁶ Ashley Barnes and Christopher Waters, 'The Arctic Environment and International Humanitarian Law' (2012) 49 *Canadian Yearbook of international Law/Annuaire canadien de droit international* 213 <<http://dx.doi.org/10.1017/s0069005800010353>>.

¹⁷ Gary Sacks et al, 'Benchmarking the Nutrition-Related Policies and Commitments of Major Food Companies in Australia, 2018' (2020) 17(17) *International journal of environmental research and public health* 6118 <<https://pubmed.ncbi.nlm.nih.gov/32842662>>.

¹⁸ Michael Addaney, Michael Gyan Nyarko and Elsabe Boshoff, 'Protection of the Environment and Natural Resources during Armed Conflicts in Africa' (2019) 3(1) *Chinese Journal of Environmental Law* 85 <<http://dx.doi.org/10.1163/24686042-12340036>>.

One of the key strengths of the draft principles is their call for international cooperation to address environmental damage that have already been caused as a result of previous conflict.¹⁹ Cooperation among countries can increase knowledge sharing, resource utilization and best practices which make environmental management and restoration more efficient and restore damaged areas. The FUDS program demonstrates that there already exists a national willingness of sovereign states to remediate past environmental damage, so it is very feasible that international cooperation between such states can play an integral role in supporting such clean up and restoration efforts by drawing on expertise and resources from multiple parties.

III. WEAKNESSES OF DRAFT PRINCIPLES

(A) Inadequate Application to Non-International Armed Conflicts

Although these aforementioned ILC draft principles demonstrate their effectiveness in mitigating environmental damage in armed conflict in certain contexts, there still remain significant drawbacks. One key drawback pertains to the fact that IHL, a category under which these principles fall, by definition only applies to international as opposed to non-international conflict. While some the most individually devastating armed conflicts have historically been international in character, it must be noted that the recent past has seen a dramatic upsurge in non-international armed confrontations fought either between distinct non-state entities or between state and non-state actors.²⁰

A prime example of this would be the Vietnam War, which took place from 1955 to 1975 and involved considerable intervention by the United States on the side of South Vietnam against irregular forces aligned with North Vietnam.²¹ The environmental devastation caused by the war presents perhaps the most serious incident of intentional environmental destruction in modern history, and included the destruction of forests, the poisoning of water resources, the deployment of dangerous chemicals such as Agent Orange, as well as the deployment of hazardous agents that had severe negative consequences both on individual as well as ecosystem health.

Considering that the ILC draft principles are categorized under IHL, their application to non-international armed conflicts such as Vietnam War is evidently and inherently limited.²² It is

¹⁹ Jeromey B Temple, Sue Booth and Christina M Pollard, 'Social Assistance Payments and Food Insecurity In Australia: Evidence from the Household Expenditure Survey' (2019) 16(3) *International journal of environmental research and public health* 455 <<https://pubmed.ncbi.nlm.nih.gov/30720768>>.

²⁰ Merkouris (n 13).

²¹ Joop Voetelink, 'Private Military and Security Companies' in *International Law* (Oxford University Press, 2019) <<http://dx.doi.org/10.1093/obo/9780199796953-0190>>.

²² Dustin A Lewis, 'The Notion of "Protracted Armed Conflict" in the Rome Statute and the Termination of Armed Conflicts under International Law: An Analysis of Select Issues' (2019) 101(912) *International Review of the Red*

clear from the language used in the draft that it focuses mainly on disputes between state actors, yet offer no clear direction on how to handle damage caused by non-state actors, whose lack of clear obligations and responsibilities limits attempts at resolution, and this is exacerbated by the emphasis on states' behaviour rather than individual actors' responsibility. Contrary to conflicts between states, which can often be resolved using existing legal frameworks like the Geneva Conventions, non-state entities' legal obligations in regard to environmental preservation remain less clear-cut. With the abundance of non-state actors in the Vietnam War, including guerrilla and paramilitary elements, it can be exceedingly difficult to ascertain responsibility for the environmental damage wrought by war.²³

Due to the failure of basic principles to adequately address non-international armed conflicts, implementing preventative measures and accountability systems becomes challenging. Protection of the environment demands integration of environmental concerns into the planning and execution of military operations.²⁴ Without clear laws addressing non-state actors, it is difficult to verify whether all parties involved in non-international armed conflicts conform to environmental norms, thus, creating a challenge for those charged with this responsibility.

The difficulty in applying international armed conflict principles effectively to non-international conflicts is equally a hurdle to environmental rehabilitation and restoration work after war has ended. Principles emphasizing environmental assistance emphasize the significance of environmental aid, but a lack of explicit provisions for non-state actors and their responsibilities in relation to post-conflict environmental activities means that coordination of such efforts present significant challenges. Victims of environmental damage caused by the Vietnam War experienced significant difficulties recovering due to this lack of comprehensive framework for post-conflict environmental aid assistance, often leading to further human costs that persist even long after the fighting had actually ended.²⁵

Moreover, environmental degradation often has long-lasting negative repercussions that continue to have an adverse impact on subsequent generations and prevent sustainable development from taking place.²⁶ Without measures in place for long-term monitoring,

Cross 1091 <<http://dx.doi.org/10.1017/s1816383120000028>>.

²³ Christiane Ahlborn, 'The Use of Analogies in Drafting the Articles on the Responsibility of International Organizations An Appraisal of the "Copy-Paste Approach"' (2012) 9(1) *International Organizations Law Review* 53 <<http://dx.doi.org/10.1163/15723747-00901001>>.

²⁴ Toni Pfanner, 'Cooperation between Truth Commissions and the International Committee of the Red Cross' (2006) 88(862) *International Review of the Red Cross* 363 <<http://dx.doi.org/10.1017/s1816383106000579>>.

²⁵ Ahmed Al-Dawoody, 'Islamic Law and International Humanitarian Law: An Introduction to the Main Principles' (2017) 99(906) *International Review of the Red Cross* 995 <<http://dx.doi.org/10.1017/s1816383118000310>>.

²⁶ Lewis (n 21).

evaluation, and mitigation of environmental damage this effectively negates efforts to effectively address its long-term ramifications while assuring their recovery and guarantee sustainable ecosystem recovery from injuries sustained during warfare.²⁷ To address this deficit, it is essential that post-conflict environmental rehabilitation measures included within draft principles are strengthened, with specific standards developed to outline roles, duties, coordination mechanisms and reparation for environmental damage such as contamination of water supplies or essential natural resources which have had serious repercussions for human health. It is vital that such issues be effectively assessed and remedied because they can have devastating repercussions for the economy as a whole.²⁸

Although these principles acknowledge the necessity of environmental aid and collaboration after violent conflict, primarily for state actors, they ultimately fail to offer any concrete recommendations or methods for effectively resolving environmental damage and supporting ecosystem and population recovery, and this reality remains even despite multiparty commitment to environmental assistance and cooperation following violent conflicts.²⁹

Failure to establish clear responsibilities and coordination methods are major impediments to post-conflict environmental recovery and are among the primary challenges. The draft principles fail to adequately outline roles and responsibilities for state and non-state actors alike, including affected states, international organisations and other key stakeholders. The lack of an overarching framework for post-conflict environmental recovery only exacerbates coordination and resource distribution issues.

As such, to address this deficiency, it is essential that basic principles are modified to apply more broadly in conflicts involving non-state actors, with specific norms and provisions taking into account non-state actor complexities, as well as clauses that outline their responsibilities in terms of both damage prevention and post-conflict assistance.³⁰ Key stakeholders, such as civil society or non-government organisations, may play a pivotal role in facilitating environmental

²⁷ Georgia Warren-Myers, Anna Hurlimann and Judy Bush, 'Barriers to Climate Change Adaption in the Australian Property Industry' (2020) 38(5) *Journal of Property Investment & Finance* 449 <<http://dx.doi.org/10.1108/jpif-12-2019-0161>>.

²⁸ Jelena Pejic, 'Procedural Principles and Safeguards for Internment/Administrative Detention in Armed Conflict and Other Situations of Violence' (2005) 87(858) *International Review of the Red Cross* 375 <<http://dx.doi.org/10.1017/s1816383100181408>>.

²⁹ Thomas Graditzky, 'Individual Criminal Responsibility for Violations of International Humanitarian Law Committed in Non-International Armed Conflicts' (1998) 38(322) *International Review of the Red Cross* 29 <<http://dx.doi.org/10.1017/s0020860400090756>>.

³⁰ Michael Bothe et al, 'International Law Protecting the Environment during Armed Conflict: Gaps and Opportunities' (2010) 92(879) *International Review of the Red Cross* 569 <<http://dx.doi.org/10.1017/s1816383110000597>>.

rehabilitation and restoration activities and encouraging responsible behavior.³¹

Thus, improper application of the principle in the draft on protection of the environment in armed conflicts to non-international conflicts remains a significant flaw, and the case of the Vietnam War provides a stark illustration not only of the severe environmental repercussions that armed conflicts involving non-state actors can have but also of the difficulties involved when trying to address those problems within the context of fundamental principles.³² Environmental protection efforts, preventive measures, accountability systems and post-conflict rehabilitation initiatives are often hindered by the absence of clear obligations and rules for non-state actors. As such, it is crucial that provisions be modified such that the responsibilities of non-state actors adequately addressed.

(B) Inadequate Provisions for Environmental Damage Mitigation During Conflict and Case Study of Russo-Ukrainian War

Another primary flaw in the ILC's draft principles on environment in armed conflict is the vagueness and impracticality of its provisions for environmental damage mitigation during armed conflicts themselves, especially with regard to high-intensity conflicts. As an illustration of this flaw, it can be seen from the Russo-Ukrainian War that near-peer adversary state actors fighting a conventional war demonstrate a level a conflict intensity that render environmental considerations militarily impractical, with the result being severe environmental repercussions exacerbate the difficulties of rehabilitation.³³

Vast swathes of eastern Ukraine have suffered severe ecological devastation as a direct result of the ongoing Russo-Ukrainian War, and successive military operations have rendered inoperable much of critical infrastructure, polluted soil and ground water sources, and evicted wildlife from their natural habitats. This poses serious repercussions for public health and ecosystem sustainability in this region, with contaminated water sources from destroyed industrial enterprises and infrastructure leave communities exposed to significant long-term health risks.³⁴ A lack of clear protocol and procedures alleviating such contamination risks will

³¹ Dieter Fleck, 'The Interplay Between "Peacetime" Law and the Law of Armed Conflict: Consequences for Post-Conflict Peacebuilding' (2021) 26(2) *Journal of Conflict and Security Law* 289 <<http://dx.doi.org/10.1093/jcsl/krab007>>.

³² Thibaud de La Bourdonnaye, 'Greener Insurgencies? Engaging Non-State Armed Groups for the Protection of the Natural Environment during Non-International Armed Conflicts' (2020) 102(914) *International Review of the Red Cross* 579 <<http://dx.doi.org/10.1017/s1816383121000527>>.

³³ Jialong Li et al, 'Corporate Controversy, Social Responsibility and Market Performance: International Evidence' (2019) 60 *Journal of International Financial Markets, Institutions and Money* 1 <<http://dx.doi.org/10.1016/j.intfin.2018.11.013>>.

³⁴ Boško Jakovljević and Jovica Patrnogić, 'The Urgent Need to Apply the Rules of Humanitarian Law to So-Called Internal Armed Conflicts' (1961) 1(5) *International Review of the Red Cross* 250 <<http://dx.doi.org/10.1017/s0020860400011852>>.

only compound them further to the detriment of civilians.³⁵

This most obviously calls into question the soundness of the draft principles in Part Three, which place considerable importance on preventing “widespread, long-term and severe damage” to the environment during times of active armed conflict.

The fact that this draft is very comprehensive and tries to take a holistic view is a strength in preparing for potential conflict in peacetime, but this is most certainly a weakness during times of active armed conflict. Historically speaking, *jus in bello* has been proven to very difficult to implement, and the even more rapid pace of modern warfare makes it very difficult to apply such general principles of IHL such as distinction and proportionality, outlined in Principle 14, to real-life scenarios in a very limited time.

This is best illustrated by the most recent high-intensity conventional war, the Russo-Ukrainian War, where the reality of rapid maneuver warfare frequently leaves little to no time for military and civilian leadership to have meaningful discussion about environmental issues when military operations are still ongoing.

It is also worth noting that recent evidence shows that much this destruction may have been premeditated by invading Russian forces as part of an intentional strategy of environmental warfare. Of course, the contravention of existing IHL by Russian-aligned forces in Ukraine is an obvious reminder of the limitations of such international norms in times of conflict, and it is doubtful that the proposed additional environmental laws would have a notable effect on certain nation-states that seem to lack regard for the international rules-based order. However, this is also a pertinent reminder that in order for both existing and proposed international law to succeed, then violators of such laws must be held to account and punished for their transgressions.

Considering the fact that neither preparations before such an armed conflict nor decisions during such an armed conflict are likely to effectively mitigate environmental damage, it can be anticipated that, in reality, it often falls to post-conflict environmental rehabilitation, outlined in Part Five of the draft principles, as the most significant minimising environment-induced human suffering. To this end, monitoring and evaluation systems must also be put in place so as to evaluate the success of environmental recovery efforts, while taking steps to minimize long-term environmental damage effects and ensure healthy and prosperous communities in

³⁵ Tuyet-Mai Nguyen and Ashish Malik, ‘Cognitive Processes, Rewards and Online Knowledge Sharing Behaviour: The Moderating Effect of Organisational Innovation’ (2020) 24(6) *Journal of Knowledge Management* 1241 <<http://dx.doi.org/10.1108/jkm-12-2019-0742>>.

affected areas for generations but unborn. This will facilitate sustainable communities within those impacted regions as well as ensure health and happiness in their future generations.³⁶ Environmental reconstruction after conflicts is greatly assisted by international participation and assistance. When creating principles to guide reconstruction efforts after wars, international collaboration must be encouraged through mobilising resources, expertise and technology as part of international support to the affected state in its attempts at restoration and rehabilitation.³⁷

Ultimately, measures for environmental damage mitigation during periods of high-intensity armed conflict fall short of fundamental principles on environmental matters in armed conflict and appear to represent a failing of these same principles themselves. The ongoing Russo-Ukrainian War is an illustrative, and also relevant, example of the challenges associated with effectively mitigating environmental damage in the heat of battle. Thus, it often falls to post-conflict efforts of supporting ecosystem and population recovery to most properly rectify this environmental damage sustained during conflict. While coordination, resource distribution, and assessment of environmental damage may seem like a complicated task in the absence of clear rules and methods for post-conflict environmental rehabilitation, those principles in Part Five, crucially, have time to be applied carefully and judiciously, and furthermore, they have time to evolve in proven initially inadequate. If these basic principles do not address fully all long-term repercussions brought on by war damage to the environment, then sustainable development efforts as well as future generations' health and happiness would be stymied.³⁸

IV. INNOVATIONS

(A) Addition of Preamble

In contrast to its 2019 predecessor³⁹, the 2022 draft of the principle incorporates a preamble and streamlines its content by eliminating redundant articles and phrasing. This revision aims to enhance the conciseness and clarity of the document⁴⁰. The inclusion of a preamble highlights

³⁶ Pfanner (n 23).

³⁷ Chunseun LEE, 'A Study in International Law on the Protection of the Environment in Relation to Armed Conflicts: With Focus on UN ILC's Second Reading Drafts' (2023) 68(1) *THE KOREAN JOURNAL OF INTERNATIONAL LAW* 199 <<http://dx.doi.org/10.46406/kjil.2023.3.68.1.199>>.

³⁸ Alain Pellet, 'The Second Death of Euripide Mavrommatis? Notes on the International Law Commission's Draft Articles on Diplomatic Protection' (2008) 7(1) *The Law & Practice of International Courts and Tribunals* 33 <<http://dx.doi.org/10.1163/157180308x332757>>.

³⁹ United Nations General Assembly, Protection of the environment in relation to armed conflicts, (6 June 2019) Doc A/CN.4/L.937 <<https://documents-dds-ny.un.org/doc/UNDOC/LTD/G19/153/11/PDF/G1915311.pdf?OpenElement>>.

⁴⁰ United Nations General Assembly, Draft principles on protection of the environment in relation to armed conflicts, (18 April–3 June and 4 July–5 August 2022) Doc A/77/10 para.58 <https://legal.un.org/ilc/texts/instruments/english/draft_articles/8_7_2022.pdf>.

the importance of Principle 24 of the Rio Declaration, which specifically addresses the sustainable development of ecosystems and natural resources. The revised text also recognizes that harm inflicted upon the environment can have far-reaching consequences for global challenges, such as climate change and the loss of biodiversity. The introductory statement emphasizes the significance of the foundational principles of environmental law and underscores the 2022 ILC's preliminary draft as a comprehensive instrument aimed at safeguarding the environment at a global level.

(B) Alteration of Terminology

In the previous iteration of the draft in 2019, the term "natural environment" was utilized to denote the environment in line with IHL. However, in the subsequent 2022 draft, the term "environment" is adopted, aligning with the widely accepted terminology in international environmental law.

a. An Examination of Pioneering Components Contained Within Guiding Principles

The incorporation of remarkable range of novel ideas into final principles bodes well for greater comprehension of the complex nature of environmental damage caused by armed conflict. Contrary to what was the case previously, damage can now be defined more broadly to encompass not only physical injuries but also harm done to not just animal life, but entire ecosystems. This is something which corresponds with contemporary scientific understandings of environmental health that emphasise that its integrity depends not only on physical condition but also its biodiversity and functionality.⁴¹

Implementation of preventative safeguards for the environment represents an invaluable advancement, and this development highlights the significance of proactive activities to avoid or minimise environmental harm, and this highlights the very real observation that taking remedial actions after a conflict may often prove insufficient or too late for repair.⁴² Maintaining environmental protection during times of armed conflict requires providing a clear understanding of responsibility and accountability, and by offering a framework for assigning blame and demanding accountability, participating parties in the conflict can be made aware of

⁴¹ Tara Smith, 'Critical Perspectives on Environmental Protection in Non-International Armed Conflict: Developing the Principles of Distinction, Proportionality and Necessity' (2019) 32(4) *Leiden Journal of International Law* 759 <<http://dx.doi.org/10.1017/s0922156519000372>>.

⁴² Karen Hulme, 'Using International Environmental Law to Enhance Biodiversity and Nature Conservation During Armed Conflict' (2022) 20(5) *Journal of International Criminal Justice* 1155 <<http://dx.doi.org/10.1093/jicj/mqac060>>.

potential liabilities that serve as effective deterrents.⁴³

b. An Analysis of Influence and Efficiency of These Innovations

How effectively these advances take hold in practice is directly proportional to whether states and parties engaging in armed conflict accept and implement them, and the strength of particular systems that enforce international law is dependent upon how efficiently their mechanisms operate. Environmental awareness could have profound ramifications on military planning and execution if the aim of causing minimal disturbances to ecosystems and species diversity during battles is widely adopted.⁴⁴ However, its success ultimately hinges on all parties involved in an armed conflict making a concerted effort to comprehensively incorporate environmental concerns into military strategy and operations.

Finally, although preventative environmental conservation strategies are admirable, in order for them to be truly effective, extensive pre-conflict planning and expenditure is necessary in order for them to function effectively.⁴⁵ If all parties involved in an armed conflict agree to devote resources and efforts toward mitigating any environmental harm, then this could work effectively. Implementation of clear principles regarding responsibility and accountability may foster a culture of responsibility among participants in an armed conflict, however, its efficacy in practice depends heavily on the willingness of certain international organisations to hold parties responsible for environmental damages, as well as possessing mechanisms strong enough to actually to enforce these rules in reality.⁴⁶

The advancements made by the ILC draft mark substantial progress, but their ultimate impact and efficiency depend on numerous practical considerations beyond the mere concepts themselves. Advancements in IHL may do well to focus on strengthening existing mechanisms of law enforcement moving forward, as well as encouraging adoption of these principles by all parties engaged in armed conflict.⁴⁷

V. EVALUATION

An integrated approach to environmental protection and acknowledging environmental repercussions as part of conflict are among the many strengths of the principles mentioned in the 2022 draft on Environment in Armed Conflict. Case studies like that of 1938 Yellow River

⁴³ Graditzky (n 28).

⁴⁴ Jakovljević and Patnogić (n 33).

⁴⁵ Julian Wyatt, 'Law-Making at the Intersection of International Environmental, Humanitarian and Criminal Law: The Issue of Damage to the Environment in International Armed Conflict' (2010) 92(879) *International Review of the Red Cross* 593 <<http://dx.doi.org/10.1017/s1816383110000536>>.

⁴⁶ de La Bourdonnaye (n 31).

⁴⁷ Bothe et al (n 29).

flood or FUDS do much to shine light on the advantages that follow naturally from the innovative framework of existing principles, but these virtues, however, are counterbalanced by substantial flaws. The application of these principles in non-international armed conflicts like the Vietnam War highlights significant obstacles in identifying responsibilities of non-state actors, while the environmental harm caused inadequate decision-making during the ongoing Russo-Ukrainian conflict demonstrates the manifold difficulties of *jus in bello*.⁴⁸

Innovations included in the principles by the ILC represent an attempt to expand the framework for environmental protection under IHL. More specifically, widening environmental damage definitions, adopting preventive measures and clarifying responsibility and accountability are examples that reflect this dedication. However, their success hinges upon adoption and implementation by nations and parties engaged in armed conflicts.⁴⁹ Their effectiveness depends on international regulatory mechanisms which largely govern these principles. Although these developments have resulted in considerable advances, their overall efficiency has often been hindered due to certain inherent limitations and difficulties encountered during international armed conflicts.⁵⁰

Even with their shortcomings, the principles represent an admirable effort in improving environmental protection during armed conflicts, but the problems that remain must be addressed by the commitment of the ILC and other international organisations to further explore these ideas, and the new additions that have already been made over time bodes well for this set of principles in the years to come. However, the most difficult obstacle that must be addressed may well be making sure that these concepts are adhered to and efficiently applied.⁵¹ As IHL evolves, it is vitally important that these principles are reevaluated, revised and reapplied on an ongoing basis in order to provide enough conflict-related environmental protection.

Given their flaws, it is evident that these draft principles have significant room for improvement, and thus potential for advancement. Expanding their applicability to armed conflicts involving non-state as well as state actors could help address gaps identified during the Vietnam War case study. This may involve creating clearer definitions and more stringent procedures for managing internal disputes to ensure environmental protection remains at the forefront during crises situations. Principles should include consideration for indirect environmental effects.⁵²

⁴⁸ Jakovljević and Patnogić (n 33).

⁴⁹ Fleck (n 30).

⁵⁰ Barnes and Waters (n 15).

⁵¹ Hulme (n 41).

⁵² Alexandra Wormald, 'Protecting the Environment During and After Armed Conflict, the International Law Commission and an Overdue Due Diligence Duty for Corporations' (2021) 12(2) *Journal of International Humanitarian Legal Studies* 314 <<http://dx.doi.org/10.1163/18781527-bja10037>>.

As the Russo-Ukrainian War is currently illustrating, even actions that do not directly harm humans can have devastating repercussions for ecosystems, which may well ultimately be the cause of much more significant human suffering in the future, and establishing more comprehensive assessments of environmental damage is essential in order to take into account both long term effects and influence over regional ecosystems.⁵³

Ultimately, there may be potential for the influence of principles to increase with more stringent enforcement measures being put in place, particularly regarding compliance enforcement procedures.⁵⁴ While the final draft contains several innovations that indicate progress, such as more clearly outlining responsibility and accountability, robust compliance procedures would still need to be put in place before any attempt at enforcing compliance can occur, and international sanctions among other consequences bind together all parties involved.⁵⁵

VI. CONCLUSION

Evidently, the draft principles on protection of the environment in armed conflict provide both considerable strengths and weaknesses, and clearly highlights areas for potential improvements. Essentially, these fundamental principles on environment in armed conflicts represent a truly promising approach for mitigating the often-debilitating environmental impacts wrought by armed conflict. In order for it to achieve its full potential, however, the deficiencies analysed in this essay should ideally be rectified as soon as possible. Implementing innovations and addressing limitations will surely strengthen the principles to create a more solid framework for protecting the environment, and ultimately human lives from the wrath of war. Not only does it ensure sustainable recovery of ecosystems and communities that have been severely compromised, but it also takes steps toward encouraging responsible conduct among all involved. These goals can be attained, if so, will have done much to address the two most pressing issues of our time, that is, the twin tendencies of humans to destroy each other and to destroy our common home. Thus, this particular attempt to ensure protection of the environment in relation to armed conflict bodes well for creating a world that is both sustainable and peaceful.

⁵³ Keitner (n 1).

⁵⁴ de La Bourdonnaye (n 31).

⁵⁵ Jakovljević and Patrnogić (n 33).