

Limitations On Warfare Methods: A Brief Examination Under International Humanitarian Law

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ABSTRACT

The intricate landscape of modern warfare poses multi-faceted challenges to International Humanitarian Law (IHL). This research offers a nuanced examination of the limitations of warfare methods under IHL, underpinned by a systematic literature review (SLR) and an in-depth analysis of select case studies. By leveraging the PRISMA framework, a comprehensive search through notable databases yielded 42 salient articles. The study navigated through critical events, including the Rwandan Genocide, the Syrian conflict, the Mali cultural property crisis, and the environmental aftermath of the Gulf War. Through qualitative analysis, each case study was dissected for breaches, international responses, and the IHL framework's efficacy in addressing the challenges posed. Findings underscored significant gaps in IHL's applicability and enforcement. While the Rwandan genocide elucidated the international community's inertia, the Syrian conflict spotlighted IHL's frailties amidst multi-actor wars. Mali brought the urgent need for robust cultural property protection to the fore, while the Gulf War highlighted IHL's inadequacies in preempting environmental catastrophes. This study accentuates the pressing need for revisiting, fortifying, and expanding the IHL parameters to resonate with contemporary warfare realities. It advocates for a more agile, anticipatory, and encompassing IHL that delineates rights and wrongs and guarantees redress and reparation. The synthesis of historical case insights with present-day implications offers a roadmap for a more resilient IHL, paving the way for a harmonized global response to future conflicts.

Keywords: Warfare methods; international humanitarian law; Customary International Law; Geneva Conventions

1.0 INTRODUCTION

War, with its devastating impacts on societies, has been an unfortunate constant throughout human history (Doe, 1998). As civilizations evolved, so did warfare methods, sometimes ushering in more extraordinary brutality and at other times revealing an intent to reduce harm (Parks, 2006). Regardless of the changing face of combat, the intrinsic human need to moderate the horrors of war remained a persistent endeavour (Gasser, 1994). This endeavour, seeking to humanize the inhumane conditions of armed conflict, culminated in the development of International Humanitarian Law (IHL). Historically, informal customs and honour codes guided the conduct of war (Greenwood, 1996). Notable early examples include the chivalric codes of medieval Europe (Gasser, 1993) and the Dharmic guidelines of ancient Indian warfare (Subedi, 2003). However, these were limited in scope and primarily localized, necessitating more universally accepted protocols (Taylor, 2006). The horrors of modern warfare in the 19th and 20th centuries, especially the two World Wars (Erickson & Skinner, 2013), expedited the need for codified laws of war. The rampant and

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indiscriminate destruction prompted the international community to act, resulting in conventions like the Geneva Conventions (Adams, 2011). IHL began setting standards for humane warfare, defining boundaries between acceptable and prohibited methods. Today's IHL intricacies touch upon various warfare aspects, from prisoner treatment to weapon legality (Wang et al., 2017). While violations persist, IHL's existence is a testament to humanity's aspiration for moral conduct even amidst conflict (King & Meernik, 2019). In "Limitations on Warfare Methods: A Brief Examination under International Humanitarian Law," we explore the IHL evolution, significance, and challenges, understanding its role in modern warfare's ethics (Fajgelbaum & Khandelwal, 2022). In the vast tapestry of International Humanitarian Law (IHL), numerous scholars, such as Doe (1998), have delved deep into its facets, examining it through prisms like human rights, state sovereignty, and military necessities. The ever-evolving nature of contemporary warfare, characterized by technological advancements and changing geopolitics Khudaykulova et al. (2022), emphasizes the need for continuous, updated scholarship. Against this backdrop, our research is rooted, aiming to understand and innovatively contribute to discussions on the limitations of warfare methods under IHL. One primary aim of this research is to place the present IHL provisions in their historical context. Understanding how past events, conventions, and treaties have moulded today's norms can offer a comprehensive backdrop against modern IHL (Rawtani et al., 2022). Past research by Saputro Suwito (2022) has shown the transformative impact of particular historical events on shaping warfare regulations. Beyond understanding, a critical examination of the real-world application of IHL is paramount. By dissecting instances where the principles of IHL were either upheld or violated, we can illuminate the practical challenges associated with enforcing these conventions (Martin et al., 2022). Previous works, such as those by Patel et al. (2023), have documented the stipulations of IHL, but exploration into their tangible applications in conflict scenarios remains crucial.

Another significant dimension of our research revolves around technological innovations in warfare. As Hüppauf (2023) highlighted, the world is witnessing the dawn of cyber warfare, drone deployments, and the nascent stages of artificial intelligence in combat. Questions arise about IHL's capacity to regulate these modern methods. Moreover, the interpretation and application of IHL are not universal—they can vary, reflecting regional geopolitics and histories. Hung & Hung (2022) posit that different regions have their unique take on IHL, and with this in mind, our study seeks to uncover these diverse regional approaches to warfare limitations. As Roberts et al. (2022) discussed, the European perspective will be particularly emphasized, given its rich history of conflicts and foundational contributions to IHL. What distinguishes this research, however, is its fusion of historical understanding with contemporary relevance, its intertwining of theory with real-world applicability, and its recognition of both the strengths and limitations of IHL in the modern era. As we embark on this scholarly journey, inspired by the works of scholars like Turner et al. (2022), we hope to elucidate and contribute meaningfully to the discourse on IHL and the ethical boundaries of warfare.

Despite the profound contributions of numerous scholars to International Humanitarian Law, significant research gaps remain, particularly as the nature of warfare evolves with technological, political, and societal changes. These gaps, often existing at the intersection of theory and practice, hinder a comprehensive understanding and effective implementation of IHL. A significant oversight in current literature pertains to technology's role in warfare. While some studies, like Malone et al. (2022), have begun to address cyber warfare and drones, there needs more exploration on how IHL should adapt to emerging technologies like autonomous weapons systems. The ethical dilemmas posed by AI-driven warfare—where decision-making shifts from humans to algorithms—warrant urgent scholarly attention (Marceau, 2022). The absence of a robust legal framework addressing these advancements might lead to ambiguities in accountability during conflicts. Another gap is the regional interpretations and adaptations of IHL. While there is ample discourse on Western and European perspectives on warfare ethics, non-Western perspectives,

particularly from regions like Africa and the Middle East, which have been significant theatres of modern conflicts, remain underrepresented (Gostin & Rubenstein, 2022). Given their distinct historical, cultural, and geopolitical contexts, these regions might offer unique insights. Their interpretations and applications of IHL could illuminate new paradigms or challenges unexplored in Eurocentric discussions. The interface between IHL and other bodies of international law also remains a relatively untapped domain. For instance, how do the statutes of IHL align or clash with those of international human rights law, especially when dealing with non-state actors in asymmetrical warfare (Park, 2021)? These intersections might raise issues that have not been thoroughly examined regarding warfare limitations.

Furthermore, the practical enforceability of IHL remains a significant concern. While the legal precepts are well-articulated Blackhawk (2019), studies focusing on their real-world enforcement, especially in grey areas of conflicts like proxy wars or hybrid warfare, are sparse. Addressing gaps in issues like states' responsibilities, accountability mechanisms, or the role of international bodies in ensuring compliance would be pivotal. The voice of the affected—civilians, refugees, prisoners of war, and other non-combatants—often remains marginalized in academic discussions. Ground-level studies by Hagan and Levi (2019) capturing their experiences, perceptions, and recommendations concerning IHL could provide invaluable, grassroots insights into the practical ramifications of warfare limitations. Identifying and addressing these research gaps is not just an academic endeavour but a moral and practical imperative. As warfare transforms, the stakes for understanding and enhancing the rules that govern it escalate. Bridging these gaps ensures that IHL remains effective, relevant, and humane, anchoring the tumultuous seas of conflict within a framework of justice and dignity.

2.0 METHODOLOGY

The research adopted a qualitative methodological approach to thoroughly investigate the limitations of warfare methods under International Humanitarian Law (IHL). More importantly, 04 case studies are included in the present study. In the initial phase, a Systematic Literature Review (SLR) was undertaken using several databases, including Google Scholar, Scopus, Web of Science, Science Direct, JSTOR, and others. The critical constructs for the search revolved around "Warfare Limitations", "International Humanitarian Law", "IHL and Armed Conflict", "IHL Enforcement", and "Warfare Methods and Compliance". This search was limited to sources in the English language, primarily focusing on social sciences, law, international relations, and history. Utilising the PRISMA framework and Legal framework to streamline the search, 60 articles were initially identified. Articles that predominantly dealt with pure military strategy, devoid of IHL context, were excluded, narrowing the list by 10. The subsequent focus was on review papers, conference research reports, and research articles in English, leading to the elimination of 8 duplicates. This process resulted in a curated list of 42 articles for comprehensive review. Several case studies were incorporated within these 42 articles, providing depth and real-world context to the theoretical underpinnings of IHL and enforcement. These case studies offered invaluable insights into the practical implications, challenges, and nuances of adhering to or violating IHL in actual conflict scenarios.

2.1 The inclusion criteria for the articles were as follows:

- The article must be an original research paper, conference proceedings, published reports, or case studies.
- Publications must be in English and pertain to law, international relations, history, or social sciences.
- Articles should have been published between 1900 to 2020.

- The geographical scope was restricted to European countries to understand the regional perspective on IHL and its limitations.

Table 1. Identification of studies via databases

Stage	Number of Articles	Google Scholar	Scopus	Web of Science	Science Direct	JST OR	Others*
Initial articles identified through databases	60	15	12	10	9	5	9
Exclusion of non-IHL context articles	-10	-3	-2	-1	-1	-1	-2
Articles after exclusions	50	12	10	9	8	4	7
Removal of duplicates	-8	-2	-2	-1	-1	-1	-1
Total articles considered for review	42	10	8	8	7	3	6

2.2 Approach to Data Collection

A multi-faceted data collection approach was adopted to fully comprehend the breadth and depth of the principles and practices governing the limitations of warfare methods under International Humanitarian Law. This approach will hinge upon the assimilation of data from a diverse set of sources, including but not limited to the following:

- **Literary Analysis:** A critical examination of existing literature, including scholarly articles, books, and journals that delve into the doctrines and principles of International Humanitarian Law. These sources will furnish theoretical insights and historical perspectives essential to understanding the evolution and current status of the laws governing warfare methods.
- **Case Studies Analysis:** An examination of specific case studies to illustrate the practical application, or sometimes the violation, of the principles laid down in the International Humanitarian Law. These cases, documented from reliable sources, would be dissected to understand these laws' real-world implications and effects.
- **Legal Documents and Treaties:** A thorough analysis of primary legal documents such as the Geneva Conventions, their Additional Protocols, and other pertinent international treaties and agreements. This would offer firsthand insight into the foundational laws and agreements that constitute the IHL.
- **Reports from International Organizations:** Incorporating insights and findings from reports published by reputable international organizations such as the International Committee of the Red Cross, the United Nations, and other global humanitarian bodies. These reports often contain data and analysis that encapsulate the contemporary issues and developments in the field.
- **Expert Interviews and Testimonies:** Where possible, insights would be drawn from interviews and testimonies of experts in the field of international law, military personnel, and humanitarian workers, providing a firsthand account of the practical implications of these laws in contemporary warfare.

Table 2. Themes from the SLR

Main Themes	Sub-Themes	Key Authors/Citations
Application of IHL	- Historical Contexts	Arshad and Khadam, (2021).
	- Modern Warfare Challenges	Malgras et al. (2016)
Enforcement Mechanisms	- International Courts	Alter (2020)
	- State Responsibilities	Foot (2007)
Protection Protocols	- Civilians in Armed Conflicts	Gardam and Charlesworth (200)
	- Treatment of Prisoners of War	Mangku (2021)
Weaponry and Equipment Limitations	- Prohibited Weapons	Koper (2020)
	- Usage of Drones and Automated Systems	Orengo et al. (2021)
Regional Perspectives on IHL	- European Approaches	Nakashidze (2020)
	- Asian Perspectives	Linton (2019)

Source: Authors' Estimation

3.0 RESULTS AND FINDINGS

3.1 Legal Instruments Governing Warfare Methods

In the present landscape of global affairs, the legal structures governing methods of warfare consist of a complex amalgamation of historical agreements, entrenched customs, and flexible systems aimed at addressing evolving manifestations of hostilities. The fundamental basis of this intricate framework is established upon many essential legislative tools that have been gradually developed and enhanced to regulate the conduct of warfare, including both state and non-state actors. Understanding these instruments is a prerequisite to any comprehensive International Humanitarian Law (IHL) analysis. At the forefront are the Geneva Conventions, a series of international treaties promulgated initially in the latter half of the 19th century, with significant revisions and additions in the post-World War II era, specifically in 1949 and later supplemented in 1977 and 2005 (Jiang et al., 2021).

The conventions and protocols delineate acceptable conduct during armed conflicts, emphasizing the humane treatment of non-combatants, wounded soldiers, and prisoners of war. They fundamentally aim to mitigate the human suffering inherent in conflicts. Taking a step further, it is essential to delve into the intricacies of The Hague Conventions, which primarily focused on codifying the customs and laws of war, marking an early attempt to impose legal constraints on warfare. Notably, they elaborate on the treatment of civilians and prisoners and highlight the protection of cultural properties, thereby attempting to preserve the essence of humanity amidst the chaos of war (Schillinger et al., 2020). In recent years, the proliferation of cyber warfare has brought new challenges to the forefront. The Tallinn Manual, spearheaded by the NATO Cooperative Cyber Defense Centre of Excellence, serves as a contemporary tool that provides legal analyses on the applicability of existing international norms to the cyber domain. Its analyses span both peacetime legal regimes and the law of armed conflict, thereby creating a nascent framework for the regulation of cyber operations (Van Niekerk et al., 2020).

3.2 Evolution of the Legal Framework

An analysis of the evolution of the legal framework governing warfare methods necessitates a retrospective journey into the various phases of development that these norms have undergone. The initiation can be traced back to the Lieber Code, adopted during the American Civil War, which established the groundwork for subsequent developments in IHL. This early legal text attempted to balance military necessity with humanitarian principles, setting forth rules for treating wounded soldiers, non-combatants, and prisoners of war (Holt, 2023). In the wake of the humanitarian crises precipitated by the World Wars, there was a renewed emphasis on consolidating and expanding the legal frameworks to prevent the atrocities witnessed during these conflicts. This period saw the substantial evolution and codification of IHL, with the revised Geneva Conventions of 1949 and the adoption of the Additional Protocols in 1977 and 2005. These legal instruments expanded the protections afforded to civilians and others not participating in hostilities, emphasizing principles such as distinction, proportionality, military necessity, and humanity (Phillimore & Bellot, 1919).

Furthermore, the framework has continuously adapted to address the challenges posed by emerging domains of warfare, including cyber and space warfare. These developments necessitate an ongoing evolution of legal instruments to ensure the principles governing warfare remain applicable and practical amidst rapidly changing technologies and warfare tactics. The increasing use of autonomous weapons systems and cyber-attacks present new challenges, requiring adaptations and expansions of existing legal frameworks to prevent misuse and to safeguard humanitarian principles in these new realms of conflict (Trefalt, 2018; Vacca & Onishi, 2017; Ruggie, 2011).

As we advance into the 21st century, the legal instruments governing warfare are at a juncture of further evolution. The complex dynamics of modern conflict environments, including asymmetric warfare and the increased involvement of non-state actors, necessitate continuously refining these legal frameworks. The perennial goal remains to safeguard humanitarian principles, ensuring the dignified treatment of all individuals and limiting unnecessary suffering amidst the tumultuous landscape of modern warfare. This analytical venture, steeped in extensive scholarly research, intends to foster a nuanced and enriching discourse on legal instruments and their evolutionary trajectories. This study seeks to shed light on the intricacies and difficulties encountered in the regulation of techniques of combat in the present period by conducting a comprehensive analysis of the historical and present advancements in International Humanitarian Law (IHL). This study aims to provide a scholarly contribution by enhancing comprehension and promoting a critical discourse on the changing dynamics of conflict and the ideals of humanitarianism.

3.3 Limitations on Warfare Methods

3.3.1 Weapon Restrictions

The regulation of weaponry in global armed conflict is primarily governed by merit, proportion, and the prevention of undue hardship. According to Boothby et al. (2016), researchers have observed that the regulations about limitations on weaponry have undergone necessary modifications in response to evolving technologies and warfare strategies. The rules and norms about weapon restrictions can be traced back to customary international law and specific international agreements, including the Chemical Weapons Convention of 1993 and the Convention on Certain Conventional Weapons of 1980. These conventions have consistently aimed to ban or restrict the use of weapons deemed to cause unnecessary or unjustifiable suffering or have indiscriminate effects (Clinton, 1993). Moreover, the Biological Weapons Convention 1972 prohibits developing, producing, and stockpiling bacteriological and toxin weapons. As we advance into the 21st century, it becomes increasingly important to examine emerging forms of weaponry, such as autonomous weapons systems, and the potential implications for IHL. The discussions within the

international community regarding the legal, ethical, and security concerns about these technologies are evolving Tao et al. (2017), and research in this area needs to actively engage with these discussions to foresee and shape potential future legal frameworks.

3.3.2 Treatment of Civilians

The principle concerning the treatment of civilians is deeply embedded within IHL, focusing on safeguarding non-combatants during conflicts. This principle, underscored by numerous legal instruments, including the Fourth Geneva Convention (GC IV), emphasizes the protection of civilians from being subjected to violence, hostage-taking, humiliating and degrading treatment, and unlawful deportations (Bugnion, 2000). The additional protocols further strengthen the framework for civilian protection, introducing further nuances to the conduct expected during hostilities. As scholars engaged in dissecting the various facets of IHL, it is critical to scrutinize the effectiveness of these provisions in contemporary conflict scenarios, which often blur the lines between combatants and civilians. The proliferation of non-state armed groups and asymmetric warfare tactics necessitates a profound reflection on the adequacies and potential gaps within the existing legal paradigms governing the treatment of civilians.

3.3.3 Protection of Cultural Property

The safeguarding of cultural property during armed conflicts is an area that has garnered considerable attention, especially in the context of recent conflicts where cultural heritage sites have been targeted intentionally. The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict (1954) and its two protocols provide a robust legal foundation for preserving cultural property (O'Keefe, 2016). As scholars critically engaged in this area, exploring the effectiveness of existing legal frameworks and the moral and ethical dimensions underpinning cultural heritage protection becomes incumbent. Further, scholarly investigations should explore the reparations and restorative processes that can be implemented in the aftermath of conflicts to restore and preserve humanity's collective heritage.

3.3.4 Environmental Protection (EP)

The need for EP during armed conflicts has become more recognized since it is acknowledged that fighting entails substantial risks to the ecosystem. These risks can subsequently lead to enduring humanitarian consequences. According to Simonds (1992), the supplemental protocol I to the Geneva Conventions (GCs) contains rules that specifically restrict the utilization of tactics or means of conflict that have the potential to cause extensive, enduring, and significant harm to the ecosystem. As individuals fully immersed in the International Humanitarian Law (IHL) field, we must critically examine the developing principles of EP during armed conflicts and investigate possible ways of enhancing legal protections. This research examines the interconnectedness amid ecological deterioration and humanistic ideals. It also intends to investigate the potential adaptation or expansion of current standards to effectively respond to upcoming issues, including climatic change (CC) and bio-warfare.

3.4 Case Studies: Analysis of Specific Cases Where IHL was Applied or Violated

In this part, we will thoroughly analyze individual case studies that illustrate the practical implementations and regrettable breaches of IHL in various global settings.

3.4.1 Case Study 1: The Rwandan Genocide (1994)

The Rwandan Genocide (RG) Friedrich and Johnston (2013) in 1994 is widely regarded as a profoundly tragic occurrence in contemporary history. It served as a significant challenge to the effectiveness and implementation of IHL. During roughly 100 days, about 800,000 individuals, primarily belonging to the Tutsi ethnicity, were subjected to a series of brutal massacres. This part aims to analyze the aforementioned major incident from the perspective of IHL, identify and examine the severe breaches that took place, and assess the retaliation of the global community. A profound violation of the tenets of humanity fundamentally characterizes the RG. The significance of upholding human dignity (HD) and minimizing avoidable hardship

during warfare is emphasized as a fundamental principle within International Humanitarian Law (Gasser, 1993). The norm was strikingly broken due to the extensive magnitude of cruelty and the organized nature of the atrocities carried out throughout the genocide. The civilian populace was not only inadvertently affected by the conflict but instead deliberately targeted, as evidenced by the utilization of brutal tactics to inflict harm, cause injury, and instil fear among the Tutsi community and conservative Hutus. In addition, the RG brought attention to the global community's inadequacy in upholding the 'Responsibility to Protect' principle. This principle asserts the duty of the global community to act when a country cannot safeguard its population from widespread acts of violence (Macfarlane et al., 2004). The lackadaisical response from the global community at the onset of the genocide is often viewed as a monumental failure, leading to a reassessment and restructuring of international approaches to humanitarian crises.

This incident also underscored the necessity for an effective judicial response to such large-scale violations of IHL. The International Criminal Tribunal for Rwanda (ICTR), established post the genocide, marked a significant development in international law. The tribunal held key perpetrators accountable and set a precedent in the classification of gender-based violence as a form of genocide and established that rape was a method of perpetrating genocide (Madley, 2015). For scholars dissecting the Rwandan Genocide, analyzing the structural and systemic failures that facilitated such mass violence is essential. The case study provides a ground to explore the complexities of ethnic conflicts and how propaganda and hate speech fuel such violence.

Moreover, it presents a basis to scrutinize the mechanisms in place for humanitarian intervention and the adjustments required to prevent such failures in the future. This case study serves as a grim reminder of the failures and limitations of IHL in preventing mass atrocities and the consequences of the international community's inaction. However, it also illuminates the pathways for legal and structural reforms, aiming to strengthen the global community's response to humanitarian crises, thereby ensuring that the principles of IHL are upheld in the face of conflict and violence.

Table 3: Findings from the Case Study of the Rwandan Genocide (1994)

Aspect	Description / Finding
Nature of the Genocide	It was a profound violation of humanity, with deliberate targeting of the Tutsi community and moderate Hutus over 100 days.
Magnitude of Atrocities	Approximately 800,000 individuals, mainly Tutsis, were killed in organized and widespread massacres.
Violation of IHL Principles	The tenets of humanity, emphasizing human dignity and minimizing hardship during warfare, were starkly breached (Des Forges, 1999).
Targeting of Civilians	The civilian population was not just collateral damage but was deliberately targeted with brutal tactics.
Global Response	The international community inadequately upheld the 'Responsibility to Protect', leading to a delayed response (Evans, 2008).
Judicial Response	The International Criminal Tribunal for Rwanda (ICTR) was set up to hold key perpetrators accountable and set new legal precedents, including classifying gender-based violence as genocide (Schabas, 2000).
Underlying Factors	Structural and systemic failures, the complexities of ethnic conflicts, propaganda, and hate speech were pivotal in fueling the genocide.

Source: Authors' Estimation

3.4.2 Case Study 2: *The Syrian Conflict (2011-present)*

The Syrian conflict erupted in 2011 Al-Ghatrif et al. (2022) and continues to unsettle the region, has become synonymous with egregious violations of International Humanitarian Law (IHL). As scholars, we must rigorously examine the various facets of this conflict that have tested the boundaries and efficacy of IHL. One cannot overlook the extensive humanitarian crises unfolding in the Syrian civil war context. Numerous reports and investigations have pointed to instances of indiscriminate attacks on civilians, the use of chemical weapons, deliberate targeting of medical facilities, and other gross violations of humanitarian principles as laid out in the Geneva Conventions and Additional Protocols (Tax et al., 2021). Moreover, the Syrian conflict has fostered a complex and multi-faceted battleground involving various state and non-state actors, making the application and enforcement of IHL exceedingly complex (Sassoli, 2014). Notably, the Syrian conflict has witnessed the rampant and strategic use of sieges, a method of warfare where civilians have been encircled and systematically deprived of essential supplies, including food, medicine, and other necessities, flouting the principle of humanity, which urges the prevention of unnecessary suffering and the upholding of human dignity even in times of conflict (Zappalà, 2019). The conflict has also served as a breeding ground for extensive violations of the principle of distinction. Numerous accounts of civilian infrastructures, including schools and hospitals, have been targeted, which not only poses immediate dangers but also disrupts the fundamental societal structures, thereby exacerbating the human suffering manifold (Peters, 2018). While dissecting the intricacies of the Syrian conflict, scholars must scrutinize the implications of these blatant violations of IHL, evaluating the long-term consequences and the necessary international responses to mitigate such incidents in future conflicts.

Another critical facet for scholarly exploration is the protection of cultural property, which has been notably compromised during the conflict. Syria, a nation rich with cultural heritage, has significantly damaged its UNESCO World Heritage sites, such as the ancient Aleppo and Palmyra, denoting a gross violation of the provisions protecting cultural properties (ADEWUMI, 2015). As scholars are deeply entrenched in the field, dissecting the mechanisms and structures to hold perpetrators accountable for violations is paramount. The Syrian conflict presents a compelling case for studying the existing gaps within the international legal frameworks and the urgent need for reforms to address the intricacies of modern warfare. Moreover, it calls upon the scholarly community to engage in constructive dialogues that foster the development of more robust, inclusive, and enforceable IHL mechanisms to curb the atrocities witnessed during the Syrian conflict.

Table 4. Findings from the Case Study of the Syrian Conflict (2011-present)

Aspect	Description / Finding
Nature of the Conflict	It is a complex battleground involving various state and non-state actors, resulting in widespread humanitarian crises.
Violations against Civilians	There are extensive reports of indiscriminate attacks on civilians, the use of chemical weapons, and deliberate strikes on medical facilities (Human Rights Watch, 2021).
Complexity of IHL Application	The involvement of multiple actors made the enforcement of IHL challenging, leading to breaches in humanitarian principles (Sassòli, 2014).
Use of Sieges	The systematic use of sieges to deprive civilians of essential supplies violates the principle of humanity (UN Security Council, 2018).

Targeting	
Civilian Infrastructure	Rampant targeting of schools, hospitals, and other civilian structures exacerbates human suffering and violates the principle of distinction (Dos Reis, 2016).
Cultural Property Damage	Significant harm to UNESCO World Heritage sites such as Aleppo and Palmyra, indicating a breach in the provisions safeguarding cultural properties (UNESCO, 2014).
Implications for IHL	The conflict underscores gaps in international legal frameworks, necessitating reforms and more robust enforcement mechanisms.

Source: Authors' Estimation

3.4.3 Case Study 3: Protection of Cultural Property in Mali (2012-2013)

The Mali conflict of 2012-2013 stands as a pivotal case study Ba, (2020), in the discourse of International Humanitarian Law (IHL), notably emphasizing cultural property protection. During this period, armed groups seized control of several regions of Mali and, in the process, engaged in the systematic destruction of cultural heritage sites, which were classified as UNESCO World Heritage sites, epitomizing not just the rich history and tradition of Mali but also of humanity at large (Meskell, 2013). Timbuktu, famously known as the "City of 333 Saints," was mainly targeted. The armed groups deliberately damaged and destroyed several ancient mausoleums and sacred tombs, a blatant violation of the rules of IHL, which protects cultural property (Lostal, 2015). The abovementioned war highlighted the necessity of implementing stringent procedures for safeguarding cultural assets during armed conflicts. This obligation is emphasized in many sections of International Humanitarian Law (IHL), notably the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed War. A comprehensive examination of the Mali war requires a meticulous investigation into the several International Humanitarian Law (IHL) procedures established to protect cultural assets. The events in Mali might be regarded as a violation of the concept of merit, which emphasizes the need to distinguish between civilian entities and military objectives (Schmitt, 2004). The deliberate annihilation of cultural assets, devoid of any strategic military use, thus represents a significant departure from this guiding concept.

Moreover, the instance of Mali catalyzed a momentous legal reaction, representing a noteworthy achievement in the endeavours to uphold International Humanitarian Law (IHL). The International Criminal Court (ICC) initiated its inaugural trial for the war crimes of deliberately ordering assaults on religious and historic structures, marking a significant milestone in its operations (Boister, 2009). The prosecution and consequent sentencing of Ahmad Al Faqi Al Mahdi, a person involved in the destruction, establishes a significant legal precedent in enforcing individual responsibility for contravening International Humanitarian Law (IHL) principles that safeguard cultural assets.

The Mali conflict presents a valuable opportunity for scholarly analysis of the efficacy of current legal frameworks in protecting cultural resources. Academics have the opportunity to engage in a comprehensive examination of the International Criminal Court's (ICC) role in safeguarding the norms of International Humanitarian Law (IHL). This entails investigating the possible deterrent impact of legal consequences on prospective transgressions. Additionally, this necessitates a discourse on viable approaches to enhance the worldwide dedication to preserving cultural places, including arguing for increased international collaboration and community involvement in protecting these significant historic sites. The violence in Mali from 2012 to 2013 highlights the significant importance of International Humanitarian Law (IHL) in safeguarding cultural artefacts among armed conflicts. This statement serves as evidence of the progression of legal structures and judicial processes in guaranteeing the responsibility of individuals and

collectives for violations against cultural assets. It underscores the ongoing advancement and implementation of International Humanitarian Law (IHL) in contemporary times.

Table 5. Findings from the Case Study of Protection of Cultural Property in Mali (2012-2013)

Aspect	Description / Finding
Nature of the Conflict	The Mali conflict involved armed groups seizing control of several regions and systematically destroying cultural heritage sites.
Violation of Cultural Property	Numerous UNESCO World Heritage sites, including Timbuktu, suffered deliberate damage and destruction (UNESCO, 2012; Lostal, 2015).
IHL Principles Breached	The deliberate destruction of cultural sites, without any strategic military use, represented significant departures from the rules of IHL (O'Keefe, 2016).
International Legal Response	The International Criminal Court (ICC) initiated its first trial for the war crime of intentionally directing attacks against historic and religious buildings (ICC, 2016).
Legal Precedent	The prosecution and subsequent sentencing of Ahmad Al Faqi Al Mahdi established a significant legal precedent enforcing individual responsibility for violating IHL principles protecting cultural property.
Implications for IHL	The Mali conflict underscored the importance of strengthening legal frameworks and international cooperation to safeguard cultural heritage during armed conflicts.
Scholarly Opportunities	The conflict presents an opportunity for academics to evaluate the effectiveness of current legal frameworks and the ICC's role in upholding IHL norms.

Source: Authors' Estimation

3.4.5 Case Study 4: The Environmental Impact of the Gulf War (1990-1991)

From 1990 to 1991, the Gulf War emerged as a highly detrimental war to the environment Al-Awadhi et al. (2000), representing one of the most severe ecological devastations in contemporary times. The conflict was pivotal in acknowledging the substantial ecological consequences that contemporary combat may include, requiring a comprehensive scholarly examination of this noteworthy occurrence within the framework of IHL. The purposeful acts undertaken by the Iraqi army during their flight from Kuwait significantly exacerbated ecological deterioration throughout the battle. Following their scorched earth strategy, the perpetrators deliberately ignited over 600 oil wells in Kuwait, resulting in a substantial discharge of contaminants into the environment, water bodies, and soil (Al-Awadhi et al., 2000). The activity mentioned above had a detrimental impact on air quality and led to substantial soil pollution. The dispersion of minute soot particles across a vast expanse caused severe repercussions for the desert ecosystem. Scholars argue that these actions constituted a breach of the IHL principles, emphasizing the necessity to prevent undue environmental harm during conflicts (Zakeri et al., 2022).

Furthermore, the Iraqi forces released an estimated 4-11 million barrels of oil into the Persian Gulf, orchestrating one of the largest oil spills in history. The spill had dire consequences on the marine ecosystem, causing widespread death among marine organisms and long-lasting damage to the delicate coral reefs and mangroves vital to the region's ecological balance. Moreover, the spill had severe ramifications for the local fishing industry, substantially affecting the livelihoods of the coastal communities (Lynch et al., 2019). From an academic standpoint, the Gulf War is a grim testament to the environmental vulnerabilities exposed during

modern warfare. It invites scholars to analyze the adequacy of existing frameworks within IHL in safeguarding the environment during conflicts. While the principles of distinction and proportionality can be invoked to argue against such environmental degradation, the Gulf War reflects a gap where specific environmental protections may have been lacking or inadequately enforced (Bruch, 2020). Scholars need to examine the extent to which the environmental repercussions of the Gulf War influenced subsequent amendments or adaptations in IHL. The case serves as an exigent call for the international community to reinforce legal mechanisms that explicitly delineate the protections afforded to the environment during times of war, potentially introducing stricter repercussions for violations.

Moreover, investigating the efforts undertaken post-war to mitigate the environmental damages would offer a comprehensive view of the conflict's legacy. Examining the rehabilitative measures employed to restore the damaged ecosystems and prevent similar occurrences in future conflicts is an imperative scholarly pursuit. The case study thus invites a critical re-evaluation of the environmental safeguards embedded within IHL, prompting scholars to advocate for more robust, more explicit legal provisions that foresee and prevent such ecological tragedies, thereby upholding the humanitarian spirit of the law.

Table 6. Findings from the Case Study of the Environmental Impact of the Gulf War (1990-1991)

Aspect	Description / Finding
Nature of Environmental Damage	The Gulf War caused severe ecological damage, highlighted by the intentional igniting of over 600 oil wells and the massive oil spill in the Persian Gulf.
Air and Soil Pollution	Deliberate ignition of oil wells led to significant contamination of the atmosphere and soil, affecting the desert ecosystem (Al-Awadhi, 2000).
Marine Pollution	The intentional release of 4-11 million barrels of oil into the Persian Gulf resulted in widespread marine ecological damage, affecting organisms, coral reefs, and mangroves (White, 1995).
Impact on Local Communities	The oil spill severely impacted the fishing industry, affecting the livelihoods of coastal communities.
IHL Principles Breached	The environmental damages, argued by some scholars, violated IHL principles, which aim to prevent undue environmental harm during conflicts (Bouvier, 1991).
The gap in IHL Protections	The conflict exposed potential inadequacies in IHL's environmental protections, suggesting more explicit safeguards were needed (Austin & Bruch, 2000).
Post-War Mitigation Efforts	Scholars should examine the efforts taken after the war to address and remediate the environmental damages and to prevent such occurrences in future conflicts.
Implications for IHL	The Gulf War highlights an urgent need for more robust legal mechanisms within IHL to protect the environment during armed conflicts, with clear consequences for violations.

Source: Authors' Estimation

4.0 DISCUSSION

In our thorough exploration of the limitations on warfare methods as governed by International Humanitarian Law (IHL), we found that the core principles of distinction, proportionality, military necessity, and humanity form the backbone of modern humanitarian law frameworks. However, the case studies scrutinized depict a grim picture, where violations are rampant, and the enforcement of IHL often seems

inadequate. The Syrian conflict showcases the complexities of modern warfare, with the involvement of multiple state and non-state actors and the subsequent difficulty in maintaining clear lines of accountability. Furthermore, it exemplifies the challenges of protecting civilians and cultural heritage sites in an era of asymmetrical warfare. Meanwhile, the Rwandan Genocide is a testament to the catastrophic failure of international mechanisms to prevent mass atrocities and the vital need for early intervention and robust preventive strategies. The effectiveness of International Humanitarian Law (IHL) is often scrutinized through its ability to prevent human suffering during conflicts and ensure that fundamental human rights are not infringed upon. As an evolving legal framework, it is continually met with new challenges that test its robustness and adaptability. To paint a comprehensive picture, this section will delve deep into the intricacies of the challenges in implementing IHL and inspect the existing compliance and enforcement mechanisms.

The challenges in implementing IHL are multi-faceted and have evolved concurrently with the changing nature of global conflicts. One of the primary challenges is the increasing involvement of non-state actors in armed conflicts. These entities often operate outside traditional hierarchies and may not feel bound by international agreements, making implementing humanitarian principles complex (Usman et al., 2023). A further critical concern is the intensification of urban warfare, exacerbating civilian people and infrastructure vulnerabilities. The adherence to the concept of difference, which necessitates the differentiation between civilian and military objectives, presents significant challenges when applied in highly populated metropolitan environments. In addition, the emergence of recent technological advancements, like autonomous arms and cyber warfare, poses unique and unprecedented obstacles to International Humanitarian Law (IHL). According to Arvidsson and Sjöstedt, (2023), utilizing these innovations can obscure the boundaries of responsibility and give rise to situations in which the current legal structures are inadequate in preventing transgressions. Furthermore, the politicization of humanitarian aid and operations has occasionally impeded the impartial provision of help and the unbiased implementation of International Humanitarian Law (IHL) norms. The influence of worldwide power dynamics frequently significantly impacts the decision-making process regarding humanitarian emergencies, potentially resulting in late or insufficient responses to egregious breaches (Akande & Yates, 2017).

The presence of adherence and enforcement procedures within International Humanitarian Law (IHL) plays a crucial role in guaranteeing that all parties involved in a conflict conform to the defined standards and principles. At the global scale, entities such as the International Committee of the Red Cross (ICRC) assume a crucial function in overseeing adherence to International Humanitarian Law (IHL) and promoting the safeguarding of non-combatants and belligerents inside areas of armed conflict. Nevertheless, the efficacy of the enforcement procedures has occasionally been deemed insufficient, particularly concerning ensuring the accountability of those who have violated the rules. Global tribunals and national courts possess the authority to initiate legal proceedings against people who have committed grave breaches of International Humanitarian Law (IHL), such as war crimes and crimes towards humanity. However, the efficacy of this procedure could be improved by administrative obstacles and undue political influence (Bartels, 2020).

Furthermore, the dependence on governmental entities to uphold International Humanitarian Law (IHL) inside their territories poses a substantial obstacle. In several instances, nations involved in wars may exhibit hesitancy in pursuing legal action against their citizens for committing crimes, thereby fostering an environment characterized by the absence of accountability. Moreover, the global community's dependence on diplomatic means to ensure adherence frequently results in the sluggishness and sometimes ineffectiveness of enforcement actions. There is an increasing demand to strengthen the ability of global bodies in order to objectively track and uphold compliance to boost the efficacy of International Humanitarian Law (IHL). Establishing resilient systems that provide prompt interventions and impartial evaluations of

breaches is crucial for bolstering the legitimacy and efficacy of International Humanitarian Law (IHL). In light of the above discussion, while IHL has played a significant role in mitigating the horrors of war, some considerable gaps and challenges need to be addressed. As scholars in this field, we advocate for a concerted effort towards strengthening the enforcement mechanisms and adapting IHL to address the complex nature of modern conflicts, thereby ensuring its relevance and effectiveness in safeguarding humanity amidst the evolving landscape of warfare.

5.0 RECOMMENDATIONS

Considering the evolving nature of warfare, IHL needs to adapt to remain relevant and practical continually. Firstly, one primary area requiring attention is the development and adaptation of legal frameworks to address emerging technologies in warfare, such as autonomous weapons systems and cyber warfare. This entails collaborating with technologists, military experts, and legal scholars to forge new laws that are both technically informed and human-centric (Vogel, 2018). Furthermore, enhancing educational endeavours specifically designed to cultivate a reverence for International Humanitarian Law (IHL) principles between governmental and non-governmental entities is imperative. International organizations, governments, and non-governmental organizations (NGOs) have the potential to implement these measures, which may include raising understanding of the humanitarian ramifications of breaches of IHL. Simultaneously, it is imperative to undertake endeavours aimed at creating more extensive training initiatives for soldiers to guarantee their complete understanding of their obligations per International Humanitarian Law (Haines, 2013).

Additionally, it is imperative to undertake a collaborative endeavour to enhance the procedures that ensure perpetrators are held responsible for their actions. This may entail implementing more efficient and expeditious judicial procedures domestically and globally. Enhancing the international legal framework by auguring the jurisdiction and allocating resources to institutions such as the ICC would represent a positive progression. Moreover, the promotion of collaboration among nations in order to bring perpetrators to justice might be a potent means of discouraging violations of International Humanitarian Law (Schabas, 2017).

International organizations (IOs) are crucial in maintaining and enhancing international humanitarian law (IHL). Initially, individuals in this role can assume the responsibilities of a mediator and counsellor inside conflict areas, assisting in negotiating ceasefires and encouraging compliance with International Humanitarian Law (IHL) norms. The fairness and impartiality of individuals can play a crucial role in facilitating constructive talks and identifying resolutions for intricate issues (Wallenstein & Svensson, 2014). Moreover, these groups can assume a leadership role in conducting research and documenting violations of International Humanitarian Law (IHL), providing an unbiased perspective on the prevailing conditions in the field. According to Boutruche (2011), these individuals' knowledge and skills can be effectively employed in formulating measures to prevent violations and safeguard civilians.

Moreover, it is crucial to recognize the substantial impact that international organizations (IOs) can have in advancing and enhancing the knowledge and dissemination of IHL through training courses and awareness-raising initiatives. One plausible strategy for fostering a climate of respect for IHL entails proactive involvement and collaboration with educational establishments, media platforms, and social organizations. In addition, individuals and collectives have the potential to actively foster the acquisition of competencies and information within the social context. The domain's progress can be achieved through instruction, hard work, dedication, and sincerity to promote IHL (Maurer, 2017). In the same way, it is also essential to notice that providing aid may encompass offering judicial representation, technical expertise, and support in developing national strategies to promote adherence to IHL (Ratner, 2015). In light of the above, international organizations must be given the necessary resources and support to fulfil their respective domains' roles effectively.

6.0 CONCLUSION

Evaluating the complexities and nuances of International Humanitarian Law (IHL) concerning the limitations imposed on warfare methods has been profound and enlightening. Through the comprehensive exploration conducted, several key findings have emerged that underscore the critical nature of this field in preserving humanity amidst the atrocities of war. Firstly, the analysis delineated the rich tapestry of legal instruments, both codified and customary, that govern warfare methods globally. From the foundational Geneva Conventions to the additional protocols and customary international law, it became evident that a substantial framework exists to mitigate the harsh realities of war. This normative framework acts as a moral compass, guiding parties in conflicts to respect the principles of distinction, proportionality, military necessity, and humanity.

Moreover, the deep delve into various case studies presented a vivid picture of the application, or at times, the egregious violation of IHL principles. From the analysis, it was discernible that while instances like the Rwandan Genocide and the Syrian Conflict highlighted the catastrophic consequences of breaches in IHL, other cases like protecting cultural property in Mali depicted the potential for adherence to humanitarian principles even amidst conflicts. Furthermore, the environmental repercussions witnessed during the Gulf War were a stark reminder of the necessity to include environmental protection as a significant component within IHL. In the discussion section, a critical evaluation of the effectiveness of IHL revealed its strengths and potential areas of improvement. Despite the challenges in implementation and the sometimes-lacklustre enforcement mechanisms, it was determined that the very existence of IHL plays a pivotal role in constraining the brutality of warfare. Furthermore, the recommendations posited shed light on the urgent need for continuous improvement and adaptation in IHL to meet the ever-evolving dynamics of warfare.

Herein, the significant role that international organizations can play in this endeavour became abundantly clear, with their capacity to facilitate dialogue, promote education, and foster respect for IHL globally. To conclude, this scholarly venture has underscored the critical importance of IHL in the contemporary world, especially when warfare methods are evolving rapidly with technological advancements. It behoves the global community to continue fostering a culture of respect for IHL, adapt it to the changing landscape of warfare, and strengthen the mechanisms for enforcement to ensure the preservation of human dignity even in the bleakest circumstances.

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