

The shape of war in the 21st century: An analysis of the challenges posed by the contemporary armed conflicts with reference to international humanitarian law

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Abstract

International Humanitarian Law (IHL) protects the persons who are not or no longer participating in direct hostilities and restricts the adverse utilization of the means and methods of warfare. However, the rapid developments in science and technology & polarized power relations are questioning the ability of the International Humanitarian Law to adapts itself to regulate human conduct, in the circumstances of modern warfare. This study focuses on identifying the new forms of armed conflicts in the 21st century and the contemporary challenges on IHL under the following classifications: (a) Shape of the contemporary battlefield made by the involvement of the parties, (b) Modern platforms of warfare and the new challenges on IHL, & (c) Modern technologies using on the battlefield.

Keywords: armed conflict, international humanitarian law

Introduction

International Humanitarian Law or *Jus in Bello*^[1], is the law that governs and regulates how warfare is conducted. Today, the political concept of "*War*" has been replaced by the factual concept of "*Armed Conflict*." Armed conflict is a contested incompatibility that concerns government and/or territory where the use of armed force between two or more parties ^[2]. The mental element of an armed conflict is called *animus belligerendi*, which means the intention of belligerent parties. Today, many social, political and economic crises lead to various armed conflicts upraised around the world.

In this century, International Humanitarian Law is being challenged by many levels. The increase in asymmetric wars, proliferation and fragmentation of parties involved in armed conflicts and proxy wars complicate and confuse the relevance and application of the principles of International Humanitarian Law.

'Global Terrorism' is also a major threat to world peace. The question is, Can the "Global War on Terror" be regarded as an armed conflict governed by International Humanitarian Law? Most of the terrorist groups do not comply with International Humanitarian Law. Sometimes state parties are not concerned about the International Humanitarian Law principle when dealing with terrorism. Terrorism negates the fundamental principles of humanity as well as the essential principles and objectives of International Humanitarian Law. Therefore, "*War on Terror*," makes uncertainty about the adequacy of existing International Humanitarian Law to cope with the emerging security challenges of the 21st century.

Urbanization of armed conflict is another challenge for the

International Humanitarian Law. As the world urbanized, so too does conflict. Increasingly, fighting takes place in urban areas, and civilians bear the brunt of it.

Using Biotechnological and Chemical weapons in warfare is a debatable challenge faced by the International Humanitarian Law. These kinds of weapons are restricted and prohibited by several treaties and conventions. But still, these weapons are using in armed conflicts. In 1996 International Court of Justice delivered an 'Advisory opinion on the Legality of the Threat or Use of Nuclear Weapons.' The majority decision was that there is no source of law, customary or treaty, that explicitly prohibits the possession or even use of nuclear weapons ^[3]. According to the annual report, released by Stockholm International Peace Research Institute in 2019, there were total 13,865 nuclear warheads owned by nine nations: The United States, Russia, the United Kingdom, France, China, India, Pakistan, Israel and North Korea ^[4].

In the 21st century, the cyberspace can be identified as the '5th domain of warfare' next to land, sea, air and space. Cyber-warfare also raises legal issues of fundamental importance in other areas of International Law, such as *Jus ad Bellum* ^[5] and the Law of Neutrality. Remote-controlled drones, nanotechnological robots and autonomous weapons have been introduced to the modern industrialized battlefields. The question is how these new methods of warfare cope with the scope of International Humanitarian Law. In the modern world, rapid developments in science and technology, and polarized power relations, may call into question the law's ability to adapt itself to regulate human conduct, especially in the most dramatic circumstances of war.

 $^{^{\}rm l}$ Jus in Bello is a Latin term which means 'the Law of War' (Jus = Law/ Bello = War).

² The UCDP Armed Conflict Definition- Erik Melander, Professor of Peace and Conflict Research Director of The Uppsala Conflict Data Program Department of Peace and Conflict Research, Uppsala University.

³ Legality of the Threat or Use of Nuclear Weapons ICJ 2 [1996].

⁴ SIPRI Yearbook 2019, Armaments, Disarmament and International Security, (2019),11.

⁵ Jus ad Bellum is a Latin term which means 'Right to War' (Jus = Right/ Bellum = War).

This paper will focus particularly on the nature of modern warfare and the contemporary challenges on International Humanitarian Law under the following subtopics.

- The shape of the contemporary battlefield made by the involvement of the parties
- The modern platforms of warfare and the new challenges on IHL
- The modern technologies, means and methods using in the battlefield

The shape of the contemporary battlefield made by the intervention of the belligerent parties

Proxy Wars

Any party directly or indirectly supporting, encouraging or provoking the participants in an armed conflict, but not actively participating in the armed conflict, can be identified as a Proxy War. States engage in Proxy wars for numerous reasons, the most important of which is the avoidance of direct conflict, especially with a state of greater or equal strength ^[6]. Rather than resorting to direct conflicts, which are costly and entail a higher level of uncertainty, governments may opt for proxy wars, which may last longer, but are less costly and render them more immune to exogenous shocks ^[7].

One of the early influential argument was that only nonstate actors can be used as proxies. This calls the 'Agency thesis'. The core foundation of this argument is that states cannot be used as proxies because the states will only intervene if they have some interest in doing so ^[8]. The modern argument is that proxy war rests upon the assumption that one entity (*the sponsor*) is more powerful than the other (*the proxy*), or at least that the proxy needs or benefits from the aid of the sponsor. This is called the 'Sponsor thesis.' The provoking state or sponsor state defines as the 'Activator.' ^[9]

Armed conflicts subjected to foreign interventions are a special form of armed conflicts sometimes also less accurately referred to as "*Internationalized*" armed conflicts. In essence, this concept refers to a State, or coalition of States, intervening in a pre-existing non-international armed conflict, thereby becoming a (co-belligerent) party to that conflict. In this scenario, the intervention may take place by proxy when that foreign power merely supports and guides the uprising from a distance^[10].

The link between the intervention of a third-party and the armed conflict is stronger when the intervening power exercises some sort of control over the supported party. In some conflict situations, foreign intervention involves exercising significant and progressive control over one of the parties to an armed conflict ^[11].

According to the theory of '*Attribution*', if there is a clear link between the individual or group of individuals with entities such as states or organizations, in the case of that particular entity exercising significant control over those individuals, the acts of the individual or individuals can be interpreted as being those of the entity itself ^[12]. *Attribution* ensures that the intervening power is prevented from hiding behind a proxy to avoid its international obligations and responsibilities under International Humanitarian Law ^[13].

However, in a proxy war situation, it may be difficult to trace a clear link between the intervention sponsor and the agent party. International Humanitarian Law is silent on the issue of attribution. It does not contain any specific criteria for establishing attribution scenario. There is no specific test under International Humanitarian Law for establishing whether a non-State armed group is controlled by a foreign power.

Though there is no guideline to define the notion of factual control, international jurisprudence has interpreted the doctrine of effective control in the sense of de facto. According to the judgement of Nicaragua v. United States of America held by The International Court of Justice (ICJ) in 1986, the effective control means that the party subject to control was not only in the financed by the intervening foreign power and that its actions were supervised by it, but also that it received direct instructions from it ^[14]. In 1999 the judgement of the Tadić case, the International Criminal Tribunal for the Former Yugoslavia (ICTY) held that: "... To attribute the acts of a military or paramilitary group to a State, it must be proved that the State wields overall control over the group, not only by equipping and financing the group but also by coordinating or helping in the general planning of its military activity. Only then can the State be held internationally accountable for any misconduct of the group..." [15] The Tadić judgement was able to propose a broad interpretation of the notion of 'Effective Control.' There seem to have been two principal periods of academic interest in the phenomenon of proxy war: The Cold war era (1947 – 1991) and the Post-cold war era (After 1991). During the Cold war between the United States and the Soviet Union, which in turn resulted in a proliferation of non-international proxy wars between governments and organized armed groups, in which each side was supported by one of the superpowers. After the Cold War, the proxy battlefields have become even more complicated as a result of the emergence of a multi-polar world instead of a bi-polar world. Today, the region of middle-east has become the most complicated proxy-battlefield in the 21st century. Currently, proxy wars are creating more serious humanitarian problems on a global scale.

⁶ Benjamin V. Allison, Proxy War as Strategic Avoidance A Quantitative Study of Great Power Intervention in Intrastate Wars, 1816-2010, (2018), 1.

⁷ Konyukhovskiy, Pavel V.; Grigoriadis, Theocharis, Proxy war, Freie Universität Berlin, (2018).

 ⁸ Hughes, Geraint. 2012. My Enemy's Enemy: Proxy Warfare in International Politics. Sussex, UK: Sussex Academic Press, (2012), 12-13.
⁹ Bar-Siman-Tov, Yaacov. "The Strategy of War by Proxy." Conflict and Cooperation 19, No. 4;.263-273.

¹⁰ S. Vite, Typology of armed conflicts in international humanitarian law: legal concepts and actual Situations, ICRC Review, Volume 91 Number 873 March 2009,71.

¹¹ T. Ferraro, The ICRC's legal position on the notion of armed conflict involving foreign intervention and on determining the IHL applicable to this type of conflict, ICRC Review, (2016), 1234.

¹² Hervé Ascensio, "La responsabilité selon la Cour internationale de Justice dans l'affaire du genocide bosniaque", Revue Générale de Droit International Public, No. 2, (2007), 288.

¹³ Antonio Cassese, "The Nicaragua and Tadić Tests Revisited in Light of the ICJ Judgment on Genocide in Bosnia", European Journal of International Law, Vol. 18, No. 4, (2007), 656.

¹⁴ Nicaragua v. United States of America, Judgment, ICJ Reports 1986, para. 115.

¹⁵ Prosecutor V. Du [Ko Tadi], ICTY,1999, IT-94-1-A, para 131.

War on Terrorism

'Terrorism' is one of the major threats to global peace. Office of the United Nations High Commissioner for Human Rights (UNHCHR) defined that *'Terrorism'* can be commonly understood as acts of violence that target civilians in the pursuit of political or ideological aims. Global terrorism is not just only a threat to global security. It has been increasing many Humanitarian crises worldwide. Recruiting child soldiers, women sex exploitations, slavery, human trafficking, starving, refugee crisis, can be identified as some of those crises made by terrorism.

According to the ICRC report on International Humanitarian Law and The Challenges of Contemporary Armed Conflicts, 2019; some States deny that International Humanitarian Law applies to their counterterrorism operations even in the face of plainly obvious situations of armed conflict out of a concern that recognizing the existence of an armed conflict could somehow legitimize "terrorists" [16]. Also, there is a tendency among the States to consider any violation of law and order by a non-State group in a civil uprising as an act of terrorism, even when that particular act is not prohibited under International Humanitarian Law. ICRC has mentioned that the counterterrorism measures adopted by States and international organizations should not contradict the humanitarian principles that States have supported politically or endorsed through International Humanitarian Law treaties.

Under certain circumstances, states maintain hidden geopolitical agendas underneath the counterterrorism measures and secretly support terrorist groups to serve their political ambitions. The emergence of Al Oaeda is an example. Al Oaeda was formed in 1988 under the leadership of Bin Laden, who was once interpreted as an anticommunist warrior by the western media. The United States fed Al Qaeda on behalf of Soviet resistance in Afghanistan. Many state parties have released statements or adopted resolutions underscoring the need for counterterrorism measures to comply with International Humanitarian Law and not impede principled humanitarian action ^[17]. However, the legal challenges related to transnational terrorism are not an isolated phenomenon but are part and parcel of a broader trend towards transnational organized crime becoming a primary international security concern^[18]. As a result of this trend, the distinction between the applicability of International Humanitarian Law and International Criminal Law is becoming increasingly blurred, and there is growing confusion as to the legal standards governing terrorism.

Mercenaries and foreign fighters

Hiring military services from private military and security contractors is an emerging trend in the modern world. International Humanitarian Law does not prohibit the outsourcing of military and security functions. But privatization of military functions also raises serious humanitarian concerns.

The concept of Mercenaries was a particularly old practice dating back to the 12th century B.C. Today this phenomenon

has re-emerged in a somewhat different form through the growth of private military companies ^[19]. *Mercenaries* are interpreted in Article 47 of the Additional Protocol I of the Geneva Conventions and Rule No: 109 of the Customary International Humanitarian Law. According to these legal provisions, the *Mercenaries* shall not have the right to be a combatant or a prisoner of war. Privatization of military functions causes many legal issues. First, *Mercenaries* does not receive the rights as other combatants. Second, private military contractors are in an intermediate position between the military personnel and civilians. However, States cannot absolve themselves from their legal responsibilities under International Humanitarian Law, through the practice of privatization of military activities.

"Foreign fighter" is a brand-new phenomenon in today's armed conflicts. According to the definition of Working Group on the use of mercenaries the *Foreign fighters* are 'individuals who leave their country of origin or habitual residence and become involved in violence as part of an insurgency or non-state armed group in an armed conflict." ^[20] When foreign fighters are engaged in military operations, relevant International Humanitarian rules on the conduct of hostilities govern their conduct. They are thus subject to the same legal principles and rules that bind any other belligerent in the conduct of their military operations [21]

The modern platforms of warfare and the new challenges on International Humanitarian Law

Urbanization of Armed Conflicts

Many of the world's most populated urban areas have become high-intensity battlefields today. Mosul in Iraq, Aleppo in Syria, Sanaa in Yemen, Marawi in Philippine and many other cities have recently experienced deadly and destructive armed conflicts. According to the famous Iranian Architect *Eyal Weizman*, for non-State armed groups, the cities now equates to the jungles, an environment where they can easily hide and use their knowledge of the ground to their advantage ^[22]. Although the complex nature of urban sites provides a significant advantage for non-state armed groups, it is a challenge for military and humanitarian aid operations to make a clear distinction between the combatants and the civilians.

The major humanitarian crisis in every urban battlefield is the damage caused by the use of means and methods of warfare that were designed for use in open battlefields. Using heavy weapons and direct airstrikes on the urban areas are clear violations of the principle of distinction in International Humanitarian Law. Also, using civilians as a human shield is another humanitarian crisis in urban battlefields. However, under Rule No: 97 of the Customary International Humanitarian Law, the use of human shields is strictly prohibited ^[23]. *Siege* or *encircling* urban areas has been using as a military strategy during urban armed conflicts. A *siege* can be described as a tactic to encircle an enemy's armed forces, in order to prevent their movement

¹⁶ Recommitting to Protection in Armed Conflict on the 70th Anniversary of the Geneva Conventions Report, Chapter 5, 58.

¹⁷ UN General Assembly Resolution A/RES/72/284 of June 2018 on the UN Global Counter-Terrorism Strategy.

¹⁸ Nils Melzer, International Humanitarian Law: A Comprehensive Introduction, (ICRC) 2016, 38.

¹⁹ Mercenarism and Private Military and Security Companies, UNHRSP Report, (2017), 14.

²⁰ Ibid, (2017), 15.

²¹ ICRC report on International Humanitarian Law and The Challenges of Contemporary Armed Conflicts, (2019), 62.

 $^{^{22}}$ International Review of the Red Cross, 98 (1), War in cities, (2016), 21–35.

²³ Volume II, Chapter 32, Section J. Rule 97 of Customary IHL.

or cut them off from support and supply channels. However, encircling an urban area also restricts to reach humanitarian assistance to the civilians who are living in that particular area. The principles of distinction, proportionality and precautions become more vulnerable in an urban battlefield. Therefore, urbanization of armed conflicts is creating more critical humanitarian issues than conventional armed conflicts.

Cyber Warfare

Today, cyberspace becomes the latest platform in warfare. According to the ICRC definition "cyber warfare" means operations against a computer, a computer system or network, or another connected device, through a data stream, when used as means or methods of warfare in the context of armed conflict [24]. Cyber-attacks are different from the physical attacks in conventional armed conflicts. In modern armed conflicts, cyber technology is generally used as a defensive mechanism rather than an offensive mechanism. However, under the Additional Protocol I for the Geneva Conventions an attack is defined as an act of violence against the adversary, whether in offence or defence [25]. In 2009, the NATO-affiliated Cooperative Cyber Defence Centre published a 'Manual on the International Law Applicable to Cyber Warfare' [26] to introduce some guidelines on cyberwarfare. According to this manual 'A cyber-attack is a cyber-operation, whether offensive or defensive, that is reasonably expected to cause injury or death to person or damage or destruction to objects.' ^[27]

Many countries are now focusing on developing cybersecurity measures. Cybersecurity is more effective than deploying armed forces in physically. However, maintaining cybersecurity management requires specialized knowledge. More often, states seek to outsource the expertise to maintain cybersecurity measures. Therefore, cybersecurity experts or engineers are may not be the members of the military forces. It rises a legal issue under the provisions of International Humanitarian Law. Can these civil cyber experts be identified as the combatants? According to the customary international law, all members of the armed forces of a party to the conflict are combatants, except medical and religious personnel ^[28]. Additional Protocol I defines combatants as members of the armed forces of a Party to a conflict ^[29].

According to the 1874 Brussels Declaration, a combatant should be commanded by a person responsible for his subordinates; he should have a fixed distinctive emblem recognizable at a distance; he should carry arms openly, and he should conduct operations following the laws and customs of war ^[30]. However, the cybersecurity operators do not use or carry weapons openly, also they do not have any fixed distinctive emblems to recognize at a distance. In open-armed battles, belligerents can claim the responsibility of their attacks. But in cyberspace, anyone can be performed as an unidentifiable algorithmic figure Therefore, it is

difficult to categorize the cybersecurity operators under the classical definition of combatants. Although there is no clear definition for cyber combatants, Direct Participants in cyber hostilities by virtual platforms can be identified as the combatants in cyberspace.

According to the general principles of International Humanitarian Law, the civilians cannot directly participate as the hostilities. However, under rule 29 of Tallinn Manual 'Civilians are not prohibited from directly participating in cyber operations amounting to hostilities, but forfeit their protection from attacks for such time as they so participate.' ^[31] This makes an inter-contradiction in *Jus in Bello*.

Space Warfare

Space warfare is a brand-new concept in human history. During the cold war era, the United State and the Soviet Union were in a race to exploration in space. After the collapse of Soviet supremacy, the United States was able to consolidate the power of space exploration. Space Law is a premature legal regime in International Law. *The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space in 1967* is the first international space law treaty ^[32]. Until now there is no any specific treaty for governing armed conflicts in space. On December 20, 2019, the United State established the world's first-ever space force to protect U.S. and allied interests in space and to provide space capabilities to the joint force. No one can imagine how will be the space armed conflicts looked like in future.

The modern technologies, means and methods using in the battlefield

Chemical, Biological, Radiation and Nuclear Weapons Chemical, Biological, Radiological and Nuclear weapons (CBRN weapons) can be identified as weapons of mass destruction (WMD) which cause indiscriminate attacks and unnecessary sufferings. Therefore, using chemical, biological and radiation weapons have been prohibited under several International Humanitarian Law treaties. However, some state parties are secretly using those weapons in armed conflicts. Also, the prospect of non-state actors, gaining access to and using Weapons of Mass Destruction including Chemical, Biological, Radiological and Nuclear (CBRN) materials is a serious threat to international peace and security^[33].

At present, International Humanitarian Law does not expressly ban the use of nuclear weapons in armed conflicts. In 1996, the International Court of Justice concluded that the use of nuclear weapons would be "generally contrary" to the principles and rules of International Humanitarian Law, but was unable to reach a definitive conclusion as to the legality or illegality of the use of nuclear weapons by a State in an extreme circumstance of self-defence, in which its very survival would be at stake ^[34]. Therefore, contemporary legal mechanisms under International Humanitarian Law are not sufficient to restrict or ban the use of CBRN weapons.

²⁴ ICRC report, supra, (2019), 26.

²⁵ Article 49(1) Additional Protocol I.

²⁶ Tallinn Manual on the International Law Applicable to Cyber Warfare, (2009).

²⁷ Article 30 of Tallinn Manual.

²⁸ Volume II, Chapter 1, Section C. Rule 03 of Customary IHL.

²⁹ Article 43(2) Additional Protocol I.

³⁰1874, Brussels Declaration, Article 9.

 $^{^{31}}$ Rule no 29, Tallinn Manual on the International Law Applicable to Cyber Warfare.

³² United Nations Office for Outer Space Affairs, International Space Law: United Nations Instruments, (2017), 3-9.

³³ UN office for Counter-terrorism, Chemical biological, radiological and nuclear terrorism.

³⁴ ICJ, Legality of the Threat or Use of the Nuclear Weapons, op. cit. (note 38), para. 97.

Autonomous, Nanotechnological & Artificial Intelligent Weapons

The military methods and weapon systems used in most contemporary armed conflicts are highly innovative. In conjunction with the advent of new technologies, such as remote-controlled weapons, nanotechnology and autonomous weapons, create significant challenges to the interpretation and application of International Humanitarian Law.

The use of remote-controlled drones for military purposes is raising many questionable issues under International Humanitarian Law. Infringement of the principles of proportionality and distinction is the main issue of using remote-controlled drones. Nanotechnology has already invaded the battlefield. The United States Army works with industry and universities to study micro-robotics and develop technologies allowing soldiers to see threats lurking just beyond their range of vision using autonomous robots the size of bats and hummingbirds and even as small as fruit flies ^[35]. Nanotechnology can be used not only for defence but also for attack. The use of nano-type robot drones for attacks can cause indiscriminate and confusion damages on a battlefield.

According to ICRC definition, an autonomous weapon system is any weapon system with autonomy in its critical functions. That is a weapon system that can select and attack targets without human intervention ^[36]. The problem with artificial intelligence autonomous weapons is that much of what is spoken about is theoretical. In practice, there are so many issues ^[37]. In 2017, Russian President Vladimir Putin stated that whichever nation leads in artificial intelligence, "will be the ruler of the future world." ^[38] However, in 2018, at the Paris Peace Forum, the UN Secretary-General António Guterres urged all the heads of states to ban the morally revolting autonomous weapons [39]. Autonomous weapons and artificial intelligence will change the shape of future warfare. But the question is where the limits of human control of these weapons? Will International Humanitarian Law be able to address this legal vacuum in future?

Conclusion

In the 21st century, armed conflicts have become more complicated. The rise of transnational conflicts between states and non-state actors has created numerous problems for the identification of armed conflicts. However, ICRC suggests many non-exhaustive legal and operational measures to enhance respect to International Humanitarian Law. But the question is whether the contemporary humanitarian mechanisms able to solve the new-born problems in modern armed conflicts?

Terrorism is one of the most pressing issues of present-day armed conflict. Terrorism is already criminalized under both international and almost every domestic criminal law regime. If a non-State armed group that has been designated as "terrorist group" is sufficiently organized for and is involved in a situation that amounts to a non-international armed conflict, will be governed by International Humanitarian Law. Acts of terror are prohibited by International Humanitarian Law. But no treaty law establishes state obligations to enhance the applicability of International Humanitarian Law for counterterrorism measures. Therefore, an International treaty should be established for governing the global war in terror.

Proxy wars also create many legal and operational issues in modern armed conflicts. Unless several case-laws, there is no any specific treaty for restricts asymmetric proxy warfare. There should be a clear measurement to interpret the *attribution* scenario in proxy wars. Therefore, it is essential to enacting an international treaty for criminalized the proxy wars and conspiracy activities to ensure world peace.

Armed conflicts in this century just not happen on land, water and air. Cyberspace is the latest platform in modern warfare. However, International Humanitarian Law has not provided a universally applicable definition for cyber warfare. But International Humanitarian Law generally applies to cyber-related armed operations and it urges all States to recognize the protection that International Humanitarian Law offers against the potential human cost of cyber operations. But there should be a state-binding treaty law to regulate cyber-based military activities.

Regulating cyber warfare as well as regulating the use of autonomous weapons in armed conflicts is very important. Therefore, a universal obligation should be established to regulate the use of autonomous weapons in armed conflicts. Another major concern is that using biological, chemical and radiation weapons could cause a very large number of casualties. Either intentionally or accidental release of a biological or chemical agent, the unexpected mutation of an agent, could be caused irreversible harm to the entire civilization. High-scale apocalyptic events like these, caused by advanced technology used for destruction, could potentially make the Earth's surface uninhabitable. Therefore, using biological, chemical and radiological weapons must be banned in practically.

Nuclear weapons are the most destructive weapons in the world today. If 'World War: 3' occurs, it will be the first and last nuclear war on the earth. A common theme of speculation about 'World War: 3' is that civilization is at potential risk of destruction due to the use of nuclear weapons. Therefore, manufacturing and possessing and using nuclear weapons must be banned. The Universal Treaty on the Prohibition of Nuclear Weapons, which was created in 2017, must be implemented immediately.

Over *80%* of all major armed conflicts happened in the last century took place directly in biodiversity hotspots that sustain around half the world's plants and many rare species of animals ^[40]. Armed conflicts have always been a threat to the environment, and environmental degradation affects the well-being or even the survival of people. The consequences of conflict can remain in soil, water and air for years or decades after a war. Therefore, it is not enough that International Humanitarian rules are protecting the natural environment during armed conflict; they must be better disseminated, implemented and enforced, as well as reaffirmed and clarified.

³⁵ Nils Melzer, supra, p.45.

³⁶ ICRC report, supra, (2019), 29.

³⁷ Thomas McMullan, Will the Geneva Convention Cover Robots? https://medium.com/, (2020/12/10)

 $^{^{38}}$ James Vincent, Putin says the nation that leads in AI 'will be the ruler of the world',

the verge, Sep 4, 2017.

³⁹ Paris Peace Forum, Nov 11, 2018.

⁴⁰ Thor Hanson *et al.*, "Warfare in Biodiversity Hotspots", Conservation Biology, 23 (3), (2009), 578–587.

Wars of the 21st century will no longer be directed only against military objectives. Modern warfare can take place in the socio-economic, political and cultural spheres of society. The question is how does the International Humanitarian Law deal with those new areas of war? Therefore, studying the novel forms and patterns of warfare emerge in the contemporary armed conflicts will help to bring necessary reforms to IHL to successfully face the challenges posed by the contemporary armed conflicts.

Reference

- 1. Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and Bacteriological Methods of Warfare, 1925.
- 2. Charter of the United Nations, 1945.
- 3. Statute of International Court of Justice, 1945.
- 4. Four Geneva Conventions, 1949.
- 5. The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, 1954.
- 6. Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and their Destruction, 1972.
- Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, 1976.
- 8. Two Protocols additional to the four 1949 Geneva Conventions, strengthening protection for victims of international (Additional Protocol I) and noninternational (Additional Protocol II) armed conflicts, 1977.
- 9. Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW), 1980.
- 10. Convention on Certain Conventional Weapons, 1983.
- 11. Convention on Chemical Weapons, 1993.
- 12. Ottawa Convention on anti-personnel mines, 1997.
- 13. Additional Protocol III to the four 1949 Geneva Conventions of introduced a common emblem for ICRC, 2005.
- 14. Convention on Cluster Munitions, 2008.
- 15. Nils Melzer, International Humanitarian Law: A Comprehensive Introduction, (ICRC), 2016.
- Y. Sandoz, C. Swinarski, B. Zimmermann (eds.), Commentary on the Additional Protocols of June 1977 to the Geneva Conventions of 12 August 1949, Geneva, 1987.
- 17. Frits Kalshoven and Liesbeth Zegveld, Constraints on the Waging of War, ICRC, 4th Ed, 2001.
- Henry Dunant, Un souvenir de Solferino (A Memory of Solferino), 1862.
- 19. Francis Lieber, Instructions for the Government of Armies of the United States in the Field, 186.
- 20. ICRC Report on International Humanitarian Law and The Challenges of Contemporary Armed Conflicts, 2019.
- 21. SIPRI Yearbook 2019, Armaments, Disarmament and International Security, Stockholm International Peace Research Institute, 2019.
- 22. Mercenarism And Private Military and Security Companies, UNHRC, HRC/ None, 2018, 40.
- 23. Support to Resistance: Strategic Purpose and Effectiveness, Joint Special Operations University,

Center for Strategic Studies, 2019.

- 24. Human Rights Watch, World Report, 2019.
- 25. Herfried Münkler, The wars of the 21st century, RICR Mars IRRC March. 2003; 85:849.
- 26. Sean Watts, the Notion of Combatants in Cyber Warfare 4th International Conference on Cyber Conflict, 2012.
- 27. Sylvain Vite, Typology of armed conflicts in international humanitarian law: legal concepts and actual situations, ICRC Review. 2009; 91:873.
- 28. Nicaragua v. the United States of America 1986 I.C.J.-14
- 29. Advisory opinion on the Legality of the Threat or Use of Nuclear Weapons 1996 I.C.J 2
- 30. Prosecutor v. Duško Tadić,- 1997 ICTY IT-94