CHAPTER 3

INTERNATIONAL HUMANITARIAN LAW AND PROTECTION OF ENVIRONMENT DURING ARMED CONFLICT

3.1 Introduction

Human nobility is to be guarded under every aspect of the hostilities. So in order to execute these safeguards to human nobility, the arms and ammunitions used by the combatants are to be limited. During such times law is the instrumentality to regulate the conduct of humans within the territory of a State as well as inter-State interactions.\(^1\) It regulates the conduct of combatants on the battlefield by regulating the actions of combatants against innocent civilians. The destruction to the civilian property is also forbidden. There is a specific ban on all those arms and ammunitions which can cause unnecessary increase in human agony. The law of hostilities does not address whether a nation is justified in using military force but instead assumes the presence of armed conflict. It is therefore only concerned with humanitarian conflict and balancing military necessities with the preservation of human dignity.\(^2\)

The need for restrictions during war is clear. Due to advancement in the military, the risk of civilians’ death and criminal abuse; the proliferation of weapons and impunity for war crimes have made it easier for nations and armed groups to deal death and destruction without repercussion. Today’s conflicts are being fought in densely populated urban settings, putting civilians at extreme risk of the collateral harm.\(^3\)

The technological advancement in the weaponry used by the nations is also a greatest alarm to humanize more and more war or armed conflict. The global legal order to protect the environment during armed conflict is based on the combination of general principles, treaty laws, regulations and the pronouncements given by different courts. It comprises of various branches of International Law such as International

---


The present chapter deals with the International Humanitarian Law protecting environment both in armed hostilities and in peace. It includes the rules concerning the protection of those who do not or no longer participate in hostilities, such as civilians, wounded and sick military personnel and persons who are deprived of their freedom in connection with the conflict. In addition to it, International Humanitarian Law limits the weapons and modern techniques deployed by the combatants during such active hostilities. These rules aim to preserve a sense of humanity in armed conflict while recognising the need of force in order to defeat their enemy.

The traditional rules of warfare which are used during ancient times are codified and reformulated in the form of International Humanitarian Law. The use of arms and ammunitions is also limited under this legal regime. Ancient legal rules of warfare, where sick and wounded, pregnant women and children are spared are also embodied. International Humanitarian Law constitutes a reaffirmation and development of the traditional international laws of war. International Humanitarian Law sets certain bounds to the use of force against an adversary. IHL attempts to regulate the relations of inter combatants relations. It also regulates the relation of combatants with the neutral ones.\(^4\)

The International Committee of Red Cross’s commentary on the Geneva Convention defines the term humanitarian as “being concerned with the condition of man considered solely as a human being, regardless of his value as a military, political, professional or other unit”, and “not affected by any political or military consideration”.\(^5\) The expression “International Humanitarian Law applicable to armed conflict” is abbreviated to International Humanitarian Law or Humanitarian Law. Though the military tends to prefer the expressions “Law of Armed Conflict” (LOAC)


or “Law of War”, these two expressions should be understood as synonymous with “IHL”.

International Humanitarian Law primarily deals two key areas i.e. the protection and assistance to those affected by the hostilities and regulating the technological tactics opted during the warfare.

3.2 Protection of Environment under International Humanitarian Law

In the beginning, the International Humanitarian Law was shaped to regulate and restrict the rights of belligerents to inflict damage on the other side as well as third parties, most importantly civilians. But it also imposes an obligation to lead war in a least environmentally devastating way. The environment has only recently moved within the ambit of protection of this body of International law. It was after the Vietnam War, that nature was recognized as an individual protected interest. But even under the “classic” humanitarian law regulations, some protection is afforded “indirectly” to the environment; for example, Hague Convention provides the protection to the environment as the opponent’s property. Standards to check the environmental devastation is formulated under this legal regime. Techniques which have the potential to cause extensive, long lasting and serious disruptions to the nature are particularly banned. But these rules do not absolutely safeguard atmosphere. When the military targets are attacked, it usually results into environmental degradation. The collateral environmental consequences resulting from the destruction of the military targets are still outside the scope of these rules of International Humanitarian Law.

3.2.1 Treaty Law

International Humanitarian Law contains a number of treaty provisions that deal with protection of environment during the armed conflict. These provisions for the protection of environment during such conflict can be categorised as follows: first,

---

those which are directly concerned with the issue of environmental protection; secondly, the general principles of international humanitarian law applicable to the environment protection; thirdly, provisions which indirectly relate to protect the environment.

3.2.1.1 Specific Environmental Safeguards

Specific environmental safeguards are provided under different instruments regulating armed conflict and hostilities. These international legal instruments are Additional Protocol I to the Geneva Conventions; United Nations Convention on the Prohibition of Military or Any Other Hostile Use of the Environmental Modification Techniques (ENMOD) (1976); Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW) and its Protocol III on Prohibitions or Restrictions on the Use of Incendiary Weapons (1980); Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty-1967); Convention on the International Liability for Damage Caused by Space Objects.

3.2.1.1.1 Protocol Additional to the Geneva Conventions of 1949, (Relating to the Protection of Victims of International Armed Conflicts) (Protocol I)

Protocol I was first instrument which exclusively provides for direct environmental protection during armed conflict. Additional Protocol I of 1977 supplements the Geneva Convention of 1949 which applies to interstate hostilities. The idea of initially including direct environmental protection in the treaty was fabricated by expert’s committee in 1972. Main task of this ICRC sponsored body was to update the laws regulating the hostilities. Suggestion was made to provide safeguards to the environment essentially, but the initial proposed format did not contain any such specific safeguard. When this issue was taken by several delegations, an informal working group (“Biotope”) was established within the Conference Committee III which considered the proposal for inclusion of

---

environmental protection provisions.\textsuperscript{11} Two types of articles were recommended by the committee. The first category of articles recommended were those which treat the environment anthropocentrically, where the damage directly leads to human sufferings and human causalities. These recommendations led to the incorporation of Article 55.\textsuperscript{12} The others recommendations recall the environmental destruction of the Vietnam War. This incorporated the adoption of Article 35(3) which imposes restriction on means and methods of warfare that damage the environment\textsuperscript{13}

Recommendations of the Biotype has resulted into adoption the two specific provisions having reference of environmental protection. Article 35(3) and Article 55(1) of the Additional Protocol I to the 1949 Geneva Conventions (1977), specifically provide environmental protection during armed conflict. Deliberations for the adoption of the protocols to the Geneva Conventions were carried out when question of civilian environmental awareness and environmental concerns during the adopting of military tactics were raised, from the experience of various environmental destructive wars such as Vietnam War. This led to the inclusion of two provisions i.e., Article 35(3) and Article 55 in Additional Protocol I.\textsuperscript{14}

Article 35 contains elementary rules regarding the methods and means of warfare. It prohibits those means of warfare that can cause or expect to cause extensive, long lasting and serious degradation to the nature.\textsuperscript{15} The article thus protects for the first time the natural environment intrinsically. It applies not only to intentional damage, but also expected to protect collateral damage. For the application and liability under this Article 35 specific intention to cause the environmental damage is not a necessary element.\textsuperscript{16} Article 35 presented a significant improvement over the previous legal framework. Its scope is significantly wider than that of The Hague and the Geneva Conventions. According to this article if the methods or means may be expected to cause the specified kind of damage, they must be

\textsuperscript{12} Id., at 117.
\textsuperscript{13} Id., at 118.
\textsuperscript{14} Ibid.
\textsuperscript{15} See, Article 35, Additional Protocol I to the Geneva Convention(Appendix I).
prohibited.\textsuperscript{17} The function of the threefold limitation i.e., widespread, long-term and severe is to differentiate the “normal” damage incidental to conventional warfare from excessive environmental destruction. These three fold cumulative damage standards exclude even intentionally inflicted environmental damage if the desired magnitude is not reached.\textsuperscript{18}

Article 55 elaborates the safety measures to be adhered to by the combatants for safeguarding the natural environment.\textsuperscript{19} Both the Articles 35 and 55 impose a bar on the extensive, long lasting and serious damage to the natural environment. The requirement to qualify prohibition under Article 55 is the triple cumulative standard i.e. the damage must have widespread and long-term and severe impact.\textsuperscript{20}

Civilians and their property are protected under this protocol. This is an umbrella protection, which takes into its ambit environment protection also. Similarly the environmental protection provided under Article 55 is not absolute. All the harms which are directly related to the military anticipations are not banned. It elaborates no calculus to determine the proportionality of harms and targets to the military anticipations.\textsuperscript{21}

Article 35 and Article 55 of this protocol are overlapping. Acts of retaliations against nature are prohibited by both the articles. The care not to cause extensive and serious damage to the elements of the nature provided by Article 55 is largely embraced in the strict limitations on technologies to be opted by the combatants are specified in Article 35 (3).\textsuperscript{22}

Similar safeguards are provided by the additional protocol II in hostilities which are non-international. Article 14, Article 15, Article 16 specifically provides the protection. Article 14 to Article 16 prohibits those acts which are specifically

\textsuperscript{17}See, Article 35, Additional Protocol I to the Geneva Convention(Appendix I).
\textsuperscript{18}Id.,at 19.
\textsuperscript{19}See, Article 55, Additional Protocol I to the Geneva Convention (Appendix I).
\textsuperscript{22}A.P. Singh, “Protection of Environment during Armed Conflict” 458 JILI Vol52 July-December2010.
directed against specified objects. Military officials cannot inflict starvation as a tactics in warfare. Article 14 particularly prohibits starvation to be used against civilians during active hostilities. Things which are essentially required for human existence cannot be attacked. These objects whose destruction is to be prohibited are also exemplified in the provision such as “foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works”.

The prohibition of attacks over the works and installations containing dangerous forces, such as dams, dykes and nuclear generating stations is elaborated under Article 15. These installations shall not be specifically targeted even when they constitute specific military objectives. Article 16 finally prohibits attacks on objects which also coincide with environmental protection. The culturally valued objects and buildings are prohibited from attacks. Similarly attacks on the spiritually valued objects and buildings are banned. This protection against attacks provides protection from the collateral damage going to the environment. So Article 16 indirectly protects the nature.

3.2.1.1.2 United Nations Convention on the Prohibition of Military or Any Other Use of Environmental Modification Techniques (1976)

Final core instrument relevant to the environment in the jus in bello is United Nations Convention on the Prohibition of Military or Any Other Use of Environmental Modification Techniques (ENMOD Convention) “ENMOD”. Treaty specifically prohibits the use of environmental modification technique’s use in warfare. There are two main branches of the International Humanitarian Law i.e. Hague Law and Geneva Law. Hague law has main emphasis on limiting the techniques used by combatants in hostilities, while Geneva Law specifically provide protection to the civilians and sick wounded persons who are not directly participating in the hostility. In this manner the ENMOD can be categorised into the category of

---

24 See, Article 14, Additional Protocol II Geneva Convention (Appendix II).
25 See, Article 15, Ibid.
27 See, Article 16, Additional Protocol II Geneva Convention (Appendix II).
“Hague Law” as it limits techniques used in armed hostilities. According to ENMOD the elements of nature cannot be used as a weapon.  

For prohibiting the environment modification techniques under the 1976 ENMOD Convention, similar triple cumulative elements i.e. “widespread, long lasting or severe” must be there in the resultant harm. All the environmental altering method are prohibited, which have power to cause long and severe disruptions. The environment modification techniques are defined in this convention. It refers to, “any technique for changing through the deliberate manipulation of natural processes- the dynamics, composition or structure of the Earth”. Such military and environmental modification techniques are prohibited which have potential to cause aggravated disruptions.  

Signatory states are prohibited to provide any type of assistance to others in using these techniques. State parties shall not help, aid or abet anyone to opt the hostile environmental modification techniques that can use the severe environmental destruction. Disruptional techniques are listed under this prohibition are alteration in weather cycles, earth tremor, alteration of ocean wave patterns and changes in outer regions of the earth’s atmosphere.

For the applicability of this article three elements are required to be proved. There must be the element of intention; it must be the manipulation of a natural process; and must be of a nature to cause severe and extensive detrimental effects. If any one of these elements is fulfilled, then the harm cannot be justified by taking it, into ambit of the exception of military necessity.

The above prohibition is not absolute. It attracts an exception. Every use of an environmental modification technique is not forbidden under the ENMOD

30 Rikke Ishoy, Handbook on the Practical Use of International Humanitarian Law 82 (Danish Red Cross, 2008).
32 See, Article I Para 2, Convention on the Prohibition of military or any other hostile use of environmental modification technique (Appendix III).
33 See, Article II, Ibid.
Convention. Only “military or any other hostile” use of such methods is forbidden.\textsuperscript{35} The banned conduct must be intentional. The banned conduct must have caused the destruction, damage or injury.\textsuperscript{36}

The elements required to establish prohibition is same in ENMOD as additional Protocol I. The ENMOD provides more strict protection, as the elements for the prohibition under it are not cumulative but alternate one. If during the armed conflict either of the elements is proved, the conduct becomes prohibited.\textsuperscript{37} The meaning of the terms “widespread long lasting and severe” are not given in ENMOD. For better implementation of ENMOD, the meanings of these terms are explained by the Committee on Disarmament. Landscape comprising of several hundred square kilometres is included in the term “widespread”. Harm will be calculated as long-lasting, when it remains consistent for months, or at least for one particular season. Term severe for the application of ENMOD is interpreted as significant natural and social disruptions.\textsuperscript{38} The scope of ENMOD includes inter-state conflicts. Its applications are still disputed to the hostilities involving attacks on non-state party.\textsuperscript{39}

\textbf{3.2.1.1.3 Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW), and its Protocol III on Prohibitions or Restrictions on the Use of Incendiary Weapons (1980)}

Similar to the ENMOD, the Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (CCW) is also covered under the province of Hague law. This instrument is also known as the Convention on Certain Conventional Weapons and the Inhumane Weapons. It puts a ban on the use of such weapons and techniques which are highly dangerous to the nature i.e., which results

\textsuperscript{36} \textit{Id.}, at 538.
\textsuperscript{38} A.P. Singh, “Protection of Environment during Armed Conflict” 458 \textit{JILI} Vol52 July-December2010
or have potential to result “widespread, long-term and severe damage”. \(^{40}\) Environment is particularly protected under Article 2 (4) (III) of its Protocol III. Weapons composing of the combustible substances are banned to be used against the green belt of the landscape. Forest covers can be specifically targeted, if they are used for screening of combatants and military targets.\(^{41}\)

**Space warfare**

Advancement in technology has extended the horizons of warfare to the outer space. Weapons deployed in the outer space have potential to cause destruction to the outer environment. Outer space weapons are those which are designed to kill a satellite by a kinetic impact in medium to high orbit. Debris clouds originate the danger of disruption to the other space vehicles. Constant debris clouds are not able to mark difference, between the adversaries’ space installations or the neural ones. They attack on whatever the space installations comes into their contact.\(^{42}\) Outer space warfare results into the squeezing of other installations into a particular area of orbit. Packing results into disruption of the functioning of space installations. Space tactics involving the unauthorised access to the adversaries’ space installations are usually used. Laser binding and electromagnetic pulse attack are also used.\(^{43}\)

For regulating the effect of outer space armed conflict on the environment, the additional Protocol I apply. Its two articles, Article 35 and Article 55 apply. Prohibitions explicated by these articles are binding only on the signatory states. The techniques and tactics deployed to cause the considerable disruption of the outer space are particularly banned under Article 35(3).\(^{44}\) Methods which impart a threat to the human existence and health are banned under Article 55(1).\(^{45}\) All the space weapons which can have direct as well as indirect adverse effect on earth or its surroundings are regulated by these rules. For establishing liability under this article, the triple

---


\(^{41}\) See, Article 2 (4)(III) Protocol III to Convention on Prohibition or Restriction on the Use of Certain Conventional Weapons which may be Deemed to be excessively Injurious to Have Indiscriminate Effects (Appendix IV).


\(^{43}\) Id., at 297.

\(^{44}\) See, Article 35 (3), Additional Protocol I to Geneva Convention (Appendix I).

threshold criterion is required to be met. A considerable level of environmental damage is necessary for the application of this rule. Widespread, long lasting and determinate damage is only able to attract the liability.46

Customary principles such as distinction principle, proportionality principles, military necessity etc. will regulate the conduct of outer space military practices. Rules which ban the attacks on non-military targets are going to be particularly used in space warfare also.47 Customary principles and rules have application to all the states. States which are outside the scope of protocol I will be regulated by these rules and principles.

3.2.1.1.4 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including Moon and Other Celestial Bodies (Outer Space Treaty, 1967)

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including Moon and Other Celestial Bodies (Outer Space Treaty, 1967) directly regulates the activities in the outer space. Its Article II, Article IV, Article IX contains the specific provisions for the regulation of states activities.

States cannot utilize the outer space for their own use without authorisation. Sovereignty cannot be claimed on Moon, Sun and other planets.48 States are also responsible for all the destructions caused by activities of governmental and private persons in the outer space. This provision is not going to affect the ability to wage space destructions but it has direct impact on the research and development of weapons systems. Accordingly the states can be made internationally liable for atmospheric testing of weapons.49

Demilitarization and the non-proliferation of space weapons are the efficient techniques to address the problem of space accidents and space debris. Demilitarization is specifically included. Nuclear weapons and weapons of mass

47 Ibid.
48 See, Article II to Outer Space Treaty (Appendix V).
destruction are banned to be installed in the atmosphere. Military bases installations are also prohibited under Article II. Military training or experimentation on celestial bodies is specifically banned. Scientific research and activities for peaceful purposes by the military personnel is permitted. Satellites are permitted to be launched for communication and intelligence purposes. Research equipments and others vehicles required for the peaceful examination of the moon and other celestial bodies are allowed to be installed. These installations should be placed in such a manner to cause least detrimental effect on the outer space environmental equilibrium.

Mutual cooperation and assistance must be provided by signatories in carrying out their celestial activities. Signatory states must give due regard to all interest of other states, while carrying out the launch of a space weapon. Peaceful research can be carried out in the space. Extra-territorial vehicles and systems introduced into the solar system for the examination and research purposes must not cause disruption to the space’s environment. These operations must be carried out by prior consultation with other states. Appropriate consultation must be carried on in all the cases where there is apprehension of harm. States, whose activities or installations are going to affect other installations, shall give prior information to states. After appropriate consultation such activity or the experiment must be carried on. The obligation of the state consultation is given by the Article IX. Disincentive is formulated to carry out the hostile activities and warfare. Notification of the attacks should be given to the adversaries going to be effected by such attacks. Attacks produce set of inanimate objects which are indiscriminate in their nature. So the notification requirement seems to be totally vague, as it is not possible to notify all the states which are going to be affected.

**3.2.1.1.5 The Convention on International Liability for Damage Caused by Space Objects (1972)**

Outer space treaty imposes an obligation to check the activities carried out by the governmental and private agencies. Disruptions resulted from such activities attract the liability of the State. Signatories are accountable for such disruptions.

---

51 See, Article II, Outer Space Treaty (Appendix V).
52 See, Article IX, Outer Space Treaty (Appendix V).
Compensatory framework is given in this international instrument. Convention imposes absolute liability to pay compensation under Article II. Compensation liability arises for deprivation of human existence, destruction to the state’s property and property of international organisations.

3.2.1.1.6 Agreement governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement), 1979

Treaty confirms the demilitarization of the Moon and Other Celestial bodies. It prohibits all the offensive activities on the Moon, other space installations or man-made space objects. Moon agreement is adopted for removal of offensive installations or means on the Moon and other celestial bodies. The activities which are offensive on the moon and other celestial bodies surface are banned. All the peaceful activities which have potential to alter the earth’s atmosphere are banned. Moon and Other Celestial bodies are reserved exclusively for peaceful activities. Signatories are obliged not to implant nuclear energy against the adversaries in space. Indiscriminate weapons are banned to be implanted on the surface. Military camps or training activities cannot be carried out on the moon surface. Weapon’s experimentation on these bodies is strictly prohibited. Scientific and peaceful use in only permitted.

Exploration activities of the moon and other heavenly bodies can have detrimental effect on the other space programmes. Inventory of exploration activities are to be prepared. These inventories must be exhaustively prepared. Details of all the concerned parameters should be exhaustively listed there. These inventories shall be submitted to the Secretary-General of the United Nations. These inventories are accessible to the public and the international scientific community. Exchange of information serves as a safeguard against the accidental launch of simultaneous celestial activities.

54 See, Article II, Convention on International Liability for Damage Caused by Space Objects (Appendix VI).
55 Article I (a) defines damage as “loss of life, personal injury or other impairment of health; or loss of or damage to property of states or of persons, natural or juridical, or property of International inter-governmental organisations”; See Article I (a), Convention on International Liability for Damage Caused by Space Objects (Appendix VI).
56 See, Article 3, The Moon Agreement; Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Appendix VII).
57 See, Article 5, Ibid.
All the parties have equal right for carrying out the scientific investigation on the moon. For carrying out the scientific investigations, the samples and other material can be collected and removed by the State Parties. These samples are exclusively at the disposal of the collecting state and may be used only for their research and development. Use of minerals and other resources are permitted as required to carry out the permitted space programme.58

The exploration activities and other research activities can introduce the foreign matters in the universe. Disruptions caused by the introduction of foreign matters are strictly prohibited. These disruptions include the degradational impacts on the moon atmosphere caused during the celestial or exploration activities. Signatories have to adopt effective measures for the preventing the harmful effects on earth’s surface form the celestial activities.59 Introduction of the debris into the atmosphere is prohibited, which have potential to cause detrimental effect on the ecological equilibrium.

3.2.2 General Principles of International Humanitarian Law Protecting the Environment during Armed Conflict

The environmental protection during armed conflict is also regulated by the general principles of the International Humanitarian Law. In International legal regime, they serve major functions such as unification function; gap-filling function; interpretive function and development function.60 These general principles which are governing the environment during armed conflict include distinction or discrimination principles; proportionality principle; military necessity principle and humanity principle. The Martens Clause broadened the scope of these rules. It extends the applicability of these rules during armed aggressions and hostilities. Clause emphasized the extension of scope of these principles in all the situations which are adopted by inhabitants.61 According to it, if signatories have not adopted any

58 Ibid.
59 Article 7, The Moon Agreement; Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Appendix VII).
regulation prohibiting the environmental destruction, then the combatants will be
governed by dictates of humanity and public morality. This obligation will remain in
operation till an exhaustive code of war is formulated, which is applicable all the
states.  

3.2.2.1 Distinction or Discriminate Principle

According to the Distinction or Discriminate principle the military personnel
must be differentiated from civilians. Difference must be established between the
civilians and military personnel. Discriminate force is allowed to be used only against
combatants and military targets. Collateral sufferings resulting from the attacks are
permitted. These collateral sufferings can be caused to civilian and their property is
also permitted. It only declares the indiscriminate warfare as illegal.  

According to this principle the belligerents are required to plan their attacks in
such a manner to spare civilians and their objects. Targets should be planned only
against the adversaries or the property used by them to carry on the hostilities. The
destruction of the property used by adversaries has potential to cause destruction to
the nature. But such destruction is permitted as it is required to carry out the desired
anticipations. Sometimes in order to get the protection provided to the civilian
property, combatants conceal their property under civilian’s property. In such
situation the application of distinction principle, become difficult.  

Attacks which are non-selective in their operation are banned under this rule.
All those techniques and weapons which are not having potential to carve
discrimination on their targets are prohibited. All those methods which are general in
their operation are banned. Disproportionate attacks and area bombardment are

---

62 Ian Henderson, The Contemporary Law of Targeting: Military Objectives, Proportionality and
University School of law)available at http://digitalcommons.pace.edu/law/dissertation/1/(visited on
64 Arie Afriansyah, State Responsibility for Environmental Protection during International Armed
University School of law)available at http://digitalcommons.pace.edu/law/dissertation/1/(visited on
treated as particular forms of indiscriminate attacks. Specifically those attacks are prohibited under this principle which cannot distinguish between the military objectives and civilians or civilian objects. Protocol I elaborates three categories of indiscriminate attacks. First indiscriminate attack depends not on the nature of weapon used but on the manner of its use. The Attacks carried out in such a manner that their effect is not specifically restricted to the military targets. The second category of indiscriminate attack is that technique or weapons which are not specific in their operation. They strike the targets blindly. Third category includes those attacks in which weapons of warfare are employed, whose effect cannot be limited, such as biological agents, chemical agents etc. These agents continue to harm generation to generations, by causing the alteration in foetal genes. The effect cannot be controlled to the particular area. Person affected by these agents act as carrier for the other segment of the society, when they translocate.

The main emphasis of this legal regime is to spare civilians from the adversaries of the hostilities. So the rules are formulated to elaborate the permitted limits of attacks. The first rule is that only the military targets must be attacked. If the military targets are attacked, the collateral damage to the civilian and innocent must be expected. Lawful targets are only permitted to be attacked. It clearly shows that, it does not prohibit the use of force by adversaries. It only desires to humanize the use of force, in order to reduce human sufferings and pain. Course of actions used always require precaution while launching the attacks. The preventive measures must be taken to spare the civilian damage. The protection provided under it gets extinguished, if civilian actively start participating in the hostility. Article 48, Article 51, Article 52 and Article 57 of protocol I also embodies distinction principle. The non-combatants must be protected and military targeting should always be against military objectives. Military officer who plan the military hostilities must take precautions to spare innocent civilians. Individual civilian or the civilian population

---

66 ICRC Q&A on the issue of explosive weapons in populated areas 100 International Review of the Red Cross, Vol98 Number 901 April 2016.
70 Protocols Additional to the Geneva Conventions of 12 August 1949 41 (ICRC,2010).
are protected from the military attacks. Until the civilian directly participate in the military operation, they are protected from the indiscriminate attacks. Protocol I is not universally applied. Some of the warfare is outside the ambit of its scope. Warfare involving non-state actors is not regulated by the prohibition of discriminate attacks given under additional Protocol I. Such warfare involving the non-state actor is regulated by the Protocol II. Articles 13 to 16 of additional Protocol II embody the principle of distinction. Exhaustive study is carried out by International Committee of Red Cross (ICRC), to check the practical implication of this rule in state practice. Distinction in the attacks is adhered by maximum states. So this rule is elevated to customary norms, required to be taken into account both in international and national armed aggressions.

No specific reference has been made of this principle in the Hague Regulations but only Article 25 is indirectly based on this principle. Attacks against unattended towns, villages and residences of the civilians are specifically prohibited. During non-international armed conflict similar distinction is required to be drawn during armed attacks. Hostile attacks which are primarily done with the objective to create fear in the minds of civilians are specifically prohibited.

Direct protection to the nature is not provided by the principle of Distinction. The protection is indirectly provided as a civilian object. The meaning of term civilian object is totally different. Civilian object can cause starvation in population if they are damaged or destroyed. Under Customary law no such qualification is given. It is a general term which includes all the property of civilian, whether it is infrastructural or means of livelihood.

There is always difficulty in the practical implication of this principle of distinction. Industrial facilities can serve as direct source of military contributions as well as cause environment degradational impact, so it is difficult to distinguish them as civilian object or military target. In the case of industrial facilities, the practical

---

71 Id., at 37.
74 See, Article 13(2) Additional Protocol II (Appendix II).
implication of this principle is difficult. Similarly, when a civilian area or property is occupied by military troops or its resources are exploited by the invading troops, it got changed into military target. This is the biggest difficulty in implementing the protection, as there can be shift in the nature of property. This reflects a need for more specific criteria to determine what is to be prohibited.76

Nature can be targeted for their valuable resources by the adversaries during non-international armed conflict. If the environment offers a definite military advantage, then it also loses the protection under International Humanitarian Law.77 Every human activities and endeavours are always carried out within the boundaries of nature. Armed conflicts always occur within the nature. They cannot be separated from nature. Same nature stretches can serve military as well as civilians at the same point of time.

The natural environment usually serves both military and civilian uses. Strict separation of military and civilian assets simply does not exist in real world.78 In the absence of precise definition also, the present legal regime offers the presumption in favour of civilian object.79 So attacks against the components of nature are prohibited, even if it serves military objective along with civilians.

3.2.2.2 Military Necessity

The military necessity principle allows combatants to lawfully use the force against the civilians as well as their property. The principle of military necessity sometimes allows non-compliance with particular rule of International Humanitarian Law. According to the military necessity principle, the minimum amount of force necessary to achieve military objective can be used.80

The Lieber Code, 1868 contains the classic definition of military necessity principle. It follows as such:

77See, Id., at 90.
78 Id., at 91.
79 Id., at 92.
“Military necessity, as understood by modern civilized nations, consists in the necessity of those measures which are indispensable for securing the ends of war, and which are lawful according to the modern law and usages of war.\textsuperscript{81}

Are found in The 1863 Lieber code’s three articles have Direct reference of military necessity i.e., Articles 14, Article 15 and Article 16. Military necessity admits those anticipated acts that are lawful and approved by the modern code of warfare.\textsuperscript{82} All those harms and sufferings which are inseparable from the desired contests of the war are permitted. Capturing of armed enemies is permitted. Disruption of the property, damage to the transportation and communication system is prohibited. All the essential commodities cannot be withheld.\textsuperscript{83} Property disruption and infliction of the harm and sufferings for the sake of taking revenge is not allowed. The techniques which make the rehabilitation process difficult must be avoided.\textsuperscript{84}

The principle of necessity is conceived in a different way under the two paradigms. Under the conduct of hostilities paradigm (IHL), the military necessity is to taken as a presumption to use force against legitimate targets. The combatants or fighters can be attacked with lawful means. But the civilians are guarded from such attacks till they participate by aiding or assisting in armed dissensions. In contrast, under the law of enforcement paradigm (Human Right Law), it implies that force should be used as last resort and can be undertaken only in order to pursue a legitimate aim, such as self-defence.\textsuperscript{85}

3.2.2.3 Proportionality Principle

The Rule 51 elaborates the Proportionality principle as follows:

“In the conduct of military operations, constant care must be taken to spare the civilian population, civilians and civilian objects. All feasible precautions must be


\textsuperscript{83}See, Article 15, The Liber Code Lieber Code (Appendix VIII).


\textsuperscript{85}See, Rule 55 ICRC rules of Customary IHL (Appendix IX);Gloria Gaggioli, \textit{The Use of Force in Armed Conflicts: Interplay between the Conduct of Hostilities and Law Enforcement Paradigms} 8 (ICRC,2013).
taken to avoid, and in any event to minimise, incidental loss of civilian life, injury to civilians and damage to civilian objects.”

This principle prohibits attacks which can result collateral harm or sufferings to life and limb of civilians as well as to their property. This prohibition is an absolute prohibition. No exception is allowed under International Humanitarian Law legal regime. Even if no alternative or other tactics are present to be avoiding the harm, no plans are executed which can result into collateral damage. Combatants are required to take all the desired precautions to spare the innocent population. Unnecessary suffering to their life and limb of innocent population is prohibited. This rule thus obliges the officials or persons whose plans are manifested during armed conflict, to permit only those means and methods to be used during armed conflict which minimizes the collateral harm to the non-combatants and their property which does not aid or assist the adversaries.

This principle is central core principle for determining the lawfulness of attacks on combatants or military objectives that harm civilian or civilian objects. Proportionality as a concept or principle can be found in different fields of law for e.g. Public International Law; as a part of self-defence as well as the rules in Customary International Humanitarian Law. Attacks which have potential to cause sufferings or loss of civilian life; and damage to the non-military property are banned. All such attacks are not banned. Only those attacks which are excessive to the desired military advantage are banned.

Change in the nature of the modern warfare, has also aggravated the sufferings on the part of non-combatants. The principles embodied in the Geneva Convention are not adequate to prohibit the sufferings inflicted in this modern warfare on innocent civilian population. So in order to fill this gap, additional Protocols were added. Protocol I explicit the indiscriminate attacks. The general principle of the indiscriminate attack is also explained. All the attacks which can result to excessive

---

88 Id., at 101.
90 See, Rule 14, ICRC Customary IHL Rules (Appendix IX).
collateral harm to the innocents and their property is covered under disproportionate attacks, and required to be prohibited.\textsuperscript{91} Protocol I has its application to the inter-state armed conflicts. The similarly prohibition such attack causing unnecessary sufferings is given in Protocol II and amended Protocol II to the Convention on Certain Conventional Weapons. The Principle of the Proportionality is also incorporated as a criminal liability in war crime.\textsuperscript{92} The military advantage to be obtained by an operation must outweigh the harm to civilians and/or damage to civilian objects that is likely to result from this military action.\textsuperscript{93} The type of weaponry to be used is required to be considered for judging the proportionality as criteria of self-defence. The nature of such weapons and the profound risks associated with them will be relevant consideration for state belligerents. The use of nuclear force cannot be justified for carrying out the hostility. But it can be used in self-defence. Only that amount of the force is allowed which is proportionate to the attack.\textsuperscript{94}

Non-combatants and the nature are not absolutely protected by the proportionality principle. It does not impose any limitation on infliction of harm and injuries to the adversaries. This rule only balance the amount of force used i.e. if simple conventional weapons are used in attack, the similar weapon is allowed to be used in the self-defence.\textsuperscript{95} The proportionality principle may be highly relevant when forces are of diverse capabilities. Whenever there are armed hostilities between highly advanced sophisticated army with less advanced one, the advanced army is obliged to carry out attack or self-defence only by deploying the proportionate force or weapon. The advanced force is obliged under this principle to employ only those weapons which are similar to those in the possession of its weaker opponents.\textsuperscript{96} Accordingly no clear attacks can be made against non-nuclear state as it lacks proportionate force.

\textsuperscript{91} See, Article 51(5) (b); Additional Protocol I to the Geneva Convention(Appendix I); Shane Darcy, \textit{Judges, Law and War The Judicial Development of International Humanitarian Law} 151(Cambridge University Press, 2014).

\textsuperscript{92} See, Article 8(2) (b)(iv) Rome Statute of International Criminal Court (Appendix X).


\textsuperscript{94} Malcolm N. Shaw, \textit{International Law} 828 (Cambridge University Press, 2014).


\textsuperscript{96}Protocol Additional to the Geneva Conventions of 102 August 1949 27(ICRC Geneva,1996)
Adherence to the principle of Proportionality is required during the hostility. Proportionality principle is conceived differently under International Humanitarian Law and human rights law. Under International Humanitarian Law legal regime, principle of proportionality protects only surrounding civilians and civilian objects from damage excessive to the anticipated military advantage. Legitimate targeting on those who are directly taking part in hostilities is outside the purview of proportionality principle.97

When the force is used by a State agent against an individual under human rights law, a balance is to be maintained between the risks posed by the individual and the potential harm to this individual as well as to bystanders. If the individual is not posing an imminent threat of death or serious injury, the use of lethal (or potentially lethal) force would not be considered as proportionate (even if the necessity requirement were to be fulfilled). Under certain situations the use of force became inevitable. In such situations, those means of force are used which amounts to slightest harm. Less lethal weapons are directed to be used. Always human rights are taken in to consideration during use of force.98 According to Human Right Law, the use of force causing death and injuries to innocents must be avoided, while the International Humanitarian Law principle of proportionality prohibits only excessive incidental civilian losses.99

3.2.2.4 Principle of Humanity

Another principle in the International Humanitarian Law is the principle of Humanity. It is main basis of International Humanitarian Law. Accordingly all those methods and means which are inhumanely in nature are prohibited. All the inhumane sufferings such as chronic sufferings, delayed or prolonged death are banned. Weapons using poisonous substances or onco-genes are prohibited. These weapons can cause alteration and mutation into genetic setups which leads to severe pain and damage to every level of ecosystem.100

98 Ibid.
99 Id., at 9.
100 Id., at 103.
This principle primarily prohibits needless, superfluous or excessive injuries which are caused by dum-dum bullets or white phosphorous bombs. \(^{101}\) Humanity is the most universally accepted principle. The principle stipulates that all humans have the capacity and ability to show respect and care for all, even to their enemies. The notion of humanity is central to the human condition and separates human from animals. \(^{102}\) This principle primarily prohibits all sufferings, injuries or destruction which is not necessary for achieving the legitimate purpose of the conflict. \(^{103}\) This principle is the extension of the right to life. This principle provides the equality to individuals and protection to civilian populations through humanitarian assistance. \(^{104}\)

The humanity is a philosophical and emotive concept rooted in compassion, empathy and sameness. According to it, we are all part of same human race, and as a result we are all deserving of respect, dignity and rights. This principle of common humanity is elaborated in the Preamble to Charter of United Nation and Universal Declaration of Human Rights. \(^{105}\)

Humanity principle is specifically elaborated and recognised in the Martens Clause. In absence of the specific instrument for the environmental protection, the humanity principle can be extended to environmental protection. International Union for Conservation of Nature has emphasised to cooperate and initiate a public conscience relating to environmental protection. \(^{106}\)

This principle was mainly aimed at reducing the unnecessary inhumane sufferings but it is totally contradicted by the military necessity principle. The military necessity

---


\(^{105}\) Id., at 113.

principle allows the parties to the armed conflict to inflict the harm which is desirable to anticipate the military target.107

3.2.3 IHL Treaty Provisions which Provides indirect Protection to the Environment during Armed Conflict

Along with the treaty provisions directly addressing environmental protection, some of the instruments also extend indirect protection to the nature. These indirect provisions are mainly concerned with the imposition of the limitation on methods and techniques of warfare. Instrument which emphasizes on the protection of civilian populations and their property also indirectly protects the ecological balances. All the structures containing dangerous forces and chemicals are protected from attacks. These bans also check ecological disruptions. Some limitations are also provided, by declaring some area as demilitarized zones or neutral zones. In these zones military activities and the hostilities are prohibited.

3.2.3.1 Protection provided by Limitation on means and methods of warfare

United Nations Charter imposes a bar on the use of force. The imposed bar is not absolute. It attracts an exception. Force can be lawfully inflicted for the self-defence. The force can be used to counter the attacks.108 Unusual sufferings to the innocent should be prohibited. The unnecessary harm to civilian population or the natural environment should be prohibited. By limiting the use of force, the environment disruptions are also limited.109 St Petersbourg Declaration is a most historic instrument which has bearing on the assessment of new methods of military tactics and technologies. This instrument directly adheres to the analysis and scrutinizing of advancement in weaponry with scientific advancements. Modern weaponry is capable to inflict extensive long-lasting sufferings. The technological weaponry advancement must conciliate with the dictates of humanity.110

108 See,Article 51 UN Charter (Appendix XI).
New horizons of International Humanitarian Law also have similar provisions, requiring the review of the weapons. When any technological advancement is made in any weapon, review is required to be done as per additional Protocol I to the Geneva Conventions. Inventions of the new weapons are also scrutinized. The review mechanism is basically adopted to impose a ban on the manufacturing of weapons which causes injuries against the International Humanitarian Law principle. The weapons which are violating the international law are prohibited under it. Restrictions are imposed on the weapons which are manufactured and acquired by state’s arsenal. This Article is supplemented by Article 82. Whenever a decision is to be taken to execute the plans or to scrutinize the deployment of the weapons against adversaries, the legal advisor should be consulted. This consultation is mandatory, in order to conduct the hostilities in accordance to the law of warfare. These provisions do not prohibit the sufferings or injuries to the civilians but establishes a framework for ensuring that hostilities should be conducted in strict compliance with International Humanitarian Law.

According to International Committee of Red Cross’s Commentary on the additional Protocols, Article 36 “implies the obligation to establish internal procedures for the purpose of elucidating the issue of legality and other Contracting Parties can ask to be informed on this point”.113

Global weaponry has numerous weapons which have potential to cause indiscriminate effects on the all elements of ecology. Trials, storage, deployment and even dismantling are highly dangerous to the nature. Customary principles of International Humanitarian Law contain set of rules which restrict the adverse effects on the environment. Indiscriminate weapons are prohibited. Weapons resulting to unnecessary sufferings are prohibited.114

---

112 See, Article 82 of Additional Protocol I Geneva Convention (Appendix I).
114 Jean-Marie Henckaerts,“Study on customary international humanitarian law: A contribution to the understanding and respect for the rule of law in armed conflict” 193 International Review of the Red Cross Volume 87 Number 857March2005.
Along with these general customary rules, numerous treaty instruments are specifically formulated to ban such weapons and technologies, which are against the International Humanitarian Law provisions. The treaties containing provisions to limit the methods and means of warfare are Hague Convention IV, 1907; The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1927); The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their destruction (BWC)(1972); Convention on Certain Conventional Weapons (CCW)(1980); Chemical Weapons Convention (CWC) (1993); The 1963-Partial test- Ban Treaty (PTBT); 1968 Nuclear Non-Proliferation Treaty (NPT); The Comprehensive Nuclear Test Ban Treaty (CTBT); Protocol II to the Certain Convention Weapon; Convention on Cluster Munitions.

3.2.3.1.1 Laws and Customs of war on Land (Hague Convention IV, 1907)

Hague Convention does not have any direct reference of the environment preservation. But indirect protection is provided by some of its provisions.\(^{115}\) It contains a provision which limits the right of adversaries to deploy weapons against each other. Along with the general limitation on the freedom of belligerents to opt the weapons, certain specific materials are also prohibited to be deployed in armed rebellions. Poisonous weapons, which are having potential to cause superfluous sufferings, are banned.\(^{116}\) Arms and ammunitions which have potential to result the unnecessary prolonged sufferings are specifically banned.\(^{117}\) By restricting the choice of weapons, the indiscriminate harms are prevented, which indirectly protests the natural balances.

3.2.3.1.2 The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare (1925)

This Protocol consists of valuable norm which enhances the civilians and environmental protection during armed conflict. Main obligation is infliction of ban on choking, noxious and dangerous gases as well as use of bacteria, viruses, diseases

---

\(^{115}\) See, Article 22; Hague Convention (IV) (Appendix XII).

\(^{116}\) See, Article 23 (a); Hague Convention (IV) (Appendix XII).

\(^{117}\) See, Article 23 (e); *Ibid.*
producing agents against human and their livestock during armed rebellions. This protocol brings together control on chemical as well as biological weapons. Protocol does not provide absolute mechanism for imposing a ban on chemicals and biological weapons. The main demerit of this instrument is that, it fails to provide implementation mechanism. This gap was later on taken into account in the 1972 Biological and Toxic Weapons Convention (BTWC) and the 1993 Chemical Weapons Convention (CWC). The compliance is made voluntary by this protocol as it lacks the verification mechanism. The lack of the verification mechanism has proved it to be less deterrent.

3.2.3.1.3 The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxic Weapons and on their destruction (1972)

Biological and Toxic Weapons Convention (BWC) was first ever historic instrument which calls for multilateral disarmament. This legal instrument has uniqueness as it calls for complete ban on the specific class of weapons i.e. weapons of mass destruction. In order to achieve disarmament ban imposed on industrial development and reserves of chemical and bacteriological weapons.

Development, production and retention of such chemicals and germs are banned. The ban imposed by this instrument is not absolute. It permits an exception. Stockpiling of such chemicals and germs are permitted for preventative, medicinal or other peaceful activities such as education and research. Preamble to this international instrument obligates the destruction of chemicals and germs which can cause mass destruction. For the execution of this obligation Article II is stipulated. Stockpiles of such chemical and microbes are to be destroyed. Permitted reserves can be retained and divested for the research and developmental purposes. Signatories are required to adopt all the necessary safety measures in taking out the destruction processes. These destruction programmes are to be carried on within the stipulated

---

118 See, Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925) (Appendix XIII).
119 ibid.
120 See, Preamble, Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Appendix XIV).
121 See, Article I of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their destruction (BWC) (Appendix XIV).
time of nine months from adoption of this Convention. Destructive processes are to be carried out in the eco-friendly manner.\(^\text{122}\)

Transit and transfer of such material is banned. No economic assistance is to be provided to the state, group of states or international bodies, for the development and acquisition of such material.\(^\text{123}\) Signatories are obliged to frame necessary rules and measures for implementing the obligation provided in the Preambular part of the Convention. These measures specifically include the measures for the execution of ban and prohibition on such agents and toxins.\(^\text{124}\) This Convention also provides for complaint mechanism for the breach of obligations provided by this Convention.\(^\text{125}\) The complaint mechanism is the only action available for the non-observance of the Convention. But it lacks the mechanism for the action on such noncompliance complaints. However, if development, production and stockpiling are forbidden, it implies that use would be contrary to the 1925 Geneva Protocol and to customary and conventional law on unnecessary suffering and constitute a war crime. These shortcomings are removed by the 1993 Convention on the Prohibition of the Development, Production, stockpiling and Use of Chemical Weapons and their Destruction.\(^\text{126}\)

Specific reference of protection to population along with environment is only expressed in Article II of the Convention which obligates the signatories to take all the necessary safety precautions. The Convention prohibits the use of biological agents “in any circumstances” if it does not have justification for using it for peaceful purposes. BWC is usually criticized because it has not given the quantities and parameters required to determine, when the substance being used for peaceful purposes.\(^\text{127}\)

BWC not only prohibits the use of the biological weapons. It imparts an obligation on all signatories to cause destruction of all their reserves of biological weapons. Complete destruction is not called. Signatories can retain biological agents

\(^{122}\) See, Article II, *Ibid*.

\(^{123}\) See, Article III, *Ibid*.

\(^{124}\) See, Article IV, *Ibid*.

\(^{125}\) See, Article VI, *Ibid*.


for peaceful purposes. But if the stockpiling of the biological agents is more than permissible stock level; then it is deemed to indicate non-peaceful use and they are obliged to destroy them. Only the destruction of the reserve which is in excess to the permissible limit is required. The destruction has to be carried on within a stipulated time period. The time period specified for the destruction of biological weapons, in order to make it mandatory not optional. The time limit permitted is nine months from the date of becoming party to this convention. In order to ensure the strict compliance of elimination of unlawful reserves of biological material, the transfer and transit between the states is prohibited. Inventories are the made by signatories. 128

3.2.3.1.5 Convention on Prohibition or Restriction on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW) (1980)

Maximum range of the Conventional weapons is not highly destructive to the mankind. But some of the specific ones have potential to cause wide range adverse effects on the nature and adversaries. So in order to impose check on the indiscriminate sufferings caused by these weapons, the CCW was adopted in 1980. Main emphasis was laid for the prohibition on deployment of such conventional weapons, which has severe disruption effects on the ecological balance. The weapons which are included within the scope of this convention are landmines, booby-traps, blinding lasers and inflammable weapons. 129 It is an umbrella instrument which serves the prohibition to the number of the weapons. This is an international instrument which covers all types of armed aggressions, whether international or non-international ones. The weapons which comprises of small pieces are prohibited. Such weapons once deployed get burst into fragments which enter in to human body and causes prolonged and severe suffering. Such weapons are banned by Protocol I to this convention. These fragments are not detectable by X-ray machines, which make it impossible to remove them through surgeries. 130 Mines and booby traps, whose targeting cannot be confined to a specific area is banned. These landmines and booby traps result unnecessary and surplus sufferings to all the persons and property coming

129 See, Convention on Prohibition or Restriction on the Use of Certain Conventional weapons which may be deemed to be excessively injurious or to have indiscriminate effects, (Appendix XV).
130 See, Protocol II to the Convention on Certain Conventional Weapons; (Appendix XVI).
into its contact. It prohibits use of mines, booby-traps or other devices which is employed as a mechanism or device specifically designed to detonate the munitions. It also prohibits the use of a self-deactivating mine equipped with an anti-handling device that is designed in such a manner that the anti-handling device is capable of functioning after the mine has ceased to be capable of functioning.131

All the weapons which are designed to burn the target are also indiscriminate in nature. The harm resulted from these weapons cannot be confined to a particular target area. These weapons cannot be deployed over the green cover of the earth. These areas can only be attacked if they are military objectives. This protocol specifically cover only one type of weapon i.e., flamethrowers.132 Lasers which can result into permanent blindness in the human and animals are prohibited under Protocol IV. Development and stockpiling of such lasers are not regulated under this Protocol. International trade between the countries of such blinding lasers are prohibited.133 Before 2003, instruments specifically addressing the hazards caused by the remnants of war and other ordinances are not present. Protocol V was added which specifically take this problem in to consideration. It gives guidelines for prohibiting the destruction caused to natural environment by the unexploded mines and ammunitions.134 It established a frame work for the marking and removal of the explosive residuals of conflict.135

3.2.3.1.6 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and Their Destruction (1993)

First World War has resulted into adoption of 1925 Geneva Protocol. This Geneva Protocol puts a ban on chemical weapons. This prohibition on every use of chemical weapons is reaffirmed under Chemical Weapons Convention, 1993 (CWC).

131 See, Article 3 of the Protocol II to the Convention on Certain Conventional Weapons;(Appendix XVI).
133 Ibid.
135 See, Article 3 of Protocol V on Explosive Remnants of war: Clearance, removal or destruction of explosive remnants of war; Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be excessively injurious or to have indiscriminate effects (Appendix XVII).
This Geneva Convention has not repealed the scope of 1925 Geneva Protocol, but it complements and strengthens the legal regime prohibiting the chemical agents.\footnote{See, Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Appendix XIX).}

Signatories are prohibited to manufacture and use of the chemical weapons. The up keeping of reserves of these chemical weapons is also totally banned. Destruction of unlawful reserves and production facilities are required.\footnote{See, Article I, \textit{Ibid.}; Gary D Solis, The Law of Armed Conflict: International Humanitarian Law in War 611(Cambridge University Press, 2010).}

Convention checks all the activities which are specifically prohibited. This legal instrument checks all the activities carried out in the chemical industries, with such banned chemicals. Declarations of stocks are to be made by all the signatories.\footnote{See, Article III, \textit{Ibid.}} Complaint mechanism is also provided under this convention. Serious non compliances to this instrument can be referred to the U.N. General Assembly or Security Council.\footnote{David Jensen &Silja Halle, \textit{Protecting the Environment during Armed Conflict: An Inventory and analysis of International Law} 15( United Nations Environment Programme, 2009)available at http://www.un.org/zh/events/environmentconflictday/pdfs/int_law.pdf(visited on Jan 21,2015).} The compliance to the Convention is not optional for the signatories. Coercive Verification mechanism is provided in the Convention, to ensure the destruction of chemical weapons and their production facilities.\footnote{See, Article IX, Chemical Weapons Convention (1993)(Appendix XIX).} Cases of complaints in response to chemical weapons are to be resolved by on-site inspections.

To ensure the complete implementation of this Convention, an international organisation was formulated, the “Organisation for the Prohibition of Chemical Weapons” (OPCW). It regulates the verification processes which are to be carried out under this instrument. Measures for the complete eradication of these prohibited weapons are framed and used by this organisation. Assistance is also given to the signatory states for the non-proliferation of these chemical agents.\footnote{See, Article VII, Chemical Weapons Convention (1993)(Appendix XIX).}

\subsection*{3.2.3.1.7 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, 1997}

Convention imparts complete ban on anti-personnel mines. Reserves, use, manufacturing as well as dealing in anti-personnel mines are totally banned. These mines are specifically “victim activated”. Whenever these mines come into contact of
a human, they explode and result in injuries. The scope of this convention covers the human activated mines; it does not ban anti-vehicle and anti-tank mines. All the explosive devices which do not explode by coming into contact to human are outside the application of instruments.\textsuperscript{142} Manufacturing, making reserves and transit of these mines are banned.\textsuperscript{143} This ban is not absolute. It attracts an exception. Some permitted quantity of the mines can be restored by the signatories, for providing the training to person in mine detections. Mines can be put into transit required for their clearance and dismantling. Signatories can transfer them for carrying out their destruction. Inventories are to be prepared. These inventories must clearly give details of transit and dismantling of anti-personnel mines.\textsuperscript{144}

All the reserves of such mines, which are not permitted to retain for training or destruction purposes, should be demolished.\textsuperscript{145} Signatory states have to demolish all such mines in mined area, so as to prevent the social and environmental ramifications. All such areas where these mines are implanted must be properly identified and fenced. Fencing should be properly done in order to avoid human and livestock casualties. Demolition of these mines is to be done within the time period of ten years from the adoption of this convention.\textsuperscript{146}

\textbf{3.2.3.1.8 Convention on Cluster Munitions (2008)}

Cluster munitions have been first used in the 1940’s. These weapons are of such a nature that they are delivered in massive numbers over a vast area of operation. The cluster munitions have caused death and injury to thousands of civilians in different countries which experienced war\textsuperscript{147}. Operation of this weapon releases dozens of small “bomblets” over a wide area. These cluster munitions were matter of controversial debate for many years. The deliberations are carried on a question that whether cluster munitions result into breach of International Humanitarian Law and should be banned. Deployment of cluster munitions is included as act against

\textsuperscript{143} See, Article 1, Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, 1997 (Appendix XX).
\textsuperscript{144} See, Article 3, \textit{Ibid}.
\textsuperscript{145} See, Article 4, \textit{Ibid}.
\textsuperscript{146} See, Article 5, Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-personnel Mines and On their Destruction (Appendix XX).
\textsuperscript{147} \\textit{Convention on Cluster Munitions} 5 (ICRC, 2008).
International Humanitarian Law under 2008 Convention. But the execution of ban under 2008 Convention is not adopted and implemented by many signatories. Some of the major powers such as U.S.A. still continue to have reserves of cluster munitions. Continuous use of these cluster munitions is documented.\textsuperscript{148} Deployment, manufacturing, keeping reserves and imports and exports of such munitions is particularly banned. Convention specifically differentiated cluster munitions from mines. Mines are outside the scope of the Convention on Cluster Munitions.\textsuperscript{149}

Article 3 of Convention obligates the signatories to separate all cluster munitions from munitions kept for operational use and mark them for destruction in accordance to their national regulations. The convention has also prescribed the time period for carrying the destruction. The time limit prescribed is eight years. The states which have reasons to believe that their destruction operations cannot be completed within the stipulated time they can make a request for extension of the time period.\textsuperscript{150} The obligation to destroy the cluster munitions is not absolute. This Convention allows only one exception to this obligation. The minimal amount of cluster munitions necessary to train personnel in detecting, clearing and destroying sub- munitions UXO\textsuperscript{151} can be retained by the state parties.\textsuperscript{152} Administrative and legal national measures are to be formulated and executed by the signatories. These measures must ensure complete execution of all the provisions of the Convention.\textsuperscript{153}

3.2.3.1.9 Nuclear weapons

Most devastating weapons on the earth are nuclear weapons. Employment of just a few nuclear weapons, even against purely military targets, would cause widespread collateral damage and large numbers of civilian casualties. The fear of these most destructive weapons of weaponry, the adversaries always remain in the

\textsuperscript{149} See, Article 1, Paragraph 3 Convention on Cluster Munitions (Appendix XXI).
\textsuperscript{150} See, Article 3, Ibid.
\textsuperscript{151} UXO means unexploded ordnance, unexploded bombs, or explosive remnants of war available at https://en.m.wikipedia.org(last visited on Jun11,2018).
\textsuperscript{153} See, Article 9, Convention on Cluster Munitions (Appendix XX).
quest of more and more advanced nuclear power.\textsuperscript{154} International Humanitarian Law does not have absolute prohibition of nuclear energy. However, International Humanitarian Law contains general rule that attempts to regulate the use of nuclear energy during the armed conflict. The rules of Customary International Humanitarian Law regulate the nuclear warfare. Many of these rules are reformulated in the form of treaty law in the first additional Protocol to the Geneva Convention of 1977 (AP I).\textsuperscript{155}

Since the adoption of additional Protocol I and the Nuclear Weapons Advisory Opinion, the practice of nuclear-armed States has confirmed that general International Humanitarian Law principles and rules on the conduct of hostilities are relevant to the use of nuclear weapons. In the year 2013, The United States formulated the strategy that all plans must be in accordance to the fundamental principles of the Law of Armed Conflict. The plans are to be formulated by taking into account the principle of distinction, proportionality and importantly the principle of not inflicting unnecessary sufferings. Accordingly they adhere to the policy of not causing intentionally targeting of civilian population and civilian’s object.\textsuperscript{156} United Kingdom in the year 2004 in the United Kingdom Joint Service Manual emphasized that they will carry out the nuclear operations by adhering to the general rules of international law, including those regulating the use of force and the conduct of hostilities. The study of International Committee of Red Cross on Customary International Humanitarian Law is the most comprehensive overview of customary International Humanitarian Law rules, including rules on the conduct of hostilities. Although the study did not proposes a specific rule on nuclear weapons. But the general customary rules on the conduct of hostilities are applicable to the use of nuclear weapons.\textsuperscript{157}

There are some treaties which are having reference to the use of nuclear weapons i.e., the 1963 Partial Test-Ban Treaty, the 1968 Nuclear Non-Proliferation Treaty and the 1996 Comprehensive Nuclear Test-Ban Treaty. The 1994 Nuclear

\textsuperscript{154} Hans M. Kristensen, Matthew G. Mckinzie, “Nuclear Arsenals: Current developments, trends and capabilities” 593 \textit{International Review of Red Cross} Volume 97 Number 899 Autumn 2015.
\textsuperscript{155} Louis Maresca, Eleanor Mitchell, “The human costs and legal consequences of nuclear weapons under international humanitarian law” 627 \textit{International Review of Red Cross} Volume 97 Number 899 Autumn 2015.
\textsuperscript{156} \textit{Ibid.}
\textsuperscript{157} \textit{Id.}, at 628.
Safety Convention and the 1997 Joint Convention are the first global treaties to commit States to control the risks of nuclear energy for environmental objectives. \(^{158}\)

### 3.2.3.1.9.1 The 1963 Partial Test-Ban Treaty

The Partial Test-Ban Treaty (PTBT) prohibits weapons test explosions in the atmosphere, outer space, at sea, in Antarctica. It also prohibits the test explosions which spread the radioactive debris, beyond the territory of the testing state. The tests must be conducted underground, so as not to cause the escape of pollution in the outer atmosphere. \(^{159}\) The PTBT does not provide for mandatory international verifications; however the obligation of verification is left to the discretion of signatories. Signatories are directed to carry out their own domestic verification to comply with the mandates of this Convention. \(^{160}\)

### 3.2.3.1.9.2 Treaty on the Non-Proliferation of Nuclear Weapons (1968)

This International instrument has laid main emphasis on three main goals i.e., non-proliferation, disarmament and nuclear energy for peaceful purposes and promoting international cooperation. \(^{161}\) Article I, Article II and Article III provide nuclear non-proliferation. Article I adheres to the pillar of non-proliferation. It specifically prohibits transit of nuclear energy. \(^{162}\) Non-nuclear states should not import or receive the nuclear ammunitions. Manufacturing of nuclear weapons is banned. \(^{163}\) Safeguards with respect to manufacturing, processing and use of nuclear facilities should be adopted and adhered. Non-nuclear states must ensure the peaceful use of nuclear energy. Safeguards must be adhered to by non-nuclear States for undergoing verification of compliances. It also obligates each state party not to provide fissionable material or the equipments specifically designed to process or...

---


\(^{159}\) Id., at 468.


\(^{162}\) See, Article I, The Nuclear Non-Proliferation Treaty 1968; (Appendix XXII).

produce the fissionable material.\textsuperscript{164} Article IV of the Treaty affirms the right of the parties to develop nuclear energy for peaceful purposes.\textsuperscript{165}

Under Article VI of the Nuclear Non-Proliferation Treaty, the parties undertake to pursue the negotiations for the cessation of the nuclear arms race and on general and complete disarmament.\textsuperscript{166}

\textbf{3.2.3.1.9.3 The Comprehensive Nuclear Test-Ban Treaty (CTBT)}

Disarmament is considered to be very important for limiting the devastation on Earth. Comprehensive Nuclear Test Ban Treaty is adopted for ensuring disarmament in the field of nuclear energy. This treaty bans the nuclear testing or explosions everywhere. Main emphasis is laid on prevention of the prolonged human sufferings and environmental devastation in the world. Research and development in the field of nuclear weaponry is banned.\textsuperscript{167}

Nuclear weapons testing and their blast are totally banned. Signatories cannot aid or participate in any such testing or bombardment.\textsuperscript{168} Comprehensive Nuclear-Test-Ban-Treaty Organization (CTBTO) is formulated to implement the treaty obligations. This organisation has verification function also. Adherence and conformity of treaty provisions by the signatories is confirmed through verification by the organisation.\textsuperscript{169} Signatories can seek consultation or advice on any problem relating to execution of the treaty provisions. Organisation will provide the requisite assistance to the signatories for the disarmament of nuclear energy.\textsuperscript{170} Each State Party is obliged to take necessary national measures for the implementation of the treaty.\textsuperscript{171}

\textsuperscript{164} See, Article III, \textit{Ibid.}
\textsuperscript{165} See, Article IV, \textit{Ibid.}
\textsuperscript{166} See, Article VI, \textit{Ibid.} Treasa Dunworth, “Pursuing “effective measures” relating to nuclear disarmament: Ways of making a legal obligation a reality” 602 \textit{International Review of Red Cross} Volume 97 Number 899 Autumn 2015.
\textsuperscript{167} Summary of the Comprehensive Nuclear Test- Ban Treaty (CTBT) 1 available at www.nti.org/media/pdfs/atctbt.pdf(visited on Apr24,2017).
\textsuperscript{168} See, Article I, Comprehensive Nuclear-Test-Ban-Treaty (Appendix XXIII).
\textsuperscript{169} See, Article II, \textit{Ibid.}
\textsuperscript{170} \textit{Ibid.}
\textsuperscript{171} See, Article III, Comprehensive Nuclear Test Ban Treaty (Appendix XXIII).
3.2.3.1.9.4 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof (Seabed Treaty-1971)

Treaty checks and bans placement of nuclear ammunitions, weapon of mass destruction or other testing programmes on seafloor and other areas. Parties to this treaty recognised the common interest of mankind on sea bed areas only for carrying peaceful activities. It basically aims to preserve the ocean floors for non-military activities.  

Signatories are obliged not to install or embed the nuclear weapons on the outer limits of the Sea bed. Mechanism of interstate verification is formulated, to ensure the strict compliance of the mandates given under this treaty. If doubt of noncompliance of treaty mandates arises during the verification process, it can be resolved by consultation and further verification of the activities of the State. An International Sea bed Authority has been constituted to monitor all the mineral extraction activities carried out by the States at Seabed.

3.2.3.1.9.5 The Convention on Nuclear Safety (1994)

Convention establishes safety rules which are to be adopted by the signatories at their nuclear energy establishments. Accountability of nuclear safety is imposed on the signatory state carrying out such activities within their jurisdiction. National legislative and regulatory mechanism is to be adhered and strictly executed by the state parties. Each state party is obliged under this Convention to ensure that adequate safety measures (in accordance to the standards and guidelines of the Convention), is to be observed during all activities relating to nuclear establishments.

---

173 Outer Limit of Sea bed is the twelve miles outer limit of the zone referred to in Part II of the Contiguous Zone; See, Article II, Ibid.
174 See, Article I, Ibid.
175 See, Article III, Ibid.
179 See, Article 10, Ibid.
3.2.3.1.9.6 The Treaty on the Prohibition of Nuclear Weapons (2017)

The Treaty on the Prohibition of Nuclear Weapons attempts the total elimination of nuclear weapons. State parties recognised the need of complete elimination of nuclear weapons so that the occurrence of such consequences can be prevented.\textsuperscript{180}

Signatories undertake not to manufacture, test or make reserves of nuclear weapons. Installation and bombardment of nuclear weapons is banned. Import and export of the nuclear energy is strictly prohibited. Signatories undertake not to allow stationing or deployment of nuclear weapons within their territory.\textsuperscript{181} Declaration of implementation of its mandates is required to be submitted to the Secretary-General of United Nations. Declaration must contain exhaustive information of operational nuclear weapon programmes as well as nuclear weapon programmes which are eliminated.\textsuperscript{182} All the signatories which have nuclear weapons and have eliminated the nuclear energy programmes shall cooperate for verification of irreversible elimination of its operational nuclear energy programme.\textsuperscript{183}

3.2.3.1.10 Nuclear-Weapon Free Zones

Nuclear Weapon Free Zones comprises of land stretches, on which bilateral or multilateral agreements are entered between the States. These agreements are for not using nuclear energies on these land stretches. These are the areas where the deployment of nuclear energy and disposal of nuclear active waste is banned. The first nuclear weapon free zone was established in Antarctic region in 1961. After that, other regional and other nuclear free zones are established. It prohibits all military activities, including the explosion of any nuclear weapons. Regional approach to non-proliferation is the Tlatelolco Treaty of 1967 in Latin America.\textsuperscript{184}

\textsuperscript{181} See, Article I, Treaty on the Prohibition of Nuclear Weapons 2017; (Appendix CIV).
\textsuperscript{182} See, Article II, Ibid.
\textsuperscript{183} See, Article IV, Ibid.
3.2.3.1.10.1 The Antarctic Treaty (1961)

The Antarctic Treaty declared the Antarctica as to be used only for non-military activities. No military camps, testing of weapons or military training is allowed in this region. It banned the military activities in Antarctica. This ban is not absolute. It attracts an exception. For carrying out scientific research, the military personnel and equipment can be used in this region. Deployment of nuclear ammunitions and nuclear bombardments in this area is totally banned. It also prohibits disposal of radioactive waste material.

3.2.3.1.10.2 Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco) (1967)

In 1962, a risky situation arose in the American continent when, the Governments of Washington and Moscow confronted each other when it was supposed that Cuba might have had the intention of setting up nuclear devices in its territory. The Treaty of Tlatelolco, and consequently OPANAL emerged as a result of this grave international event, known as the Cuban crisis of 1962. The drafters emphasized on principle of nuclear disarmament and establishment of a world at peace. It declares nuclear weapon free zone in Latin America.

3.2.3.1.10.3 Other Regional Initiatives

Tlatelolco Treaty has triggered the regional approach to the nuclear free zones. With this treaty similar regional zones are formed in Africa, the Balkans, Central Europe, the Mediterranean, the Middle East, the Nordic countries, South Asia, and the South Pacific. The broad objective of formation of these zones is non-deployment of nuclear weapons. Mandate of non-use of nuclear energy is not absolute in these regions. The nuclear energy can be used for peaceful purposes. These regional nuclear free land stretches can be easily achieved in more strong political and economic states.

---

185 See, Article I, The Antarctic Treaty(Appendix XXVI).
186 See, Article V, Ibid.
189 Ibid.
3.2.3.10.3.1 The Treaty of Rarotonga (1985)

The Treaty of Rarotonga established “South Pacific Nuclear Free Zone”. The land stretches which constitutes the “South Pacific Nuclear Free Zone” is elaborated in Annex 1 of this treaty. Signatories will not manufacture, import or acquire control over nuclear devices. They are also directed not to assist other state in nuclear weapons manufacturing or acquisition. Signatory states are obliged to check the placement of nuclear explosive devices. The placement of such nuclear explosive devices is not permitted. The test and trials of nuclear explosive devices is totally banned in this region. Disposal and discharge of radioactive waste at the Sea within this area is particularly prohibited.

3.2.3.10.2.2 Treaty on the Southeast Asia Nuclear Weapon-Free Zone (The Bangkok Treaty) (1995)

Southeast Asia Nuclear Weapon-Free Zone Treaty was signed in Bangkok by ten countries of Southeast Asia: Indonesia, Malaysia, Thailand, Singapore, Brunei, the Philippines, Vietnam, Burma (Myanmar), Laos, and Cambodia. At the time of signing, the first seven of these were already members of the (ASEAN), while Burma and Laos joined the grouping in 1997. Due to its internal problems Cambodia’s membership in ASEAN was postponed in July 1997. This treaty is a major initiative of ASEAN in its search for a new regional order in Southeast Asia. Two features of the Treaty set it apart from other efforts at creating nuclear weapon free zones. It is the first such treaty to include the land territory, territorial sea, the 200-mile exclusive economic zone and continental shelf of each signatory state. Secondly, it creates nuclear free zones. Signatories are required not to use nuclear.

---

190 See, Article 3, The Rarotongo Treaty (Appendix XXVII).
191 See, Article 5, Ibid.
192 See, Article 6, Ibid.
193 See, Article 7, Ibid.
194 Territorial Sea is defined by the 2013 United Nations Convention on the Sea is a belt of Coastal waters extending at most 12 nautical miles from the baseline (usually the mean low-water mark) of a coastal state; Territorial water available at https://en.m.wikipedia.org (last visited in Jan 21, 2017).
195 Exclusive Economic Zone is a sea zone prescribed by the United Nations Convention on the Law of Sea over which a state has special rights regarding the exploitation and use of marine resources. It stretched from the baseline out to 200 nautical miles from its coast; Exclusive economic free zone available at https://en.m.wikipedia.org (last visited in Jun 23, 2017).
196 Continental Shelf is an underwater landmass which extends form a continent, resulting in an area of relative shallow water known as shelf sea; Continental Shelf available at https://en.m.wikipedia.org (last visited on Jan 30, 2017).
force against other state parties. Signatories are also required not to use nuclear power against any other signatory and non-signatory State within the territory of Southeast Asia Nuclear Free Zone.198

3.2.3.10.3.3 The African Nuclear Weapon Free Zone Treaty (The Pelindaba Treaty) (1996)

This treaty creates another regional nuclear free zone i.e. African Nuclear-Weapon free zone199 (ANWFZ). It prohibits the African States from manufacturing, acquiring, stockpiling, testing or possessing nuclear weapons. The continental nuclear weapon-free zone created under the Treaty of Pelindaba is joined by similar nuclear weapons-free zones in the South Pacific, Central Asia, Latin America and the Caribbean, and South-East Asia.200 Each party is bound not to carry research, manufacturing and creating reserves of nuclear explosive devices. Signatories are also bound not to provide aid or assistance to others for acquisition and manufacturing of nuclear weapons.201 Each State party undertakes not to allow placement of such weapon in their territory.202 They are also prohibited to carry out trials and tests of weapons involving nuclear energy.203

3.2.3.10.3.4 Treaty on a Nuclear-Weapon-Free-Zone in Central Asia (2006)

Treaty on a Nuclear-Weapon-Free-Zone in Central Asia establishes a nuclear-weapon-free-zone in Central Asia.204 205 Research on nuclear energy is banned in this nuclear weapon free zone. Formation and accumulation of these nuclear energy

201 See, Article 3; An African Nuclear-Weapon-Free-Zone (Appendix XXIX).
202 See, Article 4; Ibid.
203 See, Article 5; Ibid.
204 The “Central Asian Nuclear-Weapon-Free-zone” includes: the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkemenistan and the Republic of Uzbekistan; See, Treaty on a Nuclear-Weapon-Free-Zone in Central Asia (Appendix XXX).
205 See, Article 1(a); Treaty on a Nuclear-Weapon-Free-Zone in Central Asia (Appendix XXX).
weapons are banned. It also requires the parties not to use this zone for the placement or deployment of such prohibited weapons.\textsuperscript{206}

\subsection*{3.2.3.1.12 Landmines and Cluster bombs}

Landmines are such ammunitions, which are designed to bury beneath the soil surface. They get exploded on getting pressure from above and result into explosion. They are such weapons which are not easily detectable and remain active for decades. They are indiscriminate in nature and have potential to cause enormous destruction of the environment and population.\textsuperscript{207}

International Humanitarian Law prohibits the use of Landmines and Cluster bombs, and imposes an obligation on the States to deactivate the already existing one. The relevant provisions for this are enumerated in Protocol II to Convention on Certain Conventional Weapons (CCW); Protocol V to Convention on Certain Conventional weapons; Ottawa Convention on the Prohibition of the Use, Stockpiling, Production and transfer of Anti-Personnel Mines and on their destruction (1997); Convention on Cluster Munitions (2008).

\subsubsection*{3.2.3.1.12.1 Protocol II to Convention on Certain Conventional Weapons (CCW) i.e. Protocol on Prohibitions or Restrictions on the Use of Mines, Booby Traps and other devices}

This Protocol II to Convention on Certain Conventional Weapons totally restricts the contracting states or conflicting parties to deploy mines, booby traps and other devices on adversaries. If any state deploys such weapons against adversaries, then they are liable for damages caused from it. This protocol also emphasizes on the clearance of such mines or devices. States that have deployed these devices are required to remove and deactivate them.\textsuperscript{208} Non detectable anti-personnel mines are also banned.\textsuperscript{209} Signatories are also under an obligation not to transfer these devices to other. They are not permitted to transfer anti-personnel mines to other State which is

\textsuperscript{206} Ibid.
\textsuperscript{208} See, Article 3; 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 (Appendix XXXI).
\textsuperscript{209} See, Article 4; Ibid.
not party to this Protocol. Inventories of use of mines and booby traps are to be maintained. Inventories shall be made and submitted to adversary and Secretary-General of the United Nations.

3.2.3.1.12.2 The Protocol V to Convention on Certain Conventional weapons i.e. Protocol on Explosive Remnants of War

The Protocol V to Convention addresses the serious post conflict problems which arise from the explosive remnants of war. Contracting party or State actively participating in armed conflict shall be liable for the removal of remnants of arms and ammunitions used during the active armed aggressions. They are obliged to remove such explosive remnants within their territory. Where the signatory is responsible for remnants of war within other’s territory, assistance must be provided. Assistance must be in the form of money and human resources required for the removal of such remains. They are required to provide assistance in marking, removal of such remnants of war.

Records are to be maintained by the signatories or parties of active hostilities of the explosive ordnance used by them. Details of areas where these explosives are abandoned should be properly kept. These records are required to be made, to facilitate the marking and clearing of such areas from the remains of such weapons.

3.2.3.1.12.3 Ottawa Convention on the Prohibition of the Use, Stockpiling, Production and transfer of Anti-Personnel Mines and on their destruction (1997)

Ottawa Convention on the Prohibition of the Use, Stockpiling, Production and transfer of Anti-Personnel Mines and on their destruction is a part of the International response to the widespread suffering caused by anti-personnel mines. Convention is based on customary rules of International humanitarian law. Deployment, manufacturing and up-keeping of such mines are prohibited. Stockpiling is banned.

210 See, Article 8; Ibid.
211 See, Article 9; Ibid.
212 See, Article 3; Protocol V to Convention on Certain Conventional Weapons; Convention on Prohibition or Restriction on the Use of Certain Conventional Weapons which may be deemed to be excessively injurious or to have Indiscriminate effects (Appendix XXXII)
213 See, Article 4; Ibid.
214 See, Article 1, Ottawa Convention on the Prohibition of the Use, Stockpiling, Production and transfer of Anti-Personnel Mines and on their destruction (1997);(Appendix XXXIII).
But some of these mines can be retained. The reserves are allowed for training and for scientific advancements in mine clearance techniques.\textsuperscript{215}

Each signatory party is obliged to demolish all their reserves of anti-personnel mines. Clearing of mined areas are required to be done within the prescribed time. The time period allowed for destruction of the reserves of the mines is ten years. All signatory states have to take adequate operation for demolishing of their reserves within the given time.\textsuperscript{216}

\textbf{3.2.3.1.12.4 Convention on Cluster Munitions 2008}

Cluster munitions are the weapons which break up into sub-munitions. These munitions are particularly used against large area of target. They also result into enormous destruction to civilians and their property. The sub-munitions sometimes fail to explode and pose risk differently to the environment, as well as civilians.\textsuperscript{217} This Convention was adopted with an idea to end the sufferings and causalities from indiscriminate attacks of cluster munitions.\textsuperscript{218} Deployment of the cluster munitions is totally banned. Even manufacturing, acquisition, import and export of these munitions are prohibited. Similarly the sub-munitions (i.e. explosive bomblets) are also prohibited.\textsuperscript{219}

Signatories are called to mark all the reserves of operational munitions for destruction. The destruction programmes are to be carried out within eight years. The programmes are carried on for the destruction as per the mandates for protection of public health and nature.\textsuperscript{220}

\textbf{3.2.3.1.13 Cyber Weapons}

Information as it renders in or passes through cyberspace, may be much more difficult to control, confine, and segregate than physical objects and forces passing over or through the physical features of land, sea, air and space. This characteristic

\textsuperscript{215} See, Appendix XXXIII.
\textsuperscript{216} See, Article 4 and Article 5, \textit{Ibid}.
\textsuperscript{217} John Borrie and Rosy Cave; The humanitarian effects of Cluster munitions: Why should we worry? disarmament forum available at https://www.peacepalacelibrary.nl/files(last visited on Jan 21,2017).
\textsuperscript{219} See, Article 1 Convention on Cluster Munitions (Appendix XXI).
\textsuperscript{220} See, Article 4 (6)(h), \textit{Ibid}.
ensures that information presents its own set of significant challenges related to the observance of the International Humanitarian Law, principles of distinction and proportionality. Those who plan or decide upon an attack must take various precautionary measures to ensure compliance with the principles of distinction and proportionality. These obligations require the planners and decision makers to, “do everything feasible” to verify that the objectives to be attacked are military objectives and not civilian or civilian objects. They are obliged to take all the feasible precautions in the choice of means and methods of attack in order to avoid or minimize incidental damage or injury to the civilian population. They are also refrained from deciding to launch any attack which may be expected to cause incidental loss of civilian life, which would excessive in relation to the concrete and direct military advantage anticipated.221

A commander seeking to comply with IHL obligations faces extremely difficult technique obstacles. It is very difficult to predict the effects of hostile cyber actions. Because information is so inherently difficult to control, confine and segregate in cyberspace. These obstacles exist even if the commander is equipped with the best intelligence available. A variety of factors contribute to these obstacles and challenges. The complex and rapidly changing operating systems can create conditions in which the same set of stimuli may not yield identical or even similar results. The medium of cyberspace can be quickly changed, by defenders or the third parties.222 The knowledge of various faults, holes, vulnerability barriers in a particular system are not easily detectable, until that system actually confronts new, destructive, and unexpected information programs. Difficulties in predicting the consequences of a hostile cyber act may go far beyond understanding its immediate effects on targeted systems and networks. Information itself may be uniquely difficult to confine, particularly in the view of the interconnected systems and networks that carry data in modern society and global economy.223

222 Id., at 106.
223 Id., at 107.
3.2.3.1.14 Control over Arms Transfer

After the Gulf War, there were many calls for the control of international arms transfers.\textsuperscript{224} The corpus of the international humanitarian law contains treaties which prohibit the development, production and transfer of specific weapons. Some treaties specifically compel States to take appropriate measures to control arms transfers and ensure that individuals who engage in illegal activities are criminally prosecuted. Even the production and trade in weapons which are not specifically prohibited can give rise to liability under International Humanitarian Law, if such transfer is knowingly done to conduct the hostilities in violation of IHL. The person can be made liable for the supply or trade of any raw material or chemical which can be used to commit war crime.\textsuperscript{225} If any arms dealer sells the weapons knowingly to a person, which are going to be used to commit war crimes is considered as a complicit in the crimes, regardless of whether he or she shares the client’s motivations.\textsuperscript{226}

The most famous widely used weapons in internal conflicts are mainly small arms and light weapons. The dominance of small arms as a tool of violence is because of the low price, ease to deliver and conceal them and requires very less maintenance, as well as the combatants finds them highly effective.\textsuperscript{227}

In addition to playing a role in the initiation of internal conflicts, small arms have detrimental effects on on-going conflicts and on post-conflict peace-building and reconstruction. The availability of small arms may prolong fighting, increase human and material costs, also reduces the willingness of conflicting parties to find solutions to their disagreements, as well as pose a threat to non-governmental organizations in prevention as well as management and resolution efforts.\textsuperscript{228} The small arms are not only connected with wider problem of violent disputes between States, but it also serves as main tolls of violence for criminals. Mostly the parties of internal conflicts are actively involved in narcotics trafficking because it may be the only way for them to get the finance for the purchases of small arms and other types of military

\begin{itemize}
  \item \textsuperscript{224} Natali J. Goldring, “Transfer of Advanced Technology and Sophisticated Weapons” 59 Disarmament Topical Papers 16 (United Nations, New York 1993).
  \item \textsuperscript{225} ICRC, Business and International Humanitarian Law: An Introduction to the Rights and Obligations of Business Enterprises under International Humanitarian Law 25 (ICRC, 2006).
  \item \textsuperscript{226} \textit{Id.}, at 26
  \item \textsuperscript{227} Bobi Pirseyedi, The Small Arms Problem in Central Asia: Features and Implications 4 (UNIDIR, 2000).
  \item \textsuperscript{228} \textit{Id.}, at 6.
\end{itemize}
hardware. There are three discernible aspects of the multifaceted problem of small arms. These problems are the strong connection between small arms and internal conflict; the linkage between small arms and crime; and finally, the relationship between small arms and hindered economic, social and political development.\(^\text{229}\)

**United Nations Register on Conventional Arms (UNROCA)**

United Nations has established a universal and non-discriminatory instrument i.e., UN Register of Conventional Arms in 1991.\(^\text{230}\) In 1991 the General Assembly created the United Nations Register on Conventional Arms. This is an annual reporting mechanism through which governments indicate the quantity and type of arms they have transferred in the previous year. Member States reporting to it provide important information on the build-up and volume of conventional arsenals which may help a country in maintaining a credible defence and perform effective peace-making tasks.\(^\text{231}\)

The United Nations Register has a progressive structure for reporting on seven categories of military equipment i.e., battle tanks, armoured combat vehicles, large-calibre artillery systems, combat aircrafts, attack helicopters, warships, missiles and missile launchers. Additionally the countries can report on small arms and light weapons. In addition to these seven military equipments, the details of small and light conventional weapons are also notified.\(^\text{232}\) The information provided by states to UNROCA is mainly used in analysis of state’s intentions and capabilities to conduct the armed conflict. These predictions of the intentions and capabilities can help in framing and implementing conflict prevention strategies. Information made to United Nations Register on Conventional Arms is a public information. Therefore parliamentarians and interested citizens can use UNROCA to monitor their government’s compliance with its national and international legal obligations.

---

\(^{229}\) *Id.*, at 7


regarding the prevention of conflict, human rights violations and, to a degree illicit arms transfer.\textsuperscript{233}

\textbf{3.2.3.1.15 The Arms Trade Treaty (2013)}

Arms trade treaty is first instrument which sets a common legal regime, which established mandates to be complied during transit of weapons. The Arms Trade Treaty is the first legally-binding instrument which attempts to establish common standards for the international transfer of conventional weapons. The League of Nations’ Draft Convention on arms trade was the first attempt for the development of common international standards for the trade of conventional arms. The Draft Convention prepared by the League of Nations was never adopted. In the early to mid-1990s several set of guidelines emerged for the arms transfer among groups of countries which helped in the proliferation of conventional arms.\textsuperscript{234} In 1991, the United Nations Register of Conventional Arms was established to promote the predictability and transparency in the conventional arms trade. In 1998, for the first time the European Union accepted their own mandate to regulate arms export.\textsuperscript{235}

Arms Trade Treaty attempts to formulate common international set of mandates relating to trade of conventional arms. These mandates are made to reduce illicit trading in these arms and ammunitions.\textsuperscript{236} The Arms Trade Treaty applies to the activities of the international trade, comprising export, import, transit, transhipment and brokering which are referred to in the treaty as “transfer”. National Control and monitoring system is established by signatory states. This system is formulated to regulate the export of weapons.\textsuperscript{237}

Any conventional weapon as well as missiles, combat aircrafts, helicopters are not to be transferred. If any transfer is done by the signatory state, the sanctions under chapter VII of Charter of United Nations will be imposed. Signatories are called not to make transfer of such weapons. If they transfer weapons despite of knowledge that the weapons are going to be used in genocide, crimes against humanity or breach of

\textsuperscript{235} Ibid.
\textsuperscript{236} See, 2013 Arms Trade Treaty (Appendix XXXIV).
\textsuperscript{237} See, Article 3, Ibid.
Geneva law, then the signatory states will attract liability for all these international crimes.\textsuperscript{238}

If the export is permitted by Article 6 of the treaty, the prior authorisation is to be taken by the national control system to exporting the arms (Article 7(1)).\textsuperscript{239} Arms Trade Treaty gives each State party the discretion to determine the form, structure and legislative underpinning of its national control system. In practice, implementation will require a series of legislative, administrative and practical measures, and an assessment of whether new measures are necessary to comply with the Treaty obligations. States will need to ensure that they have an ATT- complaint licensing process and authorities with the required technical expertise.\textsuperscript{240}

The export is also regulated under Article 8 of the Arms Trade Treaty.\textsuperscript{241} Liability of the transferring state will be established on the basis of risk of commission of international crimes.\textsuperscript{242} Responsibility to “ensure respect for IHL” by combatants is conferred by common Article 1 to the Geneva Conventions and the obligation to prevent international humanitarian law violations. This responsibility imparts a duty on party not to violate the principles of International Humanitarian Law and not help others in violation. Signatories are also duty bound to prevent and restrict the violation of these principles and mandates.\textsuperscript{243}

\textbf{3.2.3.1.16 Additional Protocol I to the Geneva Convention}

The weapons are regulated by the additional Protocol I to the Geneva Convention. The mandate on weapon and their review are provided by Articles 36 and 51. Signatories are only allowed to manufacture and acquire only those new weapons and technologies of warfare which are not banned by mandates of International Law.\textsuperscript{244} This article imposes the obligation on the part of state to reassess new weapons, methods and means of warfare.\textsuperscript{245} All the techniques and arms, ammunition

\textsuperscript{238} See, Article 6 The Arms Trade Treaty (Appendix XXXIV).
\textsuperscript{239} See Article 7 The Arms Trade Treaty (Appendix XXXIV).
\textsuperscript{240} Ibid.
\textsuperscript{241} See, Article 8, Ibid.
\textsuperscript{243} Id., at 9.
\textsuperscript{244} Article 36 Additional Protocol I to the Geneva Convention (Appendix I).
which are not able to differentiate between targets are banned. Combatants are
directed not to deploy such weapons which can cause suffering to innocent civilians
and nature.246

3.2.3.2 Protection of Civilian Objects and Property

Civilian property is protected in the similar manner as the non-combatants are
protected under IHL. Relevant provisions for protection of civilian objects and
property are given under The Hague Regulations (1907), The Geneva Convention IV
(1949), Additional Protocol I to the Geneva Conventions (1977), Additional Protocol
II to the Geneva Conventions (1977).

3.2.3.2.1 The Hague Convention IV (1907)

Hague Convention contains provisions for the protection of civilian objects
and property. Destruction of the enemy’s property is prohibited. Destruction is not
totally banned. It is permitted if required for achieving the ends of war.247 This
prohibition is designed to protect human property, but could indirectly include
environmental interests as far as they overlap with the property of other belligerent.248

Bombardments of undefended towns, villages, dwellings or buildings are
prohibited.249 In practice however, the provision suffers two defects i.e., the narrow
scope of application and the wide construction of military necessity. Regarding the
narrow scope, Article 23(g) only protects the environment as far as the opponent
“owns”. Deteriorations caused to the State’s own environment as well as the spillover
effects to the nature of neutral state are not taken within the ambit. It is not even clear
that whether the term property will cover only the publicly owned property of the
opposed state or only private property. The inclusion of the airspace and the territorial
sea in the definition of the property is also doubtful.250

246 Article 51 Additional Protocol I to the Geneva Convention (Appendix I).
247 See, Article 23 (g); Laws and Customs of War on Land (Hague IV)(Appendix XII).
248 Gary D. Solis, The Law of armed conflict: International Humanitarian Law in War available at
https://www.loc.gov/m-ust00001-0631(last visited on Jan 10, 2017).13(Cambridge University Press,
2010).
249 See, Article 25 Laws and Customs of War on Land (Hague IV) (Appendix XII), “Ownership or
Use? Civilian Property Interests in International Humanitarian Law” 418 Harvard International Law
Journal/Vol49, No2,Summer2008availableatwww.harvardiljorg/wp-
University Press, 2010).
The environment is taken as an extension of the term “property” under the scope of Article 23(g). But this mandate does not prohibit absolute destruction of nature. It allows destruction to the environment if it is imperatively demanded.

3.2.3.2.2 The Geneva Convention IV (1949)

Geneva Convention IV extends the humanitarian protection to the non-combatants in the hostilities zones. Primarily it is concerned with civilian protection. But some of its mandates deal with prevention of harm to the properties. Hospitals and health care facilities are declared protected zones during conflict. Attacks on hospital and health care facilities are specifically banned. Property is protected from plundering and pillaging. But troops can seize that part of property which comes within the purview of military necessity. If property or things are required for serving the military targets of armed rebellions, they can be attacked and seized. Similarly medical care facilities are protected. Some other property such as those belonging of non-combatants, social or cooperative organisations is protected from demolition. Properties found in the possession of the persons at the time of their detention are to be taken into custody by detaining authorities. Inventories are to be prepared of these properties and are to be given to the detained person. Article 97 of Fourth Geneva Convention stipulates that “civilians who are put in internment camps, occupying powers may not take possession of their property without giving them detailed receipts”.

3.2.3.2.3 Additional Protocol I to the 1949 Geneva Convention

Protocol I also gives mandate for the protection of civilian property. The principle of distinction is incorporated in this protocol. Article 48 mandates the conflicting states to choose only those targets which are not against innocent non-combatants. Only military objectives are to be attacked. The protection of civilian property is re-emphasized in Article 52. Common mandate for the protection of civilian property is provided by Article 52. Only those properties are to be specifically attacked which aid the military in their operations. For the operation of this mandate

251 See, Article 18 Geneva Convention IV; (Appendix XXXV)
252 See, Article 33; Ibid.
253 See, Article 55; Ibid.
254 Ibid.
255 See, Article 48, Additional Protocol I to Geneva Convention; (Appendix I).
some of the property does not cease to be civilian property, if it is used by military. These properties include worship places, dwelling houses and educational institutions.\textsuperscript{256} Environment is protected by prohibiting attack on the elements of environment. All the essential elements of nature such as crops, food material, water resources and water supply system is banned from attacks, as they are required for the survival of civilians.\textsuperscript{257} This protection is supplementary to the protection given to civilians from being attacked during armed operations.\textsuperscript{258}

Mandate is also provided by this protocol on military commanding officers. All these officers which prepare the plans or whose plans are going to be manifested must only approve the use of those weapons which are able to be targeted only against military objectives.\textsuperscript{259} Planned attack can be suspended, if there appears an apprehension to resulted collateral harm to innocents or their property.\textsuperscript{260}

3.2.3.2.4 Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II)

Protocol II also contains such directions where the combatants are required to respect and spare civilians property. Similar to the Protocol I, Protocol II also ban targets and attacks against the goods and things which are required for the existence of innocent population.\textsuperscript{261} It goes further to provide indirect protection to the environment by prohibiting attacks on installations and structure containing the reserves of dangerous forces. Such installations such as dams, electricity plants, nuclear power plants are banned from attacks.\textsuperscript{262} Cultural and spiritual sentiments of the population are also protected under Article 16. All the worship places and historic places are protected from targeting.\textsuperscript{263}

\textsuperscript{256}See, Article 52 Additional Protocol I to Geneva Convention; Ibid.
\textsuperscript{257}See, Article 54; Ibid.
\textsuperscript{259}Ibid.
\textsuperscript{260}Ibid.
\textsuperscript{261}See, Article 14, Additional Protocol II to the Geneva Convention; (Appendix II).
\textsuperscript{262}See, Article 15; Ibid.
3.2.3.3 Protection of Cultural Objects

Cultural objects form part of physical environment. IHL provides ban on targeting of cultural objects. By imposing such ban the nature is indirectly protected. The cultural objects are protected under The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict and its two Protocols (1954 &1999) and additional Protocols I and II to the 1949 Geneva Conventions (1977).

3.2.3.3.1 The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict and its two Protocols (1954 and 1999)

Hague Convention has direct reference of destruction caused through armed conflict. Signatories are required to give regard to cultural property. Disruption to these properties should not be resulted from armed aggressions. Combatants are prevented by this mandate to use the property or installations surrounding these cultural properties. This ban on using such property is not absolute. In case of immediate military necessity, these properties can be targeted. Signatories are also obliged not to cause disruption to such property, as well as prevent attacks on it. Enhanced national protection mechanism is required to be adopted by the signatories. Penal mechanism is to be formulated for the serious violations. Safeguards are to be made and adhered for protecting cultural property during war. Inventories are to be exhaustively prepared, measures are to be adopted. Movable cultural property is to be transported at conflict times.

3.2.3.3 .2 Additional Protocols I and II to the Geneva Conventions

Geneva law is also protecting the cultural property. Both Protocol I and Protocol II contains the mandates. Emblems, signals and signs are internally protected. They cannot be used by combatants, actively participating in hostility. Similar to the Hague Convention, the Geneva Convention has also provided security to the cultural institutions. Worship places and all the places of historic importance
are protected from attacks.\textsuperscript{267} Article 16 of Protocol II also provides protection against acts of hostility directed against historic monuments, works of art or place of worship which constitutes the cultural property.\textsuperscript{268}

3.2.3.4 Protection of Industrial Installations containing Dangerous forces

Attacks on structure and reservoirs of dangerous forces leads to social and environmental ramifications. The IHL prohibits such attacks as they can result prolonged and unnecessary sufferings. Protocol I and II provide protection from such ramifications.

3.2.3.4.1 Additional Protocol I and II to the Geneva Conventions

Mandates are reflected in Article 56 of Protocol I and Article 15 of Protocol II. Signatories are required to plan their hostilities in a manner not to target reservoirs of dangerous forces. This prohibition is absolute. Even if such reservoirs aid or support military, this mandate applies. Combatants are not permitted to make such attacks.\textsuperscript{269} Although the main protected interest is clearly the civilian population, the environment is implicitly protected under Article 56(1). It is also remarkable that military objectives do not per se represent a justification. Only if the protected installations themselves are used for military purposes in the sense of Article 56(2), the prohibition shall cease.\textsuperscript{270}

Article 56 (1) has very narrow field of application. The list of protected areas is given in Article 56(1). The list contains the word ‘namely’ which indicates that the list is to be considered exhaustive. Attacks on other installations unleashing “dangerous forces” for instance chemical industry plants, are not covered. But even if an installation falls within the Article’s scope, the unspecified requirement of threat of “severe losses” among civilian lives suggests a rather high threshold of application that is not necessarily met in all circumstances.\textsuperscript{271} Similarly in case of non-

\textsuperscript{267} See, Article 53; \textit{Ibid.}
\textsuperscript{268} See, Article 16, Additional Protocol II to the Geneva Convention ; Protection of Victims of Non-International Armed Conflicts (Appendix II).
\textsuperscript{269} \textit{Id.}, at 39
international armed conflict this mandate is provided under Article 15 of Protocol II.\textsuperscript{272}

\textbf{3.2.3.5 Limitation based on targeted areas}

\textbf{3.2.3.5.1 Territories Under occupation}

State occupying a territory in armed rebellion has right to use its resources, biotic and abiotic elements of nature, buildings or structure. They are managers of the occupying land. Economic value of these properties is to be managed and preserved.\textsuperscript{273} Occupying power is banned to disrupt the property belonging to an individual inhabitant or group of persons. Ban imposed on disruption is not absolute. In case of extreme military necessities they can be attacked.\textsuperscript{274}

\textbf{3.2.3.5.2 Neutral territories}

International Humanitarian Law also imposed limitation on targeting the neutral territories. Any state participating in the active hostility or does not want to involve in it, is known as neutral state. Such neutral state has specific rights and duties. On the one hand, the neutral State has the right to stand apart from and not be adversely affected by the conflict. On the other hand it has a duty of non-participation and impartiality.\textsuperscript{275} The law of neutrality has a customary basis, but it was to a large extent codified in 1907 Hague Conventions V and XIII. Chapter I of Hague Convention V elaborates the rights and duties of the Neutral Powers. According to its article 1 “The territory of the neutral state is inviolable”.\textsuperscript{276} According to Article 1 of Hague Convention XIII, belligerents are bound to respect the neutral powers and any act of hostilities, including capture and the exercise of the right of search committed by belligerent warship in the territorial waters of a neutral power, constitutes the violation of neutrality and is forbidden\textsuperscript{277}

\textsuperscript{272} See, Protocol Additional to the Geneva Convention of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II)(Appendix II).
\textsuperscript{273} See, Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of war on Land (Appendix XII).
\textsuperscript{274} See, Article 53, \textit{Ibid}.
\textsuperscript{276} See,Rights and duties of Neutral Powers and Persons in War on Land (Hague V)(Appendix XXXVII).
\textsuperscript{277} See, \textit{Ibid}. 
3.2.3.5.3 Demilitarized Zones

There are certain identified “neutralized” or “demilitarized” zones. These are the regions where the military activities, military installations and military personnel are forbidden. Usually these areas are established between two or more military alliances. These areas are the battle free areas established to protect the civilian population from attack. They may be cities or towns or even a stretch of land separating two opposing parties. All military personnel, mobile military equipment and weapons must be evacuated. Some of the examples of the demilitarized zones are the 38th parallel between North and South Korea, a 120 mile area between Iraq and Kuwait. Some of these areas are preserved for scientific investigation such as Antarctica. Rule 36 of Customary International Humanitarian Law prohibits the attack against a demilitarized zone.

3.2.3.5.4 Protected Zones

These are the zones basically established for sheltering the non-combatants, in order to save them from the impacts of active hostilities. The protection is provided to the hospitals and medical care centres under rule 35 Customary International Humanitarian Law. These zones are required to preserve the life of wounded, sick and civilians. This mandate is going to apply on both types of wars. Similarly Rule 37 also prohibits an attack against a non-defended locality.

3.2.3.5.5 Protection to the operation of business enterprises

All the businessmen who are not assisting in the military hostilities are treated as civilians and get same protection which is provided to the civilians under International Humanitarian Law. Their place of business comes coming within the

---

281 Ibid.
282 See Article 51(3) Additional Protocol I (Appendix I); Article 13(3) Additional Protocol II(Appendix II); Business and International Humanitarian Law: An Introduction to the Rights and Obligations of Business Enterprises under International Humanitarian Law (ICRC, 2006).
purview of civilian property until not used for aiding or assisting any military troop. Hence, this provides a mandate for protecting the business enterprises.  

Business personnel are protected as civilians. No direct attack can be made against business, which disrupts their existence. International law specifically acknowledges infliction of severe pain and suffering, death and murder as prohibited act.  
Signatories to The Hague and Geneva Law are required to give regard to property of non-combatants during armed hostilities. Seizure of the property is allowed, if that serves military objectives. But if the property is used or demolished during hostility, adequate compensation is to be given. Beyond this, the unlawful appropriation of business assets during armed conflict or occupation will amount to pillage, which is considered as a war crime.

3.2.3.6 Conflict Prevention Strategies of United Nations

In 2011, United Nations laid emphasis to adopt necessary mandate for conflict prevention. The council emphasized that in order to have effective conflict prevention, the active and effective initiatives on the part of national actors, regional and sub-regional non-governmental organisations and various part of United Nations system is required.

United Nations Development Programme rigorously works for conflict prevention. It attempts to develop a platform for deliberations and negotiations between the states. These deliberations must strive to build a channel for the sustainable human development. Training Programmes are provided for adequately train the national authorities in conflict prevention and management.

283 Ibid.
284 Id., at 18.
285 Article 55 of Hague Convention; Id., at 19.
289 Ibid.
3.2.4 Customary International Humanitarian Law

Customary International Humanitarian Law has advantage over the treaty obligations. Treaty’s provisions will operate only to States that have ratified them. Ratification to the customary rules is not required for their applicability.\(^{290}\)

The exhaustive two volume study of customary International Humanitarian Law was carried out by International Committee for Red Cross. In 2005, after extensive research and consultations with experts throughout the world, the ICRC published its report “the study on Customary IHL”.\(^{291}\) Detailed exhaustive analysis is done by ICRC. Rules 42, 43 and 45 of International Humanitarian Law have bearing on environmental protection. Indirect safeguards against destruction to the nature are also elaborated under Rules 70 to 86 of the same law.

Nature cannot be targeted unless it serves as direct military advantage. Attacks which can result collateral damages and injuries to the ecology are banned.\(^{292}\) Rule 43 is an umbrella notion that the natural environment is included within rules and principles regulating the conduct of hostilities. The three sub rules of Rule 43 include the natural environment explicitly in the rules and principles of humanitarian law.\(^{293}\)

Rule 44 is by nature a Hague Law. It prohibits the techniques to carry out hostilities. Such weapons and techniques cannot be opted which cause social and environmental ramifications. Precautions must be taken only to adopt those which results minimum destruction to nature.\(^{294}\) Rule 44 recognises an obligation of “due regard” to protect and preserve the natural environment. Due regard component obligates to incorporate plans for environmental protection into their military

\(^{292}\) Rule 43 ICRC Rules under Customary IHL (Appendix IX); Jean-Marie Henckaerts, Louise Doswald-Beck Customary International humanitarian Law 143 (Cambridge University Press,2009)
\(^{293}\) Elizabeth Wilmshurst, Susan Breau, Perspective on the ICRC Study on Customary International Humanitarian Law 207(Cambridge University Press, 2007).
activities and to minimise the damage caused during warfare. All necessary measures are to be taken to limit collateral destruction and disruptions to the nature.  

Rule 45 is basis of triple standards adopted in different instruments such as ENMOD. Techniques and weapons having potential to cause extensive, long term environmental disruption must be banned.

Deployment of weapons is regulated by Rules 70 to 86 of Customary International Humanitarian Law. All weapons which can cause unnecessary sufferings are banned. Weapons which may not be able to restrict their result on specific targets are prohibited. Poison to be used as a weapon which has potential to cause severe and prolonged sufferings are also banned.

Landmines can cause enormous social and ecological disruptions. These disruptions may have effects, even lasting for many generations. Rule 81 to 83 provides mandates to regulate these weapons. All the States are required to minimise the use of such weapons. If any state is using landmines they are required to notify it properly. State must take appropriate measures to dismantle and remove them after war.

3.2.5 Soft law related to the Corpus of International Humanitarian Law

These are guiding principles, policy or mandates which sets the standards of conduct to be followed by adversaries during war. Soft law related to the environmental protection during armed conflict is contained in UNGA Resolution 1721 A and B (XVI)(December 1961); UNGA Resolution 1911(XVIII)(1963); UNGA Resolution 2832(XXVI)(1971); UNGA Resolution 47/37(9February 1993); UNGA Resolution 49/50(17 February 1995); UNGA Resolution A/RES/50/7(M); UNGA Resolution 56/4(2001); UNGA Resolution63/211(2007); UNGA Resolution 63/37(2013); UNSC Resolution 1856 (2008).
3.2.5.1 UNGA Resolution 1721 A and B (XVI) of December 1961

This resolution is titled as “International Cooperation in the peaceful uses of outer space”. It establishes common sovereignty over the outer space. This sovereignty rights are only for non-military purpose. Every State has right to use outer space for developmental, communication and research purposes. Declarations are to be made by States, concerning use of the outer space. Declaration given by the State must exhibit the minutes of all the launching programmes carried out.

3.2.5.2 UNGA Resolution 1962 (XVIII), 13 December 1963 (Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space)

United Nations General Assembly Resolution XVIII sets principles which are to be adhered during exploration of the outer space. Investigation and observation programmes can only be carried out for deriving benefits to the mankind. The states are obliged to carry exploration activities, by giving due regard to the International Law. The investigation and other research programmes are to be carried out by giving due regard to the interest of other states. Mutual cooperation and assistance is to be provided in carrying out these activities peacefully. During space exploration, if any hazard is caused by any government or civilian, then state is liable for such harm.

3.2.5.3 UNGA Resolution 47/37 (9February, 1993)

United Nations General Assembly Resolution provides environmental safeguards to be adhered by combatants during armed aggression against each other. All the military operations which result to collateral harm to the nature and its resources are not permitted. Plans of hostility should be made in a way that harm which is not justified under international mandates is not to be included.

Accordingly, the resolution urges “States to take all measures to ensure compliance with the existing international law applicable to the protection of environment in

---

300 Ibid.
times of armed conflict”. It appeals to all the states to become parties to the relevant international Conventions. This resolution also urges the States to incorporate the International Law provisions providing environmental protection during armed conflict into their military manuals.303

3.2.5.4 UNGA Resolution 49/50(17 February 1995)

United Nations General Resolution A/Res/49/50 invites all states to disseminate widely the revised guidelines for military manuals and instructions on the protection of the environment in times of armed conflict/received from the International Committee of the Red Cross and to give due consideration to the possibility of incorporating them into their military manuals and other instructions addressed to their military personnel.304

3.2.5.5 UNGA Resolution 56/4(2001)

On 13th November 2001, General Assembly adopted the Resolution, “Observance of the International Day for Preventing the Exploitation of the Environment in War and Armed Conflict”, the General Assembly considered that damage to the environment in times of armed conflict impairs ecosystems and natural resources long beyond the period of conflict, and often extends beyond the limits of national territories and the present generation. The General Assembly recalls Article 2, Paragraph 4 of the Charter of the United Nations, which states that all Member States shall refrain from the threat or use of force against the territorial integrity of any state in their international relations and declares 6th November each year as International day for Preventing the Exploitation of the Environment in War and Armed Conflict305

3.2.5.6 United Nations General Assembly Resolution A/RES/50/7(M) (1995)

Disarmament and arms control policies or regulations must be adopted after giving full regard to ecological disruptions through such operations. All the disarmament control operations which are destructive to the environment should be

banned. Operations should be reformulated in such a manner that the least disruption is caused to environment. This resolution also urges to include environmental protection in treaties and agreements regulating disarmament.306

In addition to the resolution concerning nuclear disarmaments, there are several nuclear-free zones around the world. There are five Nuclear Weapons Free zones Treaties (NWFZs) covering the regions of Latin America and the Caribbean (the 1967 Treaty of Tlateloco), the South Pacific (the 1985 treaty of Rarotonga), South East Asia (the 1996 Treaty of Pelindaba) and Central Asia (the 2006 Treaty of Semi Palatinsk). These zones combined comprise of one hundred fifteen states, accounting of sixty percent of all United Nations Members States, and cover the entire Southern hemisphere.307

3.2.5.7 United Nations General Assembly Resolution 2832(XXVI) (1971)

United Nations General Assembly Resolution emphasized for negotiations between nations to consider the Indian Ocean as a Zone of Peace. All the disruptional rival activities in this area are prohibited. This area should be totally excluded from the use of nuclear energy. All the military installations and constructions should be removed. 308

Similarly the General assembly in its Resolution 1911(XVIII) of 1963 denuclearizes the Latin America.309 This resolution leads to 1967 Tlatelco Treaty. United Nations General Assembly’s Resolution 62/30 of 5 December 2007. The general assembly emphasized on the need of mandates for protecting environment. It also considers that weapons which are based on nuclear energy have considerable harmful effect on human existence and health. 310

Another Resolution 63/54 also has same emphasis as resolution 62/30. It calls for research and investigation to be carried on the ramifications resulted from the weaponry using depleted uranium.\(^{311}\)

These two resolutions are the basis for the formulation of the international instruments for protecting humans and their surrounding from the use of depleted uranium weaponry. This resolution calls for the preservation of marine environment. It calls all the nations to adopt adequate measures for preventing marine pollution. It also obliges the states to preserve marine ecology.\(^{312}\) Expresses its deep concern about the adverse implications of the distinction by the Israeli Air force of the Oil storage tanks in the direct vicinity of the Lebanese El- Jiteh electric power plant for the achievement of sustainable development in Lebanon and considers that oil slick has heavily polluted the shores of Lebanon. \(^{313}\) General assembly requested the government of Israel to assume responsibility for prompt and adequate compensation to the government of Lebanon and other countries directly affected by oil slick such as the Syria Arab Republic whose shores have been partially polluted, for the costs of repairing the environmental damage caused by destruction including restoration of the marine environment.\(^{314}\)

Eastern Mediterranean Oil Restoration Trust Fund was formulated to deal with such restoration of environmental programmes. It receives voluntary funds and these are used to provide assistance and support to the states.\(^{315}\)

\section*{3.2.5.8 United Nations General Assembly Resolution 61/89 of 2006}

This resolution calls for establishment of international peace and security. It acknowledges the arms restrictions, disarmament and non-proliferation as the necessary components of peace and security. It request states to formulate exhaustive

\(^{311}\) Resolution 63/54 Effects of the Use of Armaments and Ammunitions containing Depleted Uranium 1 available at https://gabc-vote.un.org/UNODA/Vote:nsf/91a5e1195dc97a63052565656f005b8adf/b91a572633df/b9bb72633d86d97c8525738005e389/SFILE/A%20RES%2063%2054.pdf(visited on Apr 11, 2017).


\(^{313}\) Id., at 2.

\(^{314}\) Ibid.

mandates for regulating the trade in conventional weapons. Subsequently a Group of Government Experts (GGE) was established to regulate these aspects. ³¹⁶

3.2.5.9 United Nations Security Council Resolution 1856 on the situation concerning the Democratic Republic of the Congo (22nd December 2008)

It imposes a responsibility to prevent the use of Congo in violations of arms embargo. No aid or assistance is to be provided to armed groups in their territory. All those who attack the nation peacekeepers providing humanitarian aid or assistance are to be prosecuted. ³¹⁷ Natural resources should be sustainably restored. A comprehensive policy is to be formulated for it.³¹⁸

3.2.5.10 United Nations General Assembly Resolution 63/37 (2013)

In January 2013, during the 67th session of the General Assembly, member States adopted A/RES/67/37, “Observance of environmental norms in the drafting and implementation of agreements on disarmament and arms control”. The resolution calls for states to consider the environment in “the application of scientific and technological progress within the framework of international security, disarmament and other related spheres”. It also adds a sub-agenda item for the 68th session to discuss environmental protection in drafting and implementing agreements on disarmament and arm control. Member states adopted the resolution unanimously. ³¹⁹

3.2.5.11 San Remo Manual on International Law Applicable to armed Conflicts at Sea (12 June 1994)

San Remo Manual was prepared during the period 1988-94 by a group of legal and naval experts participating in their personnel capacity in a series of round tables deliberations convened by the International Institute of Humanitarian Law. This manual provides a contemporary reformulation of international law applicable to

---

armed conflict at Sea. According to the Section II, Paragraph 3: “the exercise of the right of individual or collective self-defence recognised in Article 51 of the Charter of the United Nations is subject to the conditions and limitations laid down in the Charter, and arising from general international law, including in particular the principles of necessity and proportionality”. Paragraph 4 stipulates: “the principles of necessity and proportionality apply equally to armed conflict at Sea and requires that the conduct of hostilities by a state should not exceed the degree and kind of force, not otherwise prohibited by the law of armed conflict, required to repel an armed attack against it and to restore its security. States are encouraged to agree not to conduct hostile actions in marine areas containing rare and fragile ecosystems, the habitat of depleted, threatened or endangered species or other forms of marine life”.  

Its Paragraph 11 stipulates: “the parties to the conflict are conducted in marine areas containing rare or fragile ecosystems; or the habitat of depleted, threatened or endangered species or other forms of marine life”. Its Part II contains basic rules and target discrimination. Section 1 stipulates the basic rules. Paragraph 38 stipulates: “the basic rule that the belligerents don’t have unlimited right to choose the methods or means of warfare”. Principle of distinction is elaborated in Paragraph 39, according to which “the parties to the conflict shall at all times distinguish between the civilians and other protected persons and combatants and between civilian or exempt objects and military objectives”.  

According to its Paragraph 44: “methods and means of warfare should be employed with due regard for the natural environment taking into account the relevant rules of International Law. Damage to or destruction of the natural environment not justified by military necessity and carried out wantonly is prohibited”.

---

323 Sec1 Para 39, “Parties to the Conflict shall at times distinguish between civilians or other protected persons and combatants and between civilian or exempt object and military objectives”; San Remo Manual on International Law Applicable to Armed Conflicts at Sea, 12 June 1994 available at https://ihl-databases.org.
Military officials must gather all the information which will help them to decide whether or not the military objectives are present in the area of attack. On the basis of the information gathered, the official must take all the feasible efforts to limit the attacks only to the military objectives. All the feasible precautions must be taken in the choice of methods and means of warfare, in order to avoid or minimize collateral casualties or damage. Such attacks must be avoided which may be expected to cause collateral casualties or damage to non-military targets.  

Paragraph 47(h) of the manual exempts from attack the vessels designated or adapted exclusively for responding to pollution incidents in the marine environment.

3.2.6 Judicial Attitude

The case laws specifically addressing the responsibility and liability of States for violations of International Humanitarian Law (IHL) are very few. However certain International Cases provide relevant precedent/ authority for the protection of environment during armed conflict.

3.2.6.1 Judicial intervention by International Court of Justice

In Nuclear Weapons Case, the General Assembly of the United Nations has requested International Court of Justice to give its advisory opinion on the question of the legitimateness of threat or use of Nuclear Weapons. The moot question in this case was, “whether a particular loss of life, through the use of certain weapons in warfare are to be considered an arbitrary deprivation of life contrary to Article 6 of International Covenant on Civil and Political Rights?” The Court emphasized: “the protection of the International Covenant on Civil and Political Rights does not cease in the times of war, except when Article 4 of this Covenant operates. This Article 4


ICJ Advisory opinion on Nuclear weapon (1996).


See,Article 6 of International Covenant on Civil and Political Rights (Appendix XXXIX)
suggests that the right get derogated in the times of national emergencies only”. 330
Court reiterated “the question of use of a certain weapon in warfare can only be
decided by the law applicable in the times of armed conflict and will not be deduced
by the terms of the Covenant itself”. 331

The Court further observed that “while the existing international law relating
to the protection and safeguarding of the environment does not specifically prohibit
the use of nuclear weapons, it indicate important environmental factor that are
properly to be taken into account in context of implementation of the principles and
rules of law applicable to armed conflict”. 332 Court also examined International
Environmental Law and concluded that “existing corpus of International
Environmental Law cannot be used to deprive a State of its inherent right to self-
defence. A further lawful use of force is envisaged in Article 42 333, whereby the
Security Council may make military enforcement measures in conformity with
Chapter VII of the charter. These provisions do not refer to specific weapons. They
apply to any use of force, regardless of the weapon employed. The Charter neither
expressly prohibits, nor permits the use of any specific weapons including nuclear
weapons. The proportionality principle may thus not in itself exclude the use of
nuclear weapons in self-defence in all circumstances”. 334

The Court noted that “nuclear weapons are explosive devices whose energy
results from the fusion or fission of the atom. By its very nature, that process, in
nuclear weapons as they exist today, release not only immense quantities of heat and
energy, but also powerful and prolonged radiation. These characteristics render the
nuclear weapon potentially catastrophic. The destructive power of nuclear weapons
cannot be contained in either space or time. They have the potential to destroy all
civilization and entire ecosystem of the planet. The radiation released by a nuclear
explosion would affect health, agriculture, natural resources and demography over a

330 See, Article 4, International Covenant on Civil and Political Rights (Appendix XXXIX)
331 Legality of the threat or use of Nuclear Weapons Advisory opinion of 8 July 1996, 96 available at
332 Ibid.
1949 98 (ICRC)
334 San Remo Manual on International Law applicable to Armed Conflicts at Sea, 12 June 1994, 97
ICRC available at https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/385ec088b509e76c41256739003e636d/7694fe2016f347e1c125641f
002d49ce (visited on Nov 13, 2016).
very wide area. Further the use of nuclear weapons would be seriously dangerous to future generation ionizing radiation has potential to damage the future environment, food and marine ecosystem and to cause genetic defects and illness in future generations”. 335

The Court further emphasized that “the use of nuclear weapons can be regarded as specifically prohibited on the basis of certain provisions of the Second Hague Declaration of 1899336, the regulations annexed to The Hague Convention IV of 1907 or 1925 Geneva Protocol337. The weapons of mass destruction had to be declared illegal by specific instruments. But the court did not find any specific prohibition of recourse to nuclear weapons in treaties expressly prohibiting the use of certain weapons of mass destruction”. 338

The operative provisions, of the Nuclear Weapons Case consisted of six conclusions in Paragraph 105 of the opinion. The unanimously concluded that: “A threat or use of force by means of nuclear weapons should also be compatible with the requirements of the international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertaking which expressly deal with nuclear weapon”. 339 Then turning to more controversial matters by a still decisive vote of eleven-to-three, the court decided: “There is neither in customary nor in conventional international laws any comprehensive and universal prohibition of the threat or use of nuclear weapons as such…”340

To the question asked by the assembly, that whether there were any circumstances in which the threat or use of nuclear weapons was permitted under

337 1925 Geneva Protocol is the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of warfare, usually called the Geneva Protocol is a treaty prohibiting the use of chemical and biological weapons in International armed conflict; Geneva Protocol available at https://en.m.wikipedia.org(last visited on Jan21,2017).
338 Ibid.
340 Id., at 318.
International law? The court gave most controversial conclusion that: “The threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law; However in the view of the current state of international law, and of the elements of the fact at its disposal, the court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of the state would be at stake”.

The Court was of the opinion that International law did not prohibit the threat or use of nuclear weapons per se; Like all weapons, the threat or use of nuclear weapons must comply with existing jus ad bellum and jus in bello; Based upon court’s understanding of the nature of such weapons, their use would only be lawful in exceptional circumstances.

Indeed the court merely reported that it “cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in extreme circumstances of self-defence”.

On 29 April 1999, the Federal Republic of Yugoslavia filed an application instituting proceedings against Canada “for violation of the obligation not to use force”, followed by a request for the indication of provisional measures. Similar but separate proceedings were filed against nine other states participating in the North Atlantic Treaty Organisation (N.A.T.O.) allied force operation against Yugoslavia.

The moot considerations in this case were: Whether the bombing of oil refineries and chemical plants amounts to causation of considerable environmental damage? ; Whether the Use of depleted uranium weapons amounts to use prohibited weapons or deterioration of health and environmental damage?

On the same day, Yugoslavia submitted a request for the indication of provisional measures, asking the court to order the United States of America to “cease

---

341 Ibid.
342 Id., at 319.
343 Ibid.
344 Case concerning Legality of Use of force (Yugoslavia vs. Canada) Preliminary objections of Canada 1 July 2000
immediately its acts of use of force” and to “refrain from any act of threat or use of force” against the Federal Republic of Yugoslavia (FRY). Court ordered that it lacked jurisdiction to entertain the case and decided to dismiss it.346

International Court of Justice in this case, suggested that the court had the jurisdiction to entertain the cases related to environmental degradation in armed conflicts. With this observance the International Court of Justice became an appropriate forum for litigating such issues. The court had only jurisdiction over the cases concerning state responsibility or those related to international organizations. It had no jurisdiction for entertaining individual criminal prosecution.347

On 23 June 1999, the Democratic Republic of the Congo filed in the registry of the court an application instituting proceedings against the Republic of Uganda in respect of a dispute concerning “acts of armed aggression perpetrated by Uganda on the territory of Congo, in flagrant violation of the United Nations Charter and of the Charter of Organization of African Unity”.348 In this case International Court of Justice found that the Republic of Uganda by engaging in military and paramilitary activities against Democratic Republic of Congo, by occupying its territory and by actively extending military, logistic, economic and financial support to irregular forces had violated the principle of non-use of force in international relations, including the prohibition of aggression; the obligation to settle international disputes exclusively by peaceful means so as to ensure the international peace and security; the principle of non-intervention in matters within the domestic jurisdiction of states”.349

The court also held that the Republic of Uganda, by engaging in the illegal exploitation of Congolese natural resources, by pillaging its assets and wealth, by failing to take punish persons under its jurisdiction or control having engaged in

346 Case Concerning Legality of Use of force (Yugoslavia vs. United States of America) (Provisional Measures) Order of 2 June 1999,122
348 ICJ Decision on Armed activities on the Territory of the Congo (DRC vs. Uganda)(2005);International Court of Justice, Reports of judgements, advisory opinion and orders, Case concerning armed activities on the territory of the Congo 75 (2005)
above mentioned acts, had violated applicable rules of international humanitarian law and respect for the sovereignty of states including over their natural resources”. 350

This case therefore recognized that acts of looting, plundering and exploitation by occupying powers were illegal, that there exists a state duty of vigilance for preventing such acts from occurring and that reparations were due for damage to natural resources in the context of an armed conflict.351

In addition to filing suit before the International Court of Justice, Yugoslavia brought the issue of environmental damage during 1999 Kosovo conflict before the International Criminal tribunal for the former Yugoslavia (ICTY).352 The report of the committee established to study the environmental damage by the N.A.T.O. bombing campaign assessed that this bombing campaign had caused some damage to the environment, for instance, attacks on industrial facilities such as chemical plants and oil installations were reported to cause the release of pollutants, although exact extent of this is presently unknown.353

Court further observed that the basic legal provisions applicable to the protection of the environment in armed conflict were Article 35(3) of additional Protocol I and Article 55. Neither the United States of America nor France had ratified additional Protocol I. Their conditions for application were extremely stringent and their scope and contents imprecise. The adjectives ‘widespread, long-term and severe’ used in additional protocol I had joined by word ‘and’, meaning that it was a triple cumulative standard that need to be fulfilled. Consequently, it would appear extremely difficult to develop a prima facie case upon the basis of these provisions, even assuming they were applicable.354

The Special Committee report maintained that the NATO air campaign did not reach the threshold of additional Protocol I. The committee than analysed the adverse effect of the coalition air campaign in Gulf War regarding notion of “military

350 Ibid.
354 Ibid.
“objectives” and “necessity”. Court stated: “Even when targeting admittedly legitimate military objectives, there is need to avoid excessive long-term damage to the economic infrastructure and natural environment with a consequential adverse effect on the civilian population. Indeed, the military objectives should not be targeted if the attack is likely to cause collateral environmental damage which would be excessive in relation to the direct military advantage which the attack is expected to produce”.

With regard to proportionality principle the committee analysed: “the main problem is not whether or not it exists but what it means and how it is to be applied. It is relatively simple to state that there must be an acceptable relation between the legitimate destructive effect and undesirable collateral effects. Unfortunately, most applications of the principle of proportionality are not quite so clear cut. It is must easier to formulate the principle of proportionality in general terms than to apply in particular set of circumstances because compassion is often between unlike quantities and values. One cannot easily assess the value of innocent human lives as opposed to capturing a particular military objective. On the basis of these considerations, the report concluded that an investigation into collateral environmental damage caused by the NATO bombing campaign should not be initiated”.

3.2.7 Conclusion

Environment always remains into consideration in the framing of various International Treaties; its general principles; its customary rules and the resolutions passed by the United Nations General Assembly or United Nations Security Council. Some Treaty provisions are directly providing the protection to the environment during armed conflict and also even in the peace time such as Article 35(3) and Article 55(1) of Additional Protocol I to the Geneva Convention. These articles apply in International armed conflicts. Similar protection is provided in the times of non-international armed conflict in Article 14, Article 15 and Article 16 of additional Protocol II to the Geneva Convention.


Just like additional Protocol I, the Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques (ENMOD) directly protects the Environment. Article 35(3) of Additional Protocol I aims at protecting the natural environment *per se*, ENMOD prohibits the use of techniques that turn the environment into a weapon. In 1980, a Convention called Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be excessively injurious or to have indiscriminate effects (CCW) and its Protocol III on Prohibition or Restriction on the Use of Incendiary weapons prohibits to employ methods or means of warfare which are intended, or may be expected, to cause “widespread, long-term and severe damage” to the natural environment. In concern to the space warfare, Article IV of treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including Moon and Other Celestial Bodies (Outer Space Treaty, 1967), prohibits the militarization of the Outer Space.

There are numerous Conventions which indirectly provide the protection to the environment during armed conflict. These Conventions do not contain explicit provisions addressing the environment, but they indirectly provide the protection by limiting the means and methods of warfare, by protecting the cultural heritage sites, by regulating the installations containing dangerous forces and also by imposing limitation on certain specifically defined areas such as demilitarized zones etc. As elements of Customary International Humanitarian Law, the four principles named the principle of distinction, military necessity, proportionality and humanity are applicable to all parties to the conflict, despite its nature or whether parties to the conflict have ratified certain document or not.

Soft law related to the environmental protection during armed conflict is contained in UNGA Resolution 1721 A and B (XVI)(December 1961); UNGA Resolution 1911(XVIII)(1963); UNGA Resolution 2832(XXVI)(1971); UNGA Resolution 47/37(February 1993); UNGA Resolution 49/50(17 February 1995); UNGA Resolution A/RES/50/7(M); UNGA Resolution 56/4(2001); UNGA Resolution 63/211(2007); UNGA Resolution 63/37(2013); UNSC Resolution 1856 (2008). These soft laws does not have legally binding force, whose binding force is still weaker than the binding force of other sources of International Humanitarian law.