

PROTECTION OF ENVIRONMENT IN INTERNATIONAL ARMED CONFLICTS

*Ashutosh Acharya**

I. INTRODUCTION

Environment is vulnerable and represents the living space, the quality of life and the very health of human beings, including generations unborn.¹ It is because of this reason that various environmental principles have developed to lay down the general human and humanitarian obligations to protect the environment. The continuing warfare since ages has led to the degradation of environment and armed conflicts can be held responsible for the same, as huge destruction of environment takes place during conflict situations which leads to direct and immediate damage and imparts a long term effect, resulting ultimately into unhealthy environment for the surrounding living beings affecting them directly and the ecology of the earth as a whole. For instance, during the Vietnam war, wherein two serious tactics were employed which included the Napalm bomb and the Agent Orange (Herbicide) where the former could actually catch up anything and burn it in around ten minutes and the latter caused a much severe environmental damage leading to human suffering, resulting into defoliated leaves, barren agricultural lands and death of the living persons as well as the unborn,² the effect of which persists till date.

The International Law Commission (ILC) works on the protection of environment in international armed conflicts and can be taken as an ideal draft. In addition to this the paper will discuss the laws that govern these issues during war³ and also covers issue arising out of pre-war and post war obligations as measures to be looked in, to deter and reduce the harm done to the environment in times of conflict.

We see a culmination of principles present in the International Humanitarian law and the International Environmental law which provide for general obligations to protect the environment. In this regard we shall see instances where disregard towards environment has been witnessed and due to which the researcher feels that the area has to be revisited in order to cover up the inadequacies present and fulfil the same with best possible means.

II. GENERAL PRINCIPLES (CUSTOMARY INTERNATIONAL ENVIRONMENTAL LAW) OF INTERNATIONAL ENVIRONMENTAL LAW APPLICABLE IN ARMED CONFLICT SITUATIONS

A. Application of Principle 21 of Stockholm Declaration, 1972 in Armed Conflict Situation

Principle 21 of Stockholm Declaration enumerates that:

*Assistant Professor, Law Centre-II, Faculty of Law, University of Delhi, India.

¹ “Legality of the Threat or Use of Nuclear Weapons”, Advisory Opinion (1996) International Court of Justice (ICJ), I.C.J. Reports, 226, *available at*: <http://www.refworld.org/docid/4b2913d62.html> (last visited on October 31, 2018)

²<http://vietnamawbb.weebly.com/napalm-agent-orange.html> (last visited on October 31, 2018).

³ International Law Commission, Sixty-fifth session (second part), Provisional summary record of the 3188th meeting held at the Palais des Nations, Geneva, on Tuesday, July 30, 2013, “Protection of Environment in Relation to Armed Conflicts”, A/CN.4/SR.3188, *available at*: http://legal.un.org/ilc/documentation/english/a_cn4_sr3188.pdf (last visited on November 07, 2018).

*“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”*⁴

The principle mentioned above shows similar principle enumerated in the *Trial Smelter*⁵ case of 1938 where the court seems to establish a state responsibility in peace time but when it comes to the principle 21 of the declaration it seeks to extend the protection at all times and raises a general obligation upon the states to do the required. This declaration by way of imposing an obligation upon the states renders to limit the acts of states within their particular boundary whether it is a peace time situation or armed conflict situation.

(i) Laws of Neutrality

This flows from the above principle which is essentially a question of state territorial sovereignty, hence the neutral states' land and territorial sea, and airspace above these two, is inviolable from the effects of war and therefore, International environmental law is similarly based on state sovereignty. Principle 21 of the Stockholm Declaration extends this inviolability with regard to trans-boundary pollution. Principle 21 was recently reaffirmed in the United Nations Convention on the Law of the Sea under Article 194 which says that territorial inviolability can include the prohibition of any damage even environmental pollution damage seems to be settled.⁶ This was witnessed in a case law where collateral damage caused to neutral Switzerland was compensated by the allies.⁷ Seemingly therefore “serious” or “significant” environmental damage caused to neutrals is prohibited, even if collateral. Thus, belligerent parties must take utmost care when targeting objectives near the neutral state's border or which is likely to affect neutral states' interest adversely.⁸

B. Application of the Principle of Rio Declaration, 1992 in armed conflict situation

(i) PRINCIPLE 24

“Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and co-operate in its further development, as necessary.”

The principle may be interpreted as referring to the continued application of IEL during warfare. Since Rio Declaration is a non-binding international document⁹ and the only way for Principle 24 to become binding would be for the principles contained in the Rio Declaration to rise to the level of acceptance and practice of customary international law.

⁴ Protecting the Environment During Armed Conflict: An Inventory and Analysis of International Law, United Nations Environment Programme, November 2009.

⁵ Trail Smelter Case (*United States v. Canada*) (April 16, 1938 and March 11, 1941) III Reports of International Arbitral Awards (R.I.A.A.) 1905.

⁶ Michael Bothe, Carl Bruch, *et.al.*, “Jordan Diamond and David Jensen, ‘International law protecting the environment during armed conflict: gaps and opportunities’ 92 *International Review of the Red Cross* 577 (September 2010).

⁷*Id.* at 569.

⁸*Ibid.*

⁹ Michael N. Schmitt, “Green war: An assessment of the environmental law of international armed conflict” 22(1) *Yale Journal of International Law* (1997).

While much commentary suggests that many Rio principles may be customary international law or are emerging provisions of customary international law such as on the provisions of public participation. Justification to this may be the sustenance of human population in a healthy environment. Destruction of natural environment is a direct threat to human existence, measure to take pre-emptive action is at the core of human requirements. Thus, even though the provision may not be explicitly binding however, it denotes or reiterates nothing less than securing the peremptory norm of International Law.

Further it is pertinent to note that in the Nuclear Weapon's Case¹⁰ the Court was of the view that the issue is not whether the treaties relating to the protection of the environment are or not applicable during an armed conflict, but whether the obligations stemming from these treaties were intended to be obligations of total restraint during military conflict.¹¹ However, these observations are, of course, significant. They provide general and indirect support for the use of a presumption that environmental treaties apply in case of armed conflict, despite the fact that, as indicated in the written submissions relating to the Advisory Opinion proceedings; there was no general agreement on the specific legal question.¹²

(ii) PRINCIPLE 25

“Peace, development and environmental protection are interdependent and indivisible.”

As recognized in the last paragraph of the preamble of the Rio Declaration, the integral and interdependent nature of the Earth needs to be acknowledged. Sustainable development is an integrative concept; the interdependency stressed in Principle 25 refers to the necessity of integration, which forms the backbone of the concept of sustainable development. Further if we focus upon the provision so constructed, we'll see that it starts from the word 'Peace' and then 'Development' and 'Environmental Protection' which shows that unless and until there is no peace development and environmental protection cannot be attained, therefore in a war like situation the principles and the aspirations of the declaration is unachievable.

(iii) PRINCIPLE 26

“States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.”

The general principle of peaceful settlement of disputes is one of the fundamental principles enshrined in the Charter of the United Nations. Regarding dispute settlement in the field of environment,¹³ a number of significant developments have taken place, including the decision of 1993 of the International Court of Justice to create Chamber for Environmental Matters, under Article 26(1) of the Statute of the Court. Indeed, most environmental treaties stipulate that the parties involved should first aim to resolve disputes through negotiation. If this is unsuccessful, many treaties provide for further arrangements which may involve the

¹⁰Supra note 1 at 226-241, para. 29.

¹¹ Nada Al-Duaiji, *Environmental Law Of Armed Conflict* 105 (Transnational Publishers, Inc. Ardsley, New York, 2004).

¹²Id. at 106.

¹³ Agenda 21: Programme of Action for Sustainable Development (June 14, 1992) UN GAOR, 46th Session, Agenda Item 21, UN Doc. A/Conf. 151/26.

assistance of third parties. Some treaties provide that the dispute will be submitted to either arbitration or the International Court of Justice, if negotiations have proven unsuccessful. For example, the Convention on Climate Change provides, in Article 14.1: “*In the event of a dispute between any two or more parties concerning the interpretation or application of the Convention, the Parties concerned shall seek settlement of the dispute through negotiation or any other peaceful means of their own choice*”.¹⁴ *The Convention on Biological Diversity states in Article 27.1 that in the event of a dispute, the parties concerned “shall seek solution by negotiation”*.¹⁵ Paragraph 2 of the same Article creates the possibility for parties, in case of non-agreement by negotiation, to request mediation or seek the good offices of a third party.¹⁶

Although in many of these cases the dispute settlement clauses are optional, there is a growing trend towards compulsory dispute settlement. Part XV of UNCLOS makes it obligatory for State Parties to settle their disputes concerning the interpretation and application of the Convention by peaceful means. Two recent international instruments have applied the dispute settlement provisions of UNCLOS: part VIII of the 1995 Agreement on Fish Stocks, and Article 16 of the 1996 Protocol to the London Dumping Convention. In both cases, the UNCLOS procedure is applied whether or not the Parties to the Agreement or Protocol are also Parties to UNCLOS. In October 1996 the International Tribunal for the Law of the Sea was inaugurated in Hamburg. The Tribunal will be called upon to settle disputes arising out of interpretation or application of UNCLOS.

In order to suffice the above made arguments, it is submitted that the need to protect the environment during armed conflict is set forth in several international instruments.¹⁷ The general need to protect the environment during armed conflict is also articulated in some military manuals, official statements and reported practice.¹⁸ It is further reflected in condemnations of behaviour in armed conflict that caused severe damage to the environment.¹⁹ In their submission to the International Court of Justice in Nuclear Weapons Case²⁰ many states emphasized that international law recognizes the importance of protection of environment during armed conflict, and they did not limit themselves to the requirements of treaties specifically applicable to armed conflict.²¹

¹⁴ UN General Assembly, “United Nations Framework Convention on Climate Change : resolution / adopted by the General Assembly”, (January 20, 1994) A/RES/48/189, available at: <http://www.refworld.org/docid/3b00f2770.html> (last visited on November 01, 2018).

¹⁵ Convention on Biological Diversity, 1992, 1760 UNTS 79; 31 ILM 818, available at: <http://www.cbd.int/convention/text> (last visited on November 01, 2018).

¹⁶ See Part V of the North American Agreement on Environmental Cooperation, 1994.

¹⁷ Example, World Charter for Nature, Principle 5 and Principle 20; Rio Declaration, Principle 24; Guidelines on the Protection of the Environment in Times of Armed Conflict; San Remo Manual, rules 35 and 44.

¹⁸ ICRC, Jean-Marie Henckaerts And Louise Doswald-Beck (eds.), *II Customary International Humanitarian Law* (Cambridge, 2005): Practice, San Remo Manual on International Law Applicable to Armed Conflicts at Sea(1995) 119, e.g., the military manuals of Australia, Republic of Korea and United States, the statement of Yemen and the reported practice of Lebanon.

¹⁹ *Ibid*, e.g., the statements of China, Colombia, Germany, Islamic Republic of Iran, Netherlands and United Kingdom.

²⁰ *Supra* note 1 at 226, para.29.

²¹ *Ibid*, the written statements submitted to the ICJ in the *Nuclear Weapons case* by Egypt, Islamic Republic of Iran, Malaysia, Qatar and Solomon Islands.

III. SPECIFIC INTERNATIONAL HUMANITARIAN LAWS FOR THE PROTECTION OF ENVIRONMENT AT THE TIME OF ARMED CONFLICT

A. Critical evaluation of Additional Protocol I (Article 35 (3) and 55), 1949

Article 35 (3) gives direct and specific protection to the natural environment at the time of International Armed Conflict and states that:

“It is prohibited 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”.

The law is very much in its place to guard the environment at the time of International Armed Conflict, but the potentials of these laws are in question and have to be examined thoroughly and critically, with reference to the same, it is pertinent to note here that the provision mentioned above follows after the prohibition of superfluous injury and restrictions on choosing the means and methods of warfare²² where it can be said that no such means and methods can be applied that are not justified under the known principle of military necessity.

Military necessity here means that no such destruction can be made at time of war that is not justified as per the requirement of military action, further what connotes to military necessity is question of fact and has to be determined on case to case basis and there is no hard and fast formula to derive the same. Moreover it is a discretionary power of the commander in charge to decide whether a particular act at the time of war is justified under the above mentioned principle or not.²³

In this regard one author has said that Military necessity is a “*legal concept used as a part of the legal justification for attacks on legitimate military targets that may have adverse, even terrible, consequences for civilians and the civilian objects*”.²⁴

Thus, this brings us to the derivation that the law mentioned in the additional protocol is subject to a high degree of subjectivity, where things can be argued as there exists no parameter for defining military necessity and only a direct case would impose a violation. Therefore this brings us to draw that there is no direct protection of the environment although we see that a provision is made to deal with the issue in a precise manner but even then it goes into the favour of the party who bears the burden to show the necessity of invoking the damage to the environment and natural environment so mentioned in the Protocol struggles with the secondary treatment it gets within the regime it is protected.

As regards Article 55 we see that the same provides for the protection of environment in a manner conducive to the protection of civilian population where it elucidates that:

²² International Committee of the Red Cross (ICRC), “Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I)”, June 08, 1977, 1125 UNTS 3, Article 35 (1) & (2), available at: <http://www.refworld.org/docid/3ae6b36b4.html> (last accessed on October 30, 2019).

²³ Yves Sandoz, Christophe Swinarski, *et.al.* (eds.), *Commentary on Additional Protocols of June 08, 1977, to the Geneva Conventions of August 12, 1949* International Committee of the Red Cross 393 (Martinus Nijhoff Publishers, Geneva, 1987), Property Of U.S. Army The Judge Advocate General's School Library.

²⁴ Francoise Hampson, “Military Necessity” in Roy Gutman & Rieff (eds.), 251 *Crimes of war “What The Public Should Know”* (1999).

*“(1) Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population. (2) Attacks against the natural environment by way of reprisals are prohibited.”*²⁵

While Article 35 provides the basic rules and broaches the problem from the point of view of methods of warfare, Article 55 concentrates on the survival of the population, so that even though the two provisions overlap to some extent but they do not duplicate each other.²⁶ Further, it is important to note that, in spite of the great environmental protection provided by the Protocol I, it fail to govern all environmental destruction and affects only the destruction intended or reasonably expected to cause widespread, long-term, and severe damage to the environment where it seems that all three elements must be met for the prohibition to apply. Thus in this regard an author has argued that this being a very stringent standard to apply, environmental damage that meets any of the three elements is more than the international community should tolerate, even in wartimes.²⁷

Further, the threshold provided for the protection is too high where from an environmental point of view the legal standpoint is highly unsatisfactory and the conditions attached to the prohibition of Article 35 and 55 of Additional Protocol I are excessively restrictive, making the prohibition too much restrictive.

Moreover, Article 55 tends to protect the environment when it is in the form of civilian objects and to that extent restrictive conditions of Article 35 and 55 of AP I do not apply as the elements of environment subject to the protection is shaky as environmental elements can easily become military objectives. For example, any protected zone can be brought under military action where military advantage is anticipated as in the Vietnam War, Herbicides (Agent Orange) were used to defoliate the leaves as the same constituted definite military advantage. Thus elements of environment are too likely to become military objectives, invalidating their protections as civilian objects.²⁸

Apart from this Article 85(5) of the 1977 Additional Protocol I specifies that grave breaches of that instrument or of the 1949 Conventions constitute war crimes; however, it does not identify breaches of its environmental provisions (Articles 35(3) and 55) as grave breaches- although *“extensive destruction . . . of property, not justified by military necessity and carried out unlawfully and wantonly”* is so classified by Article 147 of Geneva Convention IV and is thus a war crime for parties to the Protocol. In addition, the I.L.C. had included in its first reading of the Draft Code of Crimes against the Peace and Security of Mankind, the *“employing of methods and means of warfare which are intended or may be expected to cause wide-spread, long-term and severe damage to the natural environment”* as an exceptionally serious war crime.²⁹

²⁵*Supra* note 22, art. 55.

²⁶*Supra* note 1.

²⁷ Neil A.F. Popovic, “Humanitarian Law: Protection of Environment, and Human Rights” 8 *Georgetown International Environmental Law Review* 73 (1995).

²⁸*Supra* note 10.

²⁹ A. Roberts, “Environmental Issues in International Armed Conflict: The Experience of the 1991 Gulf War” in R.J. Grunawalt, John E. King, *et.al.* (eds.), 69 *Protection of the Environment during Armed Conflict* 248 (International Law Studies, 1996).

B. ENMOD Convention

The objective of the Convention was to prohibit the use of environmental modification techniques as a means of warfare in which Article (1) states that “*each state party to this convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long lasting or severe effects as the means of destruction, damage or injury to any other State Party.*”

Therefore, here it is seen that while Article 35(3) of Additional Protocol I aims to protect the natural environment per se, ENMOD prohibits the use of techniques that turn the environment into a “weapon.” With regard to the same another noticeable difference with the Article of Additional Protocol I is that ENMOD requires a much lower threshold of damage, with the triple cumulative standard being replaced by an alternative one: “widespread, long lasting or severe.” In addition, it appears that the terms were interpreted differently. For instance, under ENMOD the term “long-lasting” is defined as lasting for a period of months or approximately a season, while under Additional Protocol I “long-term” is interpreted as a matter of decades.³⁰ These qualifications have received severe criticism for their subjectivity and complexity of meanings,³¹ also the language of the convention was drafted intentionally so as not to hinder any vital military interests.³² The above can be evidenced as till now no case has been witnessed under the convention as the threshold seems to be unrealistic to the instance that have happened so far.³³

C. UNGA Resolution³⁴: An Aftermath of Gulf War

In this Resolution 47/37 of 9 February 1993, the UN General Assembly stated in the Preamble that “*destruction of the environment, not justified by military necessity and carried out wantonly is clearly contrary to existing international law.*” With regard to the same resolution then expressed concern that the relevant provisions of international law on the matter “*may not be widely disseminated and applied.*” Further, the resolution “*urges States to take all measures to ensure compliance with the existing international law*” on the issue concerned, including by “*becoming Parties to the relevant international conventions*” and “*incorporating these provisions of international law into their military manuals.*” Thus here it is seen that after the gulf war it was the first resolution that General Assembly took as course of action to lay before themselves the duty to protect the environment in a manner as consistent as possible though the resolution however did not identify specific gaps in the existing international legal framework, and consequently did not recommend developing or strengthening particular measures. The significance of the resolution comes from the states getting concerned about the issue of protection of environment in armed conflicts and in the form of a resolution they try to affirm a law based world society.

³⁰*Id.* at 416.

³¹*Ibid.*, see also Paul Fauteux, “The Gulf War, The ENMOD Convention and the Review Conference” 18 *UNIDIR Newsletter* 7, 8 (1992).

³² Paul Fauteux, *Ibid.*; see also Michael Bothe, “The Additional Protocols” in Ronzitti (ed.), 7 *The Law of Naval Warfare: A Collection of Agreements and Documents with Commentaries* 61 (Martinus Nijhoff Publishers, London, 1988).

³³ Gulf War II, 1991.

³⁴ UN General Assembly resolution 47/37, February 09, 1993, *Protection of the Environment in Times of Armed Conflict*, UN Doc. A/RES/47/37, available at: <http://www.un.org/documents/ga/res/47/a47r037.htm> (last visited on November 01, 2018).

IV. CONCLUSION

After discussing the instances of major environmental destruction, the development of legal regime on the protection of environment in international armed conflicts and the implication of the laws that exist today, an effort is made to try and suggest recommendations.

The existing international legal framework, including International Humanitarian Law and the International Environmental Law contain provisions that either directly or indirectly protect the environment during armed conflict. However, in practice these provisions have not been effectively implemented due to which a huge amount of irreparable injury to the environment has been witnessed by the world community. It appears, the only exception to failure of enforcement has been the 1990-1991 Gulf War, where Iraq took some measures, held liable and billions were compensated for the damages.

Here it is intended to seek for probable solutions that can be achieved where we see that the International scholars are divided on two points i.e. whether the existing legal regime should be improved or should there be a new legal regime. Therefore, the chapter has been divided into two parts where the former shall suggest that how the existing regime can be improved and the later shall argue for a completely new code to deal with the protection of environment as a separate issue altogether and provide a special protection thereby making a distinct legal body that will understand the nature of the concern and the necessity to protect the environment, not from humanitarian perspective rather from the perspective of humanity.

V. FINDINGS AND SUGGESTIONS

A. Improving the Existing Legal Regime

(i) Definition of "Natural Environment"

From the eco-centric point of view the word 'natural' has to be necessarily defined where AP I does not clearly define it but only make a mention. Similarly, ENMOD convention provides a broad range of environmental component which includes "Earth's biota, lithosphere, hydrosphere, atmosphere and outer space".³⁵ Under environmental law the definition of "environment" usually includes elements of fauna, flora, soil, water and climatic factors, material assets of historic or cultural heritage, landscape and amenity value.³⁶ This *per se* doesn't deal with damage to persons and property but only environment. In this regard the probable definition would interpret "environmental damage" widely, to include fauna and flora, climatic and biotic elements, and the physical forces that they occur within.³⁷

³⁵ Article II.

³⁶ Philippe Sands, *Principles of International Environmental Law* (Manchester University Press, Manchester, 1995); see also Karen Hulme, "Armed conflict, wanton ecological devastation and scorched earth policies: how the 1990-91 gulf conflict revealed the inadequacies of the current laws to ensure effective protection and preservation of the natural environment" 2 *Journal of Armed Conflict Law* 45 (1997), available at: <http://heinonline.org/HOL/License> (last visited on November 05, 2018).

³⁷ David Tolbert, "The Environmental Impact of War: A Scientific Analysis and Greenpeace's Reaction" in Glen Plant (ed.), *Environmental Protection and the Law of War* 71 (Belhaven Press, London, 1992). The ICRC also wanted the term understood in its widest sense to cover the biological environment in which a population is living. See *supra* note 23 at 662.

(ii) Article 35 and 55 of the Additional Protocol I to the 1949 Geneva Conventions

Article 35 and 55 of the AP I do not effectively protect the environment during armed conflict due to stringent and imprecise threshold required to show the damage as all the three conditions i.e. “widespread, long-term and severe” has to be proven. Further, this standard is almost impossible to be matched with as the terms are not defined.³⁸ Thus it is suggested that these terms should be defined and made precise, moreover, ENMOD convention can be taken as an example and minimum standard should be maintained taking the same into consideration.³⁹

(iii) International Humanitarian Law provides Indirect Protection

It is seen that restrictions on the means and methods of warfare provide for a direct protection to the human population or the civilians and protects the environment that is necessary for the survival of the human population and does not cover the environmental components that are not necessary for the human population. In addition to that environment lacks the identity of being protected as a primary object it rather gets a secondary treatment. Thus, it is necessary to update the guidelines on the Protection of the environment during armed conflict where task of the ICRC (International Committee for the Red Cross) is imminent.⁴⁰ Under this the aim should be to highlight the importance environment *per se* and advocate the continued application of environmental law during the armed conflict.

(iv) Lack of case law protecting the environment during armed conflict

The lack of case laws show that there is reluctance or difficulty in bringing claims under the existing legal regime before the courts or the tribunals as very less importance is given to such issues and only a very limited number of case laws have been brought before the national, regional and international courts and tribunals. Moreover, in cases where decisions were handed down, procedural rather than merit-based reasoning has predominated.

Thus in this regard it is suggested that the attitude of the legal practitioners, judges and the prosecutors should change where they should take serious note of such violations, moreover, they should be trained on the content of international law that can be used to prosecute environmental violations during armed conflict.⁴¹ It is necessary to develop case laws as it helps bringing clarity to the subject.

(v) Absence of International Mechanism to address infringements

There is no permanent international mechanism to monitor legal infringements and address compensation claims for environmental damage sustained during international armed conflicts. The world community lacks tools to monitor legal violations, determine liability and support compensation processes due to which there is an absence of sanctioning body that can provide deterrence in order to prevent environmental damage and redress the infringements.

³⁸ Karen Hulme, *supra* note 36.

³⁹ *Supra* note 23.

⁴⁰ *Ibid.*

⁴¹ *Ibid.*

In this regard it is pertinent to note that UNEP suggests that there should be implementation of the international laws that protect environment at times of armed conflict into the national level where it asks for capacity building programmes for legal drafters but the researcher disagrees to the extent that such incorporation again brings us back to the same point where nation states show their reluctance in doing so and the faster mode of having a permanent mechanism could be to establish an environment sensitive adjudicating bodies that can keep a watch as well as redress the same under a specialized head.

(vi) Imprecise threshold of general humanitarian principles of distinction, necessity, and proportionality

The threshold provided under these principles is too flexible and can be modulated as per the necessity and can be easily brought under the military necessity as there exist no precision as far as these general humanitarian principles are concerned. Therefore we see a limitation over the practical effectiveness of these principles for preventing damage to the environment. In this regard ICRC suggests taking precautionary measures in the absence of certainty.⁴²

(vii) Continued application of International Environmental Law during armed conflicts

It is seen in practice that during armed conflicts International Humanitarian Law takes over International Environmental Law, but this should not be the case rather core International Environmental Law should continue to apply and should not be overlooked in armed conflict situations. It is also the opinion of the legal experts and the International Law Commission that such implication shall help us remove uncertainty existing in the insufficiently clear International Humanitarian Laws.⁴³

(viii) Protection of Environment during Non-International armed conflicts

It is evident that most of the armed conflicts that take place all over the world are of non-international character and it is pertinent to note that nearly 61% of the warfare is of non-international type.⁴⁴ Therefore, it constitutes a large number of armed conflicts along with a good amount of environmental destruction. Further, it is accepted that these types of armed conflicts are governed by the internal laws but, it is suggested that there should be an international legal system which shall cover this issue as well, because it has been seen in various cases of armed conflicts that outsider nations support inner armed groups with amenities including arms. In such cases we see two problems, first the host nation does not recognise or, are reluctant to recognise such conflicts having international character due to sovereignty issues and secondly, the third party nation does not realize the loss that hounds over the environment in armed conflict situation.

Thus, it is suggested that there should be an international legal regime to cover such non-international type of armed conflicts and a precise threshold should be made to recognize such conflicts as being referred to international community so that appropriate laws can be enforced therewith and check can be made over the damage to the environment.

⁴²*Supra* note 11, part II.

⁴³*Supra* note 3.

⁴⁴*Ibid.*

(ix) ENMOD Convention

The use of environmental modification techniques should be unlawful *per se* during warfare, thus it is argued that the threshold under the ENMOD convention should be repealed as it was originally intended.⁴⁵ By this the instrument would be able to cover larger concerns of the protection regime where even science fictional manipulations can be covered.⁴⁶ This step can be taken under Article VI of the convention that provides for amendment.

(x) Enforcement

Education can be developed as a tool to combat this issue, by educating the military commanders about the importance of protection of environment and by developing sensitiveness towards the protection of environment. Environmental education to military personnel today will garner an environmentally aware and protective military tomorrow.⁴⁷ In this way military commanders can weigh environmental destruction in the balance with military necessity, and avoid environmentally hazardous activities.⁴⁸

B. A New Regime-“5th Geneva Convention”

After the devastating effects of Gulf War in 1991 a meeting at London School of economics was called to discuss upon the viability of the legal regime existing to protect environment and to realize the need for a new convention for the protection of environment in armed conflict situations.⁴⁹

By calling for new legal measures that would include ‘the environment’ at equal legal stand in relation to the human victims of warfare as prescribed in the former Geneva Conventions, the 1991- 5GC was not only pushing towards tighter environmental protection, but potentially re-framing the very place of ‘the environment’ inside the law itself.⁵⁰

In furtherance to this the advocates of 5th Geneva Convention suggested following points to be considered as the core of the concern:

- (1) the prohibition of attacks against specific areas of land and the provision of demilitarization of certain zones on environmental grounds;
- (2) development of a new category of “international crimes against (nature or) the environment”;

⁴⁵ Arthur Westing, *Environmental Warfare: A Technical, Legal and Policy Appraisal*9 (Stockholm International Peace Research Institute, London, 1984); see also Karen Hulme, *supra* note 36.

⁴⁶ Lijnzaad and Tanja, “Protection of the Environment in Times of Armed Conflict: The Iraq - Kuwait War” 40 *National Law Review* 169 (1993).

⁴⁷ Michael Bothe, Carl Bruch, *et.al.*, “International law protecting the environment during armed conflict: gaps and opportunities” 92 *International Review of the Red Cross* 569-577 (September 2010).

⁴⁸*Supra* note 9 at 188.

⁴⁹ The conference was organized by legal scholar Glen Plant (London School of Economics), Dr. Gerd Leipold (Greenpeace International), and Professor Michael Clarke (University of London’s Centre for Defence Studies). The transcripts of the conference were compiled by Glen Plant in: *Environmental Protection and the Law of War: A ‘Fifth Geneva’ Convention on the Protection of the Environment in Time of Armed Conflict*, London Belhaven Press 1992. The 1991 ‘A Fifth Geneva Convention’ conference dealt exclusively with *jus in bello*.

⁵⁰*Ibid*, Paulo Tavares & Adrian Lahoud, *Fifth Geneva Convention: Nature, conflict, and international law in the Anthropocene*.

- (3) provisions to create an exclusive International Criminal Court with mandate on such crimes;
- (4) the establishment of a new organization similar to the Red Cross/Crescent to be named “The Green Cross/Crescent”.

It is subsumed from the above four suggestions that demilitarization of certain zones seems to be a fair proposal to leave certain environmental sensitive areas beyond the scope of damage, further the need to categorise environmental destruction as an international crime and having an International court seems to be fulfilled after the Rome Convention. Moreover, a separate organization would provide specialized work with regard to the protection of environment in armed conflict situations.