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Environmental Casualties: The Result of War

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Every State is bound by the Law of State Responsibility pertinent to Environmental laws during armed conflicts, there are still large-scale violations of these Laws resulting in damage to the Environment irrevocably. The armed conflicts between Nations result in significant damage to human life, property, and the Environment. With advancements in the techniques of warfare, the casualties to the Environment have significantly reached their peak and have become catastrophic. As horrible as war sounds, the damage caused to the environment in any modern war is as significant as the death toll of humans, while the death of humans is something that is often spoken about and protested about in the limelight, the pertinent environmental Damage is often overlooked. There happens to be clear encroachment and infringement of these laws in every armed conflict, but these violations are not reported or discussed in the limelight. The paper deals primarily with the standing of the Environmental laws in the current context and the constant changes to these laws with the needs of the time. The paper further attempts to review the loopholes and dropbacks of the existing legal frameworks, while attempting to give a feasible solution to improvise the workings of the laws.

While there exists a large number of statutes and provisions to regulate and provide for penalties in cases of Environmental Violation caused during warfare, the important questions that arise are: Whether these laws strictly complied with during the war? What is the extent of reparations that can be awarded in cases of violation? Is the Principle of full Reparation possible given the irrevocable damage caused?

Keywords: *environment, armed conflicts, pollution, war activity pollution*.

INTRODUCTION

The Armed conflicts either International or Non-International, intrinsically affect nature directly or indirectly. The impact of these armed conflicts on the Environment can be seen long past these conflicts. The Armed conflicts not only cause human suffering and displacement but also cause widespread environmental degradation and annihilation[1] leading to long-lasting injury to Nature. At times, the damage caused is to such an extent that the question of reversibility of Damage in itself becomes impossible. With the advancements in the technologies, weapons, and techniques of warfare there has been a substantial increase in the number of casualties to the Environment. While International Humanitarian Laws [IHL] and International Environmental Laws [IEL] dictate strict rules on Environmental damage during warfare, there still exists large gaps and ambiguities within these laws. These laws even while explicitly enumerating the rules with pertinence to environmental damage during warfare have proven to be very incompetent. The laws with regards to governing and securing the environment only came around in the late 20th Century during the 1970s, when people started recognizing the importance of protecting the Environment from hazardous weaponry damage and degradation, from wars and armed conflicts. Only with the repercussions of war, the need for more stringent laws were recognized and implemented. While there are laws governing the fields of Environmental damage caused by International Armed Conflicts, the laws on effects on the Environment caused by Non-International armed conflicts remain very insignificant or baseless.

Often the Non-international conflicts are as intense and overshadowing as the International armed conflicts themselves, but the laws about these two branches still have huge dissemblances[2]. The literature with Pertinence to the Non-International Armed conflicts is very limited in number as compared to the literature prevalent for Laws on International Armed Conflicts, which calls for a more detailed enumeration of the laws and to what extent these laws

[1] Michael Bothe et. al., 'International law protecting the environment during armed conflict: gaps and opportunities' (2010) 92(879) International Review of The Red Cross <https://international-review.icrc.org/sites/default/files/irrc-879-bothe-bruch-diamond-jensen.pdf> accessed 01 May 2024
[2] Kenneth Watkin et. al., *Non-International Armed Conflict in the Twenty-First Century* (vol 88, Naval War College Press 2011)

can be made applicable in the context of Non-International Armed Conflicts. The examination and enhancement of these legal frameworks can help preserve the Natural Environment during Armed Conflicts.

Further, due to the lack of precedents and authorities, it has become impossible to hold the violators i.e., the states and the non-state entities, liable when there's an encroachment. The Nuremberg Trial remains the only binding precedent on the laws of Armed conflicts for Environmental damage, particularly while using military Necessity as a defense. Since the Nuremberg Trial, no tribunal or authority has indicted any state or individual for war-related environmental damage.[3] The Environmental dimensions of this trial were neglected until the 1990s.[4] Even after the Nuremberg trials, the reparations concerning Environmental Damage never came to be enhanced or implemented for the post-trial violators of these prevalent Environmental laws.

RESEARCH QUESTIONS

The major research question revolving around which this thesis is built is: Whether the Laws relating to the Protection of Environment during the armed conflicts upheld by the parties to Conflicts? The research statement to be given is that the current laws prevalent in the domain of Environmental protection during armed conflicts are very less insignificant and ambiguous. The paper sets forth to call for more adequate laws and legal principles to ensure more enhancement of the protection of the environment. The paper further checks the adequacy of the current laws and the gaps and loopholes within the existing sets of laws that remain a setback in achieving Environmental protection.

Hypothesis 1 - What are the prevalent Statutes, Treaties, and International laws that govern Environment and Warfare?

Hypothesis 2 - Whether these laws and Regulations strictly compiled during the Warfare by the Parties to the Conflict?

[3] Tara Weinstein, 'Prosecuting Attacks that Destroy the Environment: Environmental Crimes or Humanitarian Atrocities?' (2005) 17(4) Georgetown International Environmental Law Review <https://www.informea.org/en/literature/prosecuting-attacks-destroy-environment-environmental-crimes-or-humanitarian-atrocities> accessed 24 February 2024

[4] Tara Smith, 'The Prohibition of Environmental Damage during the Conduct of Hostilities in Non-International Armed Conflict' (Theses, National University of Ireland Galway 2013)

Hypothesis 3 - What is the extent of Reparations that can be awarded in cases of violation? Is the Principle of Full Reparation possible given the extent of Irrevocable damage that is caused?

Hypothesis 4 - How is the Adequacy of the Current Multilateral Treaties and International Laws concerning the issue at hand?

THE LAWS GOVERNING ENVIRONMENTAL DAMAGE CAUSED AS A RESULT OF ARMED CONFLICTS

The laws governing the Environmental Damage caused in the aftermath of armed conflicts are on one hand very developed when it comes to the domain of International armed conflicts, while on another it seems well less developed when it comes to Non-international Armed Conflicts. The laws commanding the protection of the Environment during Armed conflicts were very less significant before World War II, as the number of legislations in this field was very little and the laws were not that stringent. The laws and legal principles surrounding Environmental laws have been developing only based on the devastating aftereffects of Several wars. Even today we see the need for more stringent regulations and principles to ensure maximum protection of the Environment during armed conflicts. For instance, particularly with regards to the ongoing Ukrainian-Russian war, there's substantive evidence to show the damages caused during the war, while Ukraine occupies only 6% of Europe's territory, we see that 35% of its Biodiversity came to be affected during the war.[5] Every armed conflict being small or large in magnitude causes some form of impact upon the Natural Environment. To understand the kinds of penalties and reparations that can be imposed upon the violators, one needs to understand the prevailing laws in the domain of violation. It is important to trace the development of Environmental laws in concurrence with the laws of Conflicts and to understand the stand of these laws, to determine and impose penalties for the violators.

The laws concerning Environmental protection during armed conflicts until 1997 were very implicit. Only in 1977, due to global uproar with pertinence to the preservation of the

[5] Alexej Ovchinnikov, 'Environmental consequences of Russia's war in Ukraine: January 2024 Review' (*Ukraine War Environmental Consequences Work Group*, 31 January 2024) <https://uwecworkgroup.info/environmental-consequences-of-russias-war-in-ukraine-january-2024-digest/> accessed 24 February 2024

Environment led to the enactment of two basic base legislations[6] for international bodies to take charge and implement more stringent and binding laws, for the preservation of the Environment during armed conflicts.[7] Before World War II, the number of legal Instruments Prohibiting harm to the environment and the scope of these instruments were very limited in nature, all these laws were especially state-centric. Besides, before the implementation of the Geneva Conventions[8] in 1949, wars between two or more state parties were the only kinds of armed conflicts that were considered. Non-international armed conflicts and the non-state actors' participation were not taken into consideration until the implementation in 1949.

We can trace the 'rule of the prohibition against targeting civilian property and infrastructures' from the earliest time, it is deeply rooted within the customary practices, that one shall not use force against civilian objects. But the first attempt at codification of these practices and laws during armed conflicts can be seen in the **Lieber Code**[9] promulgated in the year 1863 under the presidency of Lincoln[10] during the American Civil War, which guided the Union forces. Article 16[11] strictly enumerated that 'Military necessity does not admit cruelty…. It prohibits the use of poison in any way' and 'the wanton destruction'. With the passage of time and the increase in the warfare among states, the protection of the environment came to be implicitly recognized by a few statutes, for instance, the **1868 Petersburg Declaration**[12] restricted the use of Explosive projectiles under 400 Grams Weight which are either explosives or inflammable substances. Further, the Petersburg Declaration's Preambular clauses[13] Reflect upon considerations like: *'the only legitimate object which States should endeavour to accomplish during war is to weaken the military forces of the enemy..'*[14]

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[6] International Committee of the Red Cross, 'Protocols Additional to the Geneva Conventions of 12 August 1949' (*International Committee of the Red Cross*, 25 June 2010) <https://www.icrc.org/en/doc/assets/files/other/icrc_002_0321.pdf> accessed 24 February 2024
[7] Smith (n 4)
[8] 'Summary of the Geneva Conventions of 1949 and Their Additional Protocols' (*American Red Cross*, April 2011) <https://www.redcross.org/content/dam/redcross/atg/PDF_s/International_Services/International_Humanitarian_Law/IHL_SummaryGenevaConv.pdf> accessed 25 February 2024
[9] Instructions For The Government of Armies of The United States in The Field 1863
[10] Peter Gleick, 'Protecting the environment in times of war' (*Down To Earth*, 21 September 2019) <https://www.downtoearth.org.in/blog/climate-change/protecting-the-environment-in-times-of-war-66854#:~> accessed 24 February 2024
[11] Instructions For The Government of Armies of The United States in The Field 1863, art 16
[12] St. Petersburg Declaration 1868
[13] Smith (n 4)
[14] St. Petersburg Declaration 1868

These statutes implicitly guided the acts and behaviours of the members of the armed conflicts to ensure that no substantive damage may be caused to the Environment. While these laws frequently apply to International Armed conflicts, at times the Non-international armed conflicts are also brought within its purview. The **Brussels Protocol of 1874**[15] also restricted the 'destruction and seizure of enemy property not demanded by military necessity.'[16]

With the turn of events at the start of the 20th Century, further, the **Hague Conventions and Customs of War 1899**[17] **and 1907**[18] came to be enacted which enumerated several laws within its framework that provided for indirect protection of the Environment at times of war. Common Article 23(g)[19] of the Hague Conventions states that 'any destruction or seizure of the enemy's property unless it is demanded by military necessity' is strictly prohibited. Article 25[20] further restricted 'the attack and bombardment of towns, villages, dwellings or buildings undefended'. Hence it can be affirmed with the above substantiations that these laws indeed played a pertinent role implicitly in protecting the Environment during the armed conflicts. Two other Legal instruments also contributed to the protection of the Environment before the developments, which happened post World War II: First, **the Use of Submarines and Noxious Gases in Warfare in 1922**[21] and Second, **the 1925 Protocol for the Prohibition of the Use of Asphyxiating Poisonous or Other Gases and Bacterial Methods of Warfare**[22]. These piecemeal legislations and statutes while being very limited in scope still played a very significant role in limiting the damage that was being caused to the Natural Environment during Armed Conflicts.

Post-World War II Developments

While the Environmental damage caused during World War II was disturbing, the needed development of environmental laws post World War II was far more disturbing, as the advancements concerning the Protection of the Environment during armed conflicts remained very insignificant and were not that progressive. While the Nuremberg Trials played a significant

[15] Brussels Declaration 1874
[16] Instructions For The Government of Armies of The United States in The Field 1863, art 16
[17] Hague Convention 1899
[18] Hague Convention 1907
[19] Hague Convention 1907, art 23(g)
[20] Hague Convention 1907, art 25
[21] Washington Treaty on Submarines and Noxious Gases 1922
[22] Geneva Protocol 1925

role post World War II in imposing penalties for War Crimes, there were three very significant prosecutions concerning Environmental damage[23]. First, the charges against General Lothar Rendulic under the Hague Convention for 'Wanton destruction of property' and for implementation of the scorched Earth Policy in the Finnmark Region of Norway, where he ordered the evacuation of civilians and burnt down the factories, buildings, and houses which led to large scale displacement and destitution of people in streets.[24] General Rendulic was never held guilty on this portion of the charge as the court believed that the acts of Rendulic were well within the parameters of the 'Military Necessity'. Second, the prosecution and execution of German General Alfred Jold for implementing the orders of Hilter's 'Scorched Earth Policy' or 'Nero Policy'[25]. Thirdly, exploitation of Natural Resources was also considered during these trials, it was determined by the UN War Crimes Commission that 'Nine out of ten German Civil administrators would be considered war criminals for the destruction and cutting down of Polish Timber.'[26] The environmental dimensions prevalent within these prosecutions were never spoken about or published, which may be the very reason why these trials are not regarded as significant as they should be.

Post the Nuremberg trials and World War II, the world did not grasp the significance of Environmental laws until the Vietnam War atrocities[27]. The Vietnam War is considered a major trigger, which led to a Global uproar for the need for more stringent laws in place, for Environmental law encroachments and violations during Armed Conflicts. *Agent Orange* was the most atrocious act committed by the US air forces during the Vietnam War, where the US forces sprayed 19 million Gallons of defoliants[28] which led to long-lasting damage to the land that can be seen even today. The Operation of Agent Orange is one of the most debatable and controversial topics that led to the recognition of the need for Environmental protection laws. This event led to the Enactment of the two most important Legal instruments concerning

[23] Weinstein (n 3)
[24] Bronwyn Leebaw, 'Scorched Earth: Environmental War Crimes and International Justice' (2014) 12(4) Perspectives on Politics <https://www.jstor.org/stable/43280032> accessed 03 March 2024
[25] Guidelines for the Conduct of the Troops in Russia 1941
[26] Weinstein (n 3)
[27] US Government Accountability Office, 'Agent Orange: Actions Needed to Improve Accuracy and Communication of Information on Testing and Storage Locations' (*GAO*, 15 November 2018) <https://www.gao.gov/assets/Agent_Orange.pdf.> accessed 24 February 2024
[28] Duong Trung Le et. al., 'The Long-Term Health Impact of Agent Orange: Evidence from the Vietnam War' (2021) 155 Institute of Labour Economics <https://docs.iza.org/dp14782.pdf> accessed 24 February 2024

Environmental Protection during armed conflicts: One being the Additional Protocol I[29], where for the first time the diplomatic conference drafters felt the need for environment-specific provisions and the Second the ENMOD[30].

The **Additional Protocol 1: Relating to the Protection of Victims of International Armed Conflicts** came into force in 1977, which enumerated Basic Rules for Means and Methods of Warfare. Article 33(3) of the AP I 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 second Environment Specific provision was enumerated within Article 55 of the Additional Protocol I, Article 55 specifically identifies the protection of the natural environment along with protection afforded to the Civilian Objects. Article 55 reads as follows:

"Article 55 —

1. *Protection of the natural environment 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 prejudice the health or survival of the population.*

2. *Attacks against the natural environment by way of reprisals are prohibited."*

These two provisions within the Additional Protocol I are only applicable during International Armed conflicts. The provisions help in limiting the military exercise and acts while securing the protection of the Environment. While these provisions have been implemented with anticipation of securing maximum protection for civilian objects and victims of war, the provisions still are very counterproductive, the thresholds of imposing liability under these sections are extremely ambiguous. As the thresholds of these provisions confine to only high levels of harm, Meron observed that 'their usefulness in the context of International armed Conflicts is limited.'[31] The

[29] Protocol I 1977
[30] Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques 1976
[31] Richard J. Grunawalt et. al., *Protection of The Environment During Armed Conflicts* (vol 69, Naval War College 1996)

Additional Protocol I further has many drawbacks, the first being that the extent of application limits itself to only International armed conflicts. Second, being that the thresholds of imposing penalties under these sections are kept so high, that it is impossible to hold parties to the conflict liable for any kind of encroachment or violation.

The ENMOD: Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques was passed by the states in 1976. This treaty came to be established to prevent the parties to the conflict from using any form of Environmental modification techniques, for instance, the techniques that came to be used during the Vietnam War. While the thresholds are high for imposing liability under Additional Protocol I, the thresholds within the ENMOD are much lower. Article 1 of the ENMOD 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***.**' So, Environmental damage amounting to any one of the above criteria will be adequate for imposing liability. The major drawback of the ENMOD revolves around the fact of its extent of application, the ENMOD applies explicitly only to International Armed Conflicts.[32]

While keeping the Additional Protocol I and ENMOD as base legislations, several other Environmental provisions came to be established by the international authorities, for instance, the ICRC published **Guidelines on the Protection of the Environment in Armed Conflicts in 1994**[33] and the **Rome Statute**[34] came to be established in 2002, which provided explicit provisions to control environmental Damage during armed conflicts. Most recently in the year 2022, the UN Law Commission in their 73rd session adopted the **Draft Articles on the Protection of Environment about Armed Conflicts, 2022** which was in Constance to Principle 24 of the Rio Declaration,1992[35] (Environment and Development) to enhance the protection of the Environment. Further, there are various customary international laws which are existent to afford Protection to the Environment during armed conflicts, for instance, Chapter

[32] Smith (n 4)
[33] Guidelines on the Protection of the Environment in Armed Conflicts 1994
[34] Rome Statute of the International Criminal Court 1998
[35] Rio Declaration on Environment and Development 1992

14 of the **ICRC Customary International Laws:** Rule 43, Rule 44, and Rule 45[36] specifically identifies the significance of environmental protection during armed conflicts.

Hence, it can be conclusively stated that there's no scarcity of laws and legal provisions concerning the Protection of the environment during armed conflicts. The major problem or question that tends to arise is about the implementation of these laws and the accountability of the violators in the cases of legal encroachments and infringements. Furthermore, the extent of application of these laws is very limited in scope, due to which many offenders fighting in Non-international Armed conflicts can never be brought within the purview of these legal provisions.

VIOLATIONS OF ENVIRONMENTAL LAWS DURING ARMED CONFLICTS

Every State is bound by State responsibility while being in an armed conflict with another state, additionally, the states are also bound by the laws recognized distinctly during warfare, for instance, every State is bound to follow the principles of:

A. Principle of Distinction

B. Principle of Proportionality

C. Precautionary principles

These above three principles apply in International Armed Conflicts, but the ICRC has been asserting that these Customary Principles shall be made applicable in the Context of Non-International armed conflicts, to afford protection and enhance the securement of the Environment.[37]

Principle of Distinction

The customary International law considers the Principle of Distinction the first test to be applied in warfare.[38] According to the State practice and the obligation set forth by the International Customary Rights, The principle of Distinction is one of the most pertinent tenets to be kept in

[36] Jean-Marie Henckaerts and Carolin Alvermann, *Customary International Humanitarian Law* (CUP 2005)
[37] *Ibid*
[38] 'Protecting the environment during armed conflict: an inventory and analysis of international law' (*United Nations Environment Programme,* 30 October 2009) <https://www.unep.org/resources/report/protecting-environment-during-armed-conflict-inventory-and-analysis-international> accessed 24 February 2024

mind while fighting a war. The principle of distinction necessitates the members of the armed conflict to attack only those objects of Military Necessity. Civilians and civilian objects can never be targeted, as they remain protected during armed conflicts by International humanitarian laws and customary international laws. This principle extends to bring within its purview, the Natural environment as well. The International Court of Justice during its advisory opinion in 1996 in the ***Nuclear Weapons Case***[39] held that 'respect for the environment is one of the elements that go to assessing whether an action conforms with the principle of necessity.'

The ***NATO Bombing Review Committee*** set to examine the aftermath of the bombing was also of the view that the environmental impact of the bombing must be 'Considered from the viewpoints of the underlying Principles of Warfare; such as the principle of Necessity and proportionality[40].

The Environment, while being a civilian object has absolute protection and immunity, but the minute the Environment turns into a military object, it loses its protection under International Laws. The classification of the Environment as a Civilian object, Military Object, or dual-purpose object is necessary to understand the threshold of protection that can be afforded to it.

Principle of Proportionality

It is accepted practice and recognition that the incidental damage caused must never be disproportionate to the objective sought to be achieved and methods of warfare used, i.e, to say that during an armed conflict, no member of the armed forces can cause incidental damage to civilian life and civilian property, being disproportionate to the object sought to be achieved. The environment should be one of the most pertinent tenets to be taken into consideration while assessing the principle of proportionality in damages caused.[41]

The ***NATO Bombing Committee*** further, while examining the principle of Proportionality in that case, held that 'military objectives should not be targeted if the attack is likely to cause collateral environmental damage which would be excessive about the direct military advantage

[39] 'Legality of the Threat or Use of Nuclear Weapons - Advisory Opinion' (*ICJ*, 1996) <https://www.icj-cij.org/case/95> accessed 24 February 2024
[40] International Residual Mechanism for Criminal Tribunals, *Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia* (1999)
[41] Smith (n 4)

which the attack would be expected to produce.[42]'In the ***Nuclear weapons case[43],*** the ICJ further states that '...States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives. Respect for the environment is one of the elements that go to assessing whether an action conforms with the principles of necessity and proportionality.'[44] While the environment being a military object, loses all protection under International laws, it still has some implicit protection under the Principle of Proportionality. In most cases, The assessment of the principle of proportionality is only possible after the damage has been caused. Even if the Environment itself is a military objective, the damage caused to such a military object should never be disproportionate to the military advantage obtained.[45]

Precautionary Principles

The precautionary principle is very necessary while fighting any kind of Armed conflict. According to the ICRC's Customary Law Study[46] Precautions during the attacks involve an obligation of duty of care towards the civilians, civilian objects, and population to ensure minimal destruction and damage. The feasible precautionary measures must be taken by the parties inflicting damage and the parties being inflicted upon to avoid all unnecessary damage.[47] In the context of Environmental Protection during armed conflicts, the principle of precaution is very much needed, as precautions taken in advance before any form of attack could be initiated, would ensure minimal damage to the Environmental Damage.[48]

But this principle during armed conflicts has somewhat been problematic, for instance, to protect and ensure minimal damage to the civilians and civilians object, the Environment may at times become an alternative option of target, which thereby defeats the very purpose of the principle in the environmental context. For example, in 1991 the Persian Gulf, the pilots were advised to attack bridges along a longitudinal axis. This measure was taken so that bombs that missed their

[42] International Residual Mechanism for Criminal Tribunals (n 40)
[43] St. Petersburg Declaration 1868
[44] International Residual Mechanism for Criminal Tribunals (n 40)
[45] Michael Bothe et. al., *New Rules for Victims of Armed Conflicts: Commentary on the Two 1977 Protocols Additional to the Geneva Conventions of 1949* (CUP 1983)
[46] Henckaerts (n 36)
[47] *Ibid*
[48] Richard Desgagné, *The Prevention of Environmental Damage in Time of Armed Conflict: Proportionality and Precautionary Measures* (CUP 2009)

targets would hopefully fall in the river and not on civilian housing.'[49] Another exceptional example would be in the context of the international armed conflict that happened in Kosovo, 'where a NATO pilot who was in charge of carrying out an aerial operation against an enemy radar noticed that the targeted site was near a church. To avoid damaging the church, the pilot decided to remove his weapon from the target, letting it harmlessly explode in the woods instead.'[50]

The above two examples bring out the shortcomings of the principle of precaution, as it can be conceived that, while trying to avoid civilian casualties the environment gets damaged collaterally.

QUESTIONS OF REPARATIONS IN CASES OF ENCROACHMENTS

No individual or state in the world has been held liable for damages and destruction caused to the environment during armed conflicts until today. The most difficult part in ascertaining liability on the states and individuals is the need for evidential proof showcasing detrimental damage to the Environment. The assessment of the damage sustained by the Environment during wartime requires expert opinion and also it is an arduous process[51]. In most cases, environmental damage cannot be ascertained immediately after the war, as the effects of the war might be seen only in the long run. For instance, we observe that the majority of the cases that come before the UNCC get turned down due to the lack of evidence to uphold these claims.[52] [53] So holding a State or Individual liable has practically become almost impossible.

The ILC Draft Article on the Responsibility of States for Internationally Wrongful Acts(ARSIWA) enumerates the concept of Reparations within Article 31. Article 31 of the ARSIWA States '**Reparation**: 1. The responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act. 2. Injury includes any damage, whether material or moral, caused by the internationally wrongful act of a State.' Further Article 34 states

[49] Jean-Francois Que´guiner, 'Precautions Under the Law Governing the Conduct of Hostilities' (2006) 88(864) International Review of The Red Cross <https://international-review.icrc.org/sites/default/files/irrc_864_5_0.pdf> accessed 24 February 2024
[50] *Ibid*
[51] Hanqin Xue, *Transboundary Damage in International Law* (CUP 2003) 179–182
[52] Tafsir Malick Ndiaye et. al., *Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah* (Martinus Nijhoff Publishers 2007)

that, the responsible state is liable to make Full-Reparation in the forms of Restitution, Compensation, and/or Satisfaction. While ARSIWA recognizes and implements the concept of Reparation, the concept of Full-Reparation is impossible. Restitution of the damage is unattainable, as the damage in certain cases is to that extent, where reversibility of the Environmental Damage is impossible. The extent of the irreversibility of the damage was observed by the ICJ in the case of Gabčíkovo-Nagymaros Project, where the ICJ believed that 'the damage is often irreversible.'

The question pertinent to the accountability of the state responsible for causing these environmental damages can not be ascertained in other cases, due to high thresholds of the penalty within the prevalent laws, for instance, Additional Protocol 1 and ENMOD lay down laws for only high threshold damages, so what amounts to High-level Damage and low-Intensity damage always remain a question of fact to be ascertained. Along with the problem of higher thresholds of holding individuals and States responsible, it is also seen that the extent of application of these prevalent laws is very limited in scope, most of the laws only apply to the domains of International Armed Conflicts. The Non-state actors and entities engaged in Non-international Armed Conflicts are kept completely outside the purview of these laws, due to which when a violation is committed during warfare, there's no law to hold these individuals accountable.

It is also pertinent that in all cases while deciding the extent of reparations, the first cause of action should be in ascertaining the damage that has been caused by the States or Individuals, post which it is important to establish a nexus in the unlawful act and the actual damage that has been caused to the environment, to determine the extent of Reparation that can be awarded in these cases.[54]

SUITABILITY OF THE PREVAILING LAWS

The Adequacy of the current laws is very limited in scope. While well-structured and binding laws do exist in protecting and securing the environment during the Armed, there's still a lot of ambiguity prevalent among these laws. Further, while there are coherent laws prevalent to

[54] Lingjie Kong and Yuqing Zhao, 'Remedying the environmental impacts of war: Challenges and perspectives for full reparation' (2023) International Review of The Red Cross <https://international-review.icrc.org/articles/remedying-the-environmental-impacts-of-war-924#footnoteref91_zh305nx> accessed 24 February 2024

impose liability, there's still a lack of mechanisms and authorities to implement these laws, while ICC and ICJ are two major authorities to deal with disputes of such violations, it is often seen that due to the tedious procedure and the limitations the justice is not served appropriately. The Shortcomings of these laws can be understood under the following heads:

The extent of Application - The major shortcoming of the current laws is the extent of their application, most of the laws today stand to apply to only International Armed conflicts, the Non-international Armed Conflicts are utterly kept outside the purview of the International Humanitarian laws and International Environmental Laws, due to which many times the offenders can be brought into questioning and let to go scot-free. These laws are very State-Centric due to which, the application solely revolves and applies to only the warfare between two or more states. These laws have been designed to apply only to the armed conflicts which display State-like characteristics such as territorial control, a command structure, and the ability to implement the laws.[55]

High Threshold - for placing culpability or assigning the liability, on the states or an Individual, the thresholds of Damage to the Environment have been kept high. The Additional Protocol I, for instance, pursuant to Article 35(3) it can be observed that to impose liability, the damage must be of a higher threshold, *the damage must be widespread, Long-term and severe*. So it can be observed that Additional Protocol I, while posing the problem of its extent of application to only International Armed conflicts, also poses an additional difficulty of the 'high threshold damage'. Whereas on the other hand the ENMOD, despite having a lower threshold of bringing accountability, has still not resulted in the increased protection of the Environment.[56]

Lack of Implementing Authorities - The third shortcoming within the prevalent framework of legislation is the absence of implementing authorities. Only a handful of implementing authorities are prevalent, for instance, the International Criminal Court, International Court of Justice, the UNCC, and others, which have the appropriate jurisdiction and power to hold the encroachers liable and to make good the damages. Further, while there is coherent implementing authority to hold offenders liable for the violations, there are still huge amounts of constraints in the due process of law. Furthermore, it is believed that as the ICC was principally designed to

[55] Keith Krause and Jennifer Milliken, 'The Challenge of Non-State Armed Groups' (2009) 30(2) Contemporary Security Policy <https://doi.org/10.1080/13523260903077296> accessed 24 February 2024
[56] Smith (n 4)

punish genocide and crimes against humanity per se…[and] environmental offenses are just an add-on . . .might be lost in the shuffle[57]. Disturbing is also the fact that 'the nations are in no rush to develop more substantive standards for enforcing environmental protection during war.'[58]

CONCLUDING ANALYSIS

The International Humanitarian laws and International Environmental laws even after so many years of efforts and work are still in their nascent stage. Even with the existence of a plethora of laws, there's still not much competency in bringing about accountability in cases of damage and destruction that are caused during armed conflicts. The current laws and legal principles in this field are very conventional, even today most of the laws apply only in a State-centric manner, regulating only International Armed conflicts. The extent of application of these laws is very limited in scope and it requires serious reformation. The laws drafted must be made to encompass it all types and structures of Armed Conflicts, as Non-International Armed conflicts are as intense as International Armed Conflicts.

But since 2010, we see that the interest in protecting and securing the Environment during the armed conflicts has been significantly rising. This phenomenon can be evidenced by the development of two very pertinent documents:

- The UN International Law Commission, after a decade of research and pondering on the issue of environmental damage caused during warfare, finally adopted the ***Draft Principles on Protection of the Environment during Armed Conflicts*** in 2022.
- The International Committee of the Red Cross (ICRC) in upgrading their 1994 Principles established ***the Guidelines on the Protection of the Natural Environment in Armed Conflicts*** in 2020.

These two Legal instruments are very pertinent to the ongoing wars around the world, where huge and huge amounts of catastrophic damage have been caused to biodiversity. The Adequacy

[57] Mark A. Drumbl, 'Waging War Against the World: The Need to Move from War Crimes to Environmental Crimes' (1998) 22(1) Fordham International Law Journal <https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1587&context=ilj> accessed 24 February 2024
[58] Laurent R. Hourcle, 'Environmental Law of War' (2001) 25(3) Vermont Law Review <https://heinonline.org/HOL/LandingPage?handle=hein.journals/vlr25&div=29&id=&page=> accessed 24 February 2024

of these two documents can be tested only based on whether these laws are efficient enough to enforce penalties and obligations upon the violating States and Individuals.

Further, the major shortcomings of these laws revolve around the question of the threshold of damage that is caused, the penalty under these laws can not be imposed until there's a high threshold of damage, due to which in most cases the violators are not accused on any charges per se, as there's lack of evidence of high threshold damage to the Environment. These laws must be refined to include low-intensity damages as well, as low intensity or High intensity there's a substantial violation of Laws during armed conflicts that result in Damage to the Environment. There's also an urgent plea for more stringent implementing authorities, as due to the lack of authorities to hold these offenders liable, the offenders breaching the Environmental Laws are often let go scot-free. The ICJ and ICC must apart from working on genocides and war-related crimes, must also work towards Expanding their jurisdictions over matters of Environmental Violations.

The laws and legal principles about the protection of the Environment will reach maximum efficiency only when all the shortcomings are conquered and laws are reformed keeping in mind, the danger that might happen in the presence of such inefficient laws and legal principles in today's time where the endangerment of the world is even more than before.