THE ENFORCEMENT AND IMPLEMENTATION OF THE LAW ON THE PROTECTION OF THE ENVIRONMENT IN TIMES OF ARMED CONFLICT

BY

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DECLARATION

I LUCY NYAMBURA do hereby declare that this thesis is my original work, and that it has not been, and is not currently being, submitted for a degree in any other university.

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The thesis has been submitted for examination with my approval as University of Nairobi supervisor.

PROF. F.D.P. SITUMA  
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DEDICATION

To my two lovely angels, Mercy and Cynthia: may you live to be the best.
ACKNOWLEDGEMENTS

Many thanks go to my supervisor Prof. F.D.P. Situma whose constant guidance and instructions saw me through this crucial step in my studies.

I am also grateful to my family and friends for encouragement and understanding.

To all others I have not mentioned here, but contributed in one way or the other, thank you very much!
LIST OF STATUTES


LIST OF INTERNATIONAL AGREEMENTS


Charter of the International Military Tribunal, Aug. 8, 1945; 59 Stat. 1544, 1547, 82 UNTS 279.

Geneva Convention IV Relative to the Protection of Civilian in Time of War (hereafter, 1949 Geneva Convention IV); 75 UNTS 287.

Hague Regulations Respecting the Laws and Customs of War on Land, annexed to the 1907 Hague Convention IV Respecting the Laws and Customs of War on Land; 9 UKTS (1910) Cmd. 5030.


Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons (Protocol III); 1342 UNTS 171.


LIST OF CASES


Trial of Alfried Felix Alwyn Krupp Von Bohlen Und Halfback and Eleven Others (Krupp Trial), (1947) X Law Reports of War Criminals 69, at p. 139.

United Kingdom-v-Albania (1949) ICJ Rep. at p. 22.

LIST OF ABBREVIATIONS

AJIL .................................................. American Journal of International Law
Additional Protocol I .................................. Protocol Additional to the Geneva Conventions of Aug. 12, 1949, and Relating to the Protection of Victims of International Armed Conflicts
CCW .................................................... 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
CASELAP .............................................. Centre for Advanced Studies in Environmental Law and Policy
CWC .................................................... Chemical Weapons Convention
ENMOD .................................................. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques
EECC .................................................. Eritrea-Ethiopia Claims Commission
HMSO .................................................. Her Majesty's Stationery Office
ICC ..................................................... International Criminal Court
ICJ ..................................................... International Court of Justice
IMT ..................................................... International Military Tribunal
ILM ..................................................... International Legal Materials
ICTY .................................................. International Criminal Tribunal for the former Yugoslavia
ICRC .................................................. International Committee of the Red Cross
ILEG .................................................. Institute for Law and Environmental Governance
ISIL ................................................... Indian Society of International Law
NATO .................................................. North Atlantic Treaty Organization
PRIO .................................................. International Peace Research Institute, Oslo
SAYIL .................................................. South Africa Year Book of International Law
UKTS .................................................. United Kingdom Treaty Series
UNCC .................................................. United Nations Compensation Commission
UNCED ............................................... United Nations Conference on Environment and Development
UNEP .................................................. United Nations Environment Programme
UNTS .................................................. United Nations Treaty Series
UNYB .................................................. United Nations Year Book

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CHAPTER ONE

INTRODUCTION

1.1 Background

The environment merits protection whether in time of peace or in time of conflict. In any case, the environment provides benefits to humans and is, therefore, worth protecting. In fact, most if not all, human activities depend on the environment so much so that if environment were to be degraded, human activity and survival would likely come to an end. In addition, the environment is worth protecting as an end in itself due to its intrinsic value as a resource and regardless of potential utility to humans.¹

In recent years, armed conflicts have come to present a major threat to the state of the environment and, by extension, sustainable development. Armed conflicts are known to cause wide-ranging damage, pollution and degradation of the environment. In particular, armed conflicts have the potential to, and do, cause air pollution, chemical pollution on land, marine pollution, destruction of land by mines and other forms of missiles and threats to water resources. These negative impacts to the environment are not only felt by the belligerents, but also civilians and neutral states. At times, the environmental threats of armed conflict continue long after the end of the armed conflict, exposing many to difficult problems.²

The potential of armed conflict to cause destruction to the environment was graphically demonstrated in the 1991 Gulf War. The environmental destruction that occurred in that short war shocked the world as it demonstrated man’s ability to destroy his surroundings by waging hostilities.³ This destruction of the environment was blamed on, among others,

inadequate standards in the international law of environmental warfare. Others blamed it on failure to enforce more strictly existing standards of international law. Others argued that the current law was sufficiently clear and the standards easily applied. In fact, there was even a debate as to whether the damage done during the first Gulf War violated the current international standards. However, the resilience of the environment over time at the strain of armed conflict ought not to excuse from international accountability military leaders who intentionally target the environment as an object of warfare.

As a matter of fact, the subject of protection of environment in times of armed conflict has received substantial attention in the international fora, particularly in the United Nations. Indeed, the subject is not new and can be traced back to the Old Testament days in the Bible. In fact, a number of international legal documents have addressed the issue of environmental protection in time of armed conflict. The law on protection of the environment during armed conflict is largely covered by the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (the ‘ENMOD Convention’) and the Additional Protocol I to the Geneva Conventions of 1949 (Additional Protocol I of 1977).

Essentially, the ENMOD Convention prohibits the use of environmental modification techniques as a weapon during a conflict. It was inspired by the outrage over US defoliation campaigns in the Vietnam War and the fear that technology was reaching a

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6 Ibid.
7 Ibid.
9 Deuteronomy 20: 19-20.
point where it could be used to unleash disastrous environmental changes as a weapon in war. Article I of the Convention provides:

Each State Party to this Convention undertakes not to engage in military or any other hostile use of the environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party.\(^{12}\)

On the other hand, Article 35(3) of the 1977 Additional Protocol I to the Geneva Conventions of 1949 prohibits States Parties to use methods or means of warfare causing “widespread, long-term and severe damage to the natural environment”. This Article deals with situations in which such damage to the natural environment is produced by the intentional use of methods or means of warfare and where such consequences are foreseeable.

In addition to the above, other treaties such as the Convention on Law of the Sea of 1982\(^ {13}\) and Chemical Weapons Convention (CWC) of 1993\(^ {14}\) provide for protection of the environment during armed conflict, albeit indirectly. More provisions on the protection of the environment are to found in guidelines and principles adopted by international conferences. These uphold the high aims the international community has for environmental protection.

For instance, Principle 21 of the Stockholm Declaration of 1972\(^ {15}\) and Principle 2 of the Rio Declaration 1992\(^ {16}\) express the duty of States “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.”

Furthermore, Principle 23 of the Rio Declaration states:

\[\text{\ldots}\]

\(^{12}\) Supra, note 9, Article 1.
The environment and natural resources of people under oppression, domination and occupation shall be protected.

Principle 24 of the Rio Declaration states:

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

Clearly, these statements offer a challenge for those States willing to embrace them. Indeed, even though they are not binding, they serve to point the direction for international policy on protection of the environment during armed conflict.\textsuperscript{17}

What emerges is that protection of the environment is stipulated in international law as an obligation imposed upon all those involved in armed conflicts.\textsuperscript{18} Indeed, the prime importance of the environment in determining the welfare of humanity is universally acknowledged. In 1996, while giving an Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the International Court of Justice (ICJ) highlighted the importance of the environment, noting that it represents the living space, the quality of life and the health of human beings including unborn generations.\textsuperscript{19} The ICJ outlined the environmental protection duty of states parties engaged in armed conflict thus:

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 is in conformity with the principles of necessity and proportionality.\textsuperscript{20}


\textsuperscript{18} Supra, note 8.


\textsuperscript{20} Ibid., para. 30.
However, despite these and a host of other existing international instruments, armed conflicts unquestionably still have adverse effects on the environment which may persist for years. Indeed, armed conflicts pose more threat to the environment today than they did in the past due to improvement in modern weaponry. The environment continues to be victim of armed conflict and, as shown herein, a potent weapon in virtually every conflict fought in the post World War II period.

This state of affairs puts into question the effectiveness of the enforcement and implementation mechanisms of the existing international and national legal regimes on protection of environment during armed conflicts. Indeed, the enforcement and implementation mechanisms of the current environment protection regime have been faulted by some scholars as problematic.

The ineffectiveness of the enforcement and implementation mechanisms for protection of environment in times of armed conflict is worrisome given the current statistics on prevalence of armed conflicts. The current reports indicate an escalation of incidences of armed conflicts after the end to the period of steady decline in the number of armed conflicts in the world following World War II. The daily happenings in Iraq, Afghanistan, Democratic Republic of Congo, and Darfur are examples of recent conflicts.

In addition, armed conflict trends reveal that intrastate (civil) conflicts are becoming common forms of armed conflict since World War II. It also emerges that most conflicts

21 Supra, note 8.
23 Ibid.
are now fought in Middle East or Africa.\textsuperscript{25} It is probable that this upward trend of armed conflicts may go on into the future with new conflicts expected to rapture between groups due to the aftermath of climatic change.\textsuperscript{26} Climate change is likely to lead to increased resource competition between groups as well as large-scale migration presenting a perfect recipe for inter-group conflicts.

Increasingly, the environment is also being used as a weapon in armed conflicts. For instance, during the Vietnam War, Agent Orange (a defoliant sprayed on the jungle) and the project to extend the monsoon season in Asia to make roads impassable entailed the use of environmental modification as a weapon of war. Environment was also used as a weapon in the Gulf War I, especially through contamination of waters of the Persian Gulf using oil and the burning of oil wells, storage tanks and refineries. These trends have raised questions regarding the effectiveness of the enforcement and implementation of existing legal instruments and the necessity or desirability of new international accords on the protection of the environment during armed conflict, especially in preventing use of environment as an object or target of war.\textsuperscript{27}

There have also been developments in enforcement and implementation of other frameworks of international law which seem worthy replication in the legal framework on protection of the environment in times of armed conflicts. The perfect examples include the establishment of the \textit{ad hoc} international tribunals to prosecute crimes committed in the wars in the former Yugoslavia and in Rwanda.\textsuperscript{28} With these developments, there has arisen need to investigate to what extent environmental damage in times of armed conflict is a matter of international criminal law in practice.\textsuperscript{29}

There is, therefore, need for a review and/or appraisal of the legal framework on environmental protection framework in times of armed conflict. This is important to

\textsuperscript{25} Ibid.
\textsuperscript{26} Ibid.
\textsuperscript{29} Supra, note 27, p. 1031.
address questions regarding the effectiveness of the enforcement and implementation mechanisms for protection of the environment during armed conflict.

1.2 Statement of the Problem

Currently, the enforcement of the law on protection of the environment during armed conflict depends on an effects-based inquiry. Thus, unless it can be determined that a specific wartime act will result in "widespread, long-lasting, and severe" damage to the environment, international law is ineffective in deterring or sanctioning military leaders who inflict grievous damage to the environment, regardless of their manifest intentions.  

This current state of the law is problematic as the international community is hardly able to make such a determination on the effect of the war without the benefit of the passage of time. This makes it impossible to have timely sanctions in protection of environment during armed conflicts. Further, the law relies heavily on the effects of the act on the environment and takes no account of the intention of the actor.

As a result, the enforcement methods available, such as ex post facto condemnation, political pressure and prosecution of violations in protecting the environment, remain ineffective as they do not prevent adverse effects on the environment. The focus on the effects of the war rather than the intention of the military leaders has also reduced the effectiveness of national implementation as a way of enforcing the law on protection of the environment. If anything, it has cultivated the wrong attitude in States which now only focus on the effects of the wars they wage to ensure they comply with law. In any case, the law does not seek to regulate the intention of waging war.

This study, therefore, discusses the effectiveness of the enforcement procedures and implementation mechanisms of the law on protection of the environment in times of

armed conflict. As such, the study involves a review of the international law on protection of the environment to identify the gaps and problems in its enforcement and implementation mechanisms and to pronounce on the overall effect of the state of the enforcement and implementation procedures on the effectiveness of the framework for protection of the environment in times of armed conflict.

1.3 Objectives of the Study
The study has the following objectives:
1. To discuss the content of the law on protection of environment in times of armed conflict;
2. To outline and discuss the procedures and mechanisms for enforcement and implementation of the law on protection of environment in times of armed conflict;
3. To highlight the main problems encountered in attaining effective enforcement and implementation of the law on protection of environment in times of armed conflict; and
4. To suggest the necessary reforms needed to facilitate effective enforcement and implementation of the law on protection of environment in times of armed conflict.

1.4 Research Questions
This study addresses the following questions: -
1. What is the scope of the law on protection of environment in times of armed conflict?
2. What are the procedures and mechanisms for enforcement and implementation of the law on protection of environment in times of armed conflict?
3. What are the main problems encountered in effectively enforcing and implementing the law on protection of environment in times of armed conflict?
4. What are the necessary reforms needed to achieve effective enforcement and implementation of the law on protection of environment in times of armed conflict?

1.5 Hypotheses
The study is based on the following two hypotheses:
1. The law on the protection of the environment in times of armed conflict is not comprehensive and mechanisms for its enforcement and implementation are not effective.

2. The policy and legal reforms suggested herein will facilitate effective implementation and enforcement of the law in order to address the problems encountered.

1.6 Justification for the Study

The effects of armed conflicts on the environment are becoming more and more disastrous than the military operations themselves. Military operations adversely affect the environment by creating problems, such as damage to ecosystems, destruction of infrastructure, soil contamination and disruption of agricultural cycles. The result is increased difficulty in reconstructing war ravaged areas and countries after conflicts and restoring the normal living conditions that obtained before the armed conflicts.33

There is need to address the current legal instruments for protecting the environment during armed conflicts in order to ensure that they are optimally utilized so as to keep environmental damage in event of conflict at minimum. To achieve this, a study discussing the content of the law and the effectiveness of the enforcement and implementation mechanism offers an important foundation. It will not only advance understanding of the law on protection of environment during armed conflict, but also enhance the knowledge of the mechanisms and procedures necessary to enforce the law and ensure maximum protection of the environment during conflict.

This study is also justifiable in that it reviews and clarifies the law on protection of environment in time of armed conflict. The study identifies the gaps in the law on protection of environment in time of armed conflict as well as the problems encountered in the process of enforcing it.

33 Supra, note 2, p. 278.
Lastly, the study proposes policy and legal reforms necessary to ensure effective enforcement and implementation of the law on protection of environment in times of armed conflict.

1.7 Literature Review

There is wide and varied literature on the topic of the current study, environmental protection and armed conflicts. The literature ranges from reports on the trends and impact of armed conflicts on the environment to the state of the existing law on protection of the environment during armed conflict. The following is a review of selected literature that helps to understand and identify the gaps in the law.

First, in recent research on the global trends in armed conflicts, Buhaug, Gates, Hegre and Strand\textsuperscript{34} discovered a disturbing trend in occurrence of armed conflicts. They found that after a period of steady decline in the number of armed conflicts in the world following World War II, the downward trend has ended. They found that the number of active conflicts is no longer sinking, but has held steady at 32 for three years in a row from the 1970s through 1980s to 1990s.\textsuperscript{35}

The findings of the above report show that armed conflicts and their attendant real and potential negative effects on environment are on the upward trend. There is, thus, need to beef up measures aimed at protecting the environment in times of conflict. Hence, the current study which reviews the law on protection of environment in times of armed conflict and analyses the available mechanisms and their effectiveness for environmental protection in times of armed conflict.

Wendy Vannaselt\textsuperscript{36} reviews some of the literature, documenting the damaging effects of war on the environment. Further, she demonstrates that armed conflicts result in disruption of structures of environmental governance. She argues that ‘war often destroys or weakens the institutions that make inclusive and informed decisions about the environment possible.’ As a result, the ecosystem continues to suffer even after the

\textsuperscript{34} Supra, note 13.
\textsuperscript{35} Ibid.
fighting has stopped. She, thus, proposes that environmental protection during armed conflict be taken more seriously to avoid environmental damage as that may persist even after the conflict.

Vannaselt goes on to discuss the contrary argument that conflicts may also benefit the environment, especially in their aftermath. She cites the example of Afghanistan which experienced a reconstitution of its government after the conflict, in which a ministry in charge of environmental management was created for the first time in the country’s history. Further, she argues that the environment may benefit from disruption and conditions caused by armed conflict, for instance, pressure for development and forest conversion may diminish as populations flee strife-torn areas and resources become inaccessible as certain areas become no-go zones. However, as she rightly argues, the benefits of war on the environment are accidental and inadvertent and rarely offset the direct environmental damage that war may bring if the mechanisms of environmental protection are not utilized effectively during armed conflict.37

On his part, Peter Saundry describes the multiple, long- and short-term impacts on development, and on environmental and human well-being that armed conflicts have on the environment.38 According to him, the environmental effects, even of internal conflicts, are felt at various spatial levels, within the immediate area of conflict, and often in neighbouring countries. Conflict undercuts and/or destroys environmental, physical, human and social capital, diminishing available opportunities for sustainable development.39

Saundry notes that the impact of armed conflicts affects livelihoods through decreased access to land, and inadequate access to natural resources, as a result of exclusion, displacement and the loss of biodiversity. In his view, armed conflicts can set in motion a cycle of degradation and human vulnerability. He proposes addressing issues of

39 Ibid.
environmental management in conjunction with other issues during peace negotiation processes. The current study proposes taking of measures to protect the environment during times of armed conflict instead of waiting to deal with environmental management issues in the post-conflict period.

The ICRC, in a report to the forty-eighth session (1993) of the United Nations General Assembly, reviews the main provisions of existing law on protection of the environment in times of armed conflict. The report also outlines the results of the principal activities carried out recently by various organizations as well as experts under ICRC auspices in the area of protection of environment in time of armed conflict.

This ICRC report is useful to the current study in that it highlights, albeit sporadically, some of the major weaknesses of the law on protection of the environment in times of armed conflict. The review of the law contained in the report is also important as background material for the descriptive sections of the current study.

However, overall, the current study differs from the report not only in time of publication, the report being valid as at 1993, but also in content and approach. The current study emphasizes critical analysis of the law on protection of the environment in time of conflict. This will enable the current study to conclude with an authoritative position on whether or not the law contains gaps that render its enforcement ineffective and/or if its implementation procedure is problematic or not.

Another study is that of R.A. Malviya which extensively discusses the nexus between the law of armed conflict and environmental protection. Malviya discusses the scope of the international law of environmental protection and international law of war. The article highlights the major developments in the area of environmental protection law. It, then, proceeds to explore the basic tenets common to both regimes of law, namely, the international law of environmental protection and the international law of war. Lastly,
Malviya underlines the need to use the principles of environmental protection laws in interpreting the environmental protection concepts of the laws of war.\(^{41}\)

The above paper and the current study share one common purpose: outlining the international laws that govern the means and methods of warfare and the protection of environment during armed conflict. However, the current study is unique in that it goes on to critique the legal regime for protection of the environment in times of armed conflict in an effort to expose gaps inherent in it and the major problems encountered in enforcing the various mechanisms for environmental protection in times of armed conflict. Importantly, the current study reviews the law on protection of the environment in times of armed conflict and makes recommendations for effective implementation of international law on environmental protection.

Alice L. Bunker discusses the role of the international law in the protection of the environment in the context of Gulf War I and Gulf War II.\(^{42}\) She notes that there was far more environmental damage inflicted during the Gulf War I than in Gulf War II. In particular, she highlights the massive oil pollution that resulted from the release by Iraq of large quantities of oil into Kuwait and the Persian Gulf as part of Iraq’s war tactics. In the second war in the Gulf (Gulf War II), Bunker notes that environmental damage appears to have been less than that which occurred in 1991. However, she acknowledges that even the Gulf War II resulted in considerable environmental damage, mainly characterized by atmospheric pollution as a result of oil fires, uranium contamination, damage to desert ecosystems and deterioration of waste management structures resulting in water pollution.\(^{43}\)

Bunker, then, explores the question whether the reduction in level of environmental damage in Gulf War II is attributable to legal factors. Bunker analyses several gaps in the various mechanisms currently offered by the law for protection of the environment in

\(^{41}\) R.A. Malviya, "Laws of Armed Conflict and Environmental Protection: An Analysis of Their Inter-Relationship", 1 ISIL Year Book of International Humanitarian and Refugee Law 72 (2001).


\(^{43}\) Ibid., p. 212.
times of armed conflict. She concludes that there is need for clarification of the enforcement mechanisms of the law on environmental protection during conflict in order to discover its effectiveness and make recommendations on the necessity of a "convention dedicated to protection of the environment during war to consolidate and develop the law."

The above study resonates with the present study in a number of respects. One, the current study is hypothesized on the finding of the above study, to wit, the existing law on protection of the environment during armed conflict is fraught with inherent gaps, has a poor implementation mechanism and is in need of reforms. The insights given in the article concerning the weaknesses of the existing law on protection of the environment during armed conflict are, also, a good catalyst for analysis of the current study to exhaustively unearth its gaps. However, the scope and context of the two studies differ given that the current study is concerned with protection of the environment in general while Bunker's article concerns itself with environmental protection in the context of the Gulf Wars.

Author H. Westing has studied the extent to which international law helps mitigate environmental damage and disruptions in times of warfare. In turn, he discusses the main mechanisms for protecting the environment from damage and the existing provisions of international law that deal with them. In that regard, he finds legal environmental protection during armed conflict may take a number of approaches including remaining at peace, establishing peace zones, limiting certain weapons and/or means of warfare and limiting damage to natural resources. In addition, Westing discusses the recent developments in the international conventional law in the area of protection of environment during armed conflict.

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46 Ibid., p. 541.
In his conclusion, Westing recommends a treaty to be adopted that would prohibit the use in war of nuclear weapons and provide that natural heritage sites of outstanding universal value be designated as demilitarized zones.\textsuperscript{47} The current study builds on the findings in Westing’s study in its discussion and critique of the law protecting the environment during armed conflict. However, it is expected that the findings and recommendations of the current study will be broader in scope given that it not only concerns itself with the existing law, but also its mode of implementation.

Roman Reyhani discusses the various conventions and protocols that shield the environment from the destructive weapons during armed conflict as well as the enforcement and implementation measures of the law.\textsuperscript{48} The discussion is undertaken in the context of the International Court of Justice (ICJ) judgment in the Advisory Opinion on Legality of the Threat or Use of Nuclear Weapons (\textit{Nuclear Weapons Case}). In the judgment, the ICJ obligated states to put environmental consideration into account whenever assessing what was necessary and proportionate in the pursuit of legitimate military objectives.\textsuperscript{49}

With the foregoing in mind, Reyhani discusses the extent to which the environment is protected during armed conflict from the standpoint of environmental law. Reyhani’s article strikes a number of parallels with the current study. The most important is that both studies entail comprehensive review of the conventions and treaty law on protection of the environment.\textsuperscript{50} However, Reyhani’s article differs with the current study in that it contextualizes its analysis within the judgment in the \textit{Nuclear Weapons case}.

Manoj Kumar Sinha examines the nature of the environmental harm done by the NATO attacks in Kosovo and also studies the relevant international instruments dealing with this

\textsuperscript{47} Ibid.
\textsuperscript{49} Ibid., p. 326.
\textsuperscript{50} Ibid.
situation. In addition, Sinha attempts to find out whether NATO’s actions violated existing international environmental law. He concludes that the events which took place towards the end of twentieth century, particularly during the Kosovo War, point to the need for strengthening the standards and enforcement of the law on environmental protection during armed conflict.

Sinha finds that, despite the development of the law, the enforcement mechanisms of the current regime are fraught with inefficiencies that reduce their ability to protect the environment during armed conflict. He, therefore, reviews the strategies which have emerged since the 1991 Gulf War to improve the legal protection of the environment. On the one hand is the view that environment would be sufficiently protected if the law of war is universally respected and properly implemented. On the other hand, the view is that the law itself is in need of reform by applying environmental values to it. Sinha proposes the drafting of a new convention to clarify and develop existing law. In his view, such convention would also serve to set a lower threshold of environmental harm in order to be more effective and to define with clarity what is to be protected, the permissible classes of weapons and other related issues.

Patricia Kameri-Mbote discusses the link between environment and security in the context of Virunga Conservation Area. She concludes that the nexus between environmental quality, peace and security in that environmental quality and sustainable natural resources management is now accepted as the precondition of peace and security in the Great Lake Region. She also highlights the fact that armed conflicts result in increased environmental degradation, poverty, unplanned development and over-harvesting of resources.


52 Ibid., p. 234.
53 Ibid., p. 249.
The above paper seeks to make a case for legal framework to facilitate cooperation in protection of transboundary ecosystem during conflict. However, it can be inferred from the arguments propagated in it that if the environmental damage occasioned by armed conflict is not checked, it could result in a vicious cycle of armed conflicts. It is thus imperative that measures be taken to ensure that the environment is protected during armed conflict as far as possible to prevent occurrence of future conflicts resulting from poor environmental quality. The current study endeavours to make recommendations to ensure maximum protection of the environment during armed conflict.

1.8 The Theoretical Framework of the Study

The current study discusses the enforcement and implementation of the law on environmental protection in times of armed conflict. Implementation refers to the carrying out, execution, or practice, a method, or any arrangement of the provisions of a given law. In the international law context, implementation encompasses all the processes involved in getting a convention or treaty operating properly and being enforceable including promulgation, enactment, ratification, meetings to review enforcement, clarification of key terms, adoption into state practice and making of any necessary changes. Enforcement of the law on protection of the environment during armed conflict mainly entails all the activities sanctioned by the law that are used to prevent, deter, and/or punish environmental damage as a result of armed conflict. Any enforcement mechanism to be effective must engender three things, namely, deterrence, that is, means to preempt or preclude conduct which will cause environmental damage; prevention, that is, means to halt or reverse action which is causing environmental damage; and, punishment, that is, means of establishing culpability and accountability for environmental damage that has occurred.

The law on protection of environment in times of war is part and parcel of the law of war. The latter is, simply, rules applicable in times of war (Jus in Bello). War here is defined to include not only armed conflict between states (inter-state conflict), but also internal civil war (intra-state conflict). In modern terms, the law of war is also called humanitarian law.\(^57\)

The main purpose of the humanitarian law (also called law of armed conflict) is to provide common ground of rationality between enemies engaged in armed conflict. It is intended to preclude unnecessary destruction of life and property and to ensure that violence is used only to defeat the enemy’s military forces. Moxley states:

> The purpose of the law of armed conflict is to temper the violence of war, both for idealistic and pragmatic reasons. Idealistically, to minimize death and destruction out of compassion. Pragmatically, to protect one’s own military and civilian personnel and objects from the acts of violence which one is prohibited from inflicting upon enemy persons and objects. Underlying is a core idea as to the nature of international political relations: that war exists not in isolation but in relation to peace, and that the two, war and peace, represent the human political condition. War is by nature limited not total; in the fullness of time, it will give way to peace. Life will prevail over death, reason over the dark potential of human nature. The purpose of war is to create an acceptable peace. The purpose of the law of war is to impose rationality on war so that the peace can be restored.\(^58\)

Much of the humanitarian law has either ripened into customary law or from its inception reflected underlying customary rules. As such, it is binding against all States.\(^59\)

Humanitarian law is also sourced from treaties and conventions which date from around the beginning of 20\(^{th}\) century.

As regards protection of environment during armed conflict, various general rules of humanitarian law apply. These include the rule of proportionality, which is to the effect


\(^{58}\)Ibid., p. 28.

\(^{59}\)Ibid., p. 34.
that parties in armed conflict apply the means that may have adverse effect on environment with proportional intensity of scope and within reasonable duration. However, the application of the rule is not made any easier by the fact that there is no fixed scale for determining what is proportional.  

In addition, the rule of neutrality requires that efforts be taken to ensure that neutral States are not adversely affected during armed conflict. With respect to protection of environment, the rule of neutrality requires warring parties to take maximum caution to avoid adversely affecting and/or threatening the environment of neutral parties.

Finally, there is the rule of environmental security which is meant to safeguard natural environment from adverse threats of armed conflict and wanton destruction. The rule of environmental security compels parties engaged in armed conflict to take responsible measures to guard against unwarranted destruction of environment.

This study revolves around and is based on two key concepts, namely, “armed conflict” and “environment”. The term “armed conflict” has both narrow and broad meanings. In the narrow sense, armed conflict is defined by the International Committee of the Red Cross (ICRC) as “any difference between two states leading to the intervention of the members of the armed forces”. Broadly, war and armed conflict are seen as synonymous terms so that war is just an extreme form of armed conflict that takes place between states and armed conflict stands for the pursuit of objectives through violence. In this sense, war is any contested incompatibility over government or territory between two organized parties, of which at least one is the government of a state. In fact, armed conflict may occur even between sub-states or between a non-sovereign group and a

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60 Ibid., p. 20.
61 Ibid.
62 Supra, note 13, Article 3.
63 Ibid.
64 Ibid.
state. Examples of types of armed conflict include war, regional conflict, intra-state conflict (civil war), insurgency and most incidences of terrorism.\textsuperscript{65}

In this study, the term “environment” means everything that is in the earth surface, including physical surroundings that are common to all of us, including air, space, waters, land, plants, and wildlife. Environment is defined by reference to physical, non-human, environmental media, including land, water, air, flora and fauna, and so on.\textsuperscript{66} In other words, the environment encompasses all natural and artificial surroundings. Such broad definition suffices for the purposes of determining what merits protection as environment during armed conflict to ensure that the protection afforded is as comprehensive as possible.

1.8 Research Methodology
The study was library-based in that it primarily involved examination and analysis of secondary sources. These included books, articles, and other relevant literature on the law of armed conflict and environmental protection. However, the study also analyzed primary data, such as reports on the extent and trend of armed conflicts, international law instruments on environmental protection in armed conflict.

The bulk of the above primary and secondary reference materials was sourced from the Internet. Additional materials were accessed from the local libraries and resource centres. The available and resourceful libraries included the United Nations Environment Programme (UNEP) Library, University of Nairobi School of Law, Parklands Campus Library, Jomo Kenyatta Memorial Library, Centre for Advanced Studies in Environmental Law and Policy (CASELAP) Library, and the Institute for Law and Environmental Governance (ILEG) resource centre, all in Nairobi.

\textsuperscript{65} Ibid.
1.10 Chapter Breakdown

The thesis is divided into the following chapters:

**Chapter One: Introduction**
The chapter encompasses the research proposal and a working introduction to the environmental protection during armed conflict. In particular, the chapter addresses the background of the study, statement of problem, theoretical framework, literature review and the research methodology adopted in the study.

**Chapter Two: The Law on Protection of the Environment in Times of Armed Conflict**
This chapter expounds the law on protection of the environment in times of armed conflict. It focuses on international humanitarian law, and particularly on the conventional and customary law tenets which deal with protection of the environment in times of armed conflict. The chapter also discusses the gaps and/or weaknesses in the current legal and institutional frameworks, thereby laying a basis for the analysis of the enforcement and implementation of the law in the next chapter.

**Chapter Three: The Enforcement and Implementation of the Law on Protection of the Environment in Times of Armed Conflict**
This chapter discusses the implementation and enforcement mechanisms and procedures for the law on protection of the environment in times of armed conflict as outlined above.

**Chapter Four: Conclusion and Recommendations**
This chapter concludes the salient findings of the study and makes recommendations for reforms that need to be undertaken to enhance the implementation and enforcement of the law on protection of the environment during armed conflict.
CHAPTER TWO
THE LAW ON PROTECTION OF THE ENVIRONMENT IN TIMES OF ARMED CONFLICT

2.1 Introduction

This chapter expounds the law on protection of the environment in times of armed conflict. The chapter focuses on international humanitarian law and particularly on the conventions and customary law tenets which deal with protection of the environment in times of armed conflict. The purpose of the chapter is to lay a basis for the discussion of the law on protection of the environment during armed conflict in order to understand the problems that impair its effective enforcement and implementation.

The Chapter discusses the sources of the international law on protection of the environment in times of armed conflict. According to Article 38(1) of the Statute of International Court of Justice,\(^1\) there are three main sources of international law, namely, customs, treaties, and general principles. The Chapter is, thus, divided into four sections. The first section discusses the customary international law on protection of the environment during armed conflict. The second section explores the direct treaty law on protection of the environment during armed conflict. The direct treaty law is found in treaties that contain express provisions regarding environmental protection in times of armed conflict. The third section deals with indirect treaty law on protection of the environment during armed conflict. Indirect treaty law is made of treaties that feature supplementary provisions providing indirect protection of the environment during armed conflict. The last section discusses the general principles of international law on protection of the environment during armed conflict.

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\(^1\) Statute of the International Court of Justice (ICJ Statute); 39 AJIL Supp. 215 (1945), available at http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0 <accessed on 01/07/2009>. Article 38 (1) thereof provides as follows: “The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply: (a) international conventions, whether general or particular, establishing rules expressly recognized by the contesting states; (b) international custom, as evidence of a general practice accepted as law; (c) the general principles of law recognized by civilized nations; (d) subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.”
2.2 Customary Law

Environmental protection is not directly addressed in the customary law of war, but it can be inferred given that it falls within the general protection of the civilian population and property. In the main, customary international law of armed conflict is based on the four principles of military necessity, proportionality, discrimination, and humanity. Humanity is the principle that unnecessary human suffering should be avoided. Discrimination is the principle that combatants and non-combatants must be distinguished. Proportionality is the principle that the extent of armed force to be used must be reasonably proportionate to the military objective for which the use of force is necessary. Military necessity, the most important to environmental protection during armed conflict, is the principle that the use of force itself must be reasonably necessary to achieve a legitimate military objective.

The Martens Clause, which is a common feature of many modern law of war treaties, serves two purposes central to development of customary international law. It preserves the existing body of international law not yet codified while allowing for its continuous development. The Martens, which derives its name from its proposer, originally appeared in the Preamble to the 1899 Hague Convention II Respecting the Laws and Customs of War on Land as follows:

"Until a more complete code of the laws of war is issued, the High Contracting parties think it right to declare that in cases not included in the regulations adopted by them, populations and belligerents remain under the protection and empire of the principles of international law, as they result from usages established between civilized nations, from the laws of humanity and the requirements of the public conscience."

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5 Ibid.
6 The Martens Clause is a common article in the four Geneva Conventions. Revised version appears in Additional Protocols I and II, and in the Preamble to the 1981 UN Weapons Convention.
7 J.B. Scott, The Hague Conventions and Declarations of 1899 and 1907 (Oxford University Press, New York, 1915) p. 100
One popular interpretation of the above clause is that it allows international law to be created by sources other than those enumerated by Article 38 of the Statute of the International Court of Justice, namely, the “laws of humanity” and the “requirements of public conscience.” The proponents of this view rely on the decision of the ICJ in *Corfu Channel* case which made reference to “certain general and well recognized principles, namely: elementary considerations of humanity.”8

The International Military Tribunal found that the Martens Clause had legal significance:

“It is a general clause, making the usages established among civilized nations, the law of humanity, and the dictates of public conscience into the legal yardstick to be applied if and when the specific provisions of the [Hague Convention IV] and the Regulations annexed to it do not cover specific cases occurring in warfare, or concomitant to warfare.”9

In essence, the Martens Clause makes it possible for the law of war to develop, evolve and adapt to new circumstances.10 With environmental concerns taking centre-stage in global plane, it is possible to assert that its protection has become a humanitarian priority. The Martens Clause would, thus, allow the environment to be one of the interests accounted for in applying the proportionality test as was suggested at the 1991 Ottawa Conference of Experts where it was agreed that there was a shared view that the application and development of the law of armed conflict have to take into account the evolution of environmental concerns generally. The customary law of war in line with public conscience, now include a requirement to avoid unnecessary damage to the environment.11

The customary law is limited in protection of the environment during armed conflict as it lacks institutional framework for the implementation and enforcement of the law of war. This is a serious obstacle to the development of the customary law as there is no

8 United Kingdom-v-Albania (1949) ICJ Rep. at p. 22. Other similar remarks are to be found in the judgments of the International Military Tribunal at Nuremberg.
9 *Trial of Alfried Felix Alwyn Krupp Von Bohlen Und Halbfack and Eleven Others (Krupp Trial)*, (1947) X Law Reports “War Criminals 69, at p. 139
institution to interpret and apply it. Thus, customary law of war has remained a matter of mere general principles. This has limited the relevance of the customary law to the level of mere guidelines which leave States with a lot of freedom to engage in armed conflict. In fact, all that the customary law seems to have succeeded in doing is to promote the 'good faith' conduct in warfare.\textsuperscript{12}

Further, the customary law is also anthropocentric in its approach in protecting the environment. Its main focus is mainly protecting civilians and their property. Thus, protection extended to the environment is merely incidental and depends on its correlation with the human welfare.\textsuperscript{13} This goes against the trend in international environmental law where by the environment is protected in certain cases for its own sake. One problem with the anthropocentric approach is that it does not limit the amount of damage a state may inflict on the environment in its own territory.\textsuperscript{14}

\subsection*{2.3 Direct Treaty Law on Protection of the Environment in Times of Armed Conflict}

\subsubsection*{2.3.1 The 1977 Protocol I Additional to the 1949 Geneva Conventions}

Additional Protocol I\textsuperscript{15} contains two provisions that are specifically aimed at protecting the natural environment. The Additional Protocol I to the Geneva Conventions entered into force in 1978. Over the time, it has come to be acknowledged by many as the first specific attempt to protect the environment during armed conflict.

Article 35(3) of the Additional Protocol I provides that '[i]t 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.' On its part, Article 55 of Additional Protocol I provides:

\begin{quote}
\textsuperscript{14} Article 23(g) of the Hague Rules protects only enemy property.
\textsuperscript{15} Protocol Additional to the Geneva Conventions of Aug. 12, 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), 1977; 1125 UNTS 3.
\end{quote}
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.

In essence, Article 35(3) of the Additional Protocol I aims to protect the environment per se. On the other hand, the goal of Article 55 is to protect human beings against the effects of hostilities that target natural environment, hence the addition of a further element in Article 55, namely, the prejudice to the health or survival of the population. This element of Article 55 is problematic as it implies that the environment is not protected qua environment, but only as it constitutes a civilian object. The protection to environment under Article 55 of the Additional Protocol I is extended to include prohibition of methods or means of warfare which cause such damage to the environment as prejudice the health or survival of the human population. In this sense, the protection afforded the environment under Article 55 of the Additional Protocol I can be described as anthropocentric in that it focuses on the impact of the destruction of the environment on the quality of human life. This is a weakness in that the Article protects only civilians and their property and the protection of the environment is merely incidental.

The two provisions of the Additional Protocol I have their common core as the prohibition of ‘warfare which is intended, or may be expected to have widespread, long-term and severe effects on the natural environment’. Thus, if methods or means of warfare reach the ‘widespread, long-term and severe damage’ threshold, they are prohibited regardless of any considerations of military necessity or proportionality.

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18This view was echoed by Austria and Sweden in the Sixth Committee (see UN Doc. A/C.6/46/SR. 19 (23 October 1991) and UN Doc. A/C.6/46/SR.20 (20 October 1991).
other words, all the three elements must be present for any environmental damage during armed conflict to come within the scope of the Protocol.\textsuperscript{20}

As a matter of fact, if the negative consequences on the natural environment are intended or at least expected, it is not necessary that damage has actually occurred for Articles 35 (3) and 55 to be breached.\textsuperscript{21} The risk of damage to the natural environment falling within the scope of the provisions of Articles 35(3) and 55 is to be assessed ‘objectively on the basis of the information available at the time’.\textsuperscript{22}

There is no indication of what ‘widespread’ or ‘severe’ means in the context of Protocol I.\textsuperscript{23} But from the \textit{travaux préparatoires}, it appears that ‘long-term’ has to be interpreted as referring to significant number of years or a decade.\textsuperscript{24} As a result, some have concluded that ‘Articles 35(3) and 55 do not impose any significant limitation on combatants waging conventional warfare. Rather, it seems that the provisions of the Additional Protocol are primarily directed at high level policy decision makers and would affect such unconventional means of warfare as the massive use of herbicides or chemical agents which could produce widespread, long-term and severe damage to the natural environment’.\textsuperscript{25}

Under Article 55(2) of Protocol I, reprisals against the natural environment are also expressly prohibited. The provision is, however, silent on reprisals against other objects which might incidentally cause damage to the environment.

\textsuperscript{20} Michael Bothe, ‘The Protection of the Environment in Times of Armed Conflict’, 34 \textit{German Yearbook of International Law} 54-62(1991), at p. 56
\textsuperscript{23} According to Rogers, op. cit “[a]n examination of the various commentaries on Protocol I leads one to infer that ‘severe’ means prejudicing the continued survival of the civilian population or involving the risk of major health problems and that ‘widespread’ means more than the standard of several hundred square kilometres considered in connection with the ENMOD Convention”; p. 170.
\textsuperscript{24} Final Report to the International Criminal Tribunal for the former Yugoslavia (ICTY)’s Prosecutor by the Committee established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia (8 June 2000) (hereinafter ‘ICTY Final Report’), para. 17. See text in 39 \textit{International Legal Materials} 1257(2000).
\textsuperscript{25} Supra, note 13, p. 348.
The Additional Protocol I was not intended to codify customary international law and/or to apply to weapons of mass destruction. However, it is unclear whether Articles 35(3) and 55 of Additional Protocol I reflect customary international law. Some scholars have argued that the provisions of the Additional Protocol I reflect customary international law, at least as far as international armed conflicts are concerned.

Indeed, the Eritrea-Ethiopia Claims Commission appears to have implicitly regarded the environmental provisions contained in Additional Protocol I as customary. The Eritrea-Ethiopia Claims Commission was established pursuant to Article 5 of the Agreement signed in Algiers on December 12, 2000 between the Governments of the State of Eritrea and the Federal Democratic Republic of Ethiopia (the “December Agreement”). The Eritrea-Ethiopia Claims Commission (EECC) was tasked with “deciding through binding arbitration all claims for loss, damage or injury by one Government against the other” arising out of the 1998-2000 conflict. One of the significant holdings of the Commission in its Final Awards was that Eritrea unlawfully invaded Ethiopian-controlled territory at the start of the conflict. The Commission applied the three-pronged threshold proposed in the Additional Protocol I to dismiss Ethiopia’s claim against Eritrea. The Commission rejected Ethiopia’s claim on the basis that Eritrea’s damage to environment, although unlawful, was way ‘below the standard of widespread and long-lasting environmental damage required for liability under international humanitarian law.’ In so doing, the Commission applied the Additional Protocol I against Eritrea although she had not ratified it.

30 Supra, note 15.
The ICJ, in its 1996 Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, first stated that Articles 35 and 55 "embody a general obligation to protect the natural environment against widespread, long-term and severe environmental damage." However, it conceded that these provisions are 'powerful constraints' only for the states having subscribed to them. In the Nuclear Weapons Opinion case, the Court had been asked by the United Nations General Assembly to address itself to the question: Is the threat or use of nuclear weapons in any circumstances permitted under international law? In a split decision the ICJ ruled that there is no comprehensive and universal prohibition of the threat or use of nuclear weapons in both customary and conventional international law. However, the Court noted 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. That notwithstanding, the Court could still not 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 a State would be at stake.

With regard to state practice, a number of states have maintained that the two environmental provisions of Additional Protocol I reflect customary international law and have included them in their military manuals and national legislation, although the language varies. Other countries, such as France and the United Kingdom, deny that the provisions under examination have achieved customary status. The United States also objects to them and claims they are 'too broad and ambiguous'.

The Additional Protocol I has inherent weaknesses as a framework for protection of the environment during armed conflict. As a matter of fact, it focuses mainly on protection of

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32 Ibid.
34 Supra, note 18, para 31.
36 Supra, note 13, p. 154.
natural environment, neglecting aspects of human environment which are critical to the state of the environment.\textsuperscript{37}

The provisions of the Additional Protocol I dealing with environment are particularly Articles 35 and 55. Article 35(3) is an attempt to protect the natural environment while Article 55 appears to be framed for protection of human beings against the effects of hostilities that target natural environment.\textsuperscript{38} Thus, Article 55 prohibits the use of methods or means of warfare which cause damage to the natural environment resulting in prejudice to the health or survival of the human population. The implication is that the protection of the environment afforded by Article 55 is only available where the damage to the environment posses a threat to the lives and health of civilians. In other words, the article does not protect the environment \textit{qua} environment, but only as far as it constitutes a civilian object.\textsuperscript{39}

The environmental damage prohibited in the Additional Protocol I must meet the threshold of having 'widespread, long-term and severe' effects on the natural environment.\textsuperscript{40} This means that the environmental damage that fits the bill for prohibition under the Additional Protocol I must meet all the three criteria. In other words, the extent and/or scope of the damage inflicted by the subject warfare must be widespread, long-term and severe damage. This is a very high threshold in that even if the environmental damage is widespread and severe, it will not fall under the prohibition of the Additional Protocol I if it is not long term in nature. However, where the environmental damage meets all the three criteria, it is prohibited regardless of considerations of military necessity or proportionality.\textsuperscript{41}

\textsuperscript{37} Supra, note 2, Article 35 and 55.
\textsuperscript{40} Ibid.
\textsuperscript{41} Michael Bothe, 'The Protection of the Environment in Times of Armed Conflict', \textit{34 German Yearbook of International Law} 54-62(1991), at p. 56.
In fact, it seems the environmental protection provided under the Additional Protocol I is limited by the difficulty in attaining all the three criteria. Serious environmental damage during armed conflict not reaching the threshold of being widespread and severe may be caused without falling afoul the provisions of the Additional Protocol I.\(^\text{42}\)

As a matter of fact, if the negative consequences on the natural environment are intended and/or at least expected, it is not necessary that damage has actually occurred for Articles 35(3) and 55 to be breached.\(^\text{43}\) The risk of damage to the natural environment falling within the scope of the provisions of Articles 35(3) and 55 is to be assessed ‘objectively on the basis of the information available at the time’.\(^\text{44}\)

In addition, the meaning of ‘widespread’ or ‘severe’ as applied in the Additional Protocol I is not clear.\(^\text{45}\) As regards the meaning of ‘long-term’, it appears it is to be interpreted to refer to a period of years or decades.\(^\text{46}\) In effect, the Protocol I has been dismissed as not imposing significant limitation on combatants waging conventional warfare because the period required for environmental damage to be prohibited under the Additional Protocol I is so long that there is hardly any armed conflict that meets the “long term” threshold.

Rather, it seems that the provisions of the Additional Protocol I are primarily directed to high level policy decision makers. Further, the Protocol I does not regulate the use of unconventional means of warfare as the massive use of herbicides or chemical agents which could produce widespread, long-term and severe damage to the natural environment’.\(^\text{47}\) Further, although Article 55(2) of Protocol I prohibits reprisals against the natural environment, it is silent on reprisals against other objects which may as well cause damage to the environment.

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\(^{42}\) Ibid.


\(^{45}\) Supra, note 30.

\(^{46}\) Final Report to the International Criminal Tribunal for the former Yugoslavia (ICTY)’s Prosecutor by the Committee established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia (8 June 2000) (hereinafter ‘ICTY Final Report’), para. 17; *reprinted* 39 ILM 1257 (2000).

\(^{47}\) Supra, note 13, p. 348.
2.3.2 The 1977 ENMOD Convention

The Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD) was adopted by the UN General Assembly in 1976 and opened for signature in 1977. Like the Additional Protocol I to the Geneva Conventions, ENMOD was negotiated in response to the American attempts to modify the regime of precipitations during the Second Indochina War.

The ENMOD Convention defines environment as "the earth, including its biota, lithosphere, hydrosphere and atmosphere, or ... outer space." In other words, environment encompasses all resources that make up the universe whether situate on earth surface, are part of living things, are within the water surfaces or the atmosphere. Based on this definition, it is difficult to imagine any form of warfare that would not have serious environmental effects. This has made it hard to provide adequate protection for the environment.

Essentially, the purpose of the ENMOD Convention is not to protect the environment from hostilities, but rather to prohibit the use of the environment as a weapon so as to cause destruction, damage or injury to other states parties. This purpose is captured in Article I(1) of ENMOD Convention which provides that each State Party to this Convention undertakes not to engage in military or any other hostile use of the environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party.

The techniques referred to in Article I are defined in Article II as those 'for changing, through the deliberate manipulation of natural processes, the dynamics, composition or

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50 Supra, note 35, Article II.
52 Supra, note 35, Article I(1).
structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space'. In essence, Article II includes a number of important elements. Firstly, the action requires intent. Secondly, it must manipulate a natural process. This raises the threshold in that techniques that manipulate a natural process may not fall under the scope of ENMOD where the intention of the perpetrator cannot be ascertained as having been to modify the environment.

A non-exhaustive list, illustrating the types of natural processes covered by this treaty, were outlined in an Understanding that was attached to the ENMOD Convention. Examples of such techniques are ‘earthquakes, tsunamis, an upset in the ecological balance of a region, changes in weather patterns (clouds, precipitation, cyclones of various types, and tornadic storms), changes in climate patterns, changes in ocean currents, changes in the state of the ozone layer, and changes in the state of the ionosphere’. 53

In essence, the Convention seems to address possible future developments of military technology more than present military capabilities. However, some countries have argued that the Convention covers ‘all environmental techniques … regardless of the level of technology applied’. 54 The Convention has also been declared to be applicable to the use of herbicides if such use ‘upsets the ecological balance of a region, thus causing widespread, long-lasting or severe effects as the means of destruction, damage or injury to another State Party’. 55

As a matter of fact, Article I(1) of the Convention employs language that echoes that contained in the environmental provisions of Additional Protocol I. However, there are several important differences between the two instruments. First, the ENMOD Convention only deals with a specific type of weapon (environmental modification techniques), while the Protocol is applicable to any (at least conventional) means of

54 Supra, note 33, pp. 305-306.
55 Ibid., p. 469.
warfare. Second, under Articles 35(3) and 55 of Protocol I, the damage to the environment must be widespread, long-term and severe. In the ENMOD Convention, the threshold required for environmental damage is "widespread, long-term or severe" replacing the word 'and' with 'or'. As such, under the ENMOD Convention, it suffices merely if one of the conditions is satisfied.\textsuperscript{56}

Further, the adjectives used in the ENMOD Convention have a meaning that is different from that of their counterparts in the Additional Protocol I. In particular, 'widespread' means 'encompassing an area on the scale of several hundred square kilometres', 'long-term' implies 'a period of months, or approximately a season' (while in Additional Protocol I it refers to years or decades), and 'severe' means 'involving serious or significant disruption or harm to human life, natural and economic resources or other assets'.\textsuperscript{57}

As such, to be prohibited under ENMOD, the use of environmental modification techniques must be 'military' or 'hostile' and deliberate, that is, not merely the collateral consequence of an attack against another objective. The ENMOD Convention prohibits States parties not only from engaging in hostile environmental modification techniques themselves, but also assisting, encouraging or inducing any other state, group of states or international organization to conduct the prohibited activities.\textsuperscript{58} Furthermore, the State Parties are obligated to prohibit and prevent any activity in violation of the Convention anywhere under their jurisdiction or control, even if carried out by third states.\textsuperscript{59}

However, Article I(1) only prohibits the use of environmental modification techniques. It makes no mention of testing, research or development of such environmental modification techniques. Further, the damage caused by the hostile use of the environmental modification technique must be inflicted to the territory of another state party to the ENMOD Convention. In any case, damage to areas beyond national

\textsuperscript{56} Supra, note 35, p. 407.
\textsuperscript{57} Ibid.
\textsuperscript{58} Supra, note 35, Article I(2).
jurisdiction, to the territory of a state that has not ratified the Convention and even to the territory of the state using the environmental modification technique is not prohibited.\textsuperscript{60} This means that ENMOD Convention is not a water-tight measure for protecting against unfavourable environmental modification given that the exceptions are too wide to deter most of the environmental modification activities that occur during armed conflict and tend to damage the environment.

It is noteworthy that the ENMOD Convention gives specific recognition, especially in the preamble, of the significance of scientific and technological developments in providing new means of environmental modification. However, the Convention does not cover research and development into environmental modification techniques for hostile use.\textsuperscript{61} Thus, it seems possible for member states to commission and undertake research on viability of environmental modification techniques without attracting sanctions under the Convention.

Although the ENMOD Convention was adopted by the United Nations General Assembly in 1976 and entered into force in October 1978, no complaints have ever been brought under it. As such, the ENMOD Convention remains essentially a dormant convention, a fact which has not helped matters in developing interpretive jurisprudence in relation to the elements necessary for warfare activities to be prohibited under it.\textsuperscript{62}

According to the International Committee of Red Cross, the ENMOD Convention, as at September 2009, has only 73 states parties, which is less than half of the world's states. It suffices to say that this low membership of the ENMOD Convention has rendered it a low-key measure for protection of environment during armed conflict.\textsuperscript{63} This is grave, given the fact that the ENMOD Convention prohibits only damage caused by the hostile use of the environmental modification technique and inflicted to the territory of another

\textsuperscript{60} Ibid., pp. 180-181.

\textsuperscript{61} Article 1(1) only prohibits the use of environmental modification techniques. It makes no mention of testing, research or development of such environmental modification techniques.


\textsuperscript{63} The International Committee of Red Cross, \textit{Member States to the ENMOD Convention}; http://www.icrc.org/ihl.nsf/webFULL?openView (last accessed on 18/09/2009).
state party to the ENMOD Convention. In any case, only damage to areas within the national jurisdiction, to the territory of states that have ratified the Convention, is prohibited. The ENMOD Convention also does not prohibit environmental modification by any member states where the effects of the modification are only felt within the territory of the state using the environmental modification technique.\textsuperscript{64}

In addition, there have been only two review conferences, one in 1984 and the other in 1992, which is far less frequent than provided for in the Convention. The Convention provides for regular review conferences and expects these to be at approximately five-year intervals. The review conferences developed mere 'understandings' which are non-binding in nature, seeking mainly to clarify the meaning of the Articles and also the scope of the Convention's application. The understandings have focused on the application of the ENMOD Convention to 'low-tech' environmental modification such as the firing of oil wells and to the use of pesticides.\textsuperscript{65}

The ENMOD Convention has been described as being primarily an arms control agreement, rather than an environmental protection agreement, for the fact that it does not cover incidental environmental damage caused during war. Indeed, the ENMOD Convention deals only with a specific type of weapon, that is, environmental modification techniques and weaponry, unlike the Additional Protocol I which is applicable to any conventional means of warfare.\textsuperscript{66}

There is recognition in the ENMOD Convention that environmental modification may also be used for beneficial purposes and so peaceful use is not prohibited. Other articles of the Convention provide for cooperation and the exchange of scientific and technical information for peaceful purposes and for the establishment of a consultative committee of experts to assist in clarifying states' obligations. As a matter of fact, for a prohibition to be warranted under the ENMOD Convention, the environmental modification techniques must be deliberately put to 'military' or 'hostile' use. In other words, ENMOD

\textsuperscript{64} Supra, note 41, pp. 180-181.
\textsuperscript{65} Supra, note 41.
\textsuperscript{66} Ibid., p. 178.
Convention does not cover collateral consequence of an attack against another objective.\textsuperscript{67}

The ENMOD Convention has also been criticized for seemingly addressing more of possible future developments of military technology than present military capabilities and reality. This has been put forth as the main reason for the dormancy of the Convention. And matters have not been helped by the attempt by some countries to interpret the Convention to cover ‘all environmental techniques ... regardless of the level of technology applied’ which has not achieved consensus among ENMOD Convention member states.\textsuperscript{68}

In the ENMOD Convention, the threshold required for environmental damage is “widespread, long-term or severe”. This implies that, under the Convention, it suffices merely if one of the conditions is satisfied.\textsuperscript{69} This affords more accessible protection in that any environmental damage that meets any of the three criteria, that is, inflicts environmental modification that is either widespread, or takes place for a long period of time or is severe in its impact is prohibited under the Convention. That is unlike the case in the Additional Protocol I where all the three thresholds have to be present for environmental damage to be prohibited under it.

Importantly, the three thresholds in the ENMOD Convention have been specifically defined, making interpretation and application relatively easy compared to the Additional Protocol I. Thus ‘widespread’ means ‘an area on the scale of several hundred square kilometres’, ‘long-lasting’ implies ‘a period of months, or approximately a season’, and ‘severe’ means ‘involving serious or significant disruption or harm to human life, natural and economic resources or other assets’.\textsuperscript{70} In fact, it emerges from the definitions of the three thresholds that the ENMOD Convention affords a lower and easier to prove threshold compared to the Additional Protocol I. For instance, while under the Additional

\textsuperscript{67} Ibid.
\textsuperscript{68} Supra, note 26, pp. 905-906.
\textsuperscript{70} Ibid.
Protocol I for damage to be termed as long-term it has to persist for years and decades, under the ENMOD such damage would be prohibited if it occurs for a mere period of months or just a season.

However, the ENMOD Convention is not a water-tight measure for protecting against unfavourable environmental modification. First and foremost, problems of enforcement arise as the Convention gives very wide exceptions in its definition of environmental modification. Further, as an instrument for protecting the environment during armed conflict, it is limited in that Article I(1) only prohibits the use of environmental modification techniques. There is no mention of testing, research or development of such environmental modification techniques. Further, the damage caused by the hostile use of the environmental modification technique must be inflicted to the territory of another state party to the ENMOD Convention and damage to the territory of a state that has not ratified the Convention or to the territory of the state using the environmental modification technique is not prohibited. As such, the low membership of the ENMOD Convention has rendered it a low-key measure for protection of environment during armed conflict.

2.3.3 Protocol III Additional to the 1980 Convention on Certain Conventional Weapons

The Protocol III annexed to the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW)\textsuperscript{71} also specifically addresses the natural environment in the context of military hostilities.

Article 2(4) of the Protocol prohibits making "forests or other kinds of plant cover the object of attack by incendiary weapons except when such natural elements are used to

\textsuperscript{71} 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; 19 ILM 1823 (1980).
cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives”.72

However, the foregoing provision is rather limited in scope in that it applies only to a specific element of the natural environment, namely, forests or other kinds of plant cover. In addition, the provision applies only where the plant cover is not used for military purposes, and only to a particular means of warfare (incendiary weapons).73 As such, it is limited in scope in its ability to protect the environment in times of armed conflict.

Article 2(4) does not seem to reflect customary international law.74 But a 2001 amendment to Article 1 of the Convention on Conventional Weapons extended the application of the Convention and of its annexed Protocol to situations referred to in Article 3 common to the four Geneva Conventions of 1949, that is, armed conflicts not of an international character.75

The Protocol III is, like its parent convention, essentially an arms control agreement. As such, the aspect of environmental protection during armed conflict is merely incidental and restricted to just a single sub-clause. Article 2(4), which is the only Article in Protocol III that deals with protection of the environment, merely prohibits making plant cover the object of attack by incendiary weapons. In fact, even this sub-clause allows the use of plants and other natural elements as cover, concealment or camouflage for combatants or other military objectives or military objects.76

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73 ‘Incendiary weapons’ are defined in Article 1(1) of the Protocol and include ‘any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or a combination thereof, produced by a chemical reaction of a substance delivered on the target’.
74 Supra, note 13, p. 288.
76 Supra, note 35, p. 407.
No doubt the above provision of the Protocol III is deficient and limited in application. It neglects other aspects of the environment prohibiting, as it does, only forests or other kinds of plant cover against targets with incendiary weaponry. Further, the protection extended to forests and plant cover under the Protocol III is only available where the plant cover is not used to further military objectives. Indeed, Article 2(4) is further limited by the fact that it does not reflect customary international law.

2.3.4 Article 8(2)(b)(iv) of the Rome Statute

Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court (ICC) lists, as a war crime, intentionally launching an attack in the knowledge that such attack will cause widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to concrete and direct overall military advantage anticipated. In other words, the Rome Statute provides that intentional destruction of the environment may amount to a war crime.

Clearly, much of this provision is modeled on Article 35(3) of the Additional Protocol I. However, there are a number of important differences which act as a further limit to the application of the Statute. Firstly, the Statute requires both intention and knowledge of the outcome, rather than either intention or expectation as required by the Protocol. This is an expected requirement as the crime is concerned with individual criminal responsibility. In that case, the mens rea of intent and knowledge must be proven, which, coupled with the subjectivity of the prohibition, would make the prosecution quite difficult.

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77 'Incendiary weapons' are defined in Art. 1(1) of the Protocol and include ‘any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or a combination thereof, produced by a chemical reaction of a substance delivered on the target’.
78 Supra, note 31, p. 288.
80 Supra, note 35, p. 178.
Article 8(2)(b)(iv) is also vague with regard to what amounts to the *actus reus* to warrant individual criminal responsibility for environmental damage. Essentially, the Article prohibits committing 'widespread, long-term and severe damage to the non-human environment'. However, neither the Rome Statute nor the Elements of Crimes define those terms. As a result, it is almost impossible to predict what types of environmental damage the International Criminal Court will consider sufficiently devastating to justify conviction.

Such uncertainty is extremely problematic in the criminal context. In any case, the principle of legality (no crime without law) requires crimes to be as specific and detailed as possible, so as to clearly indicate to their addressees the conduct prohibited, namely, both the objective elements of the crime and the requisite *mens rea*. As currently written, Article 8(2)(b)(iv) lacks precision and is too general to provide a safe yardstick for the work of the Court. The ambiguity of Article 8(2)(b)(iv) "widespread, long-term and severe damage" requirement is in conflict with Article 22(2) of the Rome Statute which provides that "[t]he definition of a crime shall be strictly construed and shall not be extended by analogy. In case of ambiguity, the definition shall be interpreted in favor of the person being investigated, prosecuted or convicted." 

In fact, some jurists have argued that the damage to the natural environment to warrant application of Article 8(2)(b)(iv) must be clearly excessive in relation to the military advantage anticipated in line with the international humanitarian law principle of proportionality. The principle of proportionality is to the effect that a balance must be struck between the military advantage anticipated and the damage to the natural environment as a civilian object unless an element of the environment, such as a forest, is considered to be a military objective. This provision has the same difficulty as the Protocol I in that it could prove very difficult to substantiate that the three required elements of "widespread, long-term and severe damage" have indeed been met.

84 Supra, note 40, Article 22(2).
85 Supra, note 35, p. 186.
At the theoretical level, Article 8(2)(b)(iv) is capable of providing the nonhuman environment with unprecedented protection. First, violations of the Article entail individual criminal responsibility which is a far greater deterrent to wrongdoing than State responsibility imposed by many of the conventions. Secondly, Article 8(2)(b)(iv) does not condition individual criminal responsibility on damage to the non-human environment also causing injury to human beings, making it the first genuinely ecocentric war crime. Third, the independence of the Prosecutor and the ICC’s mandatory jurisdiction over State Parties make investigations into politically-sensitive situations far more likely under Article 8(2)(b)(iv) than under any of the conventions. Finally, Article 8(2)(b)(iv) can potentially be used to prosecute environmental war crimes that are committed anywhere in the world as Article 12 of the Rome Statute allows non-State parties to consent to the ICC’s jurisdiction over specific situations.

2.4 Indirect Treaty Law on Protection of the Environment in Times of Armed Conflict

There are numerous isolated treaty provisions that appear, at least indirectly, to address the issue of protection of the environment during armed conflict. For instance, Article 23(g) of the Hague Regulations annexed to the 1907 Hague Convention IV prohibits ‘[t]o destroy or seize the enemy’s property, unless such destruction or seizure be imperatively demanded by the necessities of war’. The applicability of this provision to the natural environment is suggested in the 1994 ICRC Guidelines. Further, the US Department of Defence Final Report on the Conduct of the Gulf War also argued that the oil spills and destruction of oil wells caused by Iraq were in violation of Article 23(g) of the Hague Regulations.

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87 Supra, note 40, 12(1).
88 Ibid., Article 12(3).
89 Art. 23 of the Hague Regulations Respecting the Laws and Customs of War on Land, annexed to the 1907 Hague Convention IV Respecting the Laws and Customs of War on Land; 9 UKTS 1910; Cmd. 5030.
90 Supra, note 14, p. 154.
In addition, Article 53 of the Geneva Convention IV\(^92\) forbids the destruction of private or state property by an occupying power in the context of belligerent occupation, ‘except where such destruction is rendered absolutely necessary by military operations’.\(^93\) In contrast, while Article 23(g) of the Hague Regulations only protects those portions of the environment that are the property of the enemy state, Article 53 covers private property, although it only applies to belligerent occupation. In both provisions, however, the word ‘property’ leaves room for ambiguity as to whether it can encompass natural resources.\(^94\) Further, the protection is subordinated to military necessity. Indeed, the word "environment" does not appear in the Hague Regulations or in the 1949 Geneva Conventions. Further, none of these treaties addresses specifically environmental issues.\(^95\)

The Additional Protocol I also contains provisions that, although not directly concerned with protection of the environment, may be construed as limiting environmental damage of warfare. For instance, Article 51 prohibits indiscriminate attacks, including such attacks “which employ a method or means of combat the effects of which cannot be limited as required by this Protocol.”\(^96\) Article 52 provides protection to civilian objects. On its part, Article 53 protects cultural objects and places of worship.\(^97\) Article 54 protects objects indispensable to the survival of the civilian population, such as ‘foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works’.\(^98\)

Article 56 provides for the protection of works and installations containing dangerous forces, in particular “dams, dykes and nuclear electrical generating stations”. These are prohibited to be the object of attack, even when they are military objectives, if such an

\(^{92}\) Geneva Convention IV Relative to the Protection of Civilian in Time of War (hereafter, 1949 Geneva Convention IV); 75 UNTS 287.
\(^{95}\) Ibid.
\(^{96}\) 1977 Additional Protocol I to the 1949 Geneva Conventions, Article 51(4)(c).
\(^{97}\) Ibid., Article 52 & 53.
\(^{98}\) Ibid. Article 54(2).
attack may cause the release of dangerous forces and consequent severe losses among the
civilian population. The Article does, however, provide narrow circumstances in which
those named protected sites may legitimately be attacked. This provision was adopted in
response to accusations that during the Vietnam War, US forces had attacked dykes in
order to induce catastrophic floods.99

2.5 Guidelines and Principles on Protection of the Environment in Times of Armed
Conflict
In addition to the treaty provisions enumerated above, further protection of the
environment during armed conflict can be found in guidelines and principles adopted by
international conferences. Essentially, these serve to uphold the high aims the
international community has for environmental protection. However, they entail largely
non-binding instruments that also deal with the protection of the environment in times of
armed conflict.

For instance, Principle 26 of the 1972 Stockholm Declaration on the Human Environment
provides that ‘man and his environment must be spared the effects of nuclear weapons
and all other means of mass destruction’.100 Further, Principle 21 of the Stockholm
Declaration of 1972 expresses the duty of States “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.101

The 1982 World Charter for Nature states that ‘[n]ature shall be secured against
degradation caused by warfare or other hostile activities’ and that ‘military activities
damaging to nature shall be avoided’.102

Furthermore, Principle 23 of the Rio Declaration states:

p. 192.
(1972), Principle 26.
101 Ibid., Principle 21.
paras. 5 and 20.
"The environment and natural resources of people under oppression, domination and occupation shall be protected."\(^{103}\)

Principle 24 states:

"Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary."\(^{104}\)

Clearly, these principles offer a challenge for those States willing to embrace them and point the direction for international political consensus on protection of the environment during armed conflict.\(^{105}\)

According to the *Agenda 21*, adopted at the 1992 Rio Conference, "measures in accordance with international law should be considered to address, in times of armed conflict, large-scale destruction of the environment that cannot be justified under international law".\(^{106}\) However, the practical importance of the above mentioned documents is limited by their non-binding character and their vagueness.\(^{107}\)

In the Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the ICJ highlighted the importance of the environment, noting that it represents the living space, the quality of life and the health of human beings including unborn generations.\(^{108}\)

The ICJ outlined the environmental protection duty of states parties engaged in armed conflict thus:

"States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives."


\(^{104}\) Ibid., Principle 24.


\(^{107}\) Supra note 72, at 170.

\(^{108}\) Supra, note 28, para. 29.
Respect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality.\textsuperscript{109}

Further, in the *Nuclear Weapons Case*, the ICJ made special note of the UN General Assembly Resolution on the Protection of the Environment in Times of Armed Conflict,\textsuperscript{110} which affirms that environmental considerations constitute one of the elements to be taken into account in the implementation of the principles of the law applicable in armed conflict. The Resolution also states that "destruction of the environment, not justified by military necessity and carried out wantonly, is clearly contrary to existing international law".\textsuperscript{111}

**2.6 Conclusion**

In a nutshell, there is advanced treaty law on the protection of the environment during armed conflict. In particular, the Additional Protocol I, the ENMOD Convention and the 1998 Rome Statute on the Permanent International Criminal Court amount to a comparatively comprehensive framework for protection of the environment during armed conflict. Customary law on the area is yet to be fully developed.

However, despite having in place such a framework for environmental protection during armed conflict, the environment still suffers untold damage whenever armed conflict occurs. The question that arises is how the law is enforced and/or implemented and whether the methods of enforcement and implementation are effective. The first question will be answered in the next chapter through discussion of the process of implementation and enforcement of law on protection of the environment.

\textsuperscript{109} Ibid., para. 30.
\textsuperscript{111} Supra, note 28, para 32.
CHAPTER THREE

IMPLEMENTATION AND ENFORCEMENT OF THE LAW ON PROTECTION OF THE ENVIRONMENT TIMES OF ARMED CONFLICT

3.1 Introduction

The discussion in the foregoing two chapters has established the existence of several international instruments for the protection of the environment during armed conflict. However, despite the existence of such elaborate legal frameworks for the protection of the environment during armed conflict, armed conflicts continue to pose more threat to the environment today than they did in the past.\(^1\) The environment continues to be both a victim and a weapon during armed conflicts.

Therefore, it is necessary to examine the enforcement and implementation mechanisms of the legal regime on the protection of the environment during armed conflict. This chapter discusses the available implementation and enforcement mechanisms of the law on environmental protection during armed conflict. The aim is to complete the exposition of the text and enforcement mechanisms of the law on protection of the environment during armed conflict commenced in Chapter Two above.

The chapter discusses the implementation and enforcement mechanisms and procedures for the law on the protection of the environment in times of armed conflict. The chapter discusses the implementation and the enforcement mechanisms available and then shifts focus to the institutional framework for the enforcement of the law.

3.2 Implementation and Enforcement Mechanisms Provided under the Law

The international law for protection of the environment during armed conflict provides various mechanisms for its implementation and enforcement. The main mechanisms for enforcement and implementation of the law are embodied in the concept of the

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international responsibility of States and the principle of individual criminal responsibility.

3.2.1 The International Responsibility of States
States are the main instruments for enforcing international law, being the primary subjects of international law. Indeed, even where individual criminal responsibility is provided for, it is usually secondary to the duty of the state to enforce the law. With regard to the law on the protection of the environment during armed conflict, the states have defined responsibility for its enforcement.

For instance, all the four Geneva Conventions and the Additional Protocol I\(^2\) have a common Article 1 which stipulates that the contracting States are under an obligation to respect and to ensure respect for those instruments. Most of the member States have taken cue and domesticated the Geneva Conventions. For instance, Kenya enacted the Geneva Conventions Act\(^3\) to domesticate and provide for the enforcement of the Conventions as part of the municipal law. Under the Judicature Act\(^4\), section 3, international law is not part of the Kenyan law even after ratification of the respective treaty. However, international law instruments can be transformed into municipal law in Kenya through enactment as provided for under section 46 of the Constitution.\(^5\) That is one way the state can discharge its responsibility to enforce and implement international law on the protection of the environment during armed conflict.

Thus, the Kenyan courts are empowered under the Geneva Conventions Act to try cases of grave breaches of the rules.\(^6\) Section 3 of the Act lists the offences which amount to grave breaches of the rules, which breaches are punishable by a maximum sentence of imprisonment for life. The Act also provides for the procedure to ensure that there is no miscarriage of justice by providing safeguards for affording accused persons fair trial.\(^7\)


\(^6\) Supra, note 3, section 3.

\(^7\) Ibid., sections 4, 5 & 6.
Apart from trying persons who violate the Conventions within the Kenyan territory, the Geneva Conventions Act allows for the prosecution of perpetrators of offences in violation of the Geneva Conventions even where the offences in question were committed outside Kenyan borders.\(^8\) In effect, Kenya can take measures to enforce the Geneva Conventions where the acts complained of did not occur in its territory.

Further, each State is responsible for acts or omissions that are attributable to it and amount to a breach of an international obligation incumbent on it, including in the field of the international protection of the environment. As such, the States affected and/or aggrieved by such a breach of international obligation are entitled to insist on the implementation of such rules of state responsibility, including cessation of the unlawful conduct, restitution and reparation.\(^9\)

Essentially, any violation of either treaty-based or customary rules attributable to a State would create an obligation on the part of the offending State towards the State or States whose environment suffered damage.\(^10\) Article 3 of Hague Convention IV of 1907\(^11\) and Article 91 of 1977 Protocol I provide for state liability for violation of international obligations including environmental damage as prohibited under the treaties. If a State is found in violation, it may be required to make reparation.

The ENMOD Convention does not have an elaborate enforcement or remedial mechanism. The Convention requires the State aggrieved by environmental modification, in breach of the Convention, to make a formal complaint before the UN Security Council, which can in turn investigate and issue a report condemning the matter.\(^12\) One would have expected that after the issuance of the report condemning environmental

\(^8\) Ibid., section 3(2).
\(^10\) Ibid.
\(^11\) 1907 Hague Convention IV Respecting the Laws and Customs of War on Land, 9 UKTS 1910; Cmd. 5030.
\(^12\) Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD); UKTS 24 1979; Cmd. 7469; reprinted in 16 ILM 88 (1977); Article 5(5).
modification, provision would be made for referral of the question to ICJ, which is the principal judicial organ of United Nations, for a decision on what punishment would issue against the State in breach of the ENMOD Convention. The Security Council is ill-suited to enforce the Convention given that it is it is a political body and its jurisdiction is limited as against some States, especially its permanent members, who can use their veto power against unfavourable resolutions or decisions.

Although international state responsibility is the main mechanism for enforcing international law, it has not been very effective as an enforcement mechanism in the protection of the environment during armed conflict. First, it is inhibited by the limited transformation of international instruments protecting the environment during armed conflicts into the municipal law. There is the constitutional practice that in most legal systems, the ratification of an international instrument does not necessarily render it enforceable under the municipal law until it is domesticated through the local legislative measures. However, the 1969 Vienna Convention seems to bind state parties to discharge their treaty obligations by providing that “every treaty in force is binding upon the parties to it and must be performed by them in good faith.” In essence, this can be considered to amount to a moral obligation on state parties against acting contrary to treaties that they have ratified, although it is not strictly a legal obligation.

In addition, States that are very active in armed conflict, like the United States, have opted to undertake selective adoption and ratification of international instruments relating to environmental protection in times of armed conflict. Further, the possibility that a state will be held responsible for environmental damage during armed conflict has not been an effective deterrent against environmental damage during armed conflict. This is because after the war, the victor’s justice prevails with the winner in war taking all credit. As a result, states in war are willing to do anything to win the war even if it means breaching international law. Indeed, it has been observed:

Even if reparations were widely imposed, it is unlikely that they would be an effective deterrent to environmental destruction. States that resort to armed force are unlikely to decide to give up an act because of the pecuniary risk, for the risk only becomes a reality if the state suffers a military defeat. The desire to avoid possible defeat would certainly outweigh any deterrent effect generated by the possibility that the loser might have to make reparations. After all, in the vast majority of cases, the likelihood of defeat will exceed the likelihood of having to pay reparations; states sometimes lose without having to pay reparations, but they almost never make reparations without having lost.  

The international responsibility of states in the protection of the environment during armed conflict was also emphasized during the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro (1992). The Rio Declaration contains three principles on armed conflict. Principle 2 makes it the responsibility of every state to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond their jurisdictions. Principle 15 of the Rio Declaration urges States to take precautionary approach in addressing threats to the well being of the environment. The precautionary approach is especially recommended where there are "threats of serious irreversible damage." Principle 24 of the Rio Declaration urges states to take measures to respect international law providing for protection of the environment in times of armed conflict and to cooperate in its development. The Principle 24 states:

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

The UNCED Action Plan, the *Agenda 21*, also makes explicit reference to the state responsibility to implement the law on protection of the environment during armed conflict. In this respect, Paragraph 39.6 of *Agenda 21* states:

Measures in accordance with international law should be considered to address, in

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16 UN Doc. A/CONF.151/26 (Vol. 111).
times of armed conflict, large-scale destruction of the environment that cannot be justified under international law. The General Assembly and its Sixth Committee are the appropriate forums to deal with this subject. The specific competence and role of the International Committee of the Red Cross should be taken into account. 17

3.2.2 Individual Criminal Responsibility

Environmental damage in times of armed conflict is also a war crime. This is provided for under the Rome Statute for the permanent International Criminal Court, Article 8(2)(b), which gives states and international community the power to punish destruction of the environment as a war crime. This is in line with the observation of the Nuremberg International Military Tribunal, more than six decades ago, that “crimes against international law are committed by men, not by abstract entities, and only by punishing individuals who commit such crimes can the provisions of international law be enforced.” 18

Environmental prosecutions date back to the time of International Military Tribunal (IMT). Article 6(1) of the Nuremberg Charter made ‘wanton destruction of cities, towns or villages, or devastation not justified by military necessity’ a war crime. 19 As such, the IMT convicted German General Alfred Jödl of violating Article 6(1) by engaging in scorched-earth policies in Norway and Russia. 20 Similar charges were brought against another Nazi leader, General Lothar Rendulic, for his activities that saw considerable dilapidation of Norway as the German army retreated, but the Nuremberg Military Tribunal acquitted him on the ground that he had honestly, but mistakenly, believed that his actions were justified by military necessity. 21 The United Nations War Crimes Commission indicted nine German civilian administrators of Polish forests as war criminals after concluding that their ruthless exploitation of Polish forestry, involving the wholesale cutting of Polish timber to an extent far in excess of what was necessary to

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17 Paragraph 39.6(a) of Agenda 21.
19 Charter of the International Military Tribunal, Article 6(1), Aug. 8, 1945; 59 Stat. 1544, 1547; 82 UNTS 279.
preserve the timber resources of the country, established a prima facie case of pillaging under Article 53 of the Fourth Geneva Convention.22

The principle of the individual criminal responsibility for perpetration of certain breaches of international law, including those bearing on the environment in times of armed conflict, as well as of the person ordering the commission of such acts, is of critical importance. It is the duty of States, under the international law, to bring to justice all persons suspected of having committed or ordered the commission of grave breaches or war crimes under the international law.23

Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court (ICC) includes, as a war crime, intentionally launching an attack in the knowledge that such attack will cause widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to concrete and direct overall military advantage anticipated.24

In theory, Article 8(2)(b)(iv) is capable of providing the natural environment protection from unwarranted damage during armed conflict. In any case, the violations of the Article are framed to entail individual criminal responsibility, which is a far greater deterrent to wrongdoing in comparison with State responsibility imposed by many of the conventions.25 Secondly, the application of Article 8(2)(b)(iv) does not condition individual criminal responsibility on damage to the natural environment also causing injury to human beings.

The Rome Statute of International Criminal Court guarantees the independence of the Prosecutor of the ICC.26 The guarantee, plus the compulsory jurisdiction of the ICC as

23 Ibid.
26 See supra, note 24, Article 15(1).
against State Parties, make investigations into politically-sensitive situations far more likely under Article 8(2)(b)(iv) than under any of the conventions. In any case, the jurisdiction of the ICC is complementary to that of the State. It only applies where the State Party is unwilling to prosecute or lacks the ability to do so fairly and justly. Also, it is noteworthy that Article 8(2)(b)(iv) of the Rome Statute of International Criminal Court is available for prosecution of environmental war crimes, wherever in the world they have been committed.

In order to be successfully prosecuted as environmental war crimes, the acts complained of must have taken place within the context of an international armed conflict. Further, the provisions of the Rome Statute of the International Criminal Court require that (a) the attack was intentional; (b) the damage was widespread, long-term, and severe; and (c) the perpetrator had the knowledge that the damage would be "clearly excessive" in relation to "concrete and direct overall military advantage." These are very ambiguous thresholds required in order to prove environmental war crimes. The result is that the International Criminal Court is an "unlikely forum for any new broad initiative to prosecute environmental law of war violations or other environmental war crimes."

In essence, a number of limits stand against the application of the provision for environmental war crimes under the Rome Statute. First, the Statute requires that intent and knowledge of the attack and extent of the likely damage be proved. Thus, to succeed in prosecuting an environmental crime under the Statute, the Prosecutor must prove that the perpetrator intended the attack to cause the damage it caused and had knowledge that the resultant damage would be "clearly excessive" in relation to "concrete and direct overall military advantage." Matters are complicated by the fact that there is no objective

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27 Ibid., Article 12(1).
28 Ibid., Article 12(3).
29 Ibid.
criterion from which to infer the intent or knowledge and the Court is required to rely on the subjective judgment of the perpetrator.\(^{31}\)

Secondly, Article 8(2)(b)(iv) is very vague and general on matters relating to the \textit{actus reus} of environmental crimes as a result of environmental damage. All the Article provides for is a prohibition of ‘widespread, long-term and severe damage to the non-human environment’.\(^{32}\) There are no steps taken to define these terms under the Rome Statute or the Elements of Crimes. As a result, the types of environmental damage that the ICC will consider sufficiently devastating to justify conviction is unclear, creating uncertainty as to the nature and scope of environmental crimes under the Rome Statute. This uncertainty invites the application of the principle of legality (no crime without law) which requires crimes to be as specific and detailed and in case of ambiguity, the advantage to go to the suspect.\(^{33}\)

In particular, the uncertainty of Article 8(2)(b)(iv) conflicts with Article 22(2) of the Rome Statute. The later Article provides that “[t]he definition of a crime shall be strictly construed and shall not be extended by analogy.” Article 22(2) goes further to stipulate that “in case of ambiguity, the definition shall be interpreted in favor of the person being investigated, prosecuted or convicted.”\(^{34}\) As a result, it is difficult to attain a conviction for environmental war crimes under Article 8(2)(b)(iv) given that its ambiguity stands in the way of its effective application and is a bonus to the defense.

There are also political reasons which militate against environmental crimes prosecution under Article 8(2)(b)(iv) of the Rome Statute of International Criminal Court. These include considerations, such as victors' spoils, potential for the environment to become peripheral in the face of crimes against humanity, and hesitancy on the part of the international community. These political reasons were in play during the prosecution of

\(^{32}\) Supra, note 24, Article 8(2)(b)(iv).
\(^{34}\) See supra, note 24, Article 22(2).
the former Iraqi Government for environmental damage resulting from the burning of the oil fields in the 1991 Gulf War.\textsuperscript{35}

That is not to say that Article 8(2)(b)(iv) is without value as a legal framework for protection of the environment during armed conflict. The fact that the Article makes destruction of environment a matter of individual criminal responsibility renders it a very potent deterrent as against individual military commanders. In any case, individual criminal responsibility for environmental damage is far more effective in comparison to State responsibility.\textsuperscript{36} The deterrent power of the environmental war crime provision under the Rome Statute is particularly poignant given the perceived independence of the Prosecutor of the ICC. In addition, Article 8(2)(b)(iv) is available for prosecution of environmental war crimes committed anywhere in the world whether the environmental damage affects a member state to the Rome Statute or a non-member state.\textsuperscript{37}

Importantly, Article 8(2)(b)(iv) protects the environment \textit{qua} environment. In other words, the Article does not make it a requirement, in order to amount to environmental crime, that the culpable environmental damage also causes injury to human beings. Hence, even isolated damage to the environment which causes no significant injury to human beings falls within the purview of the Article.\textsuperscript{38}

\textbf{3.3 Institutional Frameworks for Implementation of Law on Environmental Protection in Times of Armed Conflict}

\textbf{3.3.1 International Court of Justice}

The International Court of Justice (ICJ) is the principal judicial organ of the United Nations as per Article 92 of the Charter of the United Nations. The ICJ is located at The Hague, Netherlands, and is commonly called the “World Court.” It has been described as


\textsuperscript{37} Supra, note 24, Article 12(3).

\textsuperscript{38} Supra, note 33.
the “the guardian of legality for the international community as a whole both within, and without, the United Nations.” The Court is composed of fifteen judges of different nationalities who are elected by the General Assembly and the Security Council. The Court has a dual role, namely, to settle in accordance with the international law legal disputes submitted to it by States, and to give advisory opinions on legal questions referred to it by duly authorized international organs and agencies.

The ICJ has recently had two key cases before it with relevance to the protection of the environment in times of armed conflict. The first was an advisory opinion, in 1996, on the legality of the threat or use of nuclear weapons (the Nuclear Weapons Case). The second was in 1999 when a group of claims were made by the former Yugoslavia against the members of the North Atlantic Treaty Organization (NATO) (the Yugoslavia Cases).

The ICJ’s advisory opinion on the legality of the threat or use of nuclear weapons was provided at the request of the General Assembly which sought its opinion on whether threat or use of nuclear weapons is, in any circumstances, permitted under international law. The Court held 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." The relevance of the Advisory Opinion to the application of environmental law in wartime is not in question. Noteworthy, the ICJ recognized that the general obligation of States to ensure that activities within their

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40 Statute of the International Court of Justice; 1946 U.N.Y.B. 843 at 846, Article 36.
41 Ibid., Article 65.
jurisdiction or control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.46

Further, the Court emphasized the importance of environmental considerations in military operations. ICJ stated that 'States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives'.47

The second case arose from the NATO military activities in Kosovo. In 1999, NATO executed an extensive aerial bombing campaign over Kosovo in the Federal Republic of Yugoslavia,48 which was justified as a humanitarian response to reports of atrocities being carried out by the Serbian military against ethnic Albanians in Kosovo. However, this NATO action did not fit within exceptions to the prohibition of the use of force by the UN Charter and was condemned in some quarters as illegal.49 Thus, on 29 April 1999, Yugoslavia initiated claims before the ICJ against each of the Member States of NATO alleging, inter alia, breaches of international humanitarian law and requesting preliminary measures to terminate the NATO action, as well as compensation for damage.

The ICJ was being asked, as per Judge Weeramantry, to 'do no less than to prevent or mitigate the severities of a major military operation'.50 Further, the claims included allegations that the members of NATO had breached obligations 'not to cause considerable environmental damage' by (a) taking part in 'the bombing of oil refineries and chemical plants' and (b) by 'the use of weapons containing depleted uranium'.51

45 Supra, note, para. 105(2)E.
46 Ibid., para. 29.
47 Ibid., para. 30.
49 Supra, note 36.
51 See, for example, the claim against Belgium, supra, note 37.
On 2 June 1999, the Court decided that it had no jurisdiction with regard to the claims against Spain and the USA. It also decided not to grant provisional measures in relation to the cases against the other eight NATO members, on the basis that it did not have the *prima facie* jurisdiction required by Article 38(5) of the ICJ Rules which provides that each States that is a party to a suit before the ICJ consent to exercise of the Court’s jurisdiction. Hence, the Court rejected by fourteen votes to two the request for the indication of provisional measures submitted by the Federal Republic of Yugoslavia. In its Order, the Court, having found that it manifestly lacked jurisdiction to entertain the case, decided to dismiss and ordered, by thirteen votes to three, that the case be removed from the List.

It is important to state that the ICJ is, strictly, not an institution for implementation of the law on protection of the environment during armed conflict. The ICJ merely helps to clarify the law for purposes of enforcement and implementation of international law. However, it is left for States and other actors tasked with implementation and enforcement of the international law to utilize it in protecting the environment from damage during armed conflict. Indeed, the ICJ is an *ex post facto* institution whose role comes into play only after the damage has been done. In that regard, the ICJ merely offers interpretation of the law and advisory opinion and does not engage in implementation of the law.

The jurisdiction of the International Court of Justice in environmental protection in times of armed conflict has so far only been exercised through advisory decisions. Importantly, the ICJ has asserted the general obligation of States to ensure that activities within their jurisdiction or control respect the environment of other States or of areas beyond national

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52 For Spain, see the website available at <http://212.153.43.18/icjwww/idocket/iysp/iyspframe.htm> and for the USA <http://212.153.43.18/icjwww/idocket/iyus/iyusframe.htm>. <accessed on 10/07/2009>

53 UK, France, Germany, Italy, the Netherlands, Belgium, Canada and Portugal.

54 With regard to these States, Yugoslavia again based jurisdiction on Article IX of the Genocide Convention as well as Article 36(2) of the ICJ Statute or Article 38(5) of the ICJ Rules of Court.

control.\textsuperscript{56} However, the ICJ is limited in that it cannot be used to prosecute individual criminal liability for environmental damage and deals solely with enforcement of international state responsibility.\textsuperscript{57}

### 3.3.2 United Nations Compensation Commission

The UN Compensation Commission (UNCC) was established by the Security Council in 1991 to process claims and pay compensation for losses resulting from Iraq’s invasion of Kuwait in Gulf War I. The Security Council in Resolution 687 held that:

\begin{quote}
Iraq . . . is liable under international law for any direct loss, damage, including environmental damage and the depletion of natural resources, or injury to foreign Governments, nationals and corporations, as a result of Iraq’s unlawful invasion and occupation of Kuwait.\textsuperscript{58}
\end{quote}

The UNCC is an ad-hoc body with a defined mandate to carry out. The Commission is not a court or an arbitral tribunal before which the parties appear. It is a political organ that performs an essentially fact-finding function of examining claims, verifying their validity, evaluating losses, assessing payments and resolving disputed claims; it is only in this last respect that a quasi-judicial function may be involved. Hence, its role in enforcing the law on protection of the environment is limited. It was established to review claims for and compensate direct loss and damage, including environmental damage, resulting from a specific case, namely, the Iraq’s unlawful invasion and occupation of Kuwait.

Although its role is limited, in that enforcing the law on protection of the environment during armed conflict is merely incidental and it is basically an \textit{ex post facto} institution, the UNCC’s role is nevertheless important. First, the fact that it punishes by requiring compensation for environmental damage in breach of law on protection of the environment in times of armed conflict, it can be said to perform a retributive role in

\textsuperscript{56} Advisory Opinion on Legality of the Threat or Use of Nuclear Weapons, (1996) ICJ Rep. 226 (\textit{Nuclear Weapons Case}).


enforcement of the law. Second, the UNCC also interprets the law on protection of the environment while verifying the claims for compensation.

Further, the establishment of the UNCC was also a symbolic act in that it demonstrated the acknowledgement by the international community of the need to protect the environment during armed conflict. This was the first time the Security Council determined that under international law, wartime environmental damage was compensable.

The Security Council, by Resolution 687(1991), directed the UN Secretary-General to develop recommendations for procedures for compensation. Subsequent to the Secretary General’s Report, on 20 May 1991, the Security Council adopted UN Security Council Resolution 692(1991), by which it established the UN Compensation Commission and the UN Compensation Fund in accordance with Part I of the Secretary-General’s Report, and decided to locate the Commission at the United Nations Office in Geneva.

The most significant thing about the UNCC is that its mandate expressly included claims for compensation for damage to the natural environment. However, these claims (to be made by governments and international organizations) were placed last in the UNCC’s priorities, after claims by individuals and corporations for private injury and loss. This resulted in the UNCC only starting to consider the environmental claims in 2001, ten years after it was set up. The first installment of these claims, regarding monitoring and assessment of environmental damage, was decided on 22 June 2001, and the second

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60 Ibid.
installment, for expenses incurred in abating and preventing environmental damage, on 3 October 2002.\(^\text{63}\)

The UN Security Council Resolution 1483 of 22 May 2003 confirmed that the UNCC will continue to exist and be funded, albeit with only 5% of the proceeds of Iraq’s petroleum exports.\(^\text{64}\) Thus, the opportunity remains for the UNCC to develop the law and procedures necessary to bring States to account for wartime environmental damage. In fact, the Commission has already done much of the preparation for the environmental claims. For instance, it has already set out the main categories of ‘environmental damage and depletion of natural resources’ for which claims could be made. These include losses or expenses resulting from abatement and prevention of environmental damage, measures taken to clean and restore the environment, reasonable monitoring and assessment of the environmental damage and depletion of or damage to natural resources.\(^\text{65}\)

In terms of procedure, the UNCC incorporated oral proceedings as well as written submissions. Further, UNCC involved a multi-disciplinary team of independent experts giving the Commission a rather judicial nature.\(^\text{66}\) These developments are positive especially for precedential value as they enabled Iraq to put several vital questions to the Commission regarding claims for environmental damage in general. Iraq asked whether ‘loss or damage to elements such as cultural property, human health, aesthetic values of landscapes, etc.,’ would be included in the scope of ‘environmental damage and depletion of natural resources’ and how liability for damage resulting from parallel or concurrent causes would be decided.\(^\text{67}\) The UNCC decided that these issues did not need to be addressed in order to decide the claims in the second installment.\(^\text{68}\)


\(^{66}\)Ibid., paras 12–13.

\(^{67}\)Ibid. para. 14.

\(^{68}\)Ibid., para. 26.
However, the precedential value of the UNCC decisions for the future conflicts is limited. First, action by the UNCC or a similar entity as against any of the permanent members of the Security Council is not possible due to the potential to use veto to avoid liability. In addition, the unlawful nature of the war has to be exceedingly clear for the Security Council to determine legitimately such liability. For instance, the chances of such an institution being set up for Gulf War II, where force was initiated by Security Council members and not sanctioned by the UN, are virtually non-existent.  

The precedential value of the UNCC is also limited by its economic feasibility. The compensating State must have some sort of wealth with a high degree of liquidity, not destroyed during the war, which is easily accessible to the UN and not privately owned. This was true of Iraq due to its oil reserves, the sale of which could be controlled by the UN and a percentage siphoned into the compensation fund. Most States, however, do not have such an accessible source of finance.

All in all, the UNCC mandate relates to ex post facto issues, that is, the compensation for damage already done. It has no mandate to prevent, prohibit or even to mitigate damage during armed conflict. The UN Compensation Commission (UNCC) is a transitional body with a limited mandate, namely, to process claims for compensation for damage to the natural environment. However, environmental claims by governments and international organizations for environmental damage are generally placed in back-burner in preference to claims by individuals and corporations for private injury and loss. As a result, the UNCC only started to consider the environmental claims in 2001, ten years after it was set up putting into question its viability to repatriate environmental protection.

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70 Ibid.
3.3.3 International Criminal Court

The International Criminal Court (ICC) is a permanent tribunal to prosecute individuals for genocide, crimes against humanity, war crimes, and the crime of aggression. The Court became operational on 1 July 2002, the date its founding treaty, the Rome Statute of the International Criminal Court, entered into force. The official seat of the Court is at The Hague, Netherlands, but its proceedings may take place anywhere. As at September 2009, 109 States were parties to the Statute of the Court. A further 38 countries have signed, but not ratified the Rome Statute. However, a number of states, including China, India, Russia and the United States, have not signed or ratified the Rome Statute.

The ICC can exercise jurisdiction only in cases where the accused is a national of a state party, the alleged crime took place on the territory of a state party, or a situation is referred to the Court by the United Nations Security Council. The Court is designed to complement existing national judicial systems; it can exercise its jurisdiction only when national courts are unwilling or unable to investigate or prosecute such crimes. Primary responsibility to investigate and punish crimes is therefore left to individual states.

In essence, the International Criminal Court (ICC) has power to try individuals for ‘the most serious crimes of international concern’. These crimes are defined as genocide, crimes against humanity and war crimes. Essentially, the Court is the body with powers to punish the commission of environmental war crimes in violation of Article 8(2)(b)(iv) of the Rome Statute.

As a matter of fact, those who violate the provisions of the Rome Statute may be punished under the national legal system of the relevant member state, failing which they

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73 Rome Statute, Article 1.
76 Rome Statute, Articles 12 and 13.
77 Ibid., Article 1.
78 Ibid., Article 5.
may be arraigned before the Court for trial.\textsuperscript{79} However, the State, and the national courts, by extension are the main systems of implementation of the law and the Court is merely complementary with its power to punish limited.

However, States are not bound by the Rome Statute of the International Criminal Court unless they have ratified it. In fact, it is not until the relevant state domesticates the Rome Statute that it becomes bound to enforce and implement it. Hence, the national implementation becomes problematic when the state is the main actor in the violation in question. In such an instance, objectivity and impartiality can hardly be expected. At the international level, the jurisdiction of the Court is merely complementary. The Court has no original jurisdiction and only has a right of action where State courts are unable and/or unwilling to undertake the given matter.\textsuperscript{80}

Articles 12 and 13 of the Rome Statute allow the Court to exercise its jurisdiction over the specified crimes under three scenarios. Article 13 states that exercise of jurisdiction may be triggered by a party to the Statute (a “State Party”), by the UN Security Council, or by the Court’s own Prosecutor. Referrals by the Security Council are not restricted in terms of where or by whom the crimes were committed, implying that if the Security Council refers a case to the Prosecutor, the Court can exercise jurisdiction even if the state in which the crimes were committed is not a State Party to the Statute.\textsuperscript{81}

However, cases triggered by a State Party or independently by the Court’s Prosecutor must, according to Article 12, meet one of two conditions, namely, the crimes were either (a) committed in a state that is a State Party or (b) committed by a national of a State Party. The first condition means that, even if the accused is a person whose state is not party to the Statute, the Prosecutor may still trigger the exercise of jurisdiction if the crimes are alleged to have taken place in a State Party’s territory. But the Court cannot independently, through its Prosecutor, exercise universal jurisdiction over crimes

\textsuperscript{79} Supra, note 74.
\textsuperscript{80} Rome Statute, Article 17.
committed in non-State Parties by nationals of non-State Parties.\textsuperscript{82} Thus, to some extent, the scope of the Court, like any treaty, is limited by its parties. A total of 109 States\textsuperscript{83} have ratified the Statute, although key States like United States are yet to ratify it.\textsuperscript{84}

The Court has jurisdiction only over crimes committed after 1 July 2002, when its constitutive Statute entered into force. It is, thus, incapable of prosecuting crimes committed prior to this date.\textsuperscript{85} In addition, the Court, like UNCC, becomes relevant only after the armed conflict and damage to the environment. It does not offer any opportunity for prevention of environmental damage. The Court has, therefore, no mandate to influence conduct of armed conflict and is, as a result, limited as an institution charged with protection of environment.

\textbf{3.4 Conclusion}

The foregoing has been a discussion of the implementation and enforcement framework of the law on protection of the environment during armed conflict. It emerges that there is no systematic mechanism and/or unified institutional framework for implementation and enforcement of the law. What is in existence are isolated mechanisms for enforcement and implementation, some of which are hardly effective in protecting the environment during armed conflict.

In the next chapter, we conclude the study and propose measures for effective implementation and enforcement of the law on protection of the environment during armed conflict.

\textsuperscript{82} Rome Statute, Article 12.

\textsuperscript{83} Current as at the end of June 2009. For a list of State parties see the website available at http://www.icc-cpi.intlphp/statesparties/allregions.php <accessed on 10/07/2009>.

\textsuperscript{84} Ibid., at p. 207.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATIONS

4.1 Introduction
The purpose of this chapter is to conclude the study by distilling the salient findings of
the study and making recommendations for the enhancement of the implementation and
enforcement of the law on protection of the environment during armed conflict.

First, the salient findings made in the study concerning the state of the law and
effectiveness of the implementation and enforcement framework are restated by way of a
conclusion. Then the Chapter recommends the way forward in addressing the issues that
have been raised in the study concerning the effectiveness of the implementation and
enforcement mechanisms of the law on protection of the environment during armed
conflict.

4.2 Conclusion
Basically, this is a study on the implementation and enforcement of the law on protection
of the environment during armed conflict. In this regard, it set out to discuss the
effectiveness of the enforcement procedures and the implementation mechanisms of the
law on protection of the environment in times of armed conflict. This entailed a review of
the international law on the matter, involving an analysis to identify gaps and problems in
the law and its implementation and enforcement regimes.

Chapter One affirms that the environment merits protection whether in times of peace or
in times of conflict. In essence, it demonstrates that the environment provides benefits to
humanity given that majority of human activities depend on the environment. In addition,
the Chapter shows that the environment is worth protecting as an end in itself due to its
intrinsic value as a resource regardless of potential utility to humans.

The escalating risk of environmental damage occasioned by armed conflicts is also
highlighted in Chapter One. The threat of environmental damage during armed conflict
is such that if it is not effectively put under check in the near future, the Earth’s carrying capacity will be irreversibly compromised. In any case, armed conflicts cause damage, pollution and degradation of the environment due to air pollution, chemical pollution on land, marine pollution, destruction of land by mines and other forms of missiles and threats to water resources. The environmental threats posed by armed conflict also continue long after the end of the armed conflict, exposing many to difficult problems.

The above scenario is found to merit an audit of the current state of the law on protection of the environment during armed conflict. Hence, the problem of the study is set out in Chapter One as discussing the effectiveness of the enforcement procedures and implementation mechanisms of the law on protection of the environment in time of armed conflicts.

Chapter Two expounds on the law of protection of the environment in times of armed conflict focusing on international humanitarian law, and particularly on the conventional and customary law tenets which deal with protection of the environment in times of armed conflict. The chapter also explores the gaps and/or weaknesses in the current legal and institutional frameworks, thereby laying a basis for the analysis of the enforcement and implementation of the law in the next chapter.

In a nutshell, the discussion in Chapter Two concludes that there is in place advanced treaty law on the protection of the environment during armed conflict. For instance, the Additional Protocol I contains two provisions that are specifically aimed at protecting the natural environment. Article 35(3) of the Additional Protocol I provides 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.” Article 55 of Additional Protocol I, on the other hand, prohibits the use of methods or means of warfare which cause such damage to the natural environment as prejudices the health or survival of the population. Article 55(2) prohibits reprisals against the natural environment, but it is silent on reprisals against other objects which might incidentally cause damage to the environment.
Although the Additional Protocol I is an important part of the law on protection of the environment during armed conflict, it suffers from inherent weaknesses which are inhibitive to its effective implementation and enforcement. First, Article 35 focuses mainly on protection of natural environment neglecting aspects of human environment which are critical to the state of the environment. On the other hand, Article 55 is anthropocentric in that it ties the prohibition of environmental damage during armed conflict to prejudice to human survival.

The enforcement of the prohibitions under the Additional Protocol I is limited by the conjunctive nature of the three-pronged thresholds. For environmental damage to be prohibited under the Additional Protocol I, it must meet the threshold of having ‘widespread, long-term and severe’ effects on the natural environment. This means that the environmental damage must meet all the three criteria. In other words, the extent and/or scope of the damage inflicted by the subject warfare must be widespread, long-term and severe damage. Thus, the enforcement of environmental protection provided under the Additional Protocol I depends on whether or not the environmental damage complained of attains all the three criteria, which is a very high threshold.

There are, also, no definitions provided in the Additional Protocol I for the three requirements, and in particular, ‘widespread’ or ‘severe damage.’ At least, from the travaux préparatoires, it appears that ‘long-term’ refers to a significant number of years or a decade. This lack of definition of these requirements is a major limitation to enforcement of the prohibitions on environmental damage during armed conflict under the Additional Protocol I.

Chapter Two also discusses the ENMOD Convention which prohibits the modification or use of the environment as a weapon so as to cause destruction, damage or injury to other states parties. Article I(1) of ENMOD Convention provides that each State Party undertakes not to engage in military or any other hostile use of the environmental modification techniques having widespread, long-lasting or severe effects as means of
destruction, damage or injury to any other State Party. In the ENMOD Convention, the threshold required for environmental damage, unlike the case in the Additional Protocol I, is “widespread, long-term or severe,” replacing the word ‘and’ with ‘or’. As such, under the ENMOD Convention, the threshold is lower as it suffices if one of the conditions is satisfied and the thresholds are defined.

The Protocol III annexed to the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW) is also discussed in Chapter Two as relevant in that it prohibits making forests or other kinds of plant cover the object of attack by incendiary weapons. The discussion reveals that the Protocol III is incapable of having significant influence to the protection of the environment during armed conflict because it is limited in scope to a specific element of the natural environment, namely, forests or other kinds of plant cover. In addition, the provision is deficient in that it is only applicable where a particular means of warfare, namely, incendiary weapons is used and is not relevant where the plant cover is not used for military purposes.

Further, Chapter Two discusses Article 8(2)(b)(iv) of the Rome Statute of the permanent International Criminal Court which provides for environmental war crimes. Article 8(2)(b)(iv) of the Rome Statute makes it a war crime to intentionally launch an attack in the knowledge that such attack will cause widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to concrete and direct overall military advantage anticipated.

However, this study has shown that Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court has a number of limitations that inhibit its implementation and enforcement in protecting the environment during armed conflict. First, the Article requires both intention and knowledge of the outcome so that, as mens rea of the environmental war crime, intent and knowledge of the environmental damage need to be proved. Secondly, Article 8(2)(b)(iv) is vague with respect to what amounts to the actus reus for environmental war crime. This is because, although the Article prohibits
committing 'widespread, long-term and severe damage to the non-human environment,' neither the Rome Statute nor its Elements of Crimes define those terms.

It is also difficult to prove that the damage to the natural environment was disproportionate as required under Article 8(2)(b)(iv) of the Rome Statute. The Article requires that the prosecution prove that the environmental damage during armed conflict was "clearly excessive" in relation to the "military advantage anticipated" in order to qualify as an environmental war crime. Lastly, there is uncertainty surrounding the jurisdiction of the ICC where the perpetrator of the culpable environmental damage under the Article are not nationals of States Parties to the Rome Statute. Given the transboundary nature of environmental damage due to armed conflict, the ICC’s jurisdiction over nationals of non-States Parties could be better defined to ensure swift prosecution of soldiers from the states that have not ratified the Rome Statute.

Chapter Three discusses the implementation and enforcement framework of the law on protection of the environment during armed conflict. The main mechanisms for implementation of the law, namely, the concept of international responsibility of States and the principle of individual criminal responsibility, are discussed. It emerges that all the four Geneva Conventions and the Additional Protocol I have a common Article 1 which stipulates that the contracting States are under an obligation to respect and to ensure respect for those instruments. Most of the States Parties to the Geneva Conventions, including Kenya, have taken cue and domesticated the Geneva Conventions. Such domestication implies that apart from trying persons who violate the Conventions within the territory of the State Party, the States Parties can prosecute perpetrators for offences in violation of the Geneva Conventions even where the offences in question were committed outside their borders.

On its part, the ENMOD Convention does not have an elaborate enforcement or remedial mechanism and only requires the states aggrieved by environmental modification in breach of the Convention to make a formal complaint before the UN Security Council, which can, in turn, investigate and issue a report condemning the matter. This process is not only wieldy, but is also inhibited by the fact that the Security Council is a political
body, rather than judicial organ with limited powers as against some states, like the permanent members who can use the veto power to defeat the adoption of unfavourable resolutions or decisions.

Chapter Three concludes that although the concept of international state responsibility is the main mechanism for enforcing international law, it has not been very effective as an enforcement mechanism in the protection of the environment during armed conflict. First, it is inhibited by the limited transformation of international instruments protecting the environment during armed conflicts into the municipal law. Then, there is the fact that in most legal systems, the ratification of or accession to an international instrument does not necessarily render it enforceable under the municipal law until it is domesticated through the local legislative measures. Further, the possibility that a state will be held responsible for environmental damage during armed conflict has not been an effective deterrent against environmental damage as, in most cases, belligerent states do not care whether or not they flout the law against environmental damage during armed conflict if that is what it takes to win the war. In the absence of a central international authority to ensure effective enforcement of and compliance with international law by States, the principle of *pacta sunt servanda* has not been adhered by most States.

Chapter Three also discusses protection of the environment during armed conflict through the vehicle of international criminal responsibility. It emerges that this is typified by making intentional environmental damage during times of armed conflict a war crime, as is the case under the Rome Statute for the International Criminal Court, Article 8(2)(b) which gives states and international community the power to punish damage to the environment as a war crime.

Further, Chapter Three discusses the institutional frameworks for implementation and enforcement of the law on environmental protection in times of armed conflict. In particular, the role of the International Court of Justice (ICJ), the United Nations Compensation Commission and the International Criminal Court in implementing and enforcing the law on protection of the environment during armed conflict is discussed. The discussion in the chapter concludes that ICJ contributes to implementation and
enforcement of the law on protection of the environment during armed conflict by advising on, and clarifying, the context of enforcement and implementation of international law. In any case, interpretation of the law is a key constituent of implementation and enforcement of the law on protection of the environment during armed conflict as it entails determination of whether or not to convict for environmental damage during armed conflict. The precedents and decisions of the ICJ concerning environmental damage during armed conflict, which are binding to States, are also a deterrent against future breaches of the law. However, the fact that the ICJ is an ex post facto institution and only comes in after the damage has been done is a major drawback on its role.

The role of UN Compensation Commission (UNCC) in enforcing and implementing the law on protection of the environment during armed conflict is also discussed. First, the fact that it punishes by requiring compensation for environmental damage in breach of the law on protection of the environment in times of armed conflict, it helps perform a retributive role in enforcement of the law. Second, the UNCC also interprets the law on protection of the environment while verifying the claims for compensation. Thirdly, the symbolic aspect of the establishment of the UNCC, in that it engenders the acknowledgement by the international community of the need to protect the environment during armed conflict, is also noted.

However, the Chapter notes that the UNCC’s role in implementing and enforcing the law is limited because of its inherent weaknesses that are attributable to its legal basis and constitution. The UNCC is an ad-hoc body with a defined mandate, namely, to carry out review of claims and compensate direct loss and damage, including environmental damage, resulting from the Iraq’s unlawful invasion and occupation of Kuwait. The Commission is not a court or an arbitral tribunal before which the parties appear. Rather, it is a political organ that performs an essentially fact-finding function of examining claims, verifying their validity, evaluating losses, assessing payments and resolving disputed claims.
The precedential value of the UNCC decisions for the future conflicts is limited. First, action by the UNCC or a similar entity as against any of the permanent members of the Security Council is not possible due to the potential to use veto to avoid liability. In addition, the unlawful nature of the war has to be exceedingly clear for the Security Council to determine legitimately such liability. Further, it has emerged that the precedential value of the UNCC’s future decisions in protection of environment is limited as it is impossible for it to issue a remedy against any of the permanent members of the Security Council as they could use their veto to avoid liability.¹ The UNCC’s viability is also limited by its economic feasibility in that, to be applicable, the compensating State must have some sort of wealth, like the oil in Iraq, with a high degree of liquidity and not destroyed during the war.

Chapter Three also discusses the power of the International Criminal Court (ICC) to try individuals for environmental war crimes. In this regard, the fact that ICC is the main body with powers to punish the commission of environmental war crimes in violation of Article 8(2)(b)(iv) of the Rome Statute is acknowledged. However, the fact that States are not bound by the Rome Statute of the International Criminal Court unless they have ratified it is demonstrated to be a set-back to the role of the ICC. In any case, States have to ratify the Rome Statute to be bound to enforce and implement it. Further, it is the case that States are the main actors in the violation in question and the jurisdiction of the ICC is merely complementary. The Court has no original jurisdiction and only has a right of action where State courts are unable and/or unwilling to undertake prosecution of the individuals who commit such war crimes.

In a nutshell, Chapter Three concludes that the implementation and enforcement frameworks of the law on protection of the environment during armed conflict are fragmented and deficient of vital mechanisms for systematic implementation and enforcement of the law. As a result, fatal huddles are encountered in attempts to implement the law on protection of the environment during armed conflict, making the

law, to a large extent, a dead-letter. Hence, the need to recommend new and/or different mechanisms to strengthen the legal framework and boost the enforceability of the law on protection of the environment during armed conflict.

4.3 Recommendations

There is no question that ineffective implementation and enforcement is the main problem affecting environmental protection during armed conflict. In essence, there are no effective and dedicated judicial remedies available to hold states or individuals accountable for unjustified environmental damage. Environmental war crimes prosecutions are virtually unknown methods. This state of affairs has been precipitated by the uncertain nature of the law and the desire to preserve sovereign prerogatives of the other states.²

Effective enforcement requires the means and the commitment to deter, prevent, and punish environmental damage during armed conflict. Preventive remedies are especially important to environmental protection during armed conflict. As a matter of fact, environmental damage is irreversible and irreparable in most cases and can even have catastrophic consequences. Hence, the application of the precautionary principle must be promoted to conserve and keep damage to the environment, in times of armed conflict, at bay.³ The precautionary principle is a concept that can be traced to the obligation on states to act preventively. This precautionary principle is the basis for the preventive approach to implementation and enforcement of the law on protection of the environment during armed conflict. In essence, the principle obliges states to act in a way that avoids damage to the environment without waiting for clear scientific evidence of the potential for damage.⁴ Indeed, it has been argued that the precautionary principle could become the

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³ Ibid.
standard against which new means of warfare can be judged.\textsuperscript{5} This view was affirmed at the UNCED; Principle 15 of the Rio Declaration states:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

4.3.1 Improving the Implementation and Enforcement of Additional Protocol I

First, there is need to amend the Additional Protocol I to reconcile the protection approach of the two articles providing for protection of the environment during armed conflict. At present, Articles 35 and 55 are in conflict in that the former protects the environment for its intrinsic value, while the later is anthropocentric in its approach to environmental protection during armed conflict. It is recommended that these two Articles be harmonized to provide for protection of the environment during armed conflict for its intrinsic value, rather than tying it to its relationship with human welfare. This can be done by amending Article 55 of the Additional Protocol I to give prime focus to environment \textit{qua} environment and make the effect of the environmental damage to human survival incidental to or an aggravating factor for the prohibition.\textsuperscript{6}

In dealing with the conjunctive nature of the elements under the Additional Protocol I (that is, the environmental harm suffered be "widespread, long-term and severe"), there is need to amend them to make the threshold disjunctive. As it is at present, the threshold is too high to render the prohibitions under the Additional Protocol I practically ineffective and unenforceable.\textsuperscript{7} By changing the threshold into the disjunctive state, that is, "widespread, long-term or severe", it would mean that if environmental damage occurring during armed conflict meets at least one of the thresholds, it is prohibited under

\textsuperscript{5} R.G. Tarasofsky, "Legal Protection of the Environment During International Armed Conflict", 35 \textit{Netherlands Yearbook of International Law} 74 (1993).
\textsuperscript{7} Supra, note 5, p. 51.
the Additional Protocol I. This, in effect, would significantly expand the range of the protection to the environment during armed conflict under the Additional Protocol I.

Lastly, there is need to eliminate the current definitional uncertainty as to the meaning to be given to each of the three requirements, namely, "widespread", "long-term", and "severe." At present, only the definition of "long-term" can be inferred from the travaux préparatoires. It is recommended that the Additional Protocol I be amended to incorporate the definitions of elements contained under the ENMOD. A contemporaneous understanding of the Conference of the UN Committee on Disarmament has defined "widespread" to mean an area on the scale of several hundred square kilometers. "Long-term" means a period of months, approximately a season, while "severe" is defined as "involving serious or significant disruption or harm to human life, natural and economic resources and other assets."

4.3.2 Enhancing the Implementation and Enforcement ENMOD Convention

The ENMOD Convention is not a water-tight measure for protecting against unfavourable environmental modification. The list of the phenomena that can be caused by environmental modification techniques also needs to be exhaustive to ensure certainty. Indeed, these environmental modification techniques appear too far removed from normal combat scenarios to afford effective and adequate environmental protection. There is need to define the "means or methods of warfare" in a way that is much closer to normal combat scenarios and thus assure the practical relevance of the prohibitions under it.

The ENMOD Convention should be amended to include testing, research or development of such environmental modification techniques. In addition, the Convention should be amended to ensure that it prohibits even environmental modification by party states even where the same occurs in the territory of a non-party state. At present, the application of

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the Convention is limited in that it is restricted in application to parties, yet it has only been ratified by less than half the number world states.

Further, modification of the ENMOD Convention could also take a more drastic form as suggested by some commentators, such as Jozef Goldblat. According to him, in the present form, the ENMOD Convention appears to condone hostile manipulation of the environment with some unspecified means. Thus, he proposes, to improve the effectiveness of the Convention, unambiguous and comprehensive constraints should be placed on hostile use of environmental forces. He recommends that to achieve such comprehensiveness, the threshold established under the Convention, which limits the ban to only those uses having ‘widespread, long-lasting and severe’ effects, be removed. That way, he argues, the Convention would be made applicable to any hostile use of the modification techniques.\(^\text{10}\)

Goldblat recommends that the implementation of the changes to the ENMOD Convention proposed above be brought about through the amendment procedure provided for under the Convention.\(^\text{11}\) In this case, proposals for amendments may be submitted to the depositary (the United Nations Secretary General) by any party or they may, also, be raised and considered at conferences periodically convened to review the operation of the Convention.\(^\text{12}\)

4.3.3 Overcoming the Limits of Article 8(2)(b)(iv) of the Rome Statute

As demonstrated above, Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court has a number of limitations that inhibit its implementation and enforcement in protecting the environment during armed conflict. In particular, four limitations need to be addressed and we offer our recommendations below. These limitations are (i) the ambiguity in definitions of what qualifies as “widespread, long-term and severe damage”; (ii) the high standard for finding an attack disproportionate;


\(^{11}\) Article VIII (2) of ENMOD Convention.

\(^{12}\) Supra, note 4.
(iii) the subjective nature of the *mens rea* for environmental war crime as defined in the Article; and (iv) the uncertainty of the jurisdiction of the ICC.

As regards the ambiguity of definitions, it is important to state that Article 8(2)(b)(iv) cannot be implemented and enforced effectively unless the terms "widespread," "long-term," and "severe" are clearly defined. There is, thus, need to amend the war crime provision of the Rome Statute to include definitions of these three terms. In any case, Article 7(2) does it by defining the key terms of crimes against humanity.\(^{13}\) Alternatively, a footnote containing definitions could be added to the elements of Article 8(2)(b)(iv) in the same way "concrete and direct overall military advantage" has been defined in the Rome Statute.\(^{14}\)

As for the content of the definitions, the proposal is to lower the threshold of responsibility, as has been recommended by Mark Drumbl. He recommends that the threshold be lowered from "widespread, long-term and severe damage" to "damage" more generally, with "the amplitude of the harm."\(^{15}\) That would avoid the potential anthropocentricism of the Additional Protocol I severity requirement.

In the alternative, the requirement could be made disjunctive as is the case in the ENMOD Convention. There is no question that it is nearly impossible for an attack to satisfy the conjunctive version of the damage as adopted in the Article 8(2)(b)(iv) of the Rome Statute. Hence, if the Rome Statute could be amended to require the harm to be wide-spread, long-term or severe, the threshold for harm would be lowered substantially and, thereby, yield prosecution of a wider array of environmental war crimes. Amending the threshold to make it disjunctive would also help avoid the temporal and geographical

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13 See Rome Statute, Article 7(2).
limitations which are imposed by the requirements that the environmental damage be widespread and long-term to qualify as environmental war crime.\textsuperscript{16}

Further, there is need to specifically define the terms themselves or at least formally adopt the ENMOD definitions. The ENMOD definitions for “long-term” and “severe” provide a lower and preferable threshold to the Additional Protocol I definitions.\textsuperscript{17} In the alternative, and in lieu of amendments to the Rome Statute to define the terms, the ICC could take the initiative and judicially interpret the “widespread, long-term and severe damage” requirement in a way that makes it possible to be satisfied. However, although such definition would assist in the prosecution of individual cases, it would not suffice to correct the threshold’s fundamental interpretation problems.\textsuperscript{18}

In addition to the ambiguous definitions of the thresholds, the high standard for finding an attack disproportionate also hinders prosecution of environmental war crimes under Article 8(2)(b)(iv) of the Rome Statute. In order to resolve this requirement of proportionality analysis, it is proposed that the Article be divided into two, the environmental-damage provision be revised to eliminate the need for considering the proportionality of attack by the Court. The elimination of the proportionality test would, in effect, criminalize any intentional attack committed in the knowledge that it would cause “widespread, long-term and severe damage to the nonhuman environment.”\textsuperscript{19}

In the alternative, amendments would be undertaken to remove the words “overall” and “clearly” from the definition of military advantage under the Article 8(2)(b)(iv) of the Rome Statute. The provision would thus prohibit “intentionally launching an attack in the knowledge that such attack would cause widespread, long-term and severe damage to the nonhuman environment which would be excessive in relation to the concrete and direct military advantage anticipated.”\textsuperscript{20}

\textsuperscript{17} Supra, note 11.
\textsuperscript{18} Supra, note 14.
\textsuperscript{19} Supra, note 10, p. 90.
\textsuperscript{20} Ibid.
In resolving the *mens rea* problem of Article 8(2)(b)(iv) of the Rome Statute, efforts should be focused at making it more objective and, therefore, easier to prove. At present, the subjective *mens rea* problem is problematic, especially when coupled with the "widespread, long-term and severe damage" requirement and the "clearly excessive" value judgment. The way to go about this problem is to divide the Article as already pointed out and make the *mens rea* requirement objective instead of subjective as is the case at present. Such change could be tailored to reduce the Article’s knowledge requirement to negligence and, thus, prevent perpetrators from arguing that they made an honest mistake of law regarding the meaning of "widespread, long-term and severe damage." Second, such an objective standard would help avoid rewarding commanders who negligently overestimate the military advantage of an attack. In addition, the negligence standard would mean that commanders who do not consider whether their attacks are clearly excessive could be successfully prosecuted under Article 8(2)(b)(iv) of the Rome Statute. In any case, there can be no justification for allowing recklessness or ignorance to justify doing unreasonably disproportionate damage to the environment.

Finally, there is need to address the uncertainty created by the various methods of activating the ICC jurisdiction as provided for under Articles 12 and 13 of the Rome Statute. Given that environmental damage as a result of armed conflict is often transboundary, there is need to expand the jurisdiction of the ICC to increase the incidences where Article 8(2)(b)(iv) of the Rome Statute may be used to prosecute soldiers from states that have not ratified the Rome Statute. However, to avoid controversy, the jurisdiction of the ICC in this case could be limited to countries that are involved in the armed conflict. The other bystander states aggrieved by environmental damage should be left to seek non-criminal remedies like compensation. Further, the *mens rea* requirement under Article 8(2)(b)(iv) of the Rome Statute could be modified to limit

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21 Supra, note 10, p. 91.
23 Ibid. Articles 12 and 13.
the perpetrator's responsibility to damage caused in a country she knew might be damaged by the attack.²⁴

4.3.4 Improving the Institutional Framework for Enforcement and Implementation

Although the ICJ was expected to be the principal organ of settlement of disputes among states, this has not materialized. There is, therefore, need for reforms to address the underlying reasons for the ICJ's poor performance over the years and enhance its role in the implementation and enforcement on protection of the environment during armed conflict. First, there is need to make effort to lobby for increased acceptance of ICJ's compulsory jurisdiction if it is to effectively play its role of interpreting and clarifying the law on protection of the environment during armed conflict. Secondly, the procedure for admitting cases to the ICJ and hearing should also be amended to make the ICJ more active as a judicial institution. The enforceability of the ICJ decisions should also be enhanced to avoid the current scenario where some states ignore the decisions. That way, the ICJ would become a more attractive option for resolving international disputes.²⁵ The ICJ should also be co-opted in enforcing the ENMOD so that once a state is condemned by Security Council report as engaged in environmental modification, a suit can be lodged at the ICJ for compensation and other judicial remedies.

The UNCC's role has increasingly become important and it is now time to make it a permanent body with a mandate extending beyond compensation for Iraq's unlawful invasion and occupation of Kuwait. At present, to be within the UNCC mandate, any proven environmental damage must be attributable to Iraq's invasion and occupation.²⁶ This calls for enactment of a convention under the auspices of United Nations for formation of Compensation Commission to be in-charge of compensating those aggrieved by damage, including environmental damage, occasioned by international armed conflict. Such a convention could also establish a separate fund should to guarantee compensation for damage occasioned during armed conflict where the

²⁴ Supra, note 2, pp. 718-9.
offending position is not able to compensate. There is also need to clarify the UNCC mandate by defining whether it is retributive scheme or a compensatory mechanism. The fact that it was formed in the wake of defeat of Iraq in the Gulf War I has made it look like more of a retributive institution. It is also important to refine the nature of the institutional framework of the UNCC and constitute it as an international court or arbitral tribunal. In its current amorphous state, its decisions have minimal precedential value.

The ICC does not have original jurisdiction because of the principle of territoriality which gives each state sovereignty over matters within its territory. The Court depends on the principle of complementarity, which is the fundamental basis of the international criminal justice instituted by the Rome Statute. Complementarity is built upon the principle that the most serious crimes must not go unpunished and that the investigation and prosecution of such crimes is a duty, in the first place, of all States through their national legal systems, and, if they fail or are unable to act, the international community and ICC must assume responsibility. However, the full implementation of this principle is still a challenge to the Rome Statute regime. More work remains to be done by governments and others to fully define and operationalise complementarity.27 Importantly, there is need to follow up and operationalize the doctrine of the Responsibility to Protect which was affirmed by Heads of State and Government in the 2005 UN reform summit. The Heads of State and Government unanimously affirmed at the Summit that “each individual State has the responsibility to protect its populations from genocide, war crimes, ethnic cleansing and crimes against humanity.”28 They agreed, as well, that the international community should assist States in exercising that responsibility and in building their protection capacities.

At present, the Court only has the right of action where State courts are unable and/or unwilling to undertake the given matter. The Court is called upon to administer justice over horrendous crimes, including environmental war crimes, only where the competent

28 Report of the UN Secretary-General of Implementing the Responsibility to Protect, 12 January, 2009; UN Doc. A/63/677, p. 4.
State authorities are "unwilling or unable" to prosecute those crimes. It follows that before pronouncing on a case, the Court must first establish that the State that could deal with the matter is utterly unable to dispense justice. In other words, the ICC must first pass a negative judgment on that State. The danger is that the respective State would likely not be prepared to cooperate in providing evidence, executing searches or seizures, arresting suspects and so on. Thus, the Rome Statute should be amended to provide that national courts act as 'organs of the world community'. The jurisdiction of national courts should, in respect of matters falling under the jurisdiction of the ICC, be made universal. In this sense, crimes against humanity, war crimes, and crimes of aggression would become enforceable anywhere in any country regardless of where they were committed. For instance, the High Court of Australia, has affirmed that crimes against humanity should warrant universal jurisdiction. Other domestic courts have followed suit, emphasizing that the principle of universality supersedes territoriality in prosecuting such crimes at the national level. In Regina v. Finta, a former captain in the Royal Hungarian Gendarmerie, Imre Finta, was accused of crimes against humanity and war crimes. Justice Cory, writing for the majority of the Supreme Court of Canada, held that Canadian courts were bound by the principle of territoriality. Hence, they could only prosecute offenses committed on Canadian soil. However, the learned judge added that the principle of universality constitutes an exception to the principle of territoriality, and set out several criteria that must be satisfied in order for the jurisdiction of Canadian courts to be extended.

4.3.5 Further Recommendations: Restrained Force and Guidelines Approach
Restrained use of armed force can be considered as an option for enforcing the existing law pertaining to environmental protection during armed conflict. In this regard,

32 Ibid.
restrained use of armed force entails the active or passive use of armed force to protect the environment from widespread, long-term, and severe harm during armed conflict. The use of restrained armed force is a preventive remedy that can be tailored to meet the exigencies of the situation that arise during military operations. Moreover, restrained use of armed force can be fashioned to meet all the objectives of effective enforcement, that is, deterrence, prevention, and punishment. However, the use of armed force should depend mainly on two factors, namely, the potential for conflict and the degree of impact on the environment. As the degree of impact on the environment and the potential for conflict increase, so does the justification for use of force.

In using restrained armed force to enforce the law on protection of the environment during armed conflict, the “greenkeeping” approach is proposed. Greenkeeping is where armed conflict is used in a peacekeeping context to further such environmental protection activities as monitoring, reporting, clean-up and logistical support. This way, armed forces can help in deterring environmental damage during armed conflict in the same way they are used to limit casualties during humanitarian peacekeeping efforts. For instance, during armed conflict, armed forces may be used to pre-empt environmental damage or to intervene in an on-going conflict to stop environmental damage.

Further, armed force may also be used during armed conflict to disable or destroy enemy forces responsible for unjustified environmental damage. This can serve to punish serious violations (grave breaches) of the law on protection of the environment during armed conflict which are likely to occur during combat. Such use of force helps internalize the

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33 Passive armed force involves largely monitoring and reporting with the role of the armed forces limited and its size, equally, is small and defensive only. Active use of armed force involves a larger force with offensive capability as might be necessary to ensure the prescribed functions, whether humanitarian or environmental are carried out.

34 Supra, note 12, p. 299.


costs of unjustified environmental damage to the responsible party, especially to an unlawful aggressor.\textsuperscript{37}

In order to encourage state implementation of the law on protection of the environment during armed conflict, it is recommended that measures be taken to encourage more States to adopt the guidelines approach. In any case, guidelines on protection of the environment during armed conflict would help institutionalize environmental ethics among armed forces in the meantime. For instance, the United States has already embraced the approach by making provisions prescribing targeting of the environment in \textit{The Commander's Handbook on the Law of Naval Operations}.\textsuperscript{38} However, there is need to go further and translate the environmental protection guidelines into doctrine where they will do more good toward inculcating environmental protection into the way armed forces fight.\textsuperscript{39} In other words, military leaders should consider and give due regard to doctrinal implications when formulating new environmental guidelines to ensure they are able to yield effective implementation and enforcement of the law on protection of the environment during armed conflict in the forces' military activities during combat and in peace time.

However, steps should be taken to overcome the limitations of the guidelines approach. First, guidelines are binding unilaterally only. The binding nature of international law depends on the source of international law from which the guidelines are drawn. There is need to put in place an international law framework to guide the basis of picking-and-choosing of the guidelines to ensure that they are enforceable in the international plain. Otherwise, the guidelines approach will not be able to provide the environment effective protection against damage during armed conflict or even be able to provide an authoritative source for effective enforcement of the law pertaining to environmental protection during armed conflict.


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