STATE RESPONSIBILITY
FOR ENVIRONMENTAL PROTECTION
DURING INTERNATIONAL ARMED CONFLICT

Arie Afriansyah

A thesis submitted for the degree of
Doctor of Philosophy
at the University of Otago, Dunedin
New Zealand

August 2012
This thesis is a legal and historical examination of the implementation of international responsibility for environmental protection in times of war. It focuses on inter-state armed conflicts in the last two centuries. Based on the analysis of existing international rules and state practice in the aftermath of armed conflicts, it concludes that the implementation of belligerent states’ responsibility for making reparation for environmental damage has been severely limited. It is argued that the main problem is neither an inadequacy of the law for protecting the environment during times of war, nor the absence of the law on state responsibility for reparations of violations of established rules. On the contrary, it is proposed that the existence of such laws does not deter belligerents from causing severe damage to the environment. It is arguable that such situation is greatly influenced by the fact that the international community, represented by the United Nations Security Council (UNSC), has failed to consistently and effectively enforce the applicable international rules – particularly those which hold the offending states responsible for making reparation.

In this context, this thesis examines all relevant legal protection for the environment during armed conflict. It argues that international rules are adequate for protecting the environment during armed conflict. Such rules are not only sourced from the law of war, but also from a number of relevant peacetime international rules which remain valid among belligerents during times of conflict. This thesis also examines the laws of international responsibility. These laws regulate how three possible types of actors (states, international organisations, and individuals) may be held responsible for any unlawful damage (including to the environment) caused during armed conflict. Accordingly, to achieve maximum reparation for wartime environmental damage, holding a state responsible is preferable to allocating responsibility to international organisations or individuals.
Unfortunately, despite the existence of rules protecting the environment, it is found that in the last two centuries, belligerents have continued to engage in unlawful conduct causing severe environmental damage during numerous notable armed conflicts including World War I, World War II, the Vietnam War, the Iran-Iraq War, the Gulf War, the Kosovo War, the Iraq War, and the Israel-Lebanon War. Further, there has been limited enforcement of state responsibility for environmental damage in the aftermath of these wars. Most of the existing post-conflict settlements fit squarely within a paradigm of victor’s justice. It is argued that such a situation has incentivised (or at least not dis-incentivised) belligerents to continue causing severe environmental damage. This is because a belligerent state seems to be able to avoid responsibility for environmental reparation if it can secure a victory in an armed conflict or manage to preserve its political power in international relations.

In order to improve current and future conditions for protecting the environment during armed conflict, it is argued that relevant international rules need to have a deterrent effect to discourage future belligerent states from causing severe environmental damage. This effect could be realized by allocating state international responsibility effectively with a transparent and fair mechanism. To achieve this goal, the reporting process of the UNSC, a forum where violations of international law and allocations of responsibility will be addressed, need to be modified. Such modification aims to make the UNSC’s reporting process more transparent and to afford due process by involving fact-finding missions conducted both by an independent mission established by the UNSC and by belligerent parties. With this more robust reporting procedure, it is expected that the UNSC will be able to allocate responsibility to the appropriate belligerent(s) in accordance to the extent of real damage that they have caused.
PREFACE

This research was inspired by my experience in 2006 in taking one of my Masters courses: International Environmental Law. As the final project of the course, I examined the environmental impact of the Israel-Lebanon War. I was particularly interested in why international law could not prevent states from causing repeated, severe environmental damage during armed conflicts especially since the international community has understood the importance of environmental protection since the 1970s. As my curiosity grew, I was led to more deeply examine the issue of international responsibility for environmental protection during international armed conflict as the main topic of this dissertation at the University of Otago Faculty of Law, New Zealand.*

I would like to thank the New Zealand Government for supporting me in undertaking and completing this research through a generous scholarship under the New Zealand Development Scholarship (NZDS) scheme provided by the Ministry of Foreign Affairs and Trade (MFAT). I also wish to thank the University of Otago and the Faculty of Law which have granted me generous financial assistance to travel overseas for the purpose of both attending and presenting papers at some conferences.

This research would not have been completed without the support of a number of thoughtful and generous people. First, I wish to express my gratitude to my supervisors, Nicola Wheen, Ceri Warnock and Stephen Smith, who have provided me with great insights and guidance into conducting research and writing to a good standard of international academic legal writing. Nevertheless the views espoused in this thesis, and any shortcomings in the text, should only be attributed to me. Second, I wish to thank Professor Mark Henaghan, the Dean of the

* For citation, this thesis uses the New Zealand Law Style Guide which is published by the Law Foundation of New Zealand. This is available at <http://www.lawfoundation.org.nz/style-guide/index.html>.
University of Otago Law Faculty who has continuously encouraged me during my study here in Dunedin. I also wish to thank all the staff at the University of Otago libraries, particularly the Law Library, for their help in obtaining various research materials, not only from New Zealand, but also from overseas. My sincere thanks to Alex Kruize, Alex M. Latu, Bridgette Martin, Febriani Idrus, and Sarah Bowen for their invaluable efforts in proofreading my drafts and providing me with constructive feedback on my thesis. Next, thank you to all of the staff and my fellow postgraduates at the University of Otago Faculty of Law. I am grateful for the opportunity to have known you all personally, and for the great collegial environment I have experienced during my study here in Dunedin. I would like to thank all of my family in Indonesia so much for all of their thoughts and prayers for me while I have been pursuing this doctoral study. Finally, I am profoundly grateful to my wife, Shinta Abidasari, and my son, Fathir Afriansyah, for their patience in accompanying me here in Dunedin. This thesis is especially dedicated to you both.

Dunedin, August 2012
# TABLE OF CONTENTS

Abstract .................................................................................................................. i
Preface .................................................................................................................... iii
Table of Contents ................................................................................................... v
Table of Cases ......................................................................................................... xi
Table of Treaties, International and National Instruments .............................. xv
List of Abbreviations .............................................................................................. xxvii

Chapter 1: Introduction ................................................................................. 1
1. Armed Conflict and the Environment ............................................................ 4
2. Scope of the Research and Terminology ....................................................... 10
   2.1. Armed Conflict ......................................................................................... 10
   2.2. Environment .............................................................................................. 13
3. Research Method ............................................................................................. 14
4. Structure of the Thesis .................................................................................... 14

Chapter 2: International Legal Obligations for Environmental Protection During Armed Conflict ................................................................. 17
1. Introduction ...................................................................................................... 17
   2.1. Treaty Law ................................................................................................. 20
      2.1.1. The 1907 Hague Regulations Respecting the Laws and Customs of War on Land ................................................................. 20
      2.1.2. The 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare ............................................. 22
      2.1.3. The 1949 Geneva IV Convention relative to the Protection of Civilian Persons in Time of War ............................................................. 25
      2.1.4. The 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (the 1977 Additional Protocol I) ................................................................................................................................. 26
      2.1.5. The 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (the 1977 Additional Protocol I) ................................................................................................................................. 30
      2.1.7. The 1998 Statute of the International Criminal Court ................. 37
   2.2. Customary Law .......................................................................................... 40
      2.2.1. General Customary Principles of IHL (Law of War) ....................... 41
         2.2.1.1. Principle of (Military) Necessity ............................................... 42
Chapter 3: International Responsibility for Environmental Damage during Armed Conflict

1. Introduction ................................................................................................................. 85
2. Responsibility in International Law ........................................................................... 88
3. Which Entity Ought to be Pursued in Order to Best Gain Compensation for Environmental Damage? ............................................................................................................. 91
   3.1. State Responsibility ............................................................................................ 92
      3.1.1. Notions of Responsibility ............................................................................... 93
      3.1.2. Attribution ...................................................................................................... 96
          3.1.2.1. De facto Agents ......................................................................................... 99
          3.1.2.2. Insurrectional Movements ..................................................................... 101
          3.1.2.3. Levée en Masse ...................................................................................... 102
      3.1.3. Sources of Breaches ....................................................................................... 104
      3.1.4. Reparation ...................................................................................................... 107
      3.1.5. Implementation Mechanisms ........................................................................ 111
   3.2. The Responsibility of International Organisations ............................................. 118
      3.2.1. Responsibility of International Organisations under the ILC’s Draft Articles on the Responsibility of International Organisations (Draft ARIO) .......................................................... 121
      3.2.2. Cases Involving International Organisations ............................................... 128
          3.2.2.1. The UN in the Gulf War ......................................................................... 128
          3.2.2.2. NATO in the Kosovo War ................................................................. 130
   3.3. Individual Responsibility ...................................................................................... 134
      3.3.1. Individual Accountability in International Plane ........................................... 136
      3.3.2. Individual in Contemporary International Law ............................................ 138
4. Conclusion ................................................................................................................ 143
Chapter 4: Application of State Responsibility for Environmental Damage during Armed Conflict: Case Studies

1. Introduction ........................................................................................................ 145
2. Period I: State Responsibility for the Vanquished Party .................................. 149
   2.1. World War I .................................................................................................. 149
       2.1.1. Armed Conflict and Environmental Effects ........................................ 150
       2.1.2. Analysis of Applicable Laws ............................................................... 154
       2.1.3. Post-Conflict Examination ................................................................. 155
       2.1.4. Summary .............................................................................................. 158
   2.2. World War II ................................................................................................. 159
       2.2.1. Armed Conflict and Environmental Effects ........................................ 160
       2.2.2. Analysis of Applicable Laws ............................................................... 165
       2.2.3. Post-Conflict Examination ................................................................... 167
           2.2.3.1. Non-Monetary Reparation Regimes ........................................... 167
           2.2.3.2. Efforts to Pursue Environmental Criminal Responsibility ........... 172
           2.2.3.3. Efforts to Pursue War Reparations through Civil Litigation ........ 175
       2.2.4. Summary .............................................................................................. 175
   3. Period II: Growing Global Awareness to the Environment and State Responsibility for Wartime Environmental Damage ......................................................... 177
      3.1. The Vietnam War ....................................................................................... 178
          3.1.1. Armed Conflict and Environmental Effects ....................................... 178
              3.1.1.1. The Environmentally Hostile Military Strategies of the US ......... 179
                  3.1.1.1.1. The Use of Herbicides ......................................................... 180
                  3.1.1.1.2. The Use of Rome Ploughs ................................................... 182
                  3.1.1.1.3. Bombardment and Artillery Fire ....................................... 183
                  3.1.1.1.4. Weather Modification ......................................................... 184
              3.1.1.2. Analysis of Applicable Laws ........................................................... 185
              3.1.1.3. Post-Conflict Examination ........................................................... 187
                  3.1.1.3.1. The Agent Orange Cases ..................................................... 188
              3.1.1.4. Summary ...................................................................................... 191
          3.1.2. The Iran-Iraq War ................................................................................. 193
              3.2.1. Armed Conflict and Environmental Effects ....................................... 195
                  3.2.2. Analysis of Applicable Laws ........................................................... 198
                      3.2.2.1. Ius ad Bellum ........................................................................... 199
                      3.2.2.2. Ius in Bello ............................................................................. 202
              3.2.3. Post-Conflict Examination .................................................................. 204
                  3.2.3.1. The UNSG Report Pursuant to UNSC Resolution 598 ............... 205
                     3.2.3.2. Reluctance to Hold Iraq’s Responsible .................................... 207
                     3.2.3.3. Lessons from the UNSG’s Mission ......................................... 208
              3.2.4. Summary .......................................................................................... 209
          3.2. The Gulf War ............................................................................................ 210
              3.3.1. Armed Conflict and Environmental Effects ....................................... 212
3.3.2. Analysis of Applicable Laws ........................................... 220
  3.3.2.1. Ius ad Bellum ..................................................... 220
  3.3.2.2. Ius in Bello ..................................................... 221
3.3.3. Post-Conflict Examination ......................................... 224
  3.3.3.1. The United Nations Compensation Commission (UNCC) ..................................................... 227
  3.3.3.2. Environmental Compensation under the UNCC ........ 228
  3.3.3.3. Problems with the UNCC ..................................... 232
3.3.4. Summary ................................................................... 234

4. Period III: Discouraging Development for State Responsibility
  Implementation and Environmental Protection ....................... 237
  4.1. The Kosovo War ....................................................... 237
    4.1.1. Armed Conflict and Environmental Effects ................ 239
    4.1.2. Analysis of Applicable Laws ................................... 245
      4.1.2.1. Ius ad Bellum ................................................. 245
      4.1.2.2. Ius in Bello .................................................. 251
    4.1.3. Post-Conflict Examination ..................................... 254
      4.1.3.1. Legal Efforts to Pursue NATO’s Responsibility .... 256
    4.1.4. Summary ........................................................... 259
  4.2. The Iraq War ............................................................ 261
    4.2.1. Armed Conflict and Environmental Effects .............. 263
    4.2.2. Analysis of Applicable Laws ................................... 268
      4.2.2.1. Ius ad Bellum ................................................. 269
      4.2.2.2. Ius in Bello .................................................. 279
    4.2.3. Post-Conflict Examination ..................................... 282
    4.2.4. Summary ........................................................... 288
  4.3. The Israel-Lebanon War ............................................. 288
    4.3.1. Armed Conflict and Environmental Effects .............. 289
    4.3.2. Nature of the Conflict ........................................ 296
    4.3.3. Analysis of Applicable Laws ................................... 299
      4.3.3.1. Ius ad Bellum ................................................. 299
      4.3.3.2. Ius in Bello .................................................. 303
    4.3.4. Post-Conflict Examination ..................................... 310
    4.3.5. Summary ........................................................... 314

5. Lessons Learned and Conclusion ....................................... 315

Chapter 5: Fact-Finding Procedures to Improve the Determination of
  State Responsibility for Environmental Damage during
  Armed Conflict by the United Nations Security Council ........ 321
  1. Introduction ................................................................... 321
  2. UNSC and Determination of State Responsibility .................. 327
  3. Fact-Finding and Allocation of Responsibility ..................... 336
    3.1. Fact-Finding within the UN Security Council ................. 338
    3.2. Fact-Finding within the UN Human Rights Council .......... 341
      3.2.1. Direct Investigation ........................................... 343
TABLE OF CASES

Archer Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc. v. the United Mexican States (Award) ICSID ARB(AF)/04/5, 21 November 2007.


Bosphorus Hava Yollari Turizm v Ticaret Anonim Sirketi v Ireland (2006) 42 EHRR 1 at [44] (Grand Chamber, ECHR).


Case Concerning British Claims in the Spanish Zone of Morocco (Spain v. UK) (1925) 2 RIAA 615.


Case Concerning the Factory at Chorzów (Claim for Indemnity) [1928] PCIJ (Ser. A) No. 17.


Corfu Channel (United Kingdom v Albania) (Merits) [1949] ICJ Rep 4.


Filartiga v. Peña-Irala 630 F 2d 876 (2d Cir 1980).

In re “Agent Orange” Product Liability Litigation 373 F Supp 2d 7 (ED NY 2005).

In Re ITC [1988] 3 WLR 1159 (CA).

Island of Palmas Case (Netherlands v USA) (1928) 2 RIAA 829.
J.H. Rayner (Mincing Lane) Ltd. V. Dept. of Trade and Industry [1989] 3 WLR 969 (HL).


Maclaine Watson & Co. Ltd. v. ITC (No. 2) [1988] 3 WLR 1190 (CA).


North Sea Continental Shelf (Federal Republic of Germany v Denmark / the Netherlands) (Merit) [1969] ICJ Rep 3.


Questions relating to German Settlers in Poland (Advisory Opinion) [1923] PCIJ (Ser. B) No. 6.


Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion) (Case No. 17) [2011] ITLOS.


Trail Smelter Case (United States v Canada) (1949) 3 RIAA 1905.

Trial of Wilhelm List and Others (The Hostages Trial); Case No. 47, The United Nations War Crimes Commission Law Reports of Trials of Major War Criminals, Vol. VIII (His Majesty’s Stationary Office, London, 1949) 34.


Vietnam Association for Victims of Agent Orange v Dow Chemicals Co 517 F 3d 104 (2nd Cir. 2008).

TABLE OF TREATIES,
INTERNATIONAL AND NATIONAL INSTRUMENTS
(Chronological Order)

Treaties

The Declaration of St. Petersburg Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight (signed and entered into force 11 December 1868).

Final Act of the International Peace Conference (signed 29 July 1899) (1907) 1 AJIL 103.

The 1899 Hague Convention (II) with respect to the Laws and Customs of War on Land, with annexed Regulations (opened for signature 29 July 1899, entered into force 4 September 1900).

Hague Declaration (IV, 2) on the Use of Projectiles the Object of Which is the Diffusion of Asphyxiating or Deleterious Gases (opened for signature 29 July 1899, entered into force 4 September 1900).

The 1907 Hague Convention (IV) Respecting the Laws and Customs of War on Land (opened for signature 18 October 1907, entered into force 26 January 1910), annex.

The 1907 Hague Convention (V) Respecting the Rights and Duties of Neutral Powers in Case of War on Land (opened for signature 18 October 1907, entered into force on 26 January 1910).

The 1907 Hague Convention (XIII) Concerning the Rights and Duties of Neutral Powers in Naval War (opened for signature 18 October 1907, entered into force on 26 January 1910).

Conditions of an Armistice with Germany (signed 11 November 1918) (1919) 13 AJIL 97.


Treaty of Peace between the Allied and Associated Powers and Austria (signed 10 September 1919) (1920) 14 AJIL 1.

Treaty of Peace between the Allied and Associated Powers and Bulgaria, and Protocol (signed 27 November 1919) (1920) 14 AJIL 185.

Treaty of Peace between the Allied and Associated Powers and Hungary, and Protocol and Declaration (signed 4 June 1920) (1921) 15 AJIL 1.
Treaty of Peace between the Allied Powers and Turkey (signed 10 August 1920) (1921) 15 AJIL 179.

Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (opened for signature 17 June 1925, entered into force 8 February 1928).


United States-France-Great Britain-Soviet Union: Declaration Regarding the Defeat of Germany and the Assumption of Supreme Authority with Respect to Germany and Supplementary Statements (signed 5 June 1945) (1945) 39 AJIL 171.


Statute of the International Court of Justice (opened for signature 26 June 1945, entered into force 24 October 1945).


Charter of the International Military Tribunal (signed 8 August 1945, entered into force 8 August 1945).

Agreement between the Government of the Union of Soviet Socialist Republic and the Provisional Government of National Unity of the Polish Republic on Compensation for Damages caused by German Occupation (signed 16 August 1945) (1946) 14 Dep’t St. Bull. 343.


Agreement on Reparation from Germany, on the Establishment of an Inter-Allied Reparation Agency and on the Restitution of Monetary Gold (signed 14 January 1946, entered into force 24 January 1946).


Treaty and Peace: Allied and Associated Powers and Italy (signed 10 February 1947) (1948) 42 AJIL 47.


Treaty of Peace with Finland (signed 10 February 1947) (1948) 42 AJIL 203.


Convention (III) relative to the Treatment of Prisoners of War (opened for signature 12 August 1949, entered into force 21 October 1950).

Convention (IV) relative to the Protection of Civilian Persons in Time of War (opened for signature 12 August 1949, entered into force 21 October 1950).


Agreement of German External Debts (signed 27 February 1953, entered into force 16 September 1953).


Convention Concerning the Protection of the World Cultural and Natural Heritage (opened for signature 23 November 1972, entered into force on 17 December 1975).


Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (signed on 17 May 1980, entered into force on 17 June 1983).


Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (opened for signature on 10 December 1984, entered into force on 26 June 1987).


Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (opened for signature 26 September 1986, entered into force 26 February 1987).


**United Nations General Assembly**

*Question of Chemical and Bacteriological (Biological) Weapons* GA Res 2603, XXIV (1969).


Chemical and Bacteriological (Biological) Weapons GA Res 3465, UN GAOR, 30th sess, 2437th plen mtg (1975).


The Effect of Armed Conflict on Treaties: An Examination of Practice and Doctrine; Memorandum by the Secretariat A/CN.4/550 (2005).


Oil Slick on Lebanese Shores GA Res 63/211 (2008).

Effects of Armed Conflicts on Treaties, Comments and Observations Received from International Organisations A/CN.4/592 (2008).


Oil Slick on Lebanese Shores GA Res 64/195 (2009).

Oil Slick on Lebanese Shores GA Res 65/147 (2010).


Report of the Secretary-General on Oil Slick on Lebanese Shores A/65/278 (2010).


United Nations Security Council


United Nations Compensation Commission Decision No. 15, Compensation for Business Losses Resulting from Iraq's Unlawful Invasion and Occupation of Kuwait where the Trade Embargo and Related Measures were also a Cause S/AC.26/1992/15 (1993).
Letter dated 8 May 2003 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland and the United States of America


United Nations Human Rights Council


Other UN Documents


National Instruments

International Tin Council (Immunities and Privileges) Order 1972 (UK) SI 1972/120.


Alien Tort Claims Act 28 USC § 1350.
LIST OF ABBREVIATIONS

ATCA : Alien Tort Claim Act
BTF : Balkan Task Force
CITES : Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS : Convention on Migratory Species
CPA : Coalition Provisional Authority
Draft ARIO : Draft Articles on the Responsibility of International Organisations
Draft ARSIWA : Draft Articles on Responsibility of States for Internationally Wrongful Acts
DU : Depleted Uranium
ECtHR : European Court of Human Rights
EEZ : Economic Exclusive Zones
ENMOD : Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques
FRG : Federal Republic of Germany
FRY : Former Federal Republic of Yugoslavia
HRC : Human Rights Council
IAC : International Armed Conflict
IAEA : International Atomic Energy Agency
ICC : International Criminal Court
ICCPR : International Covenant on Civil and Political Rights
ICCESCR : International Covenant on Economic, Social and Cultural Rights
ICJ : International Court of Justice
ICRC : International Commission of the Red Cross
ICTR : International Criminal Tribunal for Rwanda
ICTY : International Criminal Tribunal for the Former Yugoslavia
IDF : Israel Defense Forces
IHFFC : International Humanitarian Fact-Finding Commission
IHL : International Humanitarian Law
ILC : International Law Commission
ILM : International Legal Materials
IMO : International Maritime Organization
IMT : International Military Tribunal
IST : Iraqi Special Tribunal
ITC : International Tin Council
ITLOS : International Tribunal for the Law of the Sea
IUCN : International Union for the Conservation of Nature
KFOR : Kosovo Force
KLA : Kosovo Liberation Army
MEAs : Multilateral Environmental Agreements
NATO : North Atlantic Treaty Organisation
NGO : Non-Governmental Organisation
CHAPTER 1
INTRODUCTION

The history of humankind cannot be separated from the history of war.\(^1\) Armed conflict, or conflict involving force, will always be more detrimental than beneficial to human life.\(^2\) In addition to human casualties and injuries, wars have also undeniably brought severe environmental damage and ecological disturbance. There has long been concern about the environmental impact of war and the environment has long been deliberately targeted as part of the strategy of war.\(^3\)

Some contend that international law does not have enough particular rules to prevent states committing wanton environmental destruction during war. Consequently, the adoption of a new and specific convention devoted to protecting the environment during armed conflict has been proposed as

---


necessary. This concern has been exacerbated by the fact that international law appears to favour powerful states over weak ones, especially in inter-state post-conflict settlements, when responsibility for wartime damage, including environmental damage, is allocated.

Most of the scholars above, who contend that the current provisions for protecting the environment during armed conflict are inadequate, were heavily influenced by the events of the Gulf War in 1991. Generally, their contention is based on four criticisms. First, most of the current rules are clearly anthropocentric which means that priority of protection is given to humans and not to the environment. Second, the current law contains ambiguous and unclear provisions and sets an extremely high threshold for environmental damage. Third, despite referring to the environment, many provisions are rendered ineffective due to the military necessity clause contained in the treaties. Finally, the provisions are toothless, as

---


5 This reality of post-conflict “victor’s justice” has been one of the factors that have made some commentators express doubt as to whether international law is really law. See Jack L. Goldsmith and Eric A. Posner The Limits of International Law (Oxford University Press, Oxford, 2005) at 3; Malcolm N. Shaw International Law (6th ed., Cambridge University Press, Cambridge, 2008) at 2-3.
they do not have realistic means of enforcement in practice. Thus, the adoption of a new, specific, lower threshold and comprehensive treaty is the best option to provide better protection for the environment during armed conflict.

It is undeniable that belligerents have caused, and keep causing, severe environmental damage during international armed conflicts and the implementation of international responsibility for wartime environmental damage has been severely limited. However, this thesis argues that this is not due to a paucity of provisions protecting the environment during wartime. Instead, it is contended that the real problem lies in how the international community (fail to) implement the applicable international rules – particularly holding appropriate states responsible for making reparation.

It is important to hold the appropriate parties responsible for three reasons. First, imposing responsibility on those that actually caused damage to the environment as a result of violations of international rules means that the international legal regime is effectively implemented and is in accordance with the “polluter pays principle”. In other words, liability cannot be attributed to those who did not cause the relevant damage; unless liability is fully attributed, some damage will never result in compensation and so may never be repaired. Second, with the possibility of both warring parties being responsible for the damage, reparation from more than one party could mitigate and repair the damage to the environment more effective. Third, imposing responsibility based on factual evidence regardless of the belligerents’ status in the aftermath of the conflict (victor or defeated) would remove the possibility of a post-conflict “victor’s justice” pattern and act as a deterrent for belligerents in the future.

In taking this position, it is considered that international law provides sufficient legal provisions to protect the environment during armed conflict and also a

---

6 See Barnaby, above n 4, at 172; Stannard, above n 4, at 376; Simonds, above n 4, at 177-178, 187; Tarasofsky, above n 4, at 76; Hulme, above n 4, at 69, 71.
comprehensive legal framework to pursue international responsibility against those who violate such rules, causing significant damage to the environment. Unfortunately, the current forum for determining this responsibility, the United Nations Security Council (UNSC), is inconsistent in its practice.

Prior to outlining the exact way this thesis proceeds, it is important to give a brief background to the issue. Following that, this introduction outlines the broad scope of this thesis, summarises its main findings and arguments, and clarifies certain technical terms.

1. Armed Conflict and the Environment

In modern times, protection of the environment during armed conflict may be considered a new fundamental principle of *ius in bello* or the law of war. This principle has emerged simultaneously with the growing universal concern about environmental issues in general.  

7 Besides the UNSC, international judicial institutions could also become fora determining whether there has been a violation of international rules and whether or not such violations are attributable to a state and incur responsibility. See Malgosia Fitzmaurice and Dan Sarooshi (eds) *Issues of State Responsibility before International Judicial Institutions* (Hart Publishing, Oxford, 2004). This thesis, however, focuses only on the UNSC because the international community (with the exception of the World Wars and as found in Chapter 4) has heavily relied on this body in responding to similar armed conflicts that have caused significant environmental damage. See also in general Vaughan Lowe, Adam Roberts, Jennifer Welsh and Dominik Zaum (eds) *The United Nations Security Council and War: The Evolution of Thought and Practice since 1945* (Oxford University Press, Oxford, 2008).

8 Beginning in 1972, states from all over the world have gathered every decade to discuss the issue of the global environment, which has frequently resulted in important agreements and decisions. In 1972, the international community agreed that: “[s]tates have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction”. *Report of the United Nations Conference on the Human Environment* A/CONF.48/14/Rev1 (1972), principle 21. The Report was adopted by the United Nations General Assembly on 15 December 1972. Two decades after this conference, this principle was restated in the Principle 2 of Rio Declaration on Environment and Development. It further stated that: “[w]arfare 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”. *Report of the United Nations Conference on the Environment and Development* A/CONF.151/26 (Vol. 1, 1992), principles 2 and 24. Commentators have described these two principles as
Generally speaking, the international law that protects the environment during wartime has developed more slowly than that which provides for peacetime environmental protection. Wartime environmental protection tends to have evolved in fits and starts in response to international incidents of concern.  For example, the adoption of written laws for the protection of the environment during armed conflict did not occur until after the United States (US) employed military strategies (including using herbicides and modifying weather patterns) that had severe negative impacts on the environment during the Vietnam War.

Soon after, a number of provisions within the law of war were adopted that specifically protected the environment during wartime. The new provisions recognised the importance of protecting the environment for its own sake. Prior to the making of these provisions, the law of war protected the environment only indirectly, as essential for human survival or as property.

Despite the growing global awareness of environmental protection from the early 1970s, during times of both war and peace, the reality is that states have continued to cause environmental damage in conflicts subsequent to this period.

10 See Chapter 4 at [3.1].
11 These provisions came from treaties such as the 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques [ENMOD], the 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts [Additional Protocol I], the 1981 Certain Conventional Weapons Convention, especially the Third Protocol on Incendiary Weapons and the 1998 Statute of the International Criminal Court [the ICC Statute].
12 See Chapter 2 at [2.1.1-2.1.3].
13 As will be discussed in Chapter 2 at [3.2-3.4], there are a number of environmental peacetime legal provisions which are potentially applicable during wartime. In conjunction with the protection proffered by the laws of war, invocation of these peacetime obligations on belligerents will provide an additional layer of legal protection for the environment.
Furthermore, despite convincing evidence of unlawful conduct causing environmental damage, it is concerning that the actual implementation of state responsibility in such cases has been severely limited.

Drawing on this central concern, it is the aim of this thesis to examine the practices of the international community throughout the 20th and 21st centuries via case-studies of selected armed conflicts which have caused significant environmental damage. It focuses on international responsibility specifically whether or not the appropriate state belligerents have been held responsible (including providing compensation) for wartime environmental damage.

Specifically, this thesis asks three main questions:

- Does international law provide sufficient formal protection (through treaty provisions and customary international law) for the environment during armed conflict?
- Does international law also provide a comprehensive legal framework to respond to the violation of such rules and consequently to hold international entities (states, international organisations, and individuals) responsible for making reparation to redress the environmental damage caused during wartime? This inquiry also necessitates asking which of these entities is worth pursuing for the purpose of providing appropriate reparation for the damaged environment. Accordingly, has this regime been effectively implemented? If not, why?
- How could the mechanisms used to pursue state responsibility for environmental damage during wartime be developed or improved in the future?

In response, this thesis argues that international law has indeed provided sufficiently comprehensive provisions and rules relating to environmental protection during wartime, albeit that these are not contained in a single convention or source. Today, a significant number of international provisions
protecting the environment during wartime have been adopted. Also, certain peacetime provisions protecting the environment are likely to apply in times of armed conflict. A new, single convention specifically directed at environmental protection during wartime seems unnecessary given the fact that most states are already bound to protect the environment during wartime.

Further, international law also provides a special regime for dealing with violations: the law of international responsibility.\(^\text{14}\) Under this regime, states, international organisations, and individuals may be held liable for violations of international law (including wartime duties) and may have to make reparation for any resulting damage. However, as compensation is argued to be the most realistic and appropriate remedy for environmental damage, this thesis argues that only states can realistically provide satisfactory reparation. Thus, legally speaking, if a state party in an armed conflict has violated international law and caused environmental damage, it is liable to make reparation in the form of compensation that may be used to repair the environment.

Unfortunately, the implementation and enforcement of rules protecting the environment during wartime and state responsibility to remedy wartime environmental damage has been ineffective and inconsistent. Many armed conflicts have caused significant environmental damage, but there is only one case in which a state has been held liable for environmental damage: the 1991 Gulf War.

It seems that this situation arises due to the fact that the process for determining liability is mainly political and tends to reflect the paradigm of victor’s justice. Frequently, it is the vanquished belligerent that bears all the responsibility for reparation, despite the fact that the victorious belligerent has also contributed to the environmental damage through unlawful conduct. This thesis argues that the

main cause of the unfair allocation of responsibility for wartime environmental damage lies in the decision-making process within the UNSC, in particular is lack of transparency in establishing facts and the absence of due process for belligerent states.

Resolutions adopted by the UNSC are based on agreement among its members. Thus, such decisions may have been biased by each member’s political aspirations, particularly the permanent members. Evidence of this fact can be seen in cases where the UNSC adopted resolutions without clear consideration of authoritative reports about the consequences of the war, or about environmental damages resulting from the conflict. Such a report could have described from a neutral perspective whether any unlawful action had been committed by either or both belligerents that had caused injuries to the environment.

In addition, the case studies show that both sides of the conflict were not given an opportunity to present information based on their own investigations, or to justify the damage caused. Despite the likelihood that this kind of involvement would be partial and self-serving, allowing submissions would have shown the international community that belligerents would be given fair treatment despite an apparently obvious violation of international law. In addition, this submission would have provided a useful balance when set against the information received from the UNSC’s members.

This thesis argues that one means of achieving transparency and due process is through the mandatory involvement of fact-finding missions. Further, such fact-
finding activities should be conducted by both impartial missions established by the UNSC and the belligerents in the conflict at hand. This two-fold approach would result in both objective and subjective reports being produced. They would be the main sources to be considered in determining state responsibility for war damage. A degree of ‘balance’ would be achieved, as the reports would be produced by all the stakeholders, so that no party is left out of the process.

The main issue, then, is how the international community should appropriately allocate responsibility to those who have caused environmental damage. If this liability is allocated consistently, a message will be sent to all states that, regardless of their political power, no belligerent will escape responsibility for wartime environmental damage. Effective implementation of state responsibility to pursue liability for war damage should have a significant deterrent effect.

Nevertheless, it must be noted that this thesis does not intend to provide one solution to solve all problems relating to the UNSC. This proposal may not stop the members (particularly the permanent members) of the UNSC from making a politically motivated final decision in the Council. This study is rather about formulating a more robust and reliable decision-making process. It focuses on improving the Council’s reporting process to make it more transparent and to afford fairer treatment to all state belligerents. At the very least, it is expected that both conflicting parties’ conduct will be taken into consideration equally by the UNSC.

In addition, such a process would at least increase the likelihood that a fair resolution will be adopted by the UNSC where responsibility is imposed upon the appropriate state belligerents in accordance with the environmental damage they have caused. It would also send a strong message that state belligerents, who commit wanton destruction of the environment during wartime, will no longer go unpunished and could be held liable for repairing the damaged environment.
Thus, with effective implementation of state responsibility for wartime environmental damage, better environmental protection may be achieved.

2. Scope of the Research and Terminology

As this thesis mainly discusses armed conflict and the environment, it is imperative to clarify what is meant by these terms for the reader.

2.1. Armed Conflict

According to Black’s Law Dictionary, armed conflict is “a state of open hostility between two nations, or between a nation and an aggressive force”.19 This situation is also referred as international armed conflict. Armed conflict may also occur within a territory of a nation or a state, known as “civil war”. Thus, there are two types of armed conflict: international armed conflict and internal armed conflict.20

Of course, armed conflict may evolve from one type into another, with different degrees of human and environmental consequences. This is important because it affects the applicability of certain rules in international humanitarian law (IHL) as well as rules of state responsibility. One common change in status is the shifting of internal armed conflicts into international armed conflicts because of foreign intervention.21 This is sometimes referred to as “internationalised armed conflict”.22 In such a conflict, the rules of the law of war are generally applicable

---


20 This division is supported by the International Commission of the Red Cross (ICRC) where it maintains that international humanitarian law (IHL) distinguishes two types of armed conflict: international armed conflict (IAC) and non-international armed conflict (NIAC). ICRC “How is the Term “Armed Conflict” Defined in International Humanitarian Law?” (2008) International Committee of the Red Cross <www.icrc.org> at 1.


in a manner similar to inter-state armed conflict. Some examples of this type of armed conflict, to be discussed later, are the Vietnam War and the Kosovo War.23

It is not the purpose of this thesis to analyse cases of environmental damage in every type of armed conflict. Rather, this thesis focuses only on armed conflict between states and internationalised armed conflict. There are a number of reasons for this selection. First, significant environmental damage occurs frequently during armed conflict between states because this type of war usually employs highly-destructive weapons. Second, most of the current wartime rules, including those that protect the environment only apply to armed conflict between states. In contrast, the application of international rules in cases of internal armed conflict is generally less developed and more limited.24 Nonetheless, during internal armed conflict the environment is still protected by general obligations found in standard peacetime international rules (particularly multilateral environmental agreements – MEAs) which apply in the territory of the state where armed conflict is located. Third, it is highly likely that only states have the necessary financial capability to pay compensation for repairing the environment.25


23 See details of these armed conflicts in Chapter 4.

24 The international protection regimes applicable for internal armed conflicts contain significantly fewer rules compared to inter-state armed conflicts. The 1949 Geneva Conventions and the 1977 Protocols contain close to 600 articles, of which only Article 3 is common to the four 1949 Geneva Conventions; and the 28 articles of Additional Protocol II apply to internal conflicts. Sonja Boelaert-Suominen “Grave Breaches, Universal Jurisdiction and Internal Armed Conflict: Is Customary Law Moving Towards a Uniform Enforcement Mechanism for All Armed Conflicts?” (2000) 5 JC&SL 63 at 69; James G. Stewart “Towards a Single Definition of Armed Conflict in International Humanitarian Law: A Critique of Internationalized Armed Conflict” (2003) 85 IRRC 313 at 320. Particularly to Additional Protocol II, it has been noted that it is an effort to “broaden the scope of application of basic humanitarian rules [due to] the inadequacy of the common Article 3 [and it] develops and supplements common Article 3”. Most of its provisions are “largely repeating humanitarian norms that are mandated in other treaties”. Gary D. Solis The Law of Armed Conflict: International Humanitarian Law in War (Cambridge University Press, Cambridge, 2010) 129.

25 See the conclusions of Chapter 3.
To alleviate repetition in this thesis, several terms are used throughout this study interchangeably to refer to the situation of armed conflict between states. They are “armed conflict”, “war” and “hostilities”. Furthermore, it should be noted that the word “international” is not always added before “armed conflict” for the sake of efficiency, and to avoid confusion with other terms that use the word “international” such as “international responsibility” and “international law”.

It is also important to clarify terms that are used specifically in the law relating to armed conflict. Despite the variety of terms that have developed over time, all are still currently used in the literature. Some scholars refer to the “law of war” and others to the “law of armed conflict”. Some scholars speak of “international humanitarian law”, and others use the combined term “international humanitarian law of armed conflict”. In this thesis, the terms *ius in bello*, law or laws of war, law of armed conflict and international humanitarian law are used interchangeably unless indicated otherwise.


2.2. Environment

Many definitions have been offered for the term “environment”. For the purpose of this thesis, definitions from the United Nations Environmental Programme (UNEP) are used because of this organ’s involvement with the process of post-conflict environmental damage rehabilitation in the aftermath of the Gulf War.

In 1996, a UNEP working group contributed a report to the United Nations Compensation Commission (UNCC), which analysed liability and compensation for environmental damage arising from military activities.30 In relation to environmental damage, the working group proposed that any state may bring a claim for environmental damage that has occurred:31

[i]n or to the land within its boundaries (including subsoil); internal waters (including lakes, rivers and canals); territorial sea (including seabed, subsoil and resources thereof); airspace above its land; and exclusive economic zone and continental shelf to the extent that damage occurred to resources over which it has jurisdiction or sovereign rights in accordance with international law.

The working group further noted that the term “environment” includes “abiotic and biotic components, including air, water, soil, flora, fauna and the ecosystem formed by their interaction”,32 and that other international environmental organisations have define the “environment” as including “cultural heritage, features of the landscape and environmental amenity”.33 In justifying a wider definition, the working group observed that “a broad construction of the term would be consistent with the more recent treaties and acts of international organisations”.34

31 Ibid, 7-8.
32 Ibid, 10.
33 Ibid.
34 Ibid.
3. Research Method

This study follows the sources listed by the International Court of Justice (ICJ)\textsuperscript{35} in gathering information and identifying relevant sources of law. Thus, this thesis analyses international conventions (treaty law) and international customs (customary international law), with some reference to general principles of law, judicial decisions and relevant literature as additional sources of law. Sources from treaty and customary laws are the main focal points.

Having identified the applicable law, cases of armed conflicts where significant environmental damage has occurred are analysed against the rules of international responsibility. To conduct these case studies and this research as a whole, a wide variety of sources and materials have been collected, including textbooks, journal articles.

4. Structure of the Thesis

Following this introduction, Chapter 2 begins with an analysis of the international rules that protect the environment during armed conflict. It is divided into two parts. The first part identifies and examines all relevant provisions within the law of war. These provisions include both rules that expressly or specifically mention (protection of) the environment, and more general provisions that protect the environment as a corollary of protecting people or of limiting the methods and means of warfare.

\textsuperscript{35} “[t]he 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 recognised by the contesting states; (b) international custom, as evidence of a general practice accepted as law; (c) the general principles of law recognised by civilised nations; and (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”. Statute of the International Court of Justice (opened for signature 26 June 1945, entered into force 24 October 1945), art 38(1).
The second part of Chapter 2 identifies and examines certain peacetime environmental provisions which potentially continue to apply during armed conflict. These provisions provide an additional layer of protection for the environment, and come from international human rights law, international environmental law and international law on the use of force (*ius ad bellum*).

Chapter 3 focuses on the so-called “secondary” regime in international law: the regime of international responsibility. This regime provides for liability for violations of international rules committed by states, international organisations and individuals. It also reviews the consequences of such violations. This Chapter is particularly concerned with the question of which international subject is or international subjects are worth pursuing, bearing in mind the end-goal of repairing the environment damaged during armed conflict.

Chapter 4 examines cases of armed conflict where significant environmental damage occurred against the relevant law identified in Chapters 2 and 3. These cases are: World War I, World War II, the Vietnam War, the 1991 Gulf War, the 1999 Kosovo War, the 2003 Iraq War and the 2006 Israel-Lebanon War.

These cases were selected because they represent modern conflicts that were subject to international rules regulating belligerents’ conduct. These case studies aim to establish whether or not the environmental damage occurring during these conflicts was caused by the unlawful conduct of the belligerents. The relatively large timeframe that these cases cover also allows us to examine whether or not state responsibility for environmental damage has been consistently and effectively implemented. In addition, each of these cases offers its own insights.

into the allocation and repercussions of state responsibility for environmental
damage in times of war. The discussion is divided into three broad periods,
reflecting the early experience which effectively amounted to ‘victor’s justice’;
the ‘peak period’ where state responsibility for wartime environmental damage
was upheld (the Gulf War); and finally, the more modern period where a retreat
from the preceding period’s approach is observed.

Considering the lessons learned from the case studies, Chapter 5 identifies one
possible improvement to the process for enforcing state responsibility for
environmental damage during war. As it is the likely forum where post-conflict
responsibility would be determined, this Chapter explores the question of how the
UNSC’s decision-making process could be improved. Chapter 5 argues that the
use of mandatory fact-finding activities by the UNSC would result in a fairer and
more transparent process.

By proposing a model reporting mechanism that utilises fact-finding reports, this
Chapter outlines one possible way that the UNSC could (and should) modify its
current reporting process in responding to armed conflict, especially conflicts
resulting in significant environmental damage. In addition, this Chapter also
proposes a modified Compensation Commission, to operate in cases where the
UNSC has allocated responsibility for the consequences of war to the appropriate
belligerent state. The proposed Commission would operate to prioritise reparation
of the damaged environment after the conflict.

This thesis concludes with Chapter 6, which draws together the analyses and
discusses the ramifications of the analyses for allocating state responsibility for
environmental damage in times of war.
CHAPTER 2
INTERNATIONAL LEGAL OBLIGATIONS FOR
ENVIRONMENTAL PROTECTION DURING
ARMED CONFLICT

1. Introduction

Since it first developed, the law of war has focused on protecting human beings. It prioritises human protection by controlling the conduct of belligerents in order to minimise human injuries and casualties. However, the consequences of war are seldom limited to human casualties. War also causes major destruction to the environment.

This Chapter shows that despite prioritising human protection, international law provides a significant number of rules to protect the environment during armed conflicts. Contrary to claims that existing rules are insufficient, the law of war adequately safeguards the environment during armed conflicts by prohibiting certain military activities that may cause significant damage to the environment. Furthermore, there are peacetime regulations that may continue to bind

---


4 This argument was raised during the event of the Gulf War. See Chapter 4 at [3.3]. See also Adam Roberts “The Law of War and Environmental Damage” in: Jay E. Austin and Carl E. Bruch (eds) *The Environmental Consequences of War* (Cambridge University Press, Cambridge, 2000) 47 at 66.
belligerents in times of war.⁵ These peacetime obligations significantly strengthen the legal protection given to the environment during armed conflicts.⁶ Relevant peacetime provisions may be found in international human rights law, international environmental law and international law of the use of force (*ius ad bellum*).

In identifying the relevant legal rules, this Chapter draws on international conventions (treaty law) and international custom (customary international law), as well as making reference to general principles of law, judicial decisions and eminent literature as additional sources of law.⁷

Treaties are written agreements that have been adopted by states, usually after a diplomatic conference. Customary law, on the other hand, is mostly composed of unwritten laws that have developed over time by consistent practice among states and later have been declared to be law. Treaty law also requires states to consent in order for a treaty’s rules to bind them. In contrast, global acceptance of customary law means that it potentially binds all states regardless of specific individual consent unless expressly, clearly and consistently objected.⁸ The rules in treaties may be codified from customs or may originate as states respond to novel global concerns.

In addition, protection sourced from treaty law applies to a readily identifiable list of parties and if applicable can be easily invoked, theoretically, on a belligerent. A belligerent’s subscription to a treaty’s rules may be found easily in the form of a ratification instrument to the concerned treaty. However, it will be impossible to

---

⁵ As will be explained later in this Chapter at [3.1], this proposition is based on the fact that there has been a nearly universal recognition that the event of armed conflict does not automatically suspend pre-existing treaties between belligerents.


⁷ See Chapter 1 at fn 36.

invoke treaty laws if one or both warring factions is not or are not member parties. In such cases, customary law may provide protection against unlawful conduct by the belligerents, because its rules are prima facie binding on all states except for those that have declared themselves as persistent objectors.\(^9\)

This Chapter firstly examines states’ obligations under international humanitarian law (IHL) and then analyses peacetime obligations. It shows clearly that existing legal obligations that protect the environment during wartime are adequate, and thus that belligerent states can potentially be held liable if these rules are violated.

### 2. Does International Humanitarian Law (the Law of War) Provide Sufficient Rules to Protect the Environment?

Some commentators divide environmental protection within the law of war into two categories: direct and indirect protection. Such a distinction is based on the intention of the drafters or the ratio behind the specific rule: those that were specifically intended to protect the environment; and those that were not intended to do so, but may nevertheless be favourable to environmental protection.\(^10\)

Nevertheless, both of these categories are equally important for the purposes of this thesis because they have the same effect: protecting the environment during armed conflict (although this may be to a greater or lesser degree in the individual case). Examining all rules within the law of war that protect the environment during armed conflicts, whether directly or indirectly, is necessary in order to demonstrate that international law provides sufficient legal protection for the environment in wartime.


\(^10\) Erik Koppe The Use of Nuclear Weapons and the Protection of the Environment during International Armed Conflict (Hart, Oxford, 2008) at 122-308.
2.1. Treaty Law

There are a number of treaty provisions within the law of war that address environmental protection in times of armed conflict. This section discusses those provisions separately and chronologically, and shows that awareness of the need to specifically protect the environment in times of war arose in the 1970s, as part of the worldwide environmental movement. In addition, it will be shown that the environment during wartime may be protected simply as an adjunct to protecting people and their property or can be protected in its own right or due to its own inherent value.

2.1.1. The 1907 Hague Regulations Respecting the Laws and Customs of War on Land

This treaty protects the environment during armed conflict through art 23(g), which proscribes acts that “destroy or seize the enemy’s property, unless such destruction or seizure be imperatively demanded by the necessities of war”, and art 55, which obliges occupying powers to “safeguard the capital” of “properties

---

11 These provisions come from treaties such as the 1907 Hague Regulations Respecting the Laws and Customs of War on Land, the 1925 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, the 1949 Geneva IV Convention relative to the Protection of Civilian Persons in Time of War, the 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD), the 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol 1), the 1981 Certain Conventional Weapons Convention, especially the Third Protocol on Incendiary Weapons and the 1998 Statute of the International Criminal Court.


13 Ibid, art 23(g).
(real estate, forests and agricultural estates), and administer them in accordance with the rules of usufruct”.

Although mainly intended to safeguard human survival, art 23(g)’s reference to human ‘property’ potentially includes the environment. Thus, some scholars consider that this article provides protection for the environment in terms of natural resources that are state property, such as oil stations or refineries that may become military targets of a war. Furthermore, art 55 explicitly mentions that forests and agricultural estates are to be protected because of their indispensable value in supporting human life. This obligation was applied after the Second World War to hold German industrialists accountable for over-exploiting Polish forests for timber during the period of occupancy.

---

14 Ibid, art 55. According to Black’s Law Dictionary, usufruct means “a right for a certain period to use and enjoy the fruits of another’s property without damaging or diminishing it, but allowing for any natural deterioration in the property over time”. Bryan A. Garner *Black’s Law Dictionary* (9th ed, St. Paul, West, 2009) at 1684.

15 Koppe, above n 10, at 283. For comparison, the term “property” is also used in the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict (opened for signature 14 May 1954, entered into force 7 August 1956). This Convention did not encompass the natural environment, as is made clear in art 1’s definition of “Cultural Property”. “Cultural Property” is defined in art 1 as “(a) movable or immovable property of great importance to the cultural heritage of every people, such as monuments of architecture, art or history, whether religious or secular; archaeological sites; groups of buildings which, as a whole, are of historical or artistic interest; works of art; manuscripts, books and other objects of artistic, historical or archaeological interest; as well as scientific collections and important collections of books or archives or of reproductions of the property defined above; (b) buildings whose main and effective purpose is to preserve or exhibit the movable cultural property defined in sub-paragraph (a) such as museums, large libraries and depositories of archives, and refuges intended to shelter, in the event of armed conflict, the movable cultural property defined in subparagraph (a); (c) centres containing a large amount of cultural property as defined in sub-paragraphs (a) and (b), to be known as ‘centres containing monuments’”.


While it is true that art 23(g) provides an escape clause for military necessity, the provision as a whole gives notice to warring parties to take into account environmental factors during hostilities. Even though it was created without specific consideration of the environment, this provision has been argued by a commentator to offer protection in situations of “extreme acts of environmental degradation”. In addition and although the 1907 Hague Regulations have been ratified by only small number of states, their application is potentially much wider than this, because provisions in this treaty have been considered to be part of customary international law, as is explained further below at [2.2].

2.1.2. The 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare

This Protocol prohibits the use of “asphyxiating, poisonous or other gases, and of all analogous liquids materials or devices” during hostilities. The Protocol has been acknowledged as providing a valuable norm that enhances the protection of humans and the environment during armed conflict.

Poisonous weapons are available due to the rapid progress of technology and threaten not only humans but also the environment. The use of chemical weapons brings indiscriminate consequences. These chemicals can have enduring

---

19 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (opened for signature 17 June 1925, entered into force 8 February 1928).
20 Tarasofsky, above n 18, at 55.
destructive effects on natural ecosystems and can be transmitted throughout the food chain. The adoption of the 1925 Protocol was triggered by the atrocious experiences of the First World War, when applications of poison gases caused devastating casualties to both humans and wildlife. But even before this, the use of poison gas in warfare had been denounced by a declaration and prohibited by a convention.

In terms of the Protocol’s application, two broad concerns have been raised as to its possible ineffectiveness: that it fails to provide precise definitions of the weapons that are prohibited (so that belligerent states have wide discretion in justifying their use of certain damaging weapons); and a significant number of states’ reservations indicating that prohibitions under this Protocol only apply to states based on a reciprocal rather than absolute basis. However, it is contended that such concerns are outweighed by certain positive developments.

First, in the absence of a precise definition of the prohibited weapons, the United Nations General Assembly (UNGA) has by resolution moved to clarify the scope

---


25 Hague Declaration (IV, 2) on the Use of Projectiles the Object of Which is the Diffusion of Asphyxiating or Deleterious Gases (opened for signature 29 July 1899, entered into force 4 September 1900).

26 The 1907 Hague Regulations, above n 12. Article 23(a) prohibits states “employ[ing] poison or poisoned weapons”.

27 Tarasofsky, above n 18, at 55-56; Espiell, above n 21, at 422.
of the 1925 Protocol. Second, despite providing for reservations, the Protocol has been “relatively well observed”, and the use of poison gas has been frequently “condemned as a violation of international law”. This is likely because the implementation of the Protocol has not been solely based on a relatively altruistic recognition of these weapons’ inherently devastating effects, but on reciprocity. That is, states observe the Protocol, to a significant degree, out of the fear that otherwise these weapons would be used more readily against them. But rather than undermining the Protocol’s effectiveness, as a matter of state practice, this reciprocity basis has enhanced the effective implementation of this Protocol. Third, the Protocol has been successfully argued to apply in real-life cases. For example, the use of herbicides and defoliants by the US during the Vietnam War, and Iraq’s action of spilling and burning huge amounts of oil to produce black fumes during the Gulf War, have been seen as violations of the Protocol.

28 The UNGA stated that the Protocol prohibited use of: “(a) any chemical agents of warfare—chemical substances, whether gaseous, liquid or solid—which might be employed because of their direct toxic effect on man, animals or plants; (b) any biological agents of warfare—living organisms, whatever their nature, or infective material derived from them—which are intended to cause disease or death in man, animals, or plants, and which depend for their effect on their ability to multiply in the person, animal or plant attacked”. Question of Chemical and Bacteriological (Biological) Weapons GA Res 2603, XXIV (1969) [UNGA Res 2603].

29 Tarasofsky, above n 18, at 56.
30 Schwabach, above n 16, at 124.
31 Espiell, above n 21, at 422.
32 Tarasofsky, above n 18, at 56.
2.1.3. The 1949 Geneva IV Convention relative to the Protection of Civilian Persons in Time of War

A few years after the end of World War II in 1949, states successfully codified almost all of the rules and customs of warfare into four main conventions. One of these, the Fourth Convention, provides environmental protection during armed conflict. Although the Convention’s principal protection is for civilian persons, there are two provisions that protect the environment as the property of individual persons. Articles 53 and 147 state, respectively, that:

[a]ny destruction by the occupying power of real or personal property belonging individually or collectively to private persons, or to the state, or to other public authorities, or to social or co-operative organisations, is prohibited, except where such destruction is rendered absolutely necessary by military operations.

[g]rave breaches, to which the preceding Article relates, shall be those involving any of the following acts, if committed against persons or property protected by the present Convention: ... extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly.

Article 53 closely mirrors art 55 of the Hague Regulations; both protect “property” during military occupation. Article 53 is wider in that it includes not only property owned by the state but also that owned by private entities. Still, both provisions protect only those properties within national territory and leave the areas in the commons outside a state’s jurisdiction unprotected. Article 53’s exception for military necessity arguably sets a higher standard than the similar exception under art 23(g) of the 1907 Hague Regulation. This increases the level

---

34 Convention (IV) relative to the Protection of Civilian Persons in Time of War (opened for signature 12 August 1949, entered into force 21 October 1950) [Fourth Geneva Convention].
35 The Four 1949 Geneva Conventions (opened for signature 12 August 1949, entered into force 21 October 1950) [the Four 1949 Geneva Conventions].
36 Fourth Geneva Convention, above n 34, arts 53 and 147 respectively.
37 Discussed above from [2.1.1].
38 Lawrence and Heller, above n 12 at 66.
39 In art 53, destruction is permissible if it is rendered “absolutely necessary” by military necessity. Meanwhile, art 23(g) permits destruction if considered “imperatively demanded” by military necessity. Tarasofsky, above n 18, at 43.
of environmental protection during military occupation, a period when destruction of the environment frequently occurs.40

Article 147 enhances art 53’s environmental protection by affirming as a breach of the Convention the unlawful and wanton destruction and appropriation of property in the absence of military necessity. Significantly, art 146 requires state parties to pass domestic legislation in order to prosecute those who commit or order action amounting to a grave breach. Further, states are required to prosecute such offenders before their courts regardless of their nationality. The Convention also authorises states to hand over offenders to other states subject to any extradition agreement existing between them.41 This provision has heightened the deterrent effect on individuals involved in armed conflicts.42

2.1.4. The 1977 Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques43 (ENMOD)

Inspired by the devastating experience of the American defoliation campaigns during the Vietnam War and by growing concerns over technological developments allowing states to use catastrophic environmental change as a weapon in armed conflicts,44 states in 1977 agreed to two special conventions addressing environmental protection during armed conflict. These are the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD)45 and the Protocol Additional

40 Schmitt, above n 23, at 66.
41 Fourth Geneva Convention, above n 34, art 146.
43 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (opened for signature 18 May 1977, entered into force 5 October 1978) [ENMOD].
45 ENMOD, above n 43.
to the Geneva Conventions of 12 August 1949 relating to the Protection of Victims of International Armed Conflicts (the 1977 Additional Protocol I).\(^{46}\)

ENMOD generally proscribes the use of environmental modification techniques as weapons during armed conflict. The Convention also regulates the application of environmental modification technology for non-hostile purposes. It is accompanied by a document of “Understandings”, which contains written interpretations of arts I, II, III and VIII.\(^{47}\) Although not binding, this document is recognised as being important and relevant in terms of the interpretation of specific terms in these articles.\(^{48}\)

The Convention begins with art I’s obligations on member states “not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other state party” and not to “assist, encourage or induce any state, group of states or international organisation to engage in activities contrary to the provisions of paragraph 1 of this article”.\(^{49}\) Article II specifies that “environmental modification techniques” includes “any technique for changing – through the deliberate manipulation of natural processes – the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space”.\(^{50}\) Article III allows environmental

\(^{46}\) Additional Protocol to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (opened for signature 12 December 1977, entered into force 7 December 1978) [the 1977 Additional Protocol I].


\(^{48}\) These Understandings were not incorporated into the Convention but became part of the negotiating record and were included in the report transmitted by the Conference of the Committee on Disarmament to the UNGA in September 1976. Koppe, above n 10, at 128-129.

\(^{49}\) ENMOD, above n 43, art I.

\(^{50}\) Ibid, art II. The “Understandings Regarding the Convention” provides a non-exhaustive list of the types of phenomena which may result from technology to modify the environment. These phenomena include: earthquakes and tsunamis; an upset in the ecological balance of a region; changes in weather patterns (clouds, precipitation, cyclones of various types and tornado storms); changes in climate patterns; changes in ocean currents; changes in the state of the ozone layer; and
modification techniques to be used only for peaceful purposes and consistently with the general principles and applicable rules of international law.\textsuperscript{51}

The scope of arts I and II of ENMOD was challenged during the 1991 Gulf War after oil wells were burned and oil was spilled into the Persian Gulf by Iraqi forces. Some states were disappointed that these articles did not effectively cover these events. One of the reasons for this concern was articulated by Jordan, arguing that ENMOD contains “broad and vague” terms and impossible to enforce because it does not provide proper mechanisms for the investigation and settlement of any dispute under the Convention. Therefore, as ENMOD “was revealed as being painfully inadequate during the Gulf conflict”, Jordan proposed a revision of the existing laws protecting the environment during armed conflict through the UNGA.\textsuperscript{52}

States further discussed ENMOD’s failure to apply during the Gulf War at ENMOD’s Second Review Conference in 1992, which considered whether or not conventional technology measures, such as the use of herbicides and burning of oil wells, fall within the scope of art II. This conference declared the use of herbicides to be a method of war proscribed under arts I and II, but unfortunately said nothing about burning oil wells.\textsuperscript{53} Nevertheless, this conclusion is an

\textsuperscript{51} ENMOD, above n 43, art III.

\textsuperscript{52} Request for the Inclusion of an Additional Item in the Provisional Agenda of the Forth-sixth Session; Exploitation of the Environment as a Weapon in Times of Armed Conflict and the Taking of Practical Measures to Prevent Such Exploitation; Note verbale dated 5 July 1991 from the Chargé d’affaires a.i. of the Permanent Mission of Jordan to the United Nations addressed to the Secretary-General A/46/141 (1991) at [2]. This proposal was followed by the adoption of UNGA resolution for environmental protection in war. Protection of the Environment in Times of Armed Conflict GA Res 47/52(E), A/Res/47/52(E) (1992).

important confirmation that this Convention not only applies to high technology, but also to low technology or conventional approaches.\textsuperscript{54}

ENMOD prohibits environmental modification causing "widespread, long-lasting or severe" damage. Fortunately, clear definitions of these thresholds are expressly provided in the "Understandings". The term "widespread" may cover "an area on the scale of several hundred square kilometres"; "long-lasting" includes "a period of months, or approximately a season"; and "severe" involves "serious or significant disruption or harm to human life, natural and economic resources or other assets".\textsuperscript{55} The clear definitions provided in this Convention arguably may contribute to the interpretation of similar terms in other treaties such as the 1977 Additional Protocol I (see below at [2.1.5]).

Note that the damage thresholds in ENMOD are expressed as alternatives, rather than cumulative requirements as in the 1977 Additional Protocol I below. This means that to establish a violation of ENMOD Convention, it is enough if only one of the thresholds is met, whereas to breach the 1977 Additional Protocol I the damage must meet all three and be widespread, long-term and severe.

Article I of ENMOD further states that the damage or injury must be directed "to any other state party". Thus the application of this Convention is limited to state parties, regardless of whether that state is a warring or a neutral party. This approach was taken in order to encourage states to ratify this Convention and to prevent states from gaining benefit from it without becoming parties to it.\textsuperscript{56} There remain, however, at least three kinds of damage which would fall outside the ambit of ENMOD: damage in the territory of a non-state party;\textsuperscript{57} damage in the

\textsuperscript{54} Tarasofsky, above n 18, at 47.
\textsuperscript{55} ENMOD Understandings, above n 47, relating to art I.
\textsuperscript{56} Roman Reyhani "Protection of the Environment during Armed Conflict" (2007) 14 MELPR 323 at 327.
\textsuperscript{57} It has been noted that an environmental modification technique is not a violation of the ENMOD if employed by a state against its own people. Stephanie N. Simonds "Conventional Warfare and
territory of the acting state; and damage beyond the jurisdiction of states in areas such as the high seas (unless the ships of a state party to ENMOD were affected).\textsuperscript{58}

2.1.5. The 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts\textsuperscript{59} (the 1977 Additional Protocol I)

Together with ENMOD, the 1977 Additional Protocol I\textsuperscript{60} provides provisions that specifically protect the environment during times of war. Articles 35(3) and 55 proffer significant legal protection to the environment by, for the first-time, expressly prohibiting the environment from being a specific military target. Unfortunately, as will be discussed, the Protocol is weakened by its failure to provide clear definitions of the relevant damage thresholds. Nevertheless, these provisions should be considered as crucial because, in explicitly aiming to protect the environment during the war, they prohibit environmental damage based on a conception of the environment as inherently valuable in itself beyond solely providing for human benefit particularly art 35(3) below.\textsuperscript{61}

Article 35(3) states:

\begin{quote}
[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.
\end{quote}

\begin{flushright}
\end{flushright}

\textsuperscript{58} Dinstein, above n 2, at 180.

\textsuperscript{59} The 1977 Additional Protocol I, above n 46.

\textsuperscript{60} The Protocol is subscribed to by a remarkable number of states. As of 21 August 2012, it had 172 state parties including major states such as France, the People’s Republic of China, the Russian Federation and the United Kingdom (UK). However, some important states have not become parties to this protocol such as the US, India, Israel, and Pakistan. See “Treaties and Documents by Date” (2012) International Committee of the Red Cross <www.icrc.org/ihl>.

\textsuperscript{61} Carolyn Stannard “Cases; Legal Protection of the Environment in Wartime” (1992) 14 Syd L. R. 373 at 375; Lawrence and Heller, above n 12, at 66.
Article 55 states:

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.

While many commentators celebrate arts 35(3) and 55, there is also a belief that these provisions are difficult to apply to real cases because of their vague wording and high thresholds for damage assessment.

The 1977 Additional Protocol I does not provide clear guidance on the meaning of its damage thresholds: “widespread, long-term and severe”. During the negotiation of the Protocol, only the “long-term” threshold was clarified as a period of at least ten years, while the other two thresholds were left undefined.

---


65 One author commented that there was no authoritative answer to determine what kind of damage might fit into these thresholds. Another scholar also wrote that “the meaning of those terms is very controversial” and the thresholds are “unacceptably high”. Furthermore, despite a number of
The use of the conjunctive “and” in the phrase “widespread, long-term and severe” means that all three criteria must be met in order for the Protocol to apply. This is said to be why Iraqi and coalition forces cannot be held liable for environmental damage caused during the 1991 Gulf War.\(^6\)

Nevertheless, arts 35(3) and 55 signify a crucial development in the international law that protects the environment in times of hostilities. These provisions expressly protect the natural environment as an indispensable support to human health and survival.\(^6\) Such explicit protection for the environment is likely to clarify the scope of application during hostilities, more effectively protecting the environment. Article 55 sets a lower standard but offers wider protection than art 35(3) by imposing a positive duty of care for the environment during warfare\(^6\) that involves states exercising due diligence by undertaking environmental impact assessments before launching military operations.\(^6\) This obligation would be ongoing and applicable both in offensive and defensive operations.\(^7\) Furthermore, arts 35(3) and 55 do not provide any exception or condition of military necessity similar to that under art 23(g) of the 1907 Hague Regulations. In reference to the

---


vague wording of the thresholds, one expert has however suggested that this problem may be overcome by interpreting the thresholds similarly to those employed in ENMOD.\textsuperscript{71} Therefore, in addition to its express and specific prohibition against causing damage to the environment, arts 35(3) and 55 of the 1977 Additional Protocol I seem more reasonably applicable during wartime than sceptics suggest.

Besides arts 35(3) and 55, there are other provisions in the 1977 Additional Protocol I that may offer protection to the environment in indirect manner as they are mainly intended to protect humans during war. These provisions are arts 51, 54(2), 56(1), 59 and 60.

Article 51 prohibits indiscriminate attacks including “those which employ a method or means of combat the effects of which cannot be limited as required by this Protocol”.\textsuperscript{72} Further, art 51 considers an attack to be indiscriminate if it may be expected to cause “damage to civilian objects” that would be disproportionate to the actual and direct military advantage.\textsuperscript{73} This article may be used in connection with the environment because indiscriminate attacks may result in unnecessary damage and will eventually threaten the environment. Damage to civilian objects may include damage to properties such as houses, farmlands and buildings where all of these represent the elements of the environment.

Article 54(2) prohibits actions intended to “attack, destroy, remove or render useless objects indispensable to the survival of the civilian population”. This provision expressly mentions “foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and

\textsuperscript{71} Ibid, at 88-100.
\textsuperscript{72} The 1977 Additional Protocol I, above n 46, art 51(4)(c).
\textsuperscript{73} Ibid, art 51(5)(b).
irrigation works” where these are in their natural form as part of the environment.74

Article 56(1) prohibits any attack on works or installations “containing dangerous forces, namely dams, dykes and nuclear electrical generating stations” even if they are legitimate military targets if “such attack may cause the release of dangerous forces and consequent severe losses among the civilian population”.75 Other military targets located at or in the vicinity of these sites are entitled to the same protection.76 The protection afforded by art 56(1) ceases to apply if the works are used “in regular, significant and direct support of military operations and if such attack is the only feasible way to terminate such support”.77

Finally, arts 59 and 60 enable environmental protection by allowing states to create special protection zones.78 Non-defended localities79 under art 59 are absolutely protected from attack and can be declared unilaterally, or by agreement of the warring parties. Article 60 prohibits military actions in agreed “demilitarised zones”.80 Demilitarised zones between North Korea and South Korea, created under art 60, have been proven to provide sanctuary to endangered and threatened animals and plants.81

In addition, it should be welcomed that UNEP recommends the need for new legal instruments of “place-based protection” to some areas of critical natural resources and areas of ecological importance during armed conflicts. Such instruments, at

74 Ibid, art 54(2).
75 Ibid, art 56(1).
76 Ibid.
77 Ibid, art 56(2).
78 Tarasofsky, above n 18, at 53.
80 Ibid, art 60.
81 See Ke Chung Kim “Preserving Biodiversity in Korea’s Demilitarised Zone” (1997) 278(5336) Science 242.
the outset of any conflict, would delineated and designated critical natural resources and areas of ecological importance as “demilitarised zones” and prohibit Parties to the conflict in conducting military operations within their boundaries. It may be expected that this legal instrument gives specific protection to such areas from the impact of armed conflict.


Another treaty that specifically protects the environment during armed conflict is the 1981 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 and especially its third Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons (Protocol III). As of 21 August 2012, 115 and 108 state parties have ratified this Convention and the Protocol respectively.

The 1981 Convention’s first reference to the environment is located in its preamble, by recalling the prohibition on employing “methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment”.

---

82 UNEP 2009, above n 63, at 54.
86 Certain Conventional Weapons Convention, above n 83, Preamble.
Although clearly not one of the Convention’s actual rights or duties, this reference may have legal importance. According to art 31 of the Vienna Convention on the Law of Treaties, a preamble may play an important role in the interpretation of a treaty. In addition, a convention’s preamble commonly represents the motives of states parties and the underlying principles of the convention itself.

The wording of the preamble to the 1981 Convention seems deliberately similar to art 35(3) of the 1977 Additional Protocol I. The decision to employ this wording by the drafter reflects the emergence of a customary law regarding the principle of environmental protection. Unfortunately, the inclusion of this statement in the preamble has led to two major states, France and the US, attaching a reservation and a declaration respectively to the Convention on ratification. These clauses state that the preamble’s first paragraph only binds those states that have subscribed to the 1977 Additional Protocol I. Such a position is likely based on the fact that some major states persistently claim that arts 35(3) and 55(1) of the

87 Koppe, above n 10, at 187.
90 Koppe, above n 10, at 187.
91 France’s reservation provides that “France, which is not bound by Additional Protocol I of 10 June 1977 to the Geneva Conventions of 12 August 1949, considers that the fourth paragraph of the preamble to the 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, which reproduces the provisions of art 35, paragraph 3, of Additional Protocol I, applies only to States parties to that Protocol”.


1977 Additional Protocol I are not customary.92

The 1981 Convention’s second important reference to the environment appears in art 2(4) of the Convention’s Protocol III. It prohibits states from making “forests or other kinds of plant cover the object of attack by incendiary weapons except when such natural elements are used to cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives”.93

Given their references to environmental protection, these treaties offer clear and significant legal protection since armed conflicts that have occurred up until today have involved mainly weapons that fall within their scope – in particular, incendiary weapons.94

2.1.7. The 1998 Statute of the International Criminal Court

The most recent treaty adopted by states providing for the protection of the environment during times of war is the Statute of the International Criminal Court (ICC Statute).95 This treaty established a permanent international criminal court with the main objective of prosecuting war criminals (individual military members or political leaders) for ordering or committing certain war crimes. The


94 Incendiary weapons are “designed to inflict damage on the enemy, his positions, or his environment primarily through the action of heat and flame. Besides these incendiary effects some incendiary agents are poisonous and some produce toxic or asphyxiating effects when burning. Incendiary weapons may be used as air weapons in the form of fire-bombs, in the form of grenades, small rockets, mortar ammunition and artillery projectiles. Other types of ground incendiary weapons include flamethrowers and emplaced devices such as landmines and flame fougasses. The main categories of agents used are oil-based incendiaries (napalm), metal incendiaries (magnesium), pyrotechnical incendiaries (thermite) and pyrophoric incendiaries (white phosphorus)”. Pertti Joenniemi “Conventional Weapons: A Revived Issue” (1976) 6 Instant Research on Peace and Violence 29 at 30.

Court is therefore not concerned with state responsibility but is rather focused on individual criminal responsibility. Nevertheless, it counts crimes against the environment as war crimes and, in so doing, sends a strong message to military leaders to consider the environment during times of war or face criminal prosecution.96

Article 8(2)(b)(iv) of the ICC Statute criminalises as a war crime:97

[i]ntentionally 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 the concrete and direct overall military advantage anticipated.

This wording mirrors that of arts 35(3) and 55 of the 1977 Additional Protocol I. Unfortunately, the three terms “widespread, long-term and severe” are also undefined in the ICC Statute. Nevertheless, art 8(2)(b)(iv) may be considered as a step forward in criminalising negative actions against the environment at the international level. This is because pre-existing laws were discretionary,98 only encouraging states to criminalise environmental destruction actions under their national legal system and to require extradition or prosecution of individual perpetrators in cases of grave breaches.99

Neither does it appear that art 8(2)(b)(iv) requires actual damage to the environment or direct harm to take place. According to authoritative commentary

96 The history of criminal liability for environmental damage during wartime is illustrated by the prosecution case against German General Lothar Rendulic, who was accused of wanton property destruction after ordering the evacuation of all the inhabitants of Finmark province, Norway and destroying all villages and their surrounding infrastructures. *Trial of Wilhelm List and Others (The Hostages Trial); Case No. 47 in The United Nations War Crimes Commission Law Reports of Trials of Major War Criminals, Vol. VIII* (His Majesty’s Stationary Office, London, 1949) [the Hostages trial] 34 at 68.

97 ICC Statute, above n 95, art 8(2)(b)(iv).

98 Lawrence and Heller, above n 12, at 69-70.

99 Article 146 of the Geneva IV Convention requires state parties to pass domestic legislation in order to prosecute those who commit or order action amounting to such proscribed actions and to prosecute such offenders before their courts regardless of their nationality. Fourth Geneva Convention, above n 34, art 146.
on the ICC Statute, the mere action of launching a potentially devastating attack would bring this provision into play.\textsuperscript{100} Article 8(2)(b)(iv) has even been considered – perhaps somewhat ambitiously – to be “eco-centric” because there is no need to establish that direct harm to humans has occurred in order to trigger this provision.\textsuperscript{101}

Besides specific protection of the environment under art 8(2)(b)(iv), there are other provisions of the ICC Statute that address environmental harm, albeit incidentally.\textsuperscript{102} These provisions protect the environment as a support for human life and not purely because of the intrinsic value of the environment itself.\textsuperscript{103} Despite this, the end effect of these provisions is undeniably protecting the environment which makes it important for them to be identified. They are: art 8(2)(a)(iv) (prohibiting extensive destruction and appropriation of property not justified by military necessity and carried out wantonly and unlawfully); art 8(2)(b)(ii) (prohibiting the intentional directing of attacks against civilian objects which are not military objectives); art 8(2)(b)(xvii) (prohibiting the use of poison and poisoned weapons); and art 8(2)(b)(xviii) (prohibiting the employment of asphyxiating, poisonous, or other gases).

\textsuperscript{100} Knut Dörmann \textit{Elements of War Crimes under the Rome Statute of the International Criminal Court; Sources and Commentary} (Cambridge University Press, Cambridge, 2004) at 162.

\textsuperscript{101} Lawrence and Heller, above n 12, at 71.


2.2. Customary Law

In addition to treaty rules, the environment is also protected during times of war by customary international laws of war. Recognition of customary law within IHL is crucial because of the possibility that belligerent states are not party to relevant treaty laws. Customary law normally binds all states that have not persistently objected to its development and violation of the rules of customary law is recognised as having legal consequences for the states responsible. Thus, both sides of an armed conflict will be bound by customary law, without exception.

This section tries to identify relevant customary rules and discusses how they may offer protection to the environment during wartime based on current state practice and literature. For the purpose of clarity, the examination of these rules may be divided into two categories: first, environmental protection under general customary rules within the principles of the law of war; and second, provisions

104 Tarasofsky, above n 18, at 22; Koppe, above n 10, at 204. As Schmitt observes: “Custom is at the core of the ius in bello. Indeed, as a source of the law of war it predates any of the applicable treaty law currently in force”, above n 23, at 51.

105 Cassese, above n 8, at 157.

106 According to the International Law Commission (ILC), a breach of an international obligation is “when the act in question is not in conformity with what is required by that obligation ‘regardless of its origin’. (...) They apply to all international obligations of states, whatever their origin may be. International obligations may be established by a customary rule of international law, by a treaty or by a general principle applicable within the international legal order”. Commentary to draft art 12, paragraph 3, Draft Articles on Responsibility of States for Internationally Wrongful Acts and Commentaries, Report of the International Law Commission to the General Assembly on the Work of its Fifty-third session A/56/10 (2001) at [126].

107 In order to attain customary status, a rule must first be amount to general practice, which is usually a self-evident situation, and states must regard this general practice as a legal obligation. If a state violates such customary rule, there will be legal consequences for violation of this rule. The first requirement is commonly considered as an objective or material condition while the second requirement is considered to be a subjective or psychological condition or opinio iuris sive necessitatis. Anthony Aust Handbook of International Law (2nd ed, Cambridge University Press, Cambridge, 2010) at 6-8; North Sea Continental Shelf (Federal Republic of Germany v Denmark / the Netherlands) (Merit) [1969] ICJ Rep 3 at 44; G. I. Tunkin “Remarks on the Juridical Nature of Customary Norms of International Law” (1961) 49 CLR 419 at 423; Rein Müllerson “The Interplay of Objective and Subjective Elements in Customary Law” in Karel Wellens (ed) International law: Theory and Practice: Essays in Honour of Eric Suy (Martinus Nijhoff Publishers, The Hague, 1998) 161 at 161.
from treaties in the law of war considered above, which have attained the status of customary law.  

2.2.1. General Customary Principles of IHL (Law of War)

Environmental protection from the customary principles of the law of war occurs indirectly (if at all) via protection of people and property. There is no recognised text that defines all the customary principles of law of war. However, two central foundations of the law of war are undisputed. These are: first, that the only legitimate object that states may endeavour to accomplish during war is to weaken the military forces of the enemy; and second, that the choice of means and methods of warfare by belligerents is not unlimited. Following on from these two propositions are four principles which become the parameters of permissible actions during hostilities by belligerents. They are the principles of necessity, humanity, proportionality and discrimination and each of these principles strongly points to the conclusion that actions resulting in massive environmental destruction, especially where they do not serve a clear and important military purpose, would be questionable on many grounds, even in the absence of specific

---


111 UNEP 2009, above n 63, at 12.; Falk, above n 109, at 84; Caggiano, above n 17, at 494; Simonds, above n 57, at 168.

rules of war addressing environmental matters in detail. When the four principles are taken together, such a conclusion would seem inescapable.

The principle of neutrality may also protect the environment of neutral parties from potential cross-border damage during armed conflicts.

2.2.1.1. Principle of (Military) Necessity

The principle of necessity determines that an action in warfare is lawful if the weapons and tactics employed are reasonably necessary to achieve military objectives.\(^{113}\) This principle is found in the 1863 Lieber Code,\(^{114}\) the 1868 St Petersburg Declaration\(^ {115}\) and the International Military Tribunal Charter.\(^ {116}\) It is also found in art 23(g) of the 1907 Hague Regulations concerning protection of enemy property. This outlaws action intended “to destroy or seize the enemy’s property, unless such destruction or seizure be imperatively demanded by the necessities of war”.\(^ {117}\) As discussed previously, “property” may include the environment so it offers protection, albeit indirect.\(^ {118}\) Furthermore, this rule was employed during the Nuremberg Tribunals to charge certain German Generals with destruction of enemy property.\(^ {119}\)

\(^{113}\) Falk, above n 109, at 84; Roberts, ibid, at 228; Tarasofsky, above n 18, at 23.

\(^{114}\) Article 14 states: “[m]ilitary necessity, as understood by modern civilised nations, consists in the necessity of those measures which are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war”. “Instructions for the Government of Armies of the United States in the Field (1863 Lieber Code)” in Leon Friedman (ed) The Law of War - A Documentary History (Random House, New York, 1972) at 158.

\(^{115}\) It limits states’ usage of special weapons in warfare that cause unnecessary injury to the enemy where it is considered to be the violation of the law of humanity. The Declaration of St. Petersburg Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight (signed and entered into force 11 December 1868).

\(^{116}\) Article 6(b) of the Charter specifically characterises “wanton destruction of cities, towns or villages, or devastation not justified by military necessity” as a war crime. Charter of the International Military Tribunal (signed 8 August 1945, entered into force 8 August 1945).

\(^{117}\) The 1907 Hague Regulations, above n 12, art 23(g) (emphasis added).

\(^{118}\) See fn 15 above.

\(^{119}\) The Hostages trial, above n 96, at 66-68; The Tribunal stated that: “[t)o claim that [rules and customs of warfare] can be wantonly – and at the sole discretion of any one belligerent – disregarded when he considers his own situation to be critical, means nothing more or less than to
2.2.1.2. Principle of Discrimination

Under the principle of discrimination,120 belligerents are required at all times to distinguish between “civilian objects and military objectives and accordingly [to] direct their operations only against military objectives”.121 Article 52(2) of the 1977 Additional Protocol I defines military objectives as those that “by nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite military advantage”.122 Thus, the environment may receive protection during times of war through the distinction of military objectives from civilian objects.123 For example, military attacks on environmentally important areas such as national parks and productive forest would be contrary to this principle and, subsequently, to art 52(2).124

2.2.1.3. Principle of Humanity

The principle of humanity requires that any weapons and tactics employed in warfare not cause superfluous suffering to victims by way of “prolonged or painful death” or by being in a “form calculated to cause severe fright or

120 With reference to the environment, this principle is affirmed in some provisions of legal instruments and endorsed by an international document such as arts 35(3), 48, 51 and 57 of the 1977 Additional Protocol I, art 2(4) of the Protocol III of the Certain Conventional Weapons Convention, and the 1994 Guidelines for Military Manuals and Instructions on the Protection of the Environment in times of Armed Conflict.


122 Ibid, art 55(2).

123 Henckaerts and Doswald-Beck, above n 92, at 143.

Weapons and tactics, which might result in these outcomes, are illegal per se. For example, the poisoning of water supplies and the destruction of agricultural land and timber resources that are vital to the population could be considered “inhumane” means of warfare. In other words, these acts are intuitively recognised as inherently wrongful or violate the “dictate of public conscience”.

In IHL, the requirement to conform to the “dictate of public conscience” is derived from the so-called “Martens Clause” which also refers to the “laws of humanity”. This clause aimed to anticipate and prevent a pessimistic interpretation of the law of war arising, providing that anything not expressly prohibited was permitted. It has two fundamental functions: “to preserve the existing body of customary law not yet codified and to allow for its continuous development”.

In terms of environmental protection, increased global environmental awareness means that a state’s actions during times of war will be assessed in the court of public conscience. Many scholars support the idea that environmental

---

125 Falk, above n 109, at 84-85.
127 Schmitt, above n 23, at 61.
128 It was originally stipulated in the Preamble to the 1899 Hague Convention II that reads: “[u]ntil 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 the usages established between civilised nations, from the laws of humanity and the requirements of the public conscience”. The 1899 Hague Convention (II) with respect to the Laws and Customs of War on Land, with annexed Regulations (opened for signature 29 July 1899, entered into force 4 September 1900), preamble. It was then repeated in several instruments such as the Preamble of Hague Convention (IV) of 1907; arts 63, 62, 142, and 158 respectively of the four Geneva Conventions of 1949; art 1(2) of the 1977 Additional Protocol I; and in the Preamble of the 1977 Additional Protocol II. See Theodor Meron “The Martens Clause, Principles of Humanity, and Dictates of Public Conscience” (2000) 94 AJIL 78.
129 Koppe, above n 10, at 115.
130 Tarasofsky, above n 18, at 33-35.
131 It is interesting to note what Canada has claimed in regard to environmental protection rules during armed conflict. The Canadian government stated that: “[t]he customary laws of war, in
protection or consideration is included within the principles referred to in the Martens Clause. Further, some have observed that “international concern for the environment expressed through international environmental law has resulted in environmental protection becoming a factor which the military must take into account in determining the means and methods of warfare”. Finally, the International Union for the Conservation of Nature (IUCN) recommended the adoption of a “Martens Clause for Environmental Protection” at the Second World Conservation Congress in Amman in 2000.

2.2.1.4. Principle of Proportionality

The requirement under the principle of proportionality is that “incidental damage affecting the natural environment must not be excessive in relation to the military advantage anticipated from an attack on military objective”. This principle is reflecting the dictates of public conscience, now include a requirement to avoid unnecessary damage to the environment. This includes consideration of environmental effects in the planning of military operations’. Barry Mawhinney “Canadian Practice in International Law; At the Department of External Affairs in 1991-1992” (1992) 30 Canadian YBIL 347 at 347.

132 Philippe Sands Principles of International Environmental Law (2nd ed, Cambridge University Press, Cambridge, 2003) at 311; Silja Vöneky “Peacetime Environmental Law as a Basis of State Responsibility for Environmental Damage Caused by War” in Jay E. Austin and Carl E. Bruch (eds) The Environmental Consequences of War (Cambridge University Press, Cambridge, 2000) 190 at 218; Bothe, Partsch, and Solf, above n 64, at 56. Indeed, this was one conclusion of the 1991 Ottawa Conference of Experts on ‘the Use of the Environment as a Tool of Conventional Warfare’ where: “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 laws of war, in reflecting the dictates of public conscience, now include a requirement to avoid unnecessary damage to the environment”. Chairman’s Conclusions, 1991 Ottawa Conference on the Use of the Environment as a Tool of Conventional Warfare, paragraph 9. Quoted in Tarasofsky, above n 18, at 35.

133 Low and Hodgkinson, above n 16, at 445.

134 The recommendation provided that: “[u]ntil a more complete international code of environmental protection has been adopted, in cases not covered by international agreements and regulations, the biosphere and all its constituent elements and processes remain under the protection and authority of the principles of international law derived from established custom, from dictates of the public conscience, and from the principles and fundamental values of humanity acting as steward for present and future generations”. IUCN “Second World Conservation Congress: Resolutions and Recommendations” [Recommendation 2.97] IUCN (2000) <www.iucn.org>.

135 Henckaerts and Doswald-Beck, above n 92, at 145.
usually discussed along with the principle of military necessity\textsuperscript{136} because the
former is frequently considered as the component in assessing the latter
principle.\textsuperscript{137} Actions such the destruction of an entire village or burning of an
entire forest to pursue minor targets; or the massive pollution resulted from the
burning and spilling oil during the 1991 Gulf War are widely considered as
disproportionate.\textsuperscript{138}

States and international courts have recognised the principle of proportionality in
environmental protection.\textsuperscript{139} During its bombing campaign in Yugoslavia in 1999,
the North Atlantic Treaty Organisation (NATO)\textsuperscript{140} recognised this principle in its
decisions determining targets by taking into account “all possible ‘collateral
damage’, be it environmental, human, or to civilian infrastructure”.\textsuperscript{141} In
examining the damage caused by NATO’s subsequent bombing, the Committee
Established to Review the NATO Bombing Campaign against the former Federal
Republic of Yugoslavia (FRY) stated that the impacts were “best considered from
the underlying principles of the law of armed conflict such as necessity and

\textsuperscript{136} Ling-Yee Huang “The 2006 Israeli-Lebanese Conflict: A Case Study for Protection of the
Environment in Times of Armed Conflict” (2008) 20 Fla. J. Int’l L. 103 at 107. The principle of
proportionality is clearly stated in the Additional Protocol I by obliging states to “refrain from
deciding to launch any attack which may be expected to cause incidental loss of civilian life,
injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive
in relation to the concrete and direct military advantage anticipated”. The 1977 Additional
Protocol I, above n 46, art 57(2)(iii).

\textsuperscript{137} Schmitt, above n 23, at 55.

\textsuperscript{138} UNEP 2009, above n 63, at 13.

\textsuperscript{139} This recognition may be found also in the UN Guidelines for Military Manuals and Instructions
on the Protection of the Environment in times of Armed Conflict. Report of the Secretary General:
United Nations Decade of International Law A/49/323 (1994) at [annex, 4].

\textsuperscript{140} The North Atlantic Treaty Organization or NATO is an intergovernmental military alliance
based on the North Atlantic Treaty, which was signed on 4 April 1949, and it constitutes a
collective defence system of mutual defence in response to any attack by external party. In 1999,
NATO’s members were Belgium, Canada, the Czech Republic, Denmark, France, Germany,
Greece, Hungary, Iceland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain,
Turkey, the United Kingdom and the United States. North Atlantic Treaty Organization “NATO’s

Mediterranean Quarterly 140 at 142.
proportionality”. Finally, the International Court of Justice (ICJ) has confirmed in its Advisory Opinion on Nuclear Weapons that:

> [s]tates 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.

2.2.1.5. Principle of Neutrality

According to the principle of neutrality, the environment of neutral and non-participating countries should be protected during armed conflicts. This applies to trans-boundary and environmental damage. From this basic rule, rights and duties of neutral states have developed into the law of neutrality as part of *ius in bello* or the law of war. The law of neutrality was codified in the 1907 Hague Convention V in the Case of War on Land and the Hague Convention XIII in the Case of Naval War.

In an armed conflict, a state is considered to be neutral if it declares its neutrality and acts in a neutral manner towards all belligerents. This declaration and

---

142 “Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign against the Federal Republic of Yugoslavia” (2000) International Criminal Tribunal for the Former Yugoslavia (ICTY) <www.icty.org> at 15. It addressed the principle at [22], stating that: “[i]n order to satisfy the requirement of proportionality, attacks against military targets which are known or can reasonably be assumed to cause grave environmental harm may need to confer a very substantial military advantage in order to be considered legitimate”.


144 Al-Duaij, above n 62, at 108.


146 It provides that “the territory of neutral powers is inviolable”. The 1907 Hague Convention (V) Respecting the Rights and Duties of Neutral Powers in Case of War on Land (opened for signature 18 October 1907, entered into force on 26 January 1910), art 1.

147 The 1907 Hague Convention (XIII) Concerning the Rights and Duties of Neutral Powers in Naval War (opened for signature 18 October 1907, entered into force on 26 January 1910).

148 Falk, above n 109, at 85.
action of neutrality will protect the population and environment of the neutral state against any attack by the belligerents. 149 Violations will be regarded as acts of aggression giving rise to international responsibility. 150 As an example following World War II, Switzerland, a neutral state, successfully sought compensation from the Allied Nations for collateral damage to its territory caused by their attacks on neighbouring areas of Germany. 151

The environmental protection afforded by this principle is favourable because the principle is enforced by non-belligerents correcting violations of their sovereignty, including their environment. Under the law of neutrality, any treaty relationships existing between belligerents and neutral states remain applicable during hostilities. 152 Thus, belligerents must continue to perform all their treaty obligations, particularly towards neutral states. 153 In addition, declaration or action of neutrality will protect the population and environment of the neutral state against any attack from the belligerents. This inviolability includes trans-boundary damage and, in particular, environmental damage. Violations of this protection will be regarded as an act of aggression and entail international responsibility. 154

2.2.2. Customary Status of Treaty Provisions


150 Al-Duaij, above n 62, at 108.


152 Simonds, above n 57, at 188; Koppe, above n 10, at 269. Tarasofsky argues that, to the extent that the laws of neutrality permit, a state of peace exists between neutral and belligerents. Tarasofsky, above n 18, at 32.


154 Roberts, above n 149 at 118; Plant, above n 145, at 164; Al-Duaij, above n 62, 108.
As stated above, there exist some obligations which stem from treaty law but have also attained customary status that may protect the environment during times of war. These obligations may arise under treaty provisions that are declaratory of pre-existing norms of customary international law, or such provisions may have developed into customary international law.\textsuperscript{155} Either way, they bind belligerent states that do not subscribe to the particular treaty in question.

For example, the environmental protection provisions from the 1907 Hague Regulations, the 1925 Geneva Gas Protocol, the 1949 Geneva IV Convention, and ENMOD\textsuperscript{156} have been acknowledged as part of customary international law that potentially bind all states as examined below.

The International Military Tribunal and the ICJ\textsuperscript{157} have both recognised the customary status of Article 23(g) of the 1907 Hague IV Convention, the former stating that:\textsuperscript{158}

\begin{quote}
[...]he Hague Regulations prohibited “the destruction or seizure of enemy property except in cases where this destruction or seizure is urgently required by the necessities of war”. Article 23(g). \textit{The Hague Regulations are mandatory provisions of International Law}.
\end{quote}

The provisions of the 1925 Gas Protocol may have attained customary status because they have been “relatively well observed”\textsuperscript{159} and the use of poison gas is frequently judged as a violation of international law.\textsuperscript{160} Furthermore, the Protocol’s prohibitions are now accepted as general rules of international law that

\textsuperscript{155} Koppe, above n 10, at 214.
\textsuperscript{156} Discussed above from [2.1].
\textsuperscript{157} Nuclear Weapons Advisory Opinion, above n 143, at 256; Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, (Advisory Opinion) [2004] ICJ Rep 136 at 172.
\textsuperscript{158} The Hostages trial, above n 96, at 69 (emphasis added).
\textsuperscript{159} Tarasofsky, above n 18, at 56.
\textsuperscript{160} Schwabach, above n 16, at 124.
impose duties upon all states.\textsuperscript{161} UNGA resolutions have recognised that the 1925 Protocol “embodies the generally recognised rules of international law prohibiting the use in international armed conflicts of all biological and chemical methods of warfare, regardless of any technical developments”\textsuperscript{162} and have reaffirmed “the necessity of strict observance by all states of the principles and objectives of the Protocol”.\textsuperscript{163}

Rules from the 1949 Geneva Convention IV that protect the environment have generally been recognised as customary international law.\textsuperscript{164} 194 states – virtually all states in the world – are parties to the 1949 Geneva Conventions.\textsuperscript{165} This level of acceptance even outstrips state acceptance of the UN Charter with 193 states.\textsuperscript{166} Thus provisions in the Geneva Conventions, including those which protect the environment, have attained the status of custom international law.\textsuperscript{167} Moreover, the ICJ has confirmed the customary status of these Conventions.\textsuperscript{168}

Drafters of ENMOD deemed it to be made up of continuing innovative rules. If true, this would limit the Convention’s application to state parties only. Some of today’s scholars, however, argue that ENMOD may become customary


\textsuperscript{162} UNGA Res 2603, above n 28.

\textsuperscript{163} Chemical and Bacteriological (Biological) Weapons GA Res 3465, UN GAOR, 30th sess, 2437th plen mtg (1975).

\textsuperscript{164} Schmitt, above n 23, at 66.


\textsuperscript{167} Caggiano, above n 17, at 493.

\textsuperscript{168} Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America) (Merits) [1986] ICJ Rep 113 [Nicaragua Case].
international law as reflected in state practice. The two Review Conferences of the ENMOD Parties in 1984 and 1992 noted that there had been no violations, and no complaints or proposals to change the rules of the Convention. Further, many states – both parties and non-parties – have incorporated ENMOD’s rules into their military manuals, providing evidence that these states consider these rules to be legal obligations. The UNGA also includes the Convention’s rules in its Guidelines on the Protection of the Environment in Times of Armed Conflict, which it invites all states to disseminate. At the Second ENMOD Review Conference the US stated that ENMOD mirrored “the international community’s consensus that the environment itself should not be used as an instrument of war”. Finally, general and uniform practice from states reflects consensus on the prohibition of environmental destruction as a weapon in armed conflict.

In addition to the two categories of customary rules already discussed, it is worth noting what one scholar, Koppe, considers a new direct customary rule protecting the environment during wartime that has been emerging since the 1970s. The principle is rooted in a global concern for the environment in general that was recognised formally for the first time in the 1972 Stockholm Declaration and has subsequently inspired innovations in the law of war that specifically protect

---

169 Reyhani, above n 56, at 327; Dinstein, above n 2, at 181.
170 Tarasofsky, above n 18, at 47.
171 Henckaerts and Doswald-Beck, ibid, at 155-156.
173 Henckaerts and Doswald-Beck, Ibid, at 156.
174 Koppe, above n 10, at 246.
Stemming from the principle of environmental protection or responsibility, Koppe argues that there are three emerging norms of customary international law that directly protect the environment during armed conflict. These norms are: a general customary duty of care for the environment; a prohibition on causing wanton or wilful damage to the environment that is not justified by military necessity; and a prohibition on causing excessive collateral damage to the environment. The first rule results from the development of international regulations protecting the environment in general and from repeated expressions of concern. The other two are derived from numerous references to the principles of necessity, distinction and proportionality during international hostilities.

These three emerging norms are legally significant because they bind all states, providing legal protection for the environment during international hostilities that is independent from written treaties, and because they derive both from general worldwide concern for the environment and from fundamental principles in the law of war, such as military necessity, distinction and proportionality in the context of environmental protection during wartime.

3. Peacetime Obligations as Additional Legal Protection to the Environment during Wartime


177 Koppe, above n 10, at 246.


179 Koppe, above n 10, at 247, 273.
In the aftermath of the environmental catastrophe resulting from the 1991 Gulf War, there was widespread pressure from the international community to apply general international obligations from peacetime, such as international environmental law, to strengthen the law of war and ensure better protection for the environment during armed conflict. Many commentators contended that the existing laws of war were inadequate. Aside from the international environmental regime, some also considered that other peacetime obligations from other branches of international law, such as international human rights law and international law on the use of force (ius ad bellum), were relevant.

The proposition that certain peacetime obligations that protect the environment can continue during times of war is valid. However, this does not mean that the protections offered by the existing laws of war are inadequate: as the previous section has shown, the laws of war contain a significant number of provisions, sourced both from treaties and customary laws, that protect the environment both in general and specific ways. The application of peacetime obligations simply provides an additional layer of legal protection for the environment during armed conflict.

In general, the notion of continuity of peacetime obligations in times of armed conflict has been subject to debate for some time. While it is widely acknowledged that this debate is on-going and many studies have tried to resolve

---


181 See Chapter 1, particularly fn 4.

182 Popović, above n 67, at 88.

183 Leibler, above n 181, at 86; Bunker, above n 6, at 206; Koppe, above n 10, at 309-333.
this issue,\textsuperscript{184} there is a general consensus that the outbreak of armed conflict does not automatically terminate peacetime treaties as discussed below.

3.1. Applicability of Peacetime Obligations during Armed Conflicts

Before identifying relevant peacetime obligations that protect the environment during armed conflict, it is important to examine both the treaty relationship between belligerents and non-belligerents, and that between belligerents. These relationships are different to one another, and may determine whether or not they are still bound by peacetime obligations during the war.

In times of armed conflict, there is always a possibility that the territory of a third state, in particular a neighbouring state, will be affected. In this situation, the law of neutrality, discussed above,\textsuperscript{185} governs the relationship between belligerents and neutral states\textsuperscript{186} and, accordingly, peacetime treaties remain applicable between them (including their means of enforcement).\textsuperscript{187} Further, the obligation not to affect the territory of neutral states under the law of neutrality is in line with


\textsuperscript{185} See above from [2.2.1.5].


\textsuperscript{187} Simonds, above n 57, at 188; Koppe, above n 10, at 269. Tarasofsky argued that, to the extent that the laws of neutrality permit, a state of peace exists between neutral and belligerents. Tarasofsky, above n 18, at 32. In an armed conflict, a state is considered to be neutral if it declares its neutrality and acts in a neutral manner to all belligerents. This declaration or action of neutrality will protect the population and environment of the neutral state against any attack from the belligerents. This inviolability includes trans-boundary damage and, in particular, environmental damage. Violations of this protection will be regarded as an act of aggression and entail international responsibility. Roberts, above n 149 at 118; Plant, above n 145, at 164; Al-Duaij, above n 62, 108.
customary environmental law, which prevents states from damaging another state’s environment during peacetime.\textsuperscript{188}

In contrast, the application of peacetime treaties between belligerents may be severely affected during wartime.\textsuperscript{189} However, the following analysis reveals that there are treaties which continue to apply to protect the environment of belligerent states during armed conflict.

The law of war is traditionally considered by some states and commentators to be a special branch of law that applies exclusively in times of war, superseding any peacetime treaties.\textsuperscript{190} Early writers contend that the outbreak of war automatically annuls pre-existing treaties between belligerents.\textsuperscript{191} However, the current practice of states\textsuperscript{192} and international organisations\textsuperscript{193} has dissolved the traditional dichotomy between the law of war and the law of peace.\textsuperscript{194}

The primary rules in international law concerning treaties, which are codified in the 1969 Vienna Convention on the Law of Treaties, unfortunately do not provide

\textsuperscript{188} Tarasofsky, above n 18, at 31.
\textsuperscript{189} Koppe, above n 10, at 336.
\textsuperscript{190} Vöneky, above n 180, at 25.
\textsuperscript{191} J. G. Castel “Effect of War on Bilateral Treaties: Comparative Study” (1953) 51 Mich. L. Rev. 566 at 567; Prescott, above n 184, at 197. For a similar position on state practice, see A. De La Pradelle “The Effects of War on Private Law Treaties” (1948) 2(4) ILQ 555 at 556-557.
\textsuperscript{193} The European Commission and International Maritime Organisation provide examples of recent practice in: Effects of Armed Conflicts on Treaties, Comments and Observations Received from International Organisations A/CN.4/592 (2008).
\textsuperscript{194} Vöneky, above n 180, at 25.
a clear position on the effect of war on treaties. Even though this Convention is inconclusive in this matter, it does not mean that it is irrelevant. The Convention provides that the peremptory norms of general international law, or *ius cogens*, remain valid at all times. It also recognises rights of states to terminate or suspend a treaties under the rules on supervening impossibility of performance and fundamental change of circumstances, or *rebus sic stantibus*.

However, based on the overall practice of the international community, it is now suggested that war does not negate all legal relations between states, and that war itself is not a phenomenon outside the realm of law. Instead, there are three possible effects of war on peacetime treaties: they may be terminated; suspended; or remain valid during armed conflict. For the purpose of this thesis, particularly, it may be highlighted that there is a wide acceptance – even near unanimity – among scholars that the event of armed conflict does not automatically terminate all pre-existing treaties between warring parties. Thus, the claim that the law of

---

195 Prescott, above n 184, at 197. The Vienna Convention only provides that: “[t]he provisions of the present Convention shall not prejudge any question that may arise in regards to a treaty from (...) the outbreak of hostilities between states”. Vienna Convention on the Law of Treaties, above n 88, art 73.

196 Ibid, arts 53 and 64.

197 Ibid, arts 61-62.

198 Rank, above n 192, at 322; Delbrück, above n 184, at 1368-1369.

war is a *lex specialis* (special law), which exclusively applies during armed conflict, is today questionable\(^{200}\) and artificial\(^{201}\).

In addition, most studies (including the most recent study conducted by the International Law Commission (ILC) in 2011) suggest that whether or not a treaty remains valid in part or whole will be determined mainly by the intention of the parties and the object and purpose of the treaty.\(^{202}\) These two elements are not wholly independent of one another. If the parties’ intend the treaty to apply during armed conflict, expressly stating this, it is logical to assume that the object and purpose of the treaty will be compatible with the situation of armed conflict. Similarly, if the treaty does not clearly express the intention of the parties, then an object or purpose compatible with the situation of armed conflict may suffice for it to remain valid during this time.

Consequently, scholars have identified that there are a number of peacetime treaty categories that remain applicable during hostilities between warring parties. They are:

(a) treaties relating to the law of armed conflict;

(b) treaties regulating a permanent regime or status, also called objective regimes (including treaties establishing or modifying land and maritime boundaries);\(^{203}\)

(c) multilateral law-making treaties.\(^{204}\)

---

\(^{200}\) Lijnzaad and Tanja, above n 44, at 172.

\(^{201}\) Tarasofsky, above n 18, at 62.

\(^{202}\) Hurst, above n 199, at 47; Rank, above n 192, at 325; Harvard Research in International Law, above n 199, 1183; McNair, above n 199, at 698; the 1985 IDI Resolution, above n 199, art 3; the 2011 ILC Draft, above n 199, draft arts. 4 and 6.

\(^{203}\) Vöneky notes that this category of treaties continues to apply during wartime because such treaties “establish a territorial order in the general interest of the international community, such as treaties providing for the demilitarisation or neutralisation of zones or the internationalisation of waterways”. Vöneky, above n 180, at 23.

\(^{204}\) According to McNair, multilateral law-making treaties are those that “create rules of international law for regulating the future conduct of the parties without creating an international regime, status, or system. It is believed that these treaties survive a war, whether all the contracting parties or only some of them are belligerent”. McNair, above n 199, at 723.
58

(d) human rights treaties; and
(e) treaties relating to the international protection of the environment.205

From these categories, some treaties from human rights law and environmental law are relevant to this thesis because they could strengthen the law of war to protect the environment during armed conflict.

In addition to these two sources of law (human rights and environmental law treaties), there is a special peacetime regime which may be argued to offer indirect but significant protection for the environment in times of war – international law on the use of force (ius ad bellum). This is due to the application of ius ad bellum law during the 1991 Gulf War206 in the form of the UN Security Council’s (UNSC) Resolution 687.207 Identification and examination of environmental protection provisions from human rights law, environmental law and ius ad bellum will be provided in the following sections.

3.2. International Human Rights Law

In principle, international human rights treaties remain valid in times both of peace and armed conflict,208 particularly “non-derogable” provisions of some

---

205 See McNair, above n 199, at 703-723; the 1985 IDI Resolution, above n 199, arts 4-6; Delbrück, above n 184, at 1370; the 2005 UN Secretariat Study, above n 199, at 14-40; the 2011 ILC Draft, above n 199, draft art 7 and annex.

206 According to Low and Hodgkinson, “[t]he prohibition against the use of force in article 2(4) is capable of protecting any object, including the environment, which might be affected by the unlawful use of force. Article 2(4) is aimed at the protection of the ‘territorial integrity or political independence of any state.’ In other words, it protects state sovereignty which extends to protection of a state’s people, property, and environment”, above n 16, at 459.

207 Resolution 687 reaffirmed that: “Iraq, without prejudice to the debts and obligations of Iraq arising prior to 2 August 1990, which will be addressed through the normal mechanisms, 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” (emphasis added). SC Res 687, UN Doc S/Res/687 (1991) [UNSC 687] at [16].

treaties. The application of human rights law during armed conflict creates an interesting relationship between human rights law and international humanitarian law or the law of war. In addition, human rights treaties are considered to be applicable during wartime because their main object is “the protection of a common good in the interest of the state community as a whole”, which is comparable to treaties establishing objective regimes.


For example, art 4(1) of the International Covenant on Civil and Political Rights (opened for signature 19 December 1966, entered into force 10 October 1976) [ICCPR] stipulates that state parties may derogate some of their obligations under the Convention in times of public emergency that threaten the life of the nation. This right of derogation, however, must meet other criteria before it is taken. Derogation should be taken in a non-discriminatory way and only “to the extent strictly required by the exigencies of the situation”. However, this article also excludes a number of specific human rights from derogation and makes these rules remain in force for state parties at all times including times of armed conflict. These rules are: the right to life, prohibition of torture or cruel, inhuman or degrading treatment or punishment, prohibition of slavery and servitude and the prohibition of retroactive criminal laws, equality before the law and right to freedom of thought, conscience and religion.


Vöneky, above n 180, at 25.
The right to a healthy environment has been an important subject in human rights law. This is based on the proposition that environmental protection is an indispensable element of, and a pre-requisite to, the enjoyment of human rights. Furthermore, the close relationship between environmental protection and human rights has been the subject of much academic discussion. States in general have recognised this relationship through paragraph 1 of the 1972 Stockholm Declaration on the Human Environment. It affirms that:

[m]an has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations.

Two decades later, international protection for the environment was again closely linked with human rights in Principle 1 of the Rio Declaration which reads: “[h]uman beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”

Following the Rio Declaration, the UN Commission on Human Rights conducted


215 The Stockholm Declaration, above n 175.


a study of human rights and the environment in 1994. Its final ‘Ksentini Report’ examined the relationship between human rights and the environment and provided draft principles as legal framework of this relationship. The importance of the close relationship between human rights and the environment is expressly stated in Part 1: “[h]uman rights, an ecologically sound environment, sustainable development and peace are interdependent and indivisible”.218

Within treaty law, explicit reference of environmental protection can be found in Article 12 of the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR). It recognises the “right of everyone to the enjoyment of the highest attainable standard of physical and mental health” including the right to “the improvement of all aspects of environmental and industrial hygiene”.219 Apart from this provision, there is no independent right to a sound environment in international law.220 However, some scholars argue that environmental rights can be derived from other existing treaties especially the rights to life, private life, property and access to justice221 under the 1966 International Covenant on Civil and Political Rights (ICCPR),222 the 1950 European Convention on Human Rights,223 and the 1969 Inter-American Convention on Human Rights.224

220 Vöneky, above n 180, at 24.
221 This contention has been based on observations of cases before the European Court of Human Rights, UN Human Rights Committee and the Inter-American Commission and Court of Human Rights. See Patricia Birnie, Alan Boyle and Catherine Redgwell International Law & the Environment (3rd ed, Oxford University Press, Oxford, 2009) at 282-286.
222 ICCPR, above n 209, arts 6(1), 14(1), 17.
Walter Kälin, a special rapporteur of the UN Commission of Human Rights in the 1991 Kuwait case, stated:\footnote{225} 

[n]ot only in peacetime but also in times of armed conflict, the deliberate causing of large-scale environmental damage which severely affects the health of a considerable proportion of the population concerned, or creates risks for the health of future generations, amounts to a serious violation of (…) article 12 of the International Covenant on Economic, Social and Cultural Rights.

In addition, one of the draft principles of the Ksentini Report above particularly stressed the importance of compliance with international humanitarian law in order to protect human rights and the environment.\footnote{226} It stipulated: \footnote{227} 

[s]tates and all other parties shall avoid using the environment as a means of war or inflicting significant, long-term or widespread harm on the environment, and shall respect international law providing protection for the environment in times of armed conflict and cooperate in its further development.

Based on this analysis, most provisions from human rights treaties remain applicable during wartime including those that provide protection to the environment. Therefore, belligerent states should ensure that they respect not only the protection of (narrowly conceived) human rights but also to the environment under the regime of human rights law.

3.3. International Environmental Law

While most environmental treaties are silent on their wartime applicability, and may contain clauses to preclude their application to ships or aircraft entitled to sovereign immunity,\footnote{228} the general application of international environmental treaties during armed conflict between belligerents has received growing support


\footnote{227} Ibid, Principle 23.

\footnote{228} Sands, above n 132, at 309; Birnie et al, above n 221, at 207.
from the international community. As discussed below, this proposition is based on the fact that the object and purpose of some environmental treaties is compatible and consistent with the event of armed conflict and thus termination or suspension of their implementation is irrelevant during wartime.

Apart from the effect of war on treaties in general, some scholars have focused their discussion on the question of whether, and to what extent, peacetime environmental treaties continue to apply during armed conflict.

Among these scholars, Vöneky has presented a convincing argument concerning the applicability of environmental treaties during armed conflict. By analogous application, Vöneky argues that at least two categories of environmental treaty remain valid for the belligerents. These are environmental treaties protecting areas beyond national jurisdiction and “common goods”, which aim to serve the interests of the state community as a whole, without any direct advantage to a particular state. Vöneky asserts that they are similar or comparable to treaties creating a permanent regime or status and treaties protecting fundamental human rights respectively, and thus continue to apply and bind the belligerents during

---


232 These treaties cover areas such as the deep seabed, the high seas and the Antarctic.

233 These “goods” include the climate, the ozone layer, biodiversity, world heritage sites, wild and endangered species, and wetlands with international importance.

234 Vöneky, above n 180, at 21.

armed conflict. It is considered that this approach is sound in theory and also has the advantage that using these categories to identify environmental treaties, which remain applicable in wartime, simplifies and clarifies the process, making it easier to invoke them on belligerents during wartime.

In addition to Vöneky’s approach, it may also be argued that despite the parties not intending to be bound during times of war, these environmental provisions remain valid because their object and purpose are compatible with the event of armed conflict. Most of these treaties are multilateral treaties with governing issues or objects that do not have benefit to a particular state or states but are for the international community as a whole. Accordingly, international cooperation to achieve common goals becomes the primary objective even during times of armed conflict. Therefore, they remain applicable and bind state belligerents during armed hostilities.

It may be not self-evident that violations of these treaties above will affect other states directly. Nevertheless, since they serve the interests of the state community as a whole, states that were not directly affected could invoke provisions against states that violate the relevant treaties. As will be discussed in Chapter 3, international law provides that these non-specifically affected states may invoke clauses if the violation affects a group of states including that state, or if the “obligation breached is owed to the international community as a whole”.

Further, the international tribunal has confirmed the possibility of such invocation of responsibility recently. The Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS) states that, in the case of damage, each state party may claim “compensation in light of the erga omnes character of the

---

236 See Chapter 3 at [3.1.5].

obligations relating to preservation of the environment of the high seas and in the Area”. In addition, the Chamber also suggests that the International Seabed Authority may be entitled to claim similar compensation because it acts “on behalf of mankind”.

3.3.1. Treaties Protecting Areas beyond National Jurisdiction

Two key examples of international environmental agreements relating to areas beyond national jurisdiction are the United Nations Convention on the Law of the Sea (UNCLOS) and the Antarctic Treaty. Examination of these treaties reveals that they were established in the general interest of the international community as a whole and are accordingly highly likely to continue to apply in the event of armed conflict.

In protecting areas beyond national jurisdiction, UNCLOS covers areas such as the seabed (the Area) and the high seas in the provisions in Parts XI and XII respectively. Furthermore, these provisions contain no indication that the parties did not intend them to apply in wartime.

Part XI of UNCLOS protects the Area from military activities in the common interest. Article 136 states that the Area and its resources are the “common heritage of mankind”. The clear purpose of these provisions is to protect the seabed in the interests of present and future generations of people. Subsequent

---

238 Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion) (Case No. 17) [2011] ITLOS at [180].

239 Ibid. For more discussion on this advisory opinion, see Peter Holcombe Henley “Minerals and Mechanisms: The Legal Significance of the Notion of the ‘Common Heritage of Mankind’ in the Advisory Opinion of the Seabed Disputes Chamber” (2011) 12 Melb. J. Int’l L. 373.


242 The 1982 UNCLOS, above n 240, art 136.
provisions confirm this position by prohibiting states from making claims or exercising sovereignty or “sovereign rights” over the Area or its resources, by determining that “[a]ll rights in the resources of the area are vested in mankind as a whole” and by requiring that activities in the Area be conducted for “the benefit of mankind as a whole”. At the institutional level, UNCLOS confers on the International Seabed Authority the right to manage resources of the areas in which the interests of mankind as a whole are vested.

In addition, art 141 offers environmental protection by restricting activities in the Area to those done exclusively for “peaceful purposes”. UNCLOS does not contain a specific definition of “peaceful purposes”. However, the meaning of this phrase may be extrapolated from arts 88 and 301. Article 88 states that “[t]he high seas shall be reserved for peaceful purposes” and art 301 narrowly states:

> [i]n exercising their rights and performing their duties under this Convention, state parties shall refrain from any threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the principles of international law embodied in the Charter of United Nations.

From these provisions, it can be understood that the protection provided by art 141 is not against all military activity, but has to be interpreted as a prohibition of aggressive activities in light of the meaning of the UN Charter (see art 2(4)). It is apparent that aggressive military activities that might lead to an armed conflict in the Area may be contrary to the interest of the international community as a whole.

---

243 Ibid, art 137(1) and (2).
244 Ibid, art 140(1).
245 Ibid, art 137(2).
246 It is stated: “[t]he Area shall be open to use exclusively for peaceful purposes by all states, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of this Part”. Ibid, art 141.
247 Ibid, art 88. According to UNEP, this provision seems to proscribe any hostile activities, such as those which are military in nature, without specifying the extent of harm to the environment of the high seas as areas beyond national jurisdiction. UNEP 2009, above n 63, at 36.
248 The 1982 UNCLOS, above n 240, art 301.
whole. The possibility of this situation implicitly shows that these provisions are compatible with, and remain valid, in the event of armed conflict.

Besides the Area, provisions to protect the environment in the interests of the international community as a whole are also provided in Part XII. Here, states have the obligation, under art 192, “to protect and preserve the marine environment”.249 This article obliges all states to protect the marine environment per se because it does not refer to national interests or parties. Thus, this provision arguably represents an obligation that serves the interest of the international community as a whole.250 Since art 192 protects the environment in the common interest, Vöneky argued that any article that may serve national interests, such as art 194(2),251 should be interpreted in the light of art 192’s general rule as a means to protecting the marine environment in the general interest.252

In addition to marine protection beyond national jurisdiction, states are also under obligations to conserve sustainable fisheries and marine life conservation in the area of high seas.253 Under these rules, party states are obliged to control fishing within their territories in order to maintain sustainable levels of fish stocks in their waters or in the regional waters surrounding their territories. It is difficult to see how state parties could justifiably argue that their obligations or indeed UNCLOS’ duties in relation to high seas are incompatible with a state of war.

249 Ibid, art 192.

250 In commenting on this article, Kiss and Shelton argued that “the general interest of all mankind is recognised in this way, which is higher than the interests and the sovereignty of individual states and independent of any harm or damage which may be suffered as a result of the activities of other states”. Alexandre Kiss and Dinah Shelton “Systems Analysis of International Law: A Methodological Inquiry” (1986) 68 NYIL 45 at 64; see also Vöneky, above n 180, at 26.

251 Article 194(2) stipulates “[s]tates shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other states and their environment, (…)”. The 1982 UNCLOS, above n 240.

252 Vöneky, above n 180, at 26.

253 The 1982 UNCLOS, above n 240, arts 117-120.
It seems that art 236, which provides an exemption clause for military devices, renders UNCLOS provisions inapplicable during armed conflict. Such a challenge may, however, be laid to rest by reference to the rest of that provision, which requires each state to “ensure (...) that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with this Convention”. Therefore, it can be argued that environmental damage from the conduct of aircraft and warships during armed conflict is not wholly exempted by art 236 because the member states remain obliged to make sure that such vessels or aircraft act according to UNCLOS.

It therefore seems that the provisions in UNCLOS for the protection of the Area and the marine environment aim to serve the interests of the international community as a whole. Given the absence of any indication that the parties did not intend these provisions to apply in times of war, it can be argued that these provisions remain valid during armed conflicts and are binding on belligerent states.

Another important example of an environmental treaty that serves the interests of the international community is the Antarctic Treaty. Its preamble confirms that: “it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord”. Further, the protection provision of this Treaty can be found in art I which states:

1. [A]ntarctica shall be used for peaceful purposes only. There shall be prohibited, inter alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military manoeuvres, as well as the testing of any type of weapons.

---

254 Article 236 provides that: “the provisions of this convention regarding the protection and preservation of the marine environment do not apply to any warship”. Ibid, art 236.
255 Ibid.
256 The 1959 Antarctic Treaty, above n 241, preamble.
257 Ibid, art I.
2. [t]he present treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose.

In addition, art XIII paragraph 1 stipulates that the Treaty “shall be open for accession by any state which is a member of the United Nations, or by any other state...” 258 Further, the Consultative Parties emphasised their responsibility to protect the Antarctic area against any activity that might have consequences of global significance. 259 In 1991, the Consultative Parties further agreed to designate Antarctica as a special protected area devoted only to peace and science. 260

From such references, it is clear that the Antarctic Treaty protects the Antarctic area in the interests of the international community. 261 The permanent special status designation of the Antarctic has shown states’ intention to protect certain areas beyond national jurisdiction without any time limitation. Thus, it is similar to a treaty establishing a permanent regime or status, 262 and so continues to bind belligerents during armed conflict.

258 Ibid, art XIII(1).
261 Having established this legal position, Vöneky also argues that other treaties within the Antarctic Treaty System also serve the interest of the international community as a whole, such as the Convention for the Conservation of Antarctic Seals, the Convention on the Conservation of Antarctic Marine Living Resources, the Convention on the Regulation of the Antarctic Mineral Resource Activities and the Protocol on Environmental Protection to the Antarctic Treaty. Vöneky, above n 180, at 27, fn 83.
262 As noted previously, treaties creating a permanent regime or special status such as administration of a territory, establishing a boundary, and creating an international organisation will be unaffected during wartime among its member parties. The 2005 UN Secretariat Study, above n 199, at 20; McNair, above n 199, at 704, 720; Delbrück, above n 184, at 1370; Anthony Aust Modern Treaty Law and Practice (Cambridge University Press, Cambridge, 2000) at 244; Jan Hendrik Willem Verzijl International Law in Historical Perspective (Martinus Nijhoff, Leiden, 1973) at 371-372.
3.3.2. Treaties Protecting Common Goods

As discussed previously,263 human rights treaties remain valid during armed conflict because they regulate the universal interests of the international community. By analogy, it has been argued that environmental treaties with the object of protecting common goods or global environmental resources are of a similar character and should also remain valid during times of war. This is because these treaties are specifically intended to protect environmental goods264 which are considered to be indispensable for human survival; to maintaining an environmental balance in the interests of the state community as a whole;265 and to seek “the protection of territorial integrity or other national interests as only a side-effect”.266

One notable example of this type of treaty is the UN Framework Convention on Climate Change.267 This Convention acknowledges that “the change in the earth’s climate and its adverse effects are a common concern of humankind”, and state parties determine “to protect the climate system for present and future generations”.268 These statements clearly show that the common interest of protecting the global climate has become a priority.269 The Convention goes on to recognise that the protection of the climate system is for the benefit of present and future generations of humankind,270 and that state parties have common

---

263 See above at [3.2].

264 The protection of “common goods” is different from protection of areas beyond national jurisdiction because common goods may be located within national jurisdiction, but nonetheless the purpose of their protection is for the benefit of the international community as a whole.


266 Vöneky, above n 180, at 27-28.


268 Ibid, preamble, first and last paragraphs.

269 Vöneky, above n 180, at 28.

270 The 1992 UNFCCC, above n 267, art 3 (1).
responsibilities in reaching this goal. This Convention stresses the importance of promoting sustainable development (which is generally characterised as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”) as national policy. In a similar way to human rights treaties, the implementation of duties imposed by the Convention does not lead to any direct advantage to a particular state party, nor reciprocal benefits or rights.

Similar references are found in some treaties, indicating that their main intention is to protect global or common goods for the interest of the international community as a whole. They include: the Convention on International Trade in Endangered Species of Wild Fauna and Flora; the Convention on the Conservation of Migratory Species of Wild Animals; the Convention on Biological Diversity; the Vienna Convention for the Protection of the Ozone Layer; the World Heritage Convention; and the Convention on Wetlands of

---

271 Ibid, arts 3 (1) and 4.
273 Ibid, art 3 (4).
274 Vöneky, above n 180, at 28.
275 This Convention was adopted in 1973 and for the purpose of: “[r]ecognising that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come”. Convention on International Trade in Endangered Species of Wild Fauna and Flora (opened for signature 3 March 1973, entered into force on 1 July 1975), Preamble.
276 The parties to the Convention on the Conservation of Migratory Species of Wild Animals expressly affirm that “the conservation of biological diversity is a common concern of humankind”. Convention on Biological Diversity (opened for signature 5 June 1992, entered into force on 29 December 1993), Preamble, paragraph 3.
277 The parties to the Vienna Convention and Montreal Protocol have agreed to cut production and consumption of ozone depleting substances because of “potentially harmful impact on human health and the environment through modification of the ozone layer” and are “[d]etermined to protect human health and the environment against adverse effects resulting from modifications of
International Importance (commonly known as the Ramsar Convention). 280

The World Heritage Convention, in particular, contains other indications that it is compatible with the event of armed conflict. 281 Article 11(4) obliges state parties to maintain a “list of World Heritage in Danger”282 including such “cultural and natural heritage as is threatened by serious and specific dangers, such as (...) the outbreak or the threat of an armed conflict”. 283 This Convention was invoked during the Israel-Lebanon War284 when Israel’s bombing campaign was alleged to

279 This Convention was adopted in consideration of the fact that “deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world” and “parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole”. Convention Concerning the Protection of the World Cultural and Natural Heritage (opened for signature 23 November 1972, entered into force on 17 December 1975), Preamble [the 1972 World Heritage Convention].

280 The parties to the Ramsar Convention “stem the progressive encroachment on and loss of wetlands now and in the future”. Convention on Wetlands of International Importance especially as Waterfowl Habitat (opened for signature 2 February 1971, entered into force on 21 December 1975), Preamble, paragraph 4. In an arguable reference to situations of armed conflict, this Convention recognises the right of state parties to “delete or restrict” the boundaries of listed protected wetlands because of “urgent national interests”. Ibid, art 2(5).

281 This Convention may be supported by the application of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict. This Convention in Art 1(a) defines “Cultural Property” as “movable or immovable property of great importance to the cultural heritage of every people, such as monuments of architecture, art or history, whether religious or secular; archaeological sites; groups of buildings which, as a whole, are of historical or artistic interest; works of art; manuscripts, books and other objects of artistic, historical or archaeological interest…”. The 1954 Hague Convention, above n 15.

282 This is “a list of the property appearing in the World Heritage List for the conservation of which major operations are necessary and for which assistance has been requested under this Convention”. The 1972 World Heritage Convention, above n 279, art 11(4).


284 See the detail of this armed conflict in Chapter 4.
amount to a violation. It is arguable that Israel violated its obligation to “undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage (...) situated on the territory of other States Parties to this Convention”.285 The campaign caused significant damage to UNESCO’s protected world heritage sites, such as the Byblos and Baalbeck archaeological sites, Chamaa mausoleum and a tomb dating from the Roman era in Tyre.286 Together with the Ramsar Convention, the United Nations Environment Programme (UNEP) argues that it may be easier to apply these two particular Conventions during armed conflicts than other agreements from environmental law because they provide “real guidance to commanders on the battlefield or to be enforced after the event”.287

Finally, since the objects of all the treaties in this section are problems common to all members of the international community, it can be considered that inter-state cooperation (to achieve common goals) is a primary objective even during times of war. Therefore, it can be argued that the implementation of these rules and principles does not cease in the event of armed conflict. Further, as treaties that serve the interest of the international community in general, in a similar way to human rights treaties, they continue to apply to bind belligerent states during times of armed conflict.288

3.4. International Law on the Use of Force (Ius ad Bellum)

Following human rights and environmental laws, *ius ad bellum* (the law on the use of force) is the third category of general international peacetime law that offers environmental protection during armed conflict. In the aftermath of the

---

285 The 1972 World Heritage Convention, above n 279, art 6(3).
287 UNEP 2009, above n 63, at 37-38; Bunker, above n 6, at 211.
288 Vöneky, above n 180, at 28.
1991 Gulf War, the UNSC held Iraq liable for war consequences including environmental damage, mainly because of Iraq’s violation of *ius ad bellum.*\(^\text{289}\)

Even though environmental protection under this regime may be both subsidiary and indirect,\(^\text{290}\) this attribution of wrongdoing should be welcomed for its potential precedent-setting value.

*ius ad bellum* comprises a body of international law that governs the resort to armed force as an instrument of national policy.\(^\text{291}\) In modern times, art 2(4) of the UN Charter\(^\text{292}\) has become the source of this law which is also considered to be *ius cogens.*\(^\text{293}\) Resort to armed force is however permissible when it is conducted in self-defence under art 51,\(^\text{294}\) or if the collective action of military force is authorised by the UNSC under Chapter VII of the UN Charter.\(^\text{295}\) It is well established by customary international law that resort to the use of armed force in self-defence must be both proportional and necessary.\(^\text{296}\)

\(^{289}\) UNSC 687, above n 207, at [16].

\(^{290}\) It is subsidiary and indirect because “the rules on the use of force are neither primarily applicable during armed conflict, nor do they intend to protect the environment during armed conflict”. Koppe, above n 10, at 309.


\(^{292}\) This article reads: “[a]ll members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations”. Charter of the United Nations, art 2(4).


\(^{294}\) Article 51 reads: “[n]othing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defence shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security”. Charter of the United Nations, art 51.

\(^{295}\) Ibid, arts 42-47.

\(^{296}\) In the Nicaragua Case, the ICJ states: “[s]elf-defence would warrant only measures which are proportional to the armed attack and necessary to respond to it, a rule well established in
Any resort to armed force by states, whether lawful or not, is highly likely to lead to international hostilities. Legal obligations under *ius ad bellum* are considered to be peacetime obligations because they regulate states’ decisions to resort to armed force in times of peace. It is accepted that *ius ad bellum* and *ius in bello* are two different branches of law that invoke distinct responsibilities. However, the application of both of these rules to the events of the 1991 Gulf War presents an interesting and important relationship between when these rules will be considered to have been breached and the legal consequences of such a breach. This is because a belligerent may be held responsible based on its violation of the rules of *ius ad bellum* for the consequences of war, including illegal conduct during armed conflict.

In 1991, Iraq’s invasion and occupation of Kuwait was determined to be a violation of *ius ad bellum*. UNSC Resolution 687 affirmed that:

> 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 its unlawful invasion and occupation of Kuwait.\(^{298}\)

Further, in order for a claim arising out of these events to be accepted and reviewed by the UNSC, the claim “must be the result of Iraq’s unlawful invasion and occupation of Kuwait” and “the causal link must be direct”.\(^{299}\) One example

---

\(^{297}\) Koppe, above n 10, at 317. *Ius ad bellum* applies in peacetime and concerns only a state’s decision to resort to armed force against another state. If such decision is deemed unlawful under *ius ad bellum* then the concerned state is responsible for that violation of law. Meanwhile, *ius in bello* applies in wartime and concerns only a state’s military conduct in active armed conflict. If there are violations of any rules of the law of war (*ius in bello*) then the concerned state is held responsible.

\(^{298}\) UNSC 687, above n 207, at [16] (emphasis added).

\(^{299}\) The Council excluded losses resulting from the UN trade embargo from this category because this loss does not have direct causal link to the invasion. *United Nations Compensation Commission Decision No. 15, Compensation for Business Losses Resulting from Iraq’s Unlawful
of when the causal link will be sufficiently “direct” is where the loss has resulted from “military operations or threat of military action by either side during the period of 2 August 1990 to 2 March 1991”. The word “during” suggests that the main concern is about wartime conduct and not the pre-war period when Iraq decided to use force (which is subject to \textit{ius ad bellum}). The UNSC’s approach means that Iraq was held responsible for its illegal conducts during the war based on a violation of \textit{ius ad bellum} and not \textit{ius in bello}.

This event has blurred the distinction of legal responsibility from two branches of law, \textit{ius ad bellum} and \textit{ius in bello}. This is due to the fact that Iraq was determined to be the “aggressor” that violated the law on the use of force by unlawfully initiating war; and was consequently found liable for all damage during the war.\textsuperscript{301}

This event has also triggered a challenge to the principle of equal application (or treatment)\textsuperscript{302} of \textit{ius in bello} in times of war. It seems that, as opposed to equal treatment, in the event of war initiated by violation of \textit{ius ad bellum}, the application of \textit{ius in bello} will turn against the aggressor. This is based on an argument that military activities, such as killing people and destroying property, are originally criminal in nature unless justified by legitimate reasons. In addition, challenges to equal treatment under \textit{ius in bello} are also based on the maxim of \textit{ex initia ius non oritur} that an entity cannot benefit from rights that result from illegal activities.\textsuperscript{303} Indeed, in 1963, the \textit{Institut de Droit International} or Institute of International Law conducted a thorough study on this issue and accepted

\begin{itemize}
\item Invasion and Occupation of Kuwait where the Trade Embargo and Related Measures were also a Cause S/AC.26/1992/15 (1993) at [3].
\item Ibid at [6] (emphasis added).
\item UNSC 687, above n 207, at [16].
\item This principle means that belligerents are treated equally without prejudice of whether their resort to armed force under \textit{ius ad bellum} is lawful or not. See the Four 1949 Geneva Conventions, above n 35, art 1; The 1977 Additional Protocol I, above n 46, Preamble, paragraph 5.
\item Dinstein, above n 293, at 156-157.
\end{itemize}
unequal treatment of belligerents in cases where the UNSC “has labelled one of the parties as ‘aggressor’” or in cases of “collective action by UN forces based on a decision of the [UNSC]”.

This discriminatory application of *ius in bello* may have an effect on an aggressor’s rights and obligations in times of war, particularly in regards to the continuation of peacetime treaties. The international community accepts that an aggressor state does not have the right to terminate, withdraw from or suspend all peacetime (environmental) obligations for its own benefit as a result of armed conflict. Consequently, this guarantees that an aggressor state will always continue to be bound by any Multilateral Environmental Agreements (MEAs) they subscribed to during peacetime.

Allocation of state liability for war damage according to its position of unlawful conduct under *ius ad bellum* has some precedent in the aftermath of World War I and World War II. In addition, the idea of holding aggressors liable for war

---

304 Koppe, above n 10, at 320.

305 The 1985 IDI Resolution, above n 199, art 9. It reads: “[a] state committing aggression within the meaning of the Charter of the United Nations and Resolution 3314 (XXIX) of the General Assembly of the United Nations shall not terminate or suspend the operation of a treaty if the effect would be to benefit that state”. See also Draft Article 15, The 2011 ILC Draft Articles, above n 199, which reads: “[a] state committing aggression within the meaning of the Charter of the United Nations and resolution 3314 (XXIX) of the General Assembly of the United Nations shall not terminate or withdraw from a treaty or suspend its operation as a consequence of an armed conflict that results from the act of aggression if the effect would be to the benefit of that state”.

306 In the Treaty of Versailles, Germany accepted responsibility: “for causing all the loss and damage to which the Allied and Associated Governments and their nationals have been subjected as a consequence of the war imposed upon them by the aggression of Germany and her allies”. Germany also agreed to: “make compensation for all damage done to the civilian population of the Allied and Associated Powers and to their property during the period of belligerency of and as an Allied or Associated Power against Germany, by such aggression by land, by sea, and in general by all damage as defined in Annex 1 hereto”. Consequently, the parties of this treaty established an Inter-Allied Reparation Commission under art 233. The purpose of this Commission was to assess the claims and determine the quantity of damages for compensation. Treaty of Peace with Germany (signed 28 June 1919) (1919) 13 AJIL 151, arts 231-233.

307 The Peace Treaties concluded in 1947 following WWII charged the defeated states with crime of aggression that have taken part under the aegis of Germany. H. Lauterpacht “The Limit of the Operation of the Law of War” (1953) 30 BYIL 206 at 235.
damage in general is supported by many experts.\footnote{Koppe, above n 10, at 327. Fitzmaurice stated in 1948: “[t]he principle that states in the position of wrongdoers as a result of their aggression, are responsible for the ensuing damage, irrespective of any treaty provision, may well be a useful one to establish”. Gerald G. Fitzmaurice “The Juridical Clauses of Peace Treaties” (1948) 73(II) Collected Courses of the Hague Academy of International Law 259 at 326.} To some degree, certain of these experts have been influenced by the experience in the 1991 Gulf War. They are Low and Hodgkinson in 1995,\footnote{Low and Hodgkinson conclude that: “[v]iolations of \textit{ius ad bellum} should be distinguished from violations of \textit{ius in bello} because a party that violates \textit{ius ad bellum} may be held responsible for all damages caused by such a war regardless of whether it acted lawfully in the context of \textit{ius in bello}. Compensation for violations of \textit{ius ad bellum} is thus separate from compensation for violations of \textit{ius in bello}”, above 16, at 412-413.} Boelaert-Suominen in 1996,\footnote{Boelaert-Suominen argues that: “[g]eneral international law on compensation for war damage clearly establishes the principle that aggressor states are liable to pay reparation for damages resulting from breaches of the \textit{ius ad bellum}. Reparations may cover damage to public and private property, loss of life and injuries to civilians and generally at least part of the war costs of the victorious states. However, the exact range of claims to be covered by the reparation regime, the amount of reparations and the modalities of implementation depend on particular terms of the peace treaties”. Sonja Boelaert-Suominen “Iraqi War Reparations and the Laws of War: A Discussion of the Current Work of the United Nations Compensation Commission with Specific Reference to Environmental Damage during Warfare” (1996) 50 Austrian J. Pub. & Int’l L. 225 at 308.} Greenwood in 1996,\footnote{Greenwood observes: “[a] state is liable, in principle, to pay compensation for damage, including environmental damage, caused by an unlawful resort to force. (...) State responsibility here flows from a breach not of the \textit{ius in bello} but of \textit{ius ad bellum}”, above n 178, at 403.} Gattini in 2002,\footnote{According to Gattini, the starting point of Iraq’s liability under Resolution 687 was “[t]he existence in contemporary international law of a norm which \textit{post bellum} permits or even demands the liability of the aggressor state, charging it with an obligation to make good not only the entire amount of damage caused by itself, but also damage arising from the legitimate exercise of self-defence by the state that is the victim of the aggression”. Andrea Gattini “The UN Compensation Commission: Old Rules, New Procedures on War Reparations” (2002) 13 EJIL 161 at 173.} and Ronen in 2008.\footnote{Ronen observes: “[t]he attachment of responsibility for the illegal occupation in a manner which creates liability for acts carried out in compliance with the law of occupation may serve as a deterrent for illegal occupants. (...) If the responsibility of the occupant accrues regardless of the legality of the actions, a realistic approach cannot but admit that an occupant is as likely to expand its illegal acts (because it is liable in any case), as it is to withdraw from territory occupied illegally”. Yael Ronen “Illegal Occupation and Its Consequences” (2008) 41 Israel L. Rev. 201 at 232.}

In terms of compensation for environmental damage as a consequence of violations to the rules of \textit{ius ad bellum}, the experience of the 1991 Gulf War has become a landmark case, leading to the first instance of compensation being considered available for environmental damage arising as a result of a state’s
unlawful conduct of aggression. Resolution 687 has been described as “unprecedented” and “historically unique”. In contrast, if art 2(4) had not been used as the legal basis for environmental compensation claims and claimants were required to prove direct loss under the laws of armed conflict, it would make the evidentiary process much more difficult.

Ultimately, Resolution 687 confirmed that a state which violates *ius ad bellum* may be held responsible for all damage, including environmental damage, caused by the war, regardless of whether there was any violation of *ius in bello*. This resolution also shows that *ius ad bellum*, hitherto usually considered as part of international law’s peacetime obligations, has significant potential for addressing environmental damage related to armed conflict.

Further, in terms of future development, the fact that the UNSC held the aggressor state in the 1991 Gulf War responsible in this manner likely indicates that the UNSC will act similarly in subsequent cases. Such a precedent has been considered to provide significant deterrent effects. In addition, protection proffered by *ius ad bellum* may become a safety net which could overcome some deficiencies in the protection of the environment under *ius in bello*.

---

314 Catherine Tinker argues that the Resolution was the “first determination under international law of a state's liability for harm to the environment itself, apart from direct injury to people or property, and for the depletion of natural resources”. Catherine Tinker “‘Environmental Security’ in the United Nations: Not a Matter for the Security Council” (1992) 59 Tenn. L. Rev. 787 at 789.

315 Idem.

316 Low and Hodgkinson, above n 16, at 455.


318 Low and Hodgkinson, above n 16, at 456.

319 Greenwood, above n 178, at 407; Low and Hodgkinson, ibid, at 477-479; Bunker, above n 6, at 209.

320 Greenwood, ibid, at 412.

321 Koppe, above n 10, at 333.
4. Conclusion

As far as environmental protection during armed conflict is concerned, IHL provides significant direct and indirect legal protection, which comes from treaty and customary laws. Given the wide array and significant number of existing rules that protect the environment within IHL, it is perhaps less important to have a new, specific international agreement focusing on environmental protection during times of war.

The development of environmental protection within the law of war may be broadly divided into two time-periods: before and after the 1970s. Widespread concern over the global environment in general only began in earnest in the 1970s. Such growing concern also applied in the area of armed conflict. It has been noted that the word “environment” does not occur in any IHL treaty prior to 1977. However, this does not mean the environment was not protected during times of war, but rather that such protection was found in different forms and contexts. Prior to 1977, protection of the environment was afforded in more general statements of principle, and was often incidental to human protection. After 1977, in contrast, provisions in IHL were adopted which specifically or expressly protected the environment.

In addition, protection of the environment proffered by the law of war may be strengthened by the fact that there are also relevant international peacetime rules which protect the environment and remain valid during times of war. With the identification of such rules, it may be submitted that the environment is afforded

322 Roberts, above n 112, at 229.
323 Stone, above n 62, at 21.
an additional layer of legal protection during armed conflict. Therefore, belligerent states no longer have any leeway to escape their duty of taking into account environmental factors when conducting military operations.

Generally, the applicability of peacetime treaty provisions during wartime is based on the widely acknowledged principle that the event of armed conflict does not *ipso facto* suspend or terminate the pre-existing treaties. Some categories of treaties have been argued to remain applicable between belligerents during times of war. These are treaties whose objects are largely unaffected by the advent of war between parties to the agreements and/or which the parties intended to continue during such periods. Of these categories, environmental protection during wartime may be found in two branches of law: international human rights law and international environmental law. In addition to these two fields of law, rules from *ius ad bellum* (or the law on the use of force) also provide significant protection from environmental harm during times of war, despite their primary applicability during peacetime. Identification of relevant rules from these laws has shown that peacetime obligations provide additional layers of protection for the environment during war.

Provisions from international human rights law are considered valid both during peacetime and wartime. This is because the object of these laws is to enforce basic universal human protections, which is also the main goal of the law of war in general. Specific environmental protection is found in the general acknowledgement of international declarations and reports of human rights commissioners. The most relevant provision from human rights law that offers explicit protection to the environment is art 12 of the ICESCR.

---

324 Indeed, subject to the law of neutrality, treaty relationships between belligerents and neutral states are largely unaffected and remain valid. See above at [2.2.1.5].
325 The Stockholm Declaration, above n 175, at [1]; The Rio Declaration, above n 217, principle 1.
Some treaties within international environmental law potentially remain valid during wartime by way of analogous approach. An environmental treaty may continue to apply in times of armed conflict if it has the aim of serving the interests of the international community as a whole. In relation to this, it is proposed that two categories of environmental treaty remain valid during wartime and thus bind belligerent states: treaties protecting areas beyond national jurisdiction and treaties protecting “common goods”.

The provisions of the law on the use of force, or *ius ad bellum*, also provide significant protection of the environment during wartime, albeit in an indirect way. Protection under this regime is provided by the fact that aggressor states are held accountable for paying compensation for war consequences, including environmental damage. This kind of compensation finds its precedent in previous cases of armed conflict, such as the World Wars and the 1991 Gulf War.

These peacetime obligations form an important group of legal norms which address environmental protection in relation to armed conflict. Even though these peacetime obligations do not regulate a state’s conduct during armed conflict, “they reinforce civil liability and help define criminal responsibility under the laws of war”.[327] They also provide additional legal mechanisms for responsible belligerents to repair or compensate another state for any environmental damage resulting from their unlawful conduct. Further, these peacetime obligations could play a crucial role in filling the gaps in the general principles of law recognised by nations, in cases when international conventions and customary international law fail to address a particular problem.[328]

Finally, it is important to emphasise that the environment is sufficiently protected by international law during international hostilities. It is a fact that there are significant numbers of international rules that protect the environment in a

[327] Sharp, above n 63, at 28.

[328] Ibid.
comprehensive manner during wartime which are sourced not only from wartime laws but also peacetime obligations that bind state belligerents. It is also important to understand that this means that any belligerent party that has caused environmental damage in an armed conflict should be held accountable for its unlawful conduct.
CHAPTER 3
INTERNATIONAL RESPONSIBILITY FOR ENVIRONMENTAL DAMAGE DURING ARMED CONFLICT

1. Introduction

Ideally, to best protect the environment, environmental harm would be wholly prevented. Once harm actually occurs, however, reparation becomes crucial in order to make the environment whole again, and this includes the situation where the environment has been damaged by the unlawful conduct of belligerents during armed conflicts. Therefore, it is important to pursue the liability of the offending party to remedy environmental harm.

---


2 Every wrongful act (at international law) of an international person incurs international responsibility. This is a well-established customary rule which has been codified (in draft) in the ILC’s 2001 Draft Articles on Responsibility of States for Internationally Wrongful Acts and Commentaries. Report of the International Law Commission to the General Assembly on the work of its Fifty-third session A/56/10 (2001), art 1 [The 2001 ILC Draft ARSIWA]. In general, the ILC’s work is considered “to a large extent a restatement of customary international law regarding secondary principles of state responsibility”. Archer Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc. v. the United Mexican States (Award) ICSID ARB(AF)/04/5, 21 November 2007 at [116]. In terms of wider state practice, the UN Secretary-General has compiled references to the ILC Draft ARSIWA in a number of decisions of international courts and tribunals. Report of the Secretary-General on Compilation of Decisions of International Courts, Tribunals and Other Bodies (Responsibility of States for Internationally Wrongful Acts) A/65/76 (2010). See also Alexandre Kiss “State Responsibility and Liability for Nuclear Damage” (2008) 35 Denv. J. Int’l L. & Pol’y 67 at 67-69. The ILC differentiates between the terms “responsibility” and “liability”. Responsibility refers to obligations of states due to breaches of international law, and liability refers to the primary obligations of states for any injuries resulting from their lawful acts under international law: Alan E. Boyle “State Responsibility and International Liability for Injurious Consequences of Acts Not Prohibited by International Law: A Necessary Distinction?” (1990) 39 ICLQ 1 at 2-3. Responsibility and liability can also be distinguished based on the perspective of civil law vocabularies. Therefore, “state responsibility” may be used to refer to a state’s general responsibility under international law, whereas “international liability” may refer to a state’s “civil responsibility”, or obligation to pay compensation or make reparations for injuries as a result of activities within its territory or under its control: Sompong Sucharitkul “State Responsibility and International Liability under International Law” (1996) 18 Loy. L.A. Int’l & Comp. L. Rev. 821 at 822. Nonetheless, it is important to note that this Chapter uses the terms responsibility and liability interchangeably.
Cross-border armed conflicts up to the present have involved not only states, but also individuals\(^3\) and international organisations as the belligerent actors.\(^4\) These two latter entities are now recognised as subjects under international law that bear rights and duties\(^5\) – including those concerning the protection of the environment in wartime. As discussed in Chapter 2, belligerents are subject to a significant number of international rules that protect the environment in times of war. Therefore, as with belligerent states, individuals and international organisations are also under certain obligations to protect the environment in times of war albeit in a limited manner.\(^6\)

Together with states, international organisations and individuals may contribute to wartime damage, including damage to the environment, by committing unlawful conduct and thus may incur responsibility for their unlawful actions. Given this possibility, this Chapter explores how international law provides mechanisms for holding these actors accountable for the consequences of their unlawful wartime environmental damage. In addition, this examination aims to clarify which type of responsibility is worth pursuing in repairing wartime environmental damage.

Of the three possible belligerent actors (states, international organisations and individuals), this Chapter argues that holding states responsible is the preferred option compared to holding individuals or international organisations responsible. In terms of repairing the environment damaged during armed conflict, only states can realistically provide the necessary remedy in the form of financial compensation.

---

\(^3\) The term “individual” in this Chapter refers to natural persons and not legal persons such as corporations or other entities established based on the domestic law of a state.

\(^4\) See the example cases of the Kosovo and Israel-Lebanon Wars in Chapter 4.

\(^5\) See below at [2].

\(^6\) This is due to the fact that some of the relevant peacetime international obligations are not directly bound individuals and international organisations but only to states. Such obligations include most rules of the environmental treaties.
Even if an international organisation is held responsible, it is unlikely that the member states will pay compensation on behalf of the organisation to repair the damaged environment. This is because international organisations, with the exception of financial organisations, do not have their own independent sources of financial capability. As indicated in the cases, the international community prefers to place the burden of responsibility on a state rather than an international organisation. Furthermore, there are limited fora available for bringing claims against international organisations.

Similarly, generally speaking, a responsible individual would also find it impossible to singlehandedly provide sufficient funds to repair widespread damage to the environment. The only realistically possible form of liability for an individual is criminal liability, which would be determined by a court or tribunal.

In discussing how international law holds belligerents responsible for their unlawful wartime conduct and renders them liable to make reparations for environmental damage, this Chapter begins with an analysis of the concept of responsibility in general within the international legal system. This is followed by a discussion of the responsibilities of the state, the international organisation, and the individual respectively.

The analysis of each type of responsibility is based on the relevant regimes or rules applicable, with a focus on responsibility for environmental damage in armed conflict that has resulted from wrongful acts. The applicable regimes are international humanitarian law (IHL) and the works of the International Law

---

7 As one scholar notes that “[a]bout 90 per cent of the total regular budget in most international organisations […] is raised by obligatory annual contributions levied from member states”. C.F. Amerasinghe Principles of the Institutional Law of International Organisations (2nd ed, Cambridge University Press, Cambridge, 2005) at 359. In addition, as discussed below at [3.2], it is established that there has been a separation of responsibility between the international organisation and its member states. 

8 See the Kosovo War, discussed below at [3.2.2].
Commission (ILC) on state and international organisation responsibility. Despite these two sources of rules, the discussion will not be divided by them (addressing one, then the other), but rather will be a holistic examination of both these regimes’ effects. This approach is taken because one law can fill the gaps in the other, when pursuing a belligerent’s responsibility for environmental damage during armed conflicts.

2. Responsibility in International Law

The classic theory on international responsibility may be traced back to Grotius’ statement that “there arises an obligation by the law of nature to make reparation for the damage, if any be done”. Further, it has been noted that the notion of responsibility has always co-existed with international laws that govern relations between states. This is because responsibility is the “necessary corollary of [international] law”. This notion of responsibility as the “corollary” of law was confirmed in the legal reasoning of Judge Max Huber in 1925. In fact, the existence of international responsibility has been noted to be an inherent attribution of sovereignty. The simultaneous existence of international responsibility and the obligation to make reparation was also expressed by Charles de Visscher who commented that “international responsibility is a

---


11 Judge Huber emphasised that: “[r]esponsibility is the necessary corollary of a right. All rights of an international character involve international responsibility. Responsibility results in the duty to make reparation if the obligation in question is not met”. Case Concerning British Claims in the Spanish Zone of Morocco (Spain v. UK) (1925) 2 RIAA 615 at 641.

12 As the ILC contended: “[i]f it is the prerogative of sovereignty to be able to assert its rights, the counterpart of that prerogative is the duty to discharge its obligations. The principle that no state which by its conduct has committed a breach of an international obligation can escape the consequence, namely, to be regarded as having committed an internationally wrongful act which entails its responsibility, is the corollary of the principle of the sovereign equality of states”. Report of the International Law Commission to the General Assembly on the work of its Twenty-fifth session A/9010/Rev.1 (1973) at [177].
fundamental notion reducible to the obligation of a state to make reparation for the consequences for a wrongful act that is imputable to it”.

Traditionally, only states may be held responsible at international law. There are widely-cited cases where states were held responsible for damage and/or injuries, for example, the *Trail Smelter* and *Corfu Channel* cases. These cases established the customary principle that a state is responsible to make reparation for damages or injuries resulting from activities within their territories or activities under their jurisdiction.

With the development of international law, however, states are no longer the only subjects. Nowadays, international organisations and individuals have also become subjects that bear rights and must carry out duties under international law – they can accordingly be held responsible on the international plane.

In reference to the legal personality of international organisations at international law, the history of the United Nations (UN) provides an illustrative example. The UN received its international capacity when the International Court of Justice (ICJ) determined that it was an “international person” because member states had entrusted some of their functions as a state to the UN. Furthermore, the Court also determined that the UN “is a subject of international law and capable of possessing international rights and duties, and that it has capacity to maintain its

---


14 *Trail Smelter Case (United States v Canada)* (1949) 3 RIAA 1905 at 1965; *Corfu Channel (United Kingdom v Albania) (Merits)* [1949] ICJ Rep 4 at 22.

rights by bringing international claims” against a state.\textsuperscript{16} As a consequence, just as a state could be considered responsible at international law, theoretically, a state could similarly invoke the responsibility of the UN as an international organisation.

Individuals also enjoy status within the international legal order.\textsuperscript{17} Today, individuals may invoke the responsibility of other subjects of international law on the international plane – in particular, in fields of concern such as human rights – and may also be held accountable for their own unlawful actions. Individual responsibility is different to state and international organisation responsibility because it mainly translates to criminal responsibility, implemented by an international tribunal created either by treaty or by a UN Security Council (UNSC) resolution to adjudicate upon the crime.\textsuperscript{18}

In the event of international armed conflict, states bear primary responsibility for any consequences of war that result from breaches of legal obligations applicable during times of war. Nevertheless, international organisations and/or individuals may also bear secondary responsibility. An international organisation could bear responsibility for wartime consequences if it was involved as an entity in an armed conflict against another state or states.\textsuperscript{19} Individuals are also likely to bear responsibility because military decisions during war are necessarily made by identifiable individuals. Furthermore, as one of its unique characteristics, the law


\textsuperscript{17} See generally Kate Parlett The Individual in the International Legal System: Continuity and Change in International Law (Cambridge University Press, Cambridge, 2011).

\textsuperscript{18} Pellet, above n 9, at 8. Examples of these tribunals are International Military Tribunal (IMT), International Criminal Tribunal for the former Yugoslavia (ICTY), International Criminal Tribunal for Rwanda (ICTR), and International Criminal Court (ICC).

\textsuperscript{19} An example of this situation was NATO’s involvement in the Kosovo War in 1999 which then caused severe environmental damage within the Former Republic of Yugoslavia (FRY); this will be discussed further below.
of war specifically attributes violations not only to states but also to individuals.\textsuperscript{20} If the environmental damage has occurred because of unlawful military conduct which was intentionally ordered by a military officer, then he or she could be charged for war crimes that are subject to international criminal prosecution.\textsuperscript{21}

With regards to environmental damage during armed conflict, all three groups – states, international organisations, and individuals\textsuperscript{22} – may potentially contribute to damage as a result of their unlawful actions. As a consequence, liability at international law may incur concurrently or individually. Nevertheless, it appears that not all of these actors’ responsibilities could provide effective reparation to the environment as discussed below.

3. Which Entity Ought to be Pursued in Order to Best Gain Compensation for Environmental Damage?

These three different types of international responsibility (of state, international organisations and individuals) may arise in reference to significant environmental damage resulting from unlawful conduct during armed conflict. Accordingly, it is imperative to discuss whether international law provides legal frameworks for these responsibilities can be invoked and how they are implemented in the actual practice of the international community. This discussion also focuses on determining which of these responsibilities is worth pursuing, with the goal of repairing the damaged environment, discussing each in turn.

\textsuperscript{20} Marco Sassòli “State Responsibility for Violations of International Humanitarian Law” (2002) 84 IRRC 401 at 404.


\textsuperscript{22} As discussed below at [3.3.2], responsibility of individuals is much limited to criminal responsibility where in international level individuals can be brought only before either permanent (i.e. ICC) or ad hoc courts.
3.1. State Responsibility

In analysing state responsibility for environmental damage during international hostilities, there are two relevant legal regimes under international law. These regimes are IHL and the ILC’s Draft Articles on state responsibility (Draft ARSIWA). The relevance of each is based on the fact that IHL is the specific field of law that is applicable during times of war; and the ILC’s Draft ARSIWA provide useful codification of current rules or norms on the issue of state responsibility in general. Further, it appears that the ILC’s Draft ARSIWA could fill certain gaps left by rules in IHL, as discussed below.

23 The basic rules of state responsibility are considered customary law, and have been largely developed by state practice and international judgments. See James Crawford “State Responsibility” in R. Wolfrum (ed) Max Planck Encyclopedia of Public International Law (2008) <www.mpepil.com>; Case of the S.S. “Wimbledon” [1923] PCIJ (Ser. A) No. 1, 30; Case Concerning the Factory at Chorzów (Claim for Indemnity) [1928] PCIJ (Ser. A) No. 17, 28-29 [Chorzów Factory case].


25 The codification work began in 1956; however, it was not until 2001 that the ILC adopted its final draft Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA) as a result of its effort to codify customary rules of state responsibility. This work from the ILC is the focus of discussion in this part because it is the primary authoritative source for the law of state responsibility. Anthony Aust Handbook of International Law (2nd ed, Cambridge University Press, Cambridge, 2010) at 377; Antonio Cassese International Law (2nd ed, Oxford University Press, Oxford, 2005) at 376. Since the inception of the ILC’s work on state responsibility in 1955 until its final adoption in 2001, there were five special rapporteurs that were responsible for undertaking this huge task. The special rapporteurs for state responsibility, in chronological order, are: F.V. Garcia-Amador of Cuba, Roberto Ago of Italy, Willem Riphagen of the Netherlands, Gaetano Arangio-Ruiz of Italy and James Crawford of Australia. Daniel Bodansky and John R. Crook “Introduction Symposium: The ILC’s State Responsibility Articles: Introduction and Overview” (2002) 96 AJIL 773 at 777-779. The 2001 ILC Draft ARSIWA, above n 2.

In examining state responsibility for environmental damage during armed conflict, there are a number of issues that this discussion focuses on. They are: the notion of responsibility; attribution; sources of breaches; forms of reparation; and the implementation mechanism.

These matters are crucial because, first, one needs to discuss how state responsibility is established under international law. Second, in pursuing a belligerent’s liability to pay compensation for the damaged environment, one needs to establish whether or not the conduct during international hostilities is attributable to a particular state or not. Third, in establishing the responsibility of a belligerent, one needs to identify the specific international obligations which, if breached during wartime, may render that belligerent responsible. Fourth, in repairing the damaged environment post armed conflict, one must determine what a suitable form of reparation for the responsible state would be. Finally, in enforcing state responsibility rules, it is crucial to be aware of the options available for both injured and non-injured parties in invoking liability on the responsible belligerent.

3.1.1. Notions of Responsibility

The main regime applicable during armed conflict, IHL, or *ius in bello*, attributes violations primarily to states.\textsuperscript{27} The four Geneva Conventions stipulate in their common articles that: “no High Contracting Party shall be allowed to absolve itself or any other High Contracting Party of any liability incurred by itself or by another High Contracting Party” in the event of violation of the rules of these conventions.\textsuperscript{28} In addition, art 3 of the 1907 Hague IV Convention and art 91 of

\textsuperscript{27} Attribution of violations to a state is known as the traditional or primary structure in international law that governs inter-state relations. Sassòli, above n 20, at 402.

\textsuperscript{28} The Four 1949 Geneva Conventions, above n 24, arts 51, 52, 131, 148 respectively.
the 1977 Additional Protocol I provide that a “[state] shall be responsible for all acts committed by persons forming part of its armed forces”.29

Meanwhile, according to the ILC’s Draft ARSIWA, “conduct not in conformity with an international obligation and attributable to a state equals an internationally wrongful act resulting in state responsibility”.30 In addition, there are two forms of internationally wrongful act: “a breach of an international obligation of the state” or “a serious breach of an obligation under a peremptory norm of general international law”.31 As a consequence, the responsible state is primarily liable for making reparation for any damages or injuries that have come as a result of violations of obligations under international law.32

The conditions for responsibility under IHL rules and the ILC’s Draft ARSIWA differ from those of the classic approach. According to classic theory, there are two necessary conditions for incurring responsibility: injury and a failure to respect the law. This approach also excludes the element of “fault”.33 Meanwhile, under IHL and the ILC’s Draft Articles, a state is responsible if there is a breach

---

29 The 1907 Hague Convention (IV) Respecting the Laws and Customs of War on Land (opened for signature 18 October 1907, entered into force 26 January 1910) [Fourth Hague Convention], art 3; Additional Protocol to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (opened for signature 12 December 1977, entered into force 7 December 1978) [the 1977 Additional Protocol I], art 91. In principle, the rule of state responsibility for violations of the law of war committed by members of its armed forces has been acknowledged as part of customary law, and this principle applies to all violations of rules, regardless of the source of that violation. Christopher Greenwood “State Responsibility and Civil Liability for Environmental Damage Caused by Military Operations” in Richard J. Grunawalt, John E. King, and Ronald S. McClain (eds) Protection of the Environment during Armed Conflict (Naval War College, Rhode Island, 1996) 397 at 402.

30 The 2001 ILC Draft ARSIWA, above n 2, arts 1 and 2; Bodansky and Crook, above n 25, at 782.

31 The 2001 ILC Draft ARSIWA, ibid, arts 2 and 40(1). The Draft Articles provides “serious” term is defined as a “gross or systematic failure”. Ibid, art 40(2).

32 For a discussion of the distinction made, by others, between liability and responsibility, see fn 2 above.

33 Pellet, above n 9, at 6.
of international obligation\textsuperscript{34} and this wrongful act is attributable to the concerned state.\textsuperscript{35} Therefore, in order to hold a state responsible, the presence of these two elements (breach and attribution) are both necessary and sufficient.\textsuperscript{36}

The stark difference between these two views lies in the existence of damage or injury. While the classic approach views the existence of damage as an essential element, IHL and the ILC’s Draft Articles do not.\textsuperscript{37} Consequently, any wrongful act of the state should incur responsibility under these laws regardless of whether it caused any injury, and the responsibility for such injury could be invoked by states other than the injured state (if any). In the particular wrongful act under discussion, however – pursuing state responsibility for unlawful wartime environmental damage – it will usually be necessary to show the existence of damage in order to establish injury caused by unlawful state conduct.\textsuperscript{38}

One scholar has pointed out that damage to the environment is frequently referred to in treaties and other international documents as consisting of damage done to four elements:\textsuperscript{39}

\begin{enumerate}
\item fauna, flora, soil, water and climatic factors;
\end{enumerate}

\textsuperscript{34} Violations of international law may result from acts or omissions. The 2001 ILC Draft ARSIWA, above n 2, commentary on art 2, at 70 ([4]).

\textsuperscript{35} The 2001 ILC Draft ARSIWA, ibid, arts 1 and 2. Fourth Hague Convention, above n 29, art 3; the 1977 Additional Protocol I, above n 29, art 91. According to these articles, a belligerent state “shall be responsible for all acts committed by persons forming part of its armed forces”.

\textsuperscript{36} Pellet, above n 9, at 9.

\textsuperscript{37} The ILC provides the reasons behind this exclusion of “damage/injury” by stating: “[i]f we maintain at all costs that “damage” is an element in any internationally wrongful act, we are forced to the conclusion that any breach of an international obligation towards another state involves some kind of “injury” to that other state. But this is tantamount to saying that the “damage” which is inherent in any internationally wrongful act is the damage which is at the same time inherent in any breach of an international obligation. Reference to the breach of an international obligation thus seemed to the Commission fully sufficient to cover that aspect as well, without the addition of anything further”. Report of the International Law Commission on the Work of its Twenty-fifth Session: Chapter II on State Responsibility (1973) 2 YILC 183 at [12].

\textsuperscript{38} The concept of international responsibility in the area of environmental law still mostly requires the existence of damage. Nègre, above n 1, at 803.

(2) material assets (including archaeological and cultural heritage);
(3) the landscape and environmental amenity; and
(4) the interrelationship between the above factors.

Those elements of the environment clearly have some utility value for humans. In other words, these elements are representing the environment with regard to anthropocentric values.

Interestingly, this perspective needs to be adjusted because protection of the environment during wartime is now considered not merely for the benefit of humankind anymore, but also for the preservation of the environment itself. This important development came from the precedent set in the aftermath of the 1991 Gulf War. In processing environmental claims within the United Nations Compensation Commission (UNCC), there was an important decision made by the ‘F4’ panel in terms of the category of compensable environmental damage. In the panel’s 2005 report, it decided to include “pure environmental damage”; i.e., damage to environmental resources that have no commercial value. This inclusion was crucial because it acknowledged protection of the environment purely for the sake of its preservation or because of its intrinsic value, and not valued based on its benefit to humans.

3.1.2. Attribution

Attribution issues are important in establishing state responsibility, since actual conduct is committed by persons or individuals in the field. A state will only be considered responsible if a wrongful act is shown to be linked to that state,

---

40 See details of the case in Chapter 4.
41 This decision was made by the panel by taking into account the previous judgments of the Chorzów Factory and Trail Smelter cases and interpretation of the liability provision of Resolution 687. Report and Recommendations Made by the Panel of Commissioners Concerning the Fifth Instalment of “F4” Claims S/AC.26/2005/10 (2005) at 17.
42 The PCIJ recognises this notion by stating that: “[s]tates can act only by and through their agents and representatives”. Questions relating to German Settlers in Poland (Advisory Opinion) [1923] PCIJ (Ser. B) No. 6, 22.
making that state liable for the consequences. Such liability can be viewed as the limits of state sovereignty, in setting the bounds of permissible action.\textsuperscript{43}

The main means of attributing responsibility to a state are through the conduct of its organs or agents. In fact, this attribution rule is a well-established principle of international law.\textsuperscript{44} The ICJ holds that this general principle of attribution applies to states with both unitary and federal state systems. This means that in the ILC’s words, “international law does not permit a state to escape its international responsibilities by a mere process of internal subdivision”.\textsuperscript{45}

Attribution of individuals’ unlawful acts to a state under IHL may be achieved more easily than through the ILC’s Draft ARSIWA. Under IHL, a state is responsible “for all acts committed by persons forming part of its armed forces”.\textsuperscript{46} In contrast, according to art 7 of the Draft ARSIWA, attribution applies to unlawful conduct that is committed exceeding the organ’s or agent’s authority or contravene instructions, but only as long as they are acting in that capacity.\textsuperscript{47}

According to IHL then, unlawful acts of members of the armed forces include conduct that is private, individual or wholly unofficial. This is because the

\textsuperscript{43} Stern, above n 13, at 203-204.

\textsuperscript{44} This has been confirmed by the ICJ in its advisory opinion and some of its case decisions. In 1999, the ICJ confirmed in its advisory opinion that: “[a]ccording to a well-established rule of international law, the conduct of any organ of a state must be regarded as an act of that state. This rule (…) is of a customary character”. \textit{Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights, (Advisory Opinion) [1999] ICJ Rep 62 at 87.} This confirmation is re-affirmed in its decisions on \textit{LaGrand, Armed Activities on the Territory of the Congo and Bosnian Genocide cases. LaGrand (Germany v. United States of America) (Provisional Measures) [1999] ICJ Rep 9 at 16; Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of Congo v Uganda) (Merits) [2005] ICJ Rep 168 at 242; Case concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro) (Judgment) [2007] ICJ Rep 43 at 202.}

\textsuperscript{45} The 2001 ILC Draft ARSIWA, above n 2, at 83 ([7]).

\textsuperscript{46} Fourth Hague Convention, above n 29, art 3; the 1977 Additional Protocol I, above n 29, art 91.

\textsuperscript{47} Article 7: “[t]he conduct of an organ of a state or of a person or entity empowered to exercise elements of the governmental authority shall be considered an act of the state under international law if the organ, person or entity acts in that capacity, even if it exceeds its authority or contravenes instructions”. The 2001 ILC Draft ARSIWA, above n 2, art 7. See also \textit{Case Concerning Armed Activities on the Territory of the Congo}, above n 44, at 251.
circumstances of the breach are not restricted by those provisions, therefore making the state fully responsible. In contrast, the ILC’s Draft ARSIWA maintains that a state is not responsible for private or unofficial acts, but only for acts committed in a formal capacity.

The travaux préparatoires\textsuperscript{48} for art 3 of the 1907 IV Hague Convention seem to indicate that IHL’s broad coverage was intended to modify general rules on state responsibility.\textsuperscript{49} The members of the conference deemed that holding a state itself responsible for violations of the provisions by its soldiers would be the best way to ensure compliance to the convention.\textsuperscript{50}

Besides the attribution rules pertaining to a state’s agents and organs, a state may also be responsible for unlawful acts committed in times of armed conflict by individuals or groups who are not within the state’s structure and are not authorised to exercise any governmental authority. These actors may potentially contribute to create significant damage to the environment. As will now be discussed, such conduct may possibly be committed by “foreign” de facto agents, insurrectional movements, or by groups of individuals in the situation of levée en masse.\textsuperscript{51}

\textsuperscript{48} Black’s Law Dictionary defines, travaux préparatoires as “material used in preparing the ultimate form of an agreement or statute, and especially of an international treaty; the draft or legislative history of a treaty”. Bryan A. Garner \textit{Black’s Law Dictionary} (9th ed, St. Paul, West, 2009) at 1638.

\textsuperscript{49} Greenwood, above n 29, at 401, noting that this sentence was proposed by the German delegation which stated that: “[t]he case most frequently occurring will be that in which no negligence is chargeable to the government itself. If in this case persons injured as a consequence of violation of the Regulations could not demand reparation from the government and were obliged to look to the officer or soldier at fault, they would fail in the majority of cases to obtain the indemnification due them. We think therefore that the responsibility for every unlawful act committed in violation of the Regulations by persons forming part of the armed forces should rest with the governments to which they belong”. James Brown Scott \textit{The Proceedings of the Hague Peace Conferences, Volume III} (Oxford University Press, New York, 1921) at 140.


\textsuperscript{51} Sassòli, above n 20, at 405-412.
3.1.2.1. De facto Agents

When an armed group is fighting against governmental armed forces in an internal armed conflict, they may act as a foreign state’s *de facto* agents. It is possible that devastating cross-border environmental damage could result from unlawful acts of warfare in an intense internal armed conflict. If the conduct of armed groups can be attributed to a foreign state, based on the standard below, it follows that the concerned state could be held responsible. Article 8 of the ILC’s Draft ARSIWA stipulates that:\(^{52}\)

> [t]he conduct of a person or group of persons shall be considered an act of a state under international law if the person or group of persons is in fact acting on the instructions of, or under the direction or control of, that state in carrying out the conduct.

According to the ILC’s explanation, “[i]n the text of art 8, the three terms ‘instructions’, ‘direction’ and ‘control’ are disjunctive; it is sufficient to establish any one of them”.\(^ {53}\) These ‘tests of control’ have raised debates in the jurisprudence, with the different sides of the debate seen in two international cases: the *Nicaragua* case\(^ {54}\) before the ICJ; and the *Tadic* case\(^ {55}\) before the International Criminal Tribunal for the Former Yugoslavia (ICTY).

According to the *Nicaragua* decision, in order for an act of a non-state armed group to be attributable to a particular state, that state must have “effective control”\(^ {56}\) over the group. In that case the ICJ held that even though “the US authorities largely financed, trained, equipped, armed and organised” the

---

\(^{52}\) The 2001 ILC Draft ARSIWA, above n 2, art 8.

\(^{53}\) Ibid, at 108 ([7]).

\(^{54}\) *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v United States of America) (Merits)* [1986] ICJ Rep 14 [Nicaragua case].

\(^{55}\) *Prosecutor v. Tadic (Judgement)* (International Criminal Tribunal for the Former Yugoslavia, Appeals Chambers, Case No T-94-1-A, 15 July 1999) [Tadic case].

Contras\textsuperscript{57} (the name of the rebellion group), their acts were not attributable to the US. According to the ICJ, in order to attribute acts of private persons or groups to a state, there should be a general control over the persons or groups and specific orders or commands must have been given to commit the acts concerned.\textsuperscript{58}

In the \textit{Tadic} case,\textsuperscript{59} the Appeals Chambers of the ICTY considered that the test of state responsibility in the \textit{Nicaragua} case was “unpersuasive”\textsuperscript{60}. According to this Tribunal, in responsibility for a military organisation to a state, it is sufficient to present \textit{overall control} of the particular armed group by a foreign state in order to render it responsible for all acts committed by that group and accordingly make IHL rules applicable.\textsuperscript{61}

The ICTY’s decision in the \textit{Tadic} case above clearly loosened the \textit{Nicaragua} standard substantially. The ICTY had apparently established an alternative

\begin{footnotesize}
\begin{itemize}
  \item Contras case, above n 54, at 62.
  \item The Court held that: “United States participation, even if preponderant or decisive, in the financing, organising, training, supplying and equipping of the \textit{contras}, the selection of its military or paramilitary targets, and the planning of the whole of its operation, is still insufficient in itself, on the basis of the evidence in the possession of the Court, for the purpose of attributing to the United States the acts committed by the \textit{contras} in the course of their military or paramilitary operations in Nicaragua. All the forms of United States participation mentioned above, and even the general control by the respondent state over a force with a high degree of dependency on it, would not in themselves mean, without further evidence, that the United States directed or enforced the perpetration of the acts contrary to human rights and humanitarian law alleged by the applicant state. Such acts could well be committed by members of the \textit{contras} without the control of the United States. For this conduct to give rise to legal responsibility of the United States, it would in principle have to be proved that that state had effective control of the military or paramilitary operations in the course of which the alleged violations were committed”. Ibid, at 64.
  \item Even though in the \textit{Tadic} case the ICTY stated that it sought to distinguish the test in the Nicaragua case, both the \textit{Tadic} and Nicaragua cases were dealing with the same question of whether the acts of individuals or groups could be attributed to a state. The Court nonetheless stated that the \textit{Nicaragua} case was concerned with state responsibility rather than individual criminal responsibility. \textit{Tadic} case, above n 55, at [70].
  \item The ICTY held that: “[t]he control required by international law may be deemed to exist when a state (or, in the context of an armed conflict, the party to the conflict) has a role in organising, coordinating or planning the military actions of the military group, in addition to financing, training and equipping or providing operational support to that group. Acts performed by the group or members thereof may be regarded as acts of \textit{de facto} state organs regardless of any specific instruction by the controlling state concerning the commission of each of those acts” (emphasis added). Ibid, at [137]. Sassòli, above n 20, at 408.
\end{itemize}
\end{footnotesize}
attribution standard to the *Nicaragua* case, despite its claims to the contrary.\textsuperscript{62} Recently, the international community has accepted the *Tadic* standard and made it the prevailing standard. This acceptance was based on the fact that states in general did not object when in 2001 Afghanistan’s *de facto* government, the Taliban, was found responsible for the actions of the terrorist group Al-Qaeda.\textsuperscript{63} This attribution was made by the US simply because Afghanistan’s government, the Taliban, harboured and supported Al-Qaeda’s actions, even though there is no strong evidence that it had any real overall or effective control over Al-Qaeda.\textsuperscript{64}

From the observation above, the thresholds for attributing unlawful acts of armed groups as *de facto* agents of a state have been lowered. Therefore, it is not difficult to attribute the illegal conduct of an armed group to a state as long as that state had overall control, or simply harboured and supported the armed group.

### 3.1.2.2. Insurrectional Movements

The conduct of insurrectional or other movements is attributable to a state if the movement becomes the new government of a state, or to the new state, if the group succeeds in creating one.\textsuperscript{65} The legitimacy or illegitimacy of this movement is not a crucial concern for either IHL or rules on state responsibility but “[r]ather, the focus must be on the particular conduct in question, and on its lawfulness or otherwise under the applicable rules of international law”.\textsuperscript{66} This provision is important because these movements occur in an internal armed conflict in which their conduct of warfare is against their governmental armed forces. Nonetheless,

\begin{itemize}
\item \textsuperscript{62} Christopher Greenwood “War, Terrorism and International Law” (2003) 56 CLP 505 at 521.
\item \textsuperscript{63} SC Res 1368, UN Doc S/Res/1368 (2001) and SC Res 1373, UN Doc S/Res/1373 (2001); Sassòli, above n 20, at 409.
\item \textsuperscript{64} Sassòli, ibid, at 409; Mary Ellen O’Connell “Enhancing the Status of Non-State Actors through a Global War on Terror?” (2005) 43 Colum. J. Transnat’l L. 435 at 451.
\item \textsuperscript{65} The 2001 ILC Draft ARSIWA, above n 2, art 10; Sassòli, above n 20, at 410.
\item \textsuperscript{66} The 2001 ILC Draft ARSIWA, ibid, at 116 ([11]).
\end{itemize}
such conduct may have significant destructive effects on the environment, not only within their own territory but also other states’ territories.

3.1.2.3. *Levée en Masse*

In an armed conflict, the possibility exists for civilians to spontaneously engage in hostility by using arms when their survival is threatened because of an enemy’s attack and the absence of regular forces that have combatant status (*levée en masse*). If the civilian commits unlawful acts under the law of armed conflict, such conducts may be attributed to a state because they actually performed the duty of the regular forces that are an organ of a state, that is, of the army or the police force.

This rule is recognised by the ILC in art 9 of the Draft ARSIWA where conduct carried out by private persons or groups in the absence or default of the official authorities may be attributable to a state. Notable examples of such situations often occur during or in the immediate aftermath of revolution, war or foreign occupation. Based on draft art 9, in order for such conduct to be attributed to a state, there are three conditions that must be satisfied:

(a) they exercise elements of governmental authority;

(b) the acts are conducted in the absence or default of the official authorities, given either the total or partial failure of state organisations; and

(c) the situations ‘call for’ the need to exercise elements of governmental authority.

---


In terms of environmental damage, spontaneous and unorganised civilian conduct that might be unlawful seems unlikely to be capable of causing significant damage to the environment. However, it is remotely possible that this might be the case, particularly if civilians have access to high technology weapons or weapons of mass destruction.

In addition to draft art 9’s requirements for attribution, the Draft ARSIWA also provides that conduct which is not attributable to a state shall nevertheless be considered an act of that state to the extent that the state acknowledges and adopts the conduct in question as its own. This attribution thus takes place after the act is committed. In the Tehran Hostages case, the ICJ held Iran responsible for the students’ actions in taking control of the US embassy in Tehran because of a subsequent decree of Ayatollah Khomeini, which endorsed the occupation of the embassy.

Finally, besides unlawful actions by individuals, a state’s omissions may also result in an attribution of responsibility to it. States have an obligation to exercise due diligence to prevent any acts which contravene IHL. Common art 1 of the 1949 Geneva Conventions stipulates that states have the obligation to “to respect and to ensure respect” of these conventions in any circumstances. Following from this obligation, states are required to disseminate information about the requirements of IHL to their military forces and populations both in times of peace and war. This means that states have the obligation to supervise conduct of their military forces in executing orders or directions in warfare to prevent any unlawful acts. Even if these acts occur, states have an obligation to

69 The 2001 ILC Draft ARSIWA, ibid, art 11.
71 The 2001 ILC Draft ARSIWA, above n 2, at 70 ([4]).
72 The Four 1949 Geneva Conventions, above n 24, common art 1.
73 Ibid, arts 47/48/127/144 respectively.
74 Pictet, above n 67, at 18.
prosecute and punish the perpetrator. Therefore, any consequences resulting from a state’s failure to take appropriate steps to prevent and/or redress violations of IHL will be attributed to the concerned state.

3.1.3. Sources of Breaches

Another necessary requirement before a state can incur responsibility is proof that the state is in breach of its international obligations. Even if the conduct is attributable, it must still be established that the conduct is in breach of the state’s international obligations, regardless of their origin or character. The breach of the state’s international obligations may result from either actions or omissions. Some argue that the latter type of breach is relatively common in international relations. As mentioned above, the ICJ in the Tehran Hostages case held Iran responsible due to its “inaction”, as Iran had failed to take “appropriate steps” in circumstances where such steps were clearly called for.

In establishing whether conduct is in breach of a state’s international obligations, one needs to establish that the state in question is in fact bound by the relevant international obligation at the time the act occurs. This requirement is considered to be a general principle of international law, whereby an act must be assessed based on international law that is applicable at the time, and not the law as it is when the dispute occurs, which could be some time later.

75 Sassòli, above n 20, at 411.
76 The 2001 ILC Draft ARSIWA, above n 2, art 12.
77 Aust, above n 25, at 377; Cassese, above n 25, at 381.
78 Tehran Hostages case, above n 70, at 31-32.
80 Judge Huber stated that: “[a] juridical fact must be appreciated in the light of the law contemporary with it, and not of the law in force at the time when a dispute in regard to it arises or falls to be settled”. Island of Palmas Case (Netherlands v USA) (1928) 2 RIAA 829 at 845. Aust, above n 25, at 377; Cassese, above n 25, at 382.
During armed conflict, it is the law of war that is mainly applicable to the state belligerents (lex specialis). However, as established in Chapter 2, in addition to the law of war, belligerents are also bound by certain peacetime treaties protecting the environment that continue to apply during times of war.\footnote{See Chapter 2 at [3.3].} Therefore, in order to establish what breaches of international law have caused environmental damage during the conflict, it is imperative to examine all international obligations potentially applicable during armed conflict to the belligerents’ military actions. This analysis will be conducted in Chapter 4, with reference to historical conflicts, in order to establish that environmental damage during armed conflicts has been caused by the unlawful conduct of the belligerents.

In reference to unlawful conduct that has caused environmental damage, there is a possibility that such acts may or may not have a continuing character. An act that does not have a continuing character is still considered a breach of international obligations that “occurs at the moment the act is performed, even if its effects continue”.\footnote{The 2001 ILC Draft ARSIWA, above n 2, art 14(1).} Take, for example, the situation where the unlawful act by military personnel has stopped but the effect of the pollution or destruction of the environment has continued. The existence of continuity of damage is, however, relevant to the calculation of compensation.

On the other hand, if the unlawful act does have a continuing character, then the breach is considered to extend over the period of that act. Unlawful military occupation of a territory or embassy is an example of such an act.\footnote{Ibid, art 14(2).} In addition, if the breach of an international obligation through a series of acts or omissions is “defined in the aggregate as wrongful”, then the breach extends over the entire period during which the acts were repeated and continued, and were not in conformity with the state’s international obligations.\footnote{Ibid, art 15.}
Besides stipulating the character of breaches of international obligation, the ILC has also listed some circumstances that may preclude state responsibility. These circumstances are consent, self-defence, countermeasures, *force majeure*, distress, and necessity. Nevertheless, when it comes to breaches of obligations under peremptory norms of general international law, the ILC stresses that none of the above circumstances can be invoked by states to preclude responsibility. Within these parameters, then, belligerent states will not be able to freely justify their unlawful conduct.

In establishing whether or not there has been a breach of international law by belligerent states, there are two mechanisms available to an aggrieved member of the international community. First, allegations of violations of international law may be articulated by the injured states during the war, by way of diplomatic protest against the state concerned. This may be considered an instance of subjective allegation, because it is based on one side’s observation that a violation of international law has taken place. Another mechanism to determine whether there has been a violation of international law at the end of the conflict is to request a fact-finding body. This mechanism is provided by art 90 of the 1977 Additional Protocol I, where a permanent fact-finding mission, the International Humanitarian Fact-Finding Commission (IHFFC), which has as its main duty investigating allegations of grave breaches and serious violations of the laws of war. As will be discussed in Chapter 5, such a fact-finding mission appears to

---


87 Aust, above n 25, at 383-385.

play a crucial role in the process whereby a state’s responsibility for war consequences is determined.

3.1.4. Reparation

As mentioned previously, reparation becomes crucial if the damage has already occurred. A state is under an obligation to “make full reparation for the injury” as a legal consequence of committing a wrongful act in the international arena. Such an injury includes any damage of either a material or moral nature. In the law of war, reparation has been acknowledged as “a norm of customary international law applicable in both international and non-international armed conflicts”.

IHL stipulates the legal consequences of violations of its rules in art 3 of the Hague IV Convention and art 91 of the 1977 Additional Protocol I. These provisions maintain that any belligerent state that violates these agreements “shall, if the case demands, be liable to pay compensation”. They specifically mention only financial compensation. Therefore, a state is only practically responsible for damage that is assessable financially. Basically, a right to be paid in compensation for violations under IHL is given to the injured state, that is, the state which suffers (environmental) damage due to the unlawful acts of the violating state. In addition, according to the ILC’s Draft ARSIWA, a violating state has wider obligations not only to make reparations to the injured state but also to continue

---

89 The 2001 ILC Draft ARSIWA, above n 2, art 31.
92 Fourth Hague Convention, above n 29, art 3; the 1977 Additional Protocol I, above n 29, art 91. This provision was re-enacted from art 3 of the 1907 Hague Convention IV.
93 Sassòli, above n 20, at 418.
its performance of the obligation which it has breached,94 to cease the unlawful act and to ensure non-repetition of this act.95

Reparation is related mainly to the new legal relationship between the states created when a wrongful act has been committed in the international arena. It constitutes the substance of the responsibility of the offending state. Crucially, the Draft Articles warn the responsible states that they cannot rely on their own internal law to justify a failure to comply with their obligations under the relevant Part.96 In addition, the obligations of responsible states may be owed to one state, several states, to the international community as a whole, or even to a person or entity other than a state.97

The obligation to make reparation aims to remove the consequences of the wrongful act98 and consists of restitution, compensation or satisfaction where they can be performed individually or in combination thereof.99

The first obligation of reparation is restitution, meaning that the responsible state is obliged to re-establish the situation that existed before the wrongful act was committed, as long as restitution is “not materially impossible” or “does not involve a burden out of all proportion to the benefit deriving from restitution

94 The 2001 ILC Draft ARSIWA, above n 2, art 29.
95 Ibid, art 30.
96 Ibid, art 32.
97 Ibid, art 33.
98 Chorzów Factory case, above n 23, at 47.
99 The 2001 ILC Draft ARSIWA, above n 2, art 34. These three forms of reparation are not exclusive. It is possible that damage or an injury may require more than one form, or even all three forms, of reparation. Nevertheless, it should be noted that each form of reparation must be proportionate to the injury. For cases involving these forms of reparation, see Malcolm N. Shaw International Law (6th ed, Cambridge University Press, Cambridge, 2008) at 800-806. One remarkable example where all three forms of reparation were required is the 1991 Gulf War. According to UNSC Resolution 687, the consequences of the invasion and occupation of Kuwait by Iraq required the return of people and property, compensation for bodily injury and property loss or damage, and an acknowledgement by Iraq of its wrongful acts. SC Res 687, UN Doc S/Res/687 (1991).
instead of compensation”. For example, in the case where property has been lost or destroyed, restitution will certainly not be required. Common examples of restitution are the release of a detainee, the return of property or the annulment of legislation. In reference to environmental damage during times of war, it will often be very difficult, if not impossible, to re-establish the environment to the condition it was in before the war by way of restitution. Therefore, compensation paid by the responsible belligerent state to fund efforts in mitigating and repairing the environmental damage is a logical option to pursue as discussed below.

The obligation to make compensation arises when restitution is virtually impossible to fulfil, and it covers any financially assessable damage. The term “financially assessable” in art 36 of the ILC’s Draft ARSIWA excludes compensation for moral damage, in contrast to the reparation obligation set out earlier in those Draft Articles, at art 31. According to the ILC, the amount of compensation to be assessed depends on the relevant primary rules and the conduct of the concerned states. The intention of this assessment is to reach a fair and acceptable outcome. In practice, compensation may be awarded in a case by an international court or tribunal even if it is not specifically claimed.

It may be argued that compensation is the most suitable remedy for environmental damage resulting from armed conflict. Efforts to mitigate and clean up the damage to the environment are financially compensable. A number of parties including states, the United Nations Environmental Programme (UNEP) and some non-governmental organisations (NGOs) have issued reports about environmental

100 The 2001 ILC Draft ARSIWA, above n 2, art 35.
101 In its commentary, ILC provides more specific examples on restitution, ibid, at 240-241 ([5]).
102 Ibid, art 36.
103 Ibid, art 31(2) which, after providing for an obligation to make full reparation for injury caused in art 31(1), states: “[i]njury includes any damage, whether material or moral, caused by the internationally wrongful act of a state”.
104 Ibid, at 247-248 ([7]).
105 Aust, above n 25, at 377; Cassese, above n 25, at 387.
damage which are financially assessable. However, these reports differ from each other in terms of the belligerents’ responses, more specifically, whether or not actual payment of compensation was made by the responsible belligerent. ¹⁰⁶

Such financial compensation for environmental damage is important to finance the human resources and technology necessary to mitigate the damage and to restore the environment, or at least to maintain reasonable conditions needed in order for the environment to survive. ¹⁰⁷ However, paying the compensation alone is insufficient if the violating state continues to perform the same actions that had previously harmed the environment. Therefore, imposing an obligation to cease these actions and ensure non-repetition is equally important to protect the environment in the future.

In ensuring full reparation, interest may be imposed on any principal sum payable in compensation. The interest rate and the method of calculation must be set so as to achieve full payment of the compensation. Interest exists from the time at which the compensation “should have been paid”. ¹⁰⁸ The determination of when the interest starts may be from when the compensation should be paid or from the date of the claim, the award or the settlement. In practice, there is no established rule for implementing interest. Rather, it is left to the courts and tribunals to decide based on the relevant circumstances. Furthermore, interest is not an

¹⁰⁶ Details of this discussion are provided within the analysis of armed conflict cases in Chapter 4.
¹⁰⁷ In the aftermath of the Gulf War, the UNCC decided that compensation for environmental damage during war including expenses resulting from, amongst others, efforts of: abatement and prevention of environmental damage, including expenses directly relating to fighting oil fires and stemming the flow of oil in coastal and international waters; reasonable measures already taken to clean and restore the environment or future measures which can be documented as reasonably necessary to clean and restore the environment; reasonable monitoring and assessment of the environmental damage for the purposes of evaluating and abating the harm and restoring the environment. United Nations Compensation Commission Decision No. 7: Criteria for Additional Categories of Claims S/AC.26/1991/7/Rev.1 (1992) at [35].
¹⁰⁸ The 2001 ILC Draft ARSIWA, above n 2, art 38.
automatic award, which means it can be awarded by a court or tribunal or be agreed upon as part of a settlement.\textsuperscript{109}

3.1.5. Implementation Mechanisms

The next matter of importance concerns the implementation of state responsibility – the way in which responsibility may be invoked by the international community in general, or the injured state in particular. In reference to reparation for environmental damage, this section discusses who is entitled to invoke such responsibility, how it may be pursued and what steps are available for the claimant state to induce compliance of the responsible state.

Under common art 1 of the 1949 Geneva Conventions, state parties are required “to respect and ensure respect” of these conventions “in all circumstances”. This means that states are not only obliged to fulfil their own obligations under these conventions but also to make sure other state parties fulfil their obligations as well. This latter obligation is considered a means of correction for any violation of the conventions.\textsuperscript{110}

In order to fulfil the obligation to “ensure respect”, art 89 of Additional Protocol I provides that:\textsuperscript{111}

\[i\]n situations of serious violations of the Conventions or of this Protocol, the High Contracting Parties undertake to act, jointly or individually, in co-operation with the United Nations and in conformity with the United Nations Charter.

When the above provisions are taken together, in the event of breaches of law, IHL provides a mechanism for all states to address them by collective or

\textsuperscript{109} Aust, above n 25, at 377; Cassese, above n 25, at 388.

\textsuperscript{110} Sassòli, above n 20, at 421. As the commentary of the conventions states: “[i]n the event of a Power failing to fulfil its obligations, each of the other Contracting Parties (neutral, allied or enemy) should endeavour to bring it back to an attitude of respect for the Convention”. See also Pictet, above n 67, at 18.

\textsuperscript{111} The 1977 Additional Protocol I, above n 29, art 89.
individual action within the scheme of the UN. However, these provisions do not provide a clear description of what measures to take, and which states may take such measures, in accordance with this procedure. In this situation, rules of state responsibility from the ILC are again the most relevant rules to address these issues, and also to identify possible reactions by a state or states that may have individually or collectively suffered injuries as a result of violations of law.\footnote{Sassòli, above n 20, at 422.}

According to art 42 of the ILC’s Draft ARSIWA, there are three categories of states that may, as injured states, be entitled to invoke responsibility. The first category is individual states where the obligation is owed to that particular state. This is the most common situation and it arises in cases of violations of bilateral treaties. The second category comprises a group of states, or the international community as a whole, where the breach of the obligation affects a state “specially”. In this category, the group may include all the parties to a multilateral treaty, even if only one or some states are affected by a breach of the law by another party. Finally, the third category may include a group of states, or the international community as a whole. In this case the breach is “of such a character as radically to change the position of all other states to which the obligation is owed”.\footnote{The 2001 ILC Draft ARSIWA, above n 2, art 42.} The latter category is likely to occur in a breach of a near-universal treaty in which the breach affects all state parties.

An individual injured state may self-evidently invoke responsibility directly upon the responsible state. However, it is somewhat difficult to determine to what extent a third state or states may invoke responsibility on anyone besides the specifically affected state. Under common art 1 of the Geneva Conventions, the obligation to “ensure respect” gives the right to all state parties, other than the specifically affected state, to invoke responsibility from the violating state in order “to bring it back to an attitude of respect for the Convention”.\footnote{Sassòli, above n 20, at 423.} The right of

\footnote{Sassòli, above n 20, at 422.}
invocation from all states other than those specifically affected may also come from the interpretation of art 89 of Additional Protocol I.

In order to provide clearer parameters for these non-specifically affected states, the ILC’s Draft ARSIWA introduces a special rule on the “invocation of responsibility by a state other than an injured state”. According to this provision, any state other than an injured state is entitled to such invocation if the violation affects a group of states including that state, or if the violation is “owed to the international community as a whole”. 115 If a state can justify its inclusion in this category, it is then entitled to appeal to the responsible state for cessation and non-repetition of unlawful acts and performance of the obligation of reparation.116

The right of invocation from states other than injured states is of importance in relation to environmental damage resulting from unlawful acts during armed conflict which occur outside the territory of the belligerent states, especially to areas beyond national jurisdiction and to global environmental resources or goods.117 Furthermore, issues of responsibility for such damage cannot be simply and solely resolved by the “good neighbourliness” principle.118

115 The 2001 ILC Draft ARSIWA, above n 2, art 48(1).
116 Ibid, art 48(2).
117 According to Boyle, there are three different terms of “common spaces” or “global common”: (i) common property which is exemplified by the high seas and their resources, outer space and, Antarctica; (ii) common heritage, applicable to deep seabed resources by the 1982 UNCLOS and to the mineral resources of the moon and other planets by the 1979 Moon Treaty; and (iii) common interest or common concern, applicable to the global atmosphere and biological diversity resources. Alan E. Boyle “Remedying Harm to International Common Spaces and Resources: Compensation and Other Approaches” in Peter Wetterstein (ed) Harm to the Environment: The Right to Compensation and the Assessment of Damages (Clarendon Press, Oxford, 1997) 83 at 83-84.
118 Patricia Birnie, Alan Boyle and Catherine Redgwell International Law & the Environment (3rd ed, Oxford University Press, Oxford, 2009) at 234. The good neighbourliness principle was expressed by Oppenhein with the Latin phrase sic utere tuo ut alienum non ledes which means “use your own property so as not to injure others”. Peter Ballantyne “International Liability for Acid Rain” (1983) 41 U. Toronto Fac. L. Rev. 63 at 64.
In certain situations, there may be several states entitled to be considered as injured states, and/or several states that are responsible for the same wrongful act. Such a situation was anticipated by the ILC and addressed via the adoption of arts 46 and 47 of the ILC’s Draft ARSIWA. When several states are injured by the same internationally wrongful act, each injured state may separately invoke the responsibility of the responsible state. On the other hand, when several states are responsible for the same internationally wrongful act, the separate responsibility of each state may be invoked for conduct attributable to it. However, any invocation of responsibility upon several responsible states does not allow an injured state to recover more compensation than is proportionate to the damage it has suffered. Such invocation is without prejudice to any right of recourse by one responsible state against the other responsible states for a contribution. The issue of whether or not each state is liable for the total damage will depend on the particular circumstances.

It is the obligation of the injured state, in invoking responsibility, to give notice to the allegedly responsible state. In principle, the injured state can invoke responsibility without specifically stipulating what the allegedly responsible state must do to make reparation. Nevertheless, in the situation where the wrongful act continues, the injured states may specify certain modes of conduct that the responsible state should take in order to cease the offensive actions, and what

---

119 See the 2001 ILC Draft ARSIWA, above n 2, art 42(b).
120 Ibid, art 46.
121 Ibid, art 47(1).
122 Ibid, art 47(2).
124 The 2001 ILC Draft ARSIWA, above n 2, art 43(1).
form the resulting reparation should take.\textsuperscript{125} Such notice should be formally made, either to the responsible state or to an international court or tribunal. There is no standard form in which the claim should be made. However, if it is submitted to an international court or tribunal, it must accord with that court or tribunal’s rules and practices.\textsuperscript{126}

As stated above, the right to request remedy of (environmental) damage is not limited to an “injured state”. Nevertheless, there are limited options for reparation that non-injured states can invoke.\textsuperscript{127} The only right that third party states, as non-injured parties, share with injured states is the right to seek cessation of any violation of obligations owed to the international community as a whole.\textsuperscript{128} Other than this right, options of reparation depend on the circumstances of the breach, the extent to which a claimant’s interests are affected, and the nature of the risk to community interests.\textsuperscript{129} It is unlikely that a state could claim reparation for damage to the common environment, other than for the clean-up or restoration costs.\textsuperscript{130}

In reality, efforts to protect community interests by third party states frequently result in no more than diplomatic protests. Other possible actions to induce compliance by third party states which can be taken unilaterally as countermeasures such as denial of access to economic exclusive zones (EEZ) fish

\textsuperscript{125} Ibid, art 43.
\textsuperscript{126} Aust, above n 25, at 377; Cassese, above n 25, at 390.
\textsuperscript{128} The 2001 ILC Draft ARSIWA, above n 2, art 48(2).
\textsuperscript{129} Birnie et al, above n 118, at 235.
\textsuperscript{130} Boyle, above n 117, at 93.
stocks, ports, or bans on trade are becoming progressively more limited by World Trade Organisation (WTO) obligations.\textsuperscript{131}

Historically, there have been major difficulties in enforcing state responsibility for environmental harm. This is because states, including injured states, have been reluctant to invoke responsibility. States seem to have believed that the success of such an effort is highly doubtful, and have been concerned that if they took advantage of invocation then, in similar situations, invocation could be used against them in the future.\textsuperscript{132}

An example of this situation is the Chernobyl nuclear accident. In this case, affected states abstained from demanding compensation from the Soviet Union, but rather preferred to negotiate and conclude new treaties to respond to similar accidents in the future.\textsuperscript{133} The affected states did not make any claims against the Soviet Union because of uncertainty concerning the basis for such a claim; a reluctance to establish a precedent over responsibility for operating nuclear power plants which might be used against them in the future; and the absence of an appropriate and binding treaty with the Soviet Union.\textsuperscript{134} Rather, states preferred to create special mechanisms which ensured that compensation was paid to the victims regardless of any question of international law relevant to the case.\textsuperscript{135} This type of mechanism is exemplified by the uniform civil liability regime applicable when responding to any marine pollution posed by bulk oil carriers.\textsuperscript{136}

\textsuperscript{131} Birnie et al, above n 118, at 235.

\textsuperscript{132} Zemanek, above n 26, at 215.

\textsuperscript{133} Convention on Early Notification of a Nuclear Accident (opened for signature 26 September 1986, entered into force 27 October 1986) and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (opened for signature 26 September 1986, entered into force 26 February 1987).

\textsuperscript{134} Boyle, above n 117, at 89.

\textsuperscript{135} Zemanek, above n 26, at 217.

Unfortunately, this mechanism, which ensures compensation for victims of oil pollution, is not applicable to a situation of armed conflict.\(^{137}\)

From the above discussion, it is argued that IHL and the ILC’s Draft ARSIWA provide a comprehensive range of mechanisms for pursuing and enforcing a belligerent state’s responsibility for environmental damage, resulting from wrongful conduct, during times of war. The IHL rules, despite being the main regime applicable during times of war, do not provide comprehensive rules for pursuing state responsibility for wartime consequences in general and environmental damage in particular. The ILC’s Draft Articles on state responsibility thus play an important role in filling gaps that are left by IHL, such as rules on attribution, forms of reparation and mechanisms of implementation.

In terms of damage to the environment during war, it may be submitted that such damage can only be remedied by compensation payments, since the option of restitution is unlikely to be feasible. Based on previous state practice, environmental damage during times of war is frequently considered financially assessable. This is seen in a number of reports that were issued by some parties including UNEP\(^ {138}\) and some international NGOs.\(^ {139}\) Given the figures of total damage to the environment in each of these cases, it is very likely that

---

\(^{137}\) Article III(2)(a) of the Civil Liability Convention states that: “[n]o liability for pollution damage shall attach to the owner if he proves that the damage: (...) resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character”. The 1969 Civil Liability Convention, ibid, art III(2)(a).


compensation can only be provided by a state, not an international organisation or individual,\textsuperscript{140} as will be explained below.

3.2. The Responsibility of International Organisations

As stated previously, the corollary of international organisations’ legal personality is that other subjects of international law may invoke their responsibility for a wrongful act in the international arena.\textsuperscript{141} Further, in relation to armed conflicts, there are a number of cases where international organisations have been involved.\textsuperscript{142} In reference to environmental damage during times of war, it appears from state practice that pursuing the responsibility of international organisations is unlikely to yield a positive result. The international community prefers to invoke responsibility upon the member states of the international organisation concerned, because of the certainty of the mechanism and the more realistic possibility of obtaining compensation for damage.

The issue of responsibility of international organisations is confirmed by the ILC in art 57 of the Draft ARSIWA, providing that the articles on state responsibility do not affect any question of the responsibility of an international organisation, or of any state, for the conduct of an international organisation.\textsuperscript{143} Even though rules on the responsibility of international organisations are not well developed compared to the rules on state responsibility, it is established that an international

\textsuperscript{140} See fn 248 below.

\textsuperscript{141} The United Nations Secretary-General (UNSG) confirms this by stating: “[t]he international responsibility of the United Nations for the activities of United Nations forces is an attribute of its international legal personality and its capacity to bear international rights and obligations. It is also a reflection of the principle of state responsibility – widely accepted to be applicable to international organisations – that damage caused in breach of an international obligation and which is attributable to the state (or to the organisation), entails the international responsibility of the state (or of the organisation) and its liability in compensation”. Report of the Secretary-General on Administrative and Budgetary Aspects of the Financing of the United Nations Peacekeeping Operations: Financing of the United Nations Peacekeeping Operations A/51/389 (1996) at [4].

\textsuperscript{142} See, for example, the 1999 Kosovo War in Chapter 4.

\textsuperscript{143} The 2001 ILC Draft ARSIWA, above n 2, art 57.
organisation has an international legal personality separate from its member states, and that the organisation is thus responsible in international law for its own acts.\textsuperscript{144}

The principle of separate responsibility between state members and international organisation is clearly illustrated by the cases concerning the International Tin Council (ITC) before British courts\textsuperscript{145}. These cases were brought before the courts due to the failure of the ITC to meet its commercial obligations.\textsuperscript{146}

The ITC was an international organisation that was established by a treaty in 1981.\textsuperscript{147} This agreement provided that the Council “shall have legal personality”\textsuperscript{148} and consist of one delegate from each of the member states\textsuperscript{149} as well as an executive chairperson who was to be responsible for the administration and operation of the treaty based on the decisions of the ITC.\textsuperscript{150} The ITC’s headquarters were based in London and it was recognised under United Kingdom (UK) law as an organisation.\textsuperscript{151} The Council’s primary function was to keep balance of the world’s production and consumption of tin by preventing price fluctuations. In order to achieve its function, the Council was empowered to borrow money to finance certain transactions. Because of a persistent drop in the


\textsuperscript{145} See Maclaine Watson & Co. Ltd. v. Dept. of Trade and Industry [1988] 3 WLR 1033 (LA); In Re ITC [1988] 3 WLR 1159 (CA); Maclaine Watson & Co. Ltd. v. ITC [1988] 3 WLR 1169 (CA); Maclaine Watson & Co. Ltd. v. ITC (No. 2) [1988] 3 WLR 1190 (CA); J.H. Rayner (Mincing Lane) Ltd. V. Dept. of Trade and Industry [1989] 3 WLR 969 (HL).


\textsuperscript{147} Sixth International Tin Agreement (opened for signature 26 June 1981, entered into force 23 June 1982).

\textsuperscript{148} Ibid, art 16(1).

\textsuperscript{149} Ibid, art 4(2).

\textsuperscript{150} Ibid, art 13(1).

\textsuperscript{151} It is stated that the ITC have the “legal capacities of a body corporate” and art 6 entitled it (subject to certain exceptions) to immunity from “suit and legal process”. International Tin Council (Immunities and Privileges) Order 1972 (UK) SI 1972/120, art 5.
price of tin, the ITC went bankrupt and defaulted on a number of contracts for the purchase of tin and bank loans in 1985.\textsuperscript{152}

Because of the ITC’s unilateral decision to default on a number of contracts, its creditors brought this matter before the courts in the UK seeking remedies including holding the members of the ITC liable for its debts. These legal efforts were dismissed at all levels of the English courts on the grounds that the personality of the organisation precluded the liability of the members.\textsuperscript{153} The majority in the Court of Appeal reached the same conclusion on the basis of international law, while the House of Lords relied primarily on English domestic law.\textsuperscript{154}

Therefore, based on this case, it has been established that the international organisation has separate responsibility to its member states. However, some other questions related to the responsibility of international organisations in international law remain open, in particular regarding the extent of an individual member’s responsibility.

The main questions are:

a) Whose conduct is attributable to the organisation?

b) In a situation where a subject is injured by the conduct of a state member during the implementation of the organisation’s decision, who bears the main responsibility?

c) If a decision of the organisation is deemed in violation of international law, can the member states escape the responsibility incurred at the level of the organisation? If the member states should bear the responsibility as well,


\textsuperscript{153} Ibid, at 262.

should the member states be considered collectively or individually responsible?155

d) To what extent should responsibility be placed upon the member states?

These questions can be seen to be based out of concern for the possibility “that states will resort to the organisations they constitute as a comprehensive means to avoid responsibility for what, in truth, are their own initiatives”.156 Therefore, the following section discusses these issues in the light of the current work of the ILC on the responsibility of international organisations.

3.2.1. Responsibility of International Organisations under the ILC’s Draft Articles on the Responsibility of International Organisations (Draft ARIO).

The ILC began its work on this issue in 2002157 but it was not until 2009 that it adopted, at first reading, a set of Draft Articles on the Responsibility of International Organisations (Draft ARIO).158 It appears that the ILC’s Draft ARIO is broadly framed along the lines of its Draft ARSIWA. In most parts, the ILC has taken the same approach to that used to discuss state responsibility, even using similar wording in many corresponding articles.

The core provision of the ILC’s Draft ARIO is art 3, which states that “[e]very internationally wrongful act of an international organisation entails the

---

155 This issue was the main concern the British courts wrestled with in the International Tin Council legislation. See Jan Klabbers An Introduction to International Institutional Law (2nd ed, Cambridge University Press, Cambridge, 2009) at 271-293.


international responsibility of the international organisation”. As with state responsibility, an international organisation is considered to have committed an internationally wrongful act when (1) conduct is attributable to that organisation under international law and (2) that conduct constitutes a breach of an international obligation of that international organisation. Regarding the issues of attribution, breaches of international obligations, circumstances precluding wrongfulness, the content of international responsibility and the implementation of the international responsibility of international organisation, the ILC adopted similar rules to those of state responsibility.

Despite bearing many similarities to the rules on state responsibility, there remain issues regarding international organisations which are worth discussing. The major issue is that of the division of responsibility between international organisations and the member states. According to the ILC’s Draft ARIO, the conduct of organs or agents of the organisation are to be regarded as that of the organisation when the organ or agent acts in the performance of their functions. This rule may be difficult to apply to real cases in the field. In many situations, states lend their organs to an international organisation in order to implement the latter’s decision. However, the agents from the lending state may remain acting, in part, on behalf of the state.

A relevant example of such a situation is in the context of a peacekeeping force. Although UN peacekeeping forces are subsidiary organs of the UN, the soldiers are contributed by member states and these states retain jurisdiction and some degree of control over their soldiers. Such a situation then poses the question of

---

159 Ibid, art 3.
161 Which have been discussed above at [3.1.2-3.1.5]. Ibid, arts 5-66.
162 Ibid, art 5.
163 Tom Dannenbaum “Translating the Standard of Effective Control into a System of Effective Accountability: How Liability Should be Apportioned for Violations of Human Rights by Member
whether the actions of the soldiers are to be attributed to the UN or to the member states that send their soldiers. With respect to this question, the ILC provides that:

[t]he conduct of an organ of a state or an organ or agent of an international organisation that is placed at the disposal of another international organisation shall be considered under international law an act of the latter organisation if the organisation exercises effective control over that conduct.

Based on this article, therefore, it is the factor of effective control that determines whether the UN is responsible for any unlawful acts committed by its peacekeeping forces. In practice, UN peacekeeping forces are under the operational command and control of the UN Force Commander who is responsible to a civilian Head of Mission. The latter is responsible to the United Nations Secretary-General (UNSG) who acts under the authority mandated by the UNSC. If this chain of command and control is effective, then the actions of peacekeeping forces are attributable to the UN.

Such a test of art 6 of the ILC’s Draft ARIO is discussed in the case law before the European Court of Human Rights (ECtHR). In the cases of Behrami v France and Saramati v France, Germany and Norway, the ECtHR decided that the UN, through the United Nations Interim Administration Mission in Kosovo (UNMIK), exercised sufficient control over the national contingents of the Kosovo Force (KFOR) of the North Atlantic Treaty Organisation (NATO). Therefore, since the


164 The 2009 ILC Draft ARIO, above n 158, art 6.
165 Akande, above n 154, at 270.
UN was considered to have “effective control” within the meaning of art 6 of the ILC’s Draft ARIO it was held responsible for the various acts that were claimed to be wrongful by complainants. The Court considered that the decisive factor was whether “the United Nations Security Council retained ultimate authority and control so that operational command only was delegated”.168 However, the Court dismissed these cases on the grounds that it had neither jurisdiction over the UN nor territorial jurisdiction over Kosovo.169 This decision has raised intense debate in the literature,170 in which most opinions support the use of the effective control standard seen in art 6 of the ILC’s Draft ARIO.171

In terms of the attribution rules for international organisations and their members, there are a number of interrelated articles within the ILC’s Draft ARIO. First, art 8 provides that:172

> conduct which is not attributable to an international organisation under the preceding draft articles shall nevertheless be considered an act of that international organisation under international law if and to the extent that the organisation acknowledges and adopts the conduct in question as its own.

This provision has a counterpart in art 61 which stipulates that a member state of an international organisation is responsible for an internationally wrongful act of that organisation, if (a) it has accepted responsibility for that act; or (b) it has led the injured party to rely on its responsibility. Interestingly, art 61(2) states that the

169 Ibid, at 44. Pieter Jan Kuijper “Introduction to the Symposium on Responsibility of International Organisations and of (Member) States: Attributed or Direct Responsibility or Both?” (2010) 7 IOLR 9 at 17.
172 The 2009 ILC Draft ARIO, above n 158, art 8.
international responsibility resulting from the state which accepts responsibility is presumed to be subsidiary. This implies the possibility of shared responsibility. With regards to this issue, one expert, Klein, has argued that there are four possible situations in which wrongful acts can be jointly or partially attributed to the international organisation and to its members. These are: when the wrongful act is committed by the international organisations with the member states as co-author of the act; when the member states are accomplices to the act; when the member states have control over the activities of the organisation; and cases of failure of due diligence by member states with respect to the concerned act. Of these four possibilities, the situation where member states have control over the activities of the organisation seems most likely to occur, as exemplified below.

An international organisation may be held responsible for unlawful acts committed by a state or another international organisation if it assists, directs/controls or coerces the latter party to commit such conduct. These attributions of action are subject to the condition that the concerned international organisation must do so knowing the circumstances of the internationally wrongful act and that the act would be internationally wrongful if committed by the organisation.

The most common situation is where an international organisation adopts a decision that binds its member states to commit certain acts. If these acts are considered wrongful in the international arena, art 16 of the ILC’s Draft ARIO provides that the organisation directly incurs the responsibility for such acts. It also appears from the text of art 16(1) that the member state does not need to carry out such decisions in order for the international organisation to incur

---

173 This is also the consequence of arts 18 and 62 of the 2009 ILC Draft ARIO, above n 158.
174 Klein, above n 170, at 306-314.
175 See below at [3.2.2].
176 The 2009 ILC Draft ARIO, above n 158, arts 13, 14, 15. These provisions have corresponding articles for the responsibility of member states in draft arts 57, 58, 59. Ibid.
responsibility. This is because the member state may have had no alternative but to comply with this binding decision. Therefore, regardless of whether the member states have carried out the decision or not, the international organisation can still be held responsible. However, in the case when an international organisation adopts a decision that only authorises or recommends its member states to commit such unlawful acts, in order for the international organisation to incur international responsibility, the member states needs to have carried out such acts.

A similar situation to that found in art 16 of the ILC’s Draft ARIO is also found in art 60 of the same, albeit with a different main actor. Article 60 provides that:

[a] state member of an international organisation incurs international responsibility if it seeks to avoid complying with one of its own international obligations by taking advantage of the fact that the organisation has competence in relation to the subject matter of that obligation, and the organisation commits an act that, if committed by that state, would have constituted a breach of that obligation.

Article 60 tries to cover a situation where states need at least several other states as “partners in crime” in order to provoke the organisation to commit an act which would be in violation of the member states’ international obligations. In other words, members of an international organisation may not escape responsibility for what are effectively acts of their own simply by making the organisation perform

177 Article 16(1) of the 2009 Draft ARIO reads as follows: “[a]n international organisation incurs international responsibility if it adopts a decision binding a member state or international organisation to commit an act that would be internationally wrongful if committed by the former organisation and would circumvent an international obligation of the former organisation”.


179 Article 16(2) of the 2009 Draft ARIO reads as follows: “[a]n international organisation incurs international responsibility if: it authorises a member state or international organisation to commit an act that would be internationally wrongful if committed by the former organisation and would circumvent an international obligation of the former organisation, or recommends that a member state or international organisation commit such an act; and that state or international organisation commits the act in question in reliance on that authorisation or recommendation”.

180 Ibid, art 60(1).

181 Kuijper, above n 169, at 28.
the action.\textsuperscript{182} The ECtHR has held that states that are party to the European Convention on Human Rights cannot escape their obligations under the convention by transferring some of their functions to an international organisation. In the Court’s words, “the state is considered to retain convention liability in respect of treaty commitments subsequent to the entry into force of the convention”.\textsuperscript{183} This ruling is crucial because it confirms the principle that prevents states from avoiding their international obligations simply because of their membership in an international organisation, to which they could confer some of their own competence to act.

As with state responsibility, if an international organisation is responsible for unlawful action under international law, it too is under the obligation to make full reparation for the injury caused by this action.\textsuperscript{184} Unfortunately, the mechanism to be used to invoke such responsibility by the injured parties against international organisations remains undeveloped.\textsuperscript{185} Further, international organisations are usually immune to domestic courts’ jurisdiction.\textsuperscript{186} And finally, international organisations cannot be parties before the ICJ.\textsuperscript{187} These problems are exemplified in the cases discussed below.

\begin{itemize}
\item \textsuperscript{182} For more detailed discussion about art 60, see Esa Paasivirta “Responsibility of a Member State of an International Organisation: Where Will It End? Comments on Article 60 of the ILC Draft on the Responsibility of International Organisations” (2010) 7 IOLR 49.
\item \textsuperscript{183} Bosphorus Hava Yollari Turizm v Ticaret Anonim Sirketi v Ireland (2006) 42 EHRR 1 at [44] (Grand Chamber, ECHR).
\item \textsuperscript{184} The 2009 ILC Draft ARIO, above n 158, art 30.
\item \textsuperscript{185} Cedric Ryngaert and Holly Buchanan “Member State Responsibility for the Acts of International Organisations” (2011) 7(1) Utrecht L. Rev. 131 at 132.
\item \textsuperscript{186} See for example, art II of the 1946 Convention on the Privileges and Immunities of the United Nations, which provides that: “[t]he United Nations, its property and assets wherever located and by whomsoever held, shall enjoy immunity from every form of legal process except insofar as in any particular case it has expressly waived its immunity shall extend to any particular case it has expressly waived its immunity. It is, however, understood that no waiver of immunity shall extend to any measure of execution”. Convention on the Privileges and Immunities of the United Nations (opened for signature 13 February 1946, entered into force 17 September 1946).
\item \textsuperscript{187} Article 34(1) of the ICJ Statute states that: “[o]nly states may be parties in cases before the Court”. Statute of the International Court of Justice (opened for signature 26 June 1945, entered into force 24 October 1945), art 34(1).
\end{itemize}
3.2.2. Cases Involving International Organisations

In the history of armed conflicts which have resulted in significant environmental damage, two cases have involved international organisations. They are the conduct of the coalition states in the 1991 Gulf War under authorisation of the UN, and NATO’s bombing campaign against the former Federal Republic of Yugoslavia (FRY) during the 1999 Kosovo War. In these two cases, efforts to pursue responsibility for environmental damage still focused on the state because of the rules surrounding attribution of action to a state and the limitations of judicial forums.

3.2.2.1. The UN in the Gulf War

During the 1991 Gulf War, the UN, via UNSC Resolution 678, had authorised the use of force by some of its member states to expel Iraq from Kuwait for aggression and unlawful occupation. In conducting their military operations, coalition states contributed to significant damage in both Iraq and Kuwait. These injuries included civilian casualties and environmental damage. The sum of this damage led to allegations by experts that in conducting their military operations coalition forces were in violation of the law of war. This allegation

---

188 For full discussion of these cases, see Chapter 4 at [3.3 and 4.1].
189 See the 1991 Gulf War’s detailed case analysis in Chapter 4.
warranted an invocation of international responsibility. In reality, there was no responsibility imposed on the coalition states as stipulated in UNSC Resolution 678; instead responsibility was placed on Iraq alone. Nevertheless, since unlawful acts by the coalition forces were alleged, it is worth discussing whether some responsibility should have been attributed to the individual coalition states, or the UN.

UNSC Resolution 678 authorised member states to use all necessary means to uphold and implement all relevant resolutions and to restore international peace and security in the Gulf area. As expressed in the resolution, the aim of using all necessary means in this context was to force Iraq’s withdrawal from Kuwait under the UNSC’s mandate in maintaining international peace and security. This decision was made after Iraq invaded and unlawfully occupied Kuwait, which was considered a violation of the law on the use of force under art 2(4) of the UN Charter. Therefore, decisions made under Resolution 678 are not considered to be a violation of any rules in international law whatsoever.

The word “authorises” in this resolution indicates that the UN does not reserve control of the armed forces of the member states. It only provides legal justification and legitimacy in resorting to the deployment of armed forces, by its member states, against Iraq. This is shown by the limited number of states willing to take part in this mission, and the fact that they were collectively referred to as the coalition states and thus were not considered UN forces.


193 Amerasinghe, above n 7, at 404.
194 The International Coalition Member States in the United Nations which authorised action against Iraq in the 1991 Gulf War were: Argentina, Australia, Bahrain, Bangladesh, Belgium, Canada, China, Czechoslovakia, Denmark, Egypt, France, Germany, Greece, Hungary, Italy,
However, what the coalition forces did in implementing Resolution 678 is worth challenging. As will be discussed in Chapter 4, the coalition states contributed to environmental damage by their unlawful actions during the war. It is difficult to attribute these breaches of international law by the coalition forces to the UN. This is due to the fact that the UN does not retain control over the military operations conducted by these coalition forces. Furthermore, the UN has consistently denied responsibility arising out of such authorisations to use force. Therefore, individual states of the coalition should bear responsibility for every act of the members of their armed forces. In reality, however, the issue of the responsibility of the UN or the members of the coalition states has never been raised by the international community, and most interestingly, it was never raised by Iraq or Kuwait – the victims of the breaches of law.

3.2.2.2. NATO in the Kosovo War

In the other case of armed conflict involving international organisations, the military action of NATO in Kosovo in 1999 was allegedly resorted to without proper authorisation from the UNSC and caused significant damage, especially to the environment of the FRY. These actions were considered to be unlawful by many commentators. In addition to this event, NATO also mistakenly destroyed the Chinese Embassy in Belgrade during its bombing campaign. Both

Kuwait, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Poland, Qatar, Saudi Arabia, Senegal, South Korea, Spain, Syria, United Arab Emirates, United Kingdom, and United States. In addition, Japan participated by sending medical assistance to Saudi Arabia. Nada Al-Duaij Environmental Law of Armed Conflict (Transnational Publisher, New York, 2003) at xviii, fn 5.

195 Blokker, above n 178, at 47.
of these actions prevented the victims, namely the FRY and China, from invoking the responsibility of NATO, albeit in different fora. While the FRY went before the ICJ, China sought reparation at the UNSC.

On 28 April 1999, the FRY brought ten individual cases before the ICJ in an attempt to stop NATO’s bombing campaign. The FRY alleged that ten NATO member states had individually violated rules of the law on the use of force (\textit{ius ad bellum}) and the law of war (\textit{ius in bello}).\footnote{The ten member states were Belgium, Canada, France, Germany, Italy, the Netherlands, Portugal, Spain, the United Kingdom and the United States. For example, see \textit{Legality of Use of Force (Yugoslavia v. Belgium)} (Application Instituting Proceedings) (International Court of Justice, General List No. 105, 29 April 1999). The documents submitted by Yugoslavia in each of the ten cases were essentially identical.} Based on these claims, the FRY sought determination of international responsibility against the NATO member states\footnote{Ibid; Nicholas G. Alexander “Airstrikes and Environmental Damage: Can the United States Be Held Liable for Operation Allied Force?” (2000) 11 Colo. J. Int’l Envtl L. & Pol’y 471 at 473-474.} and requested preliminary measures to stop NATO’s actions, as well as asking for compensation for damages caused. The claims by the FRY included allegations that the member states of NATO had breached obligations “not to cause considerable environmental damage” by taking part in “the bombing of oil refineries and chemical plants” and by using “weapons containing depleted uranium”.\footnote{For example, see \textit{Legality of Use of Force (Yugoslavia v. Belgium)} (Application Instituting Proceedings), above n 197.}

that it had no jurisdiction with regard to the claims and accordingly dismissed the cases.201

During the same conflict, NATO accidentally bombed the Chinese Embassy in Belgrade on 7 May 1999. This caused an intense debate which, in the UNSC forum, was started by China. China accused NATO’s action of being a flagrant violation of the convention on the prevention and punishment of crimes against internationally protected persons including diplomats,202 and insisted on the immediate cessation of military activities, claiming that: “NATO, led by the US, must assume full responsibility for this action”.203 In responding to this accusation, some major NATO member states, such as the US, the UK and France, said that they regretted the event and promised to conduct an investigation into the accident.204


204 Ibid, at 3, 5 and 7.
Interestingly, a few months after the incident, the US, as the state that owned the aircraft involved, negotiated a bilateral agreement with China. This negotiation led to an agreement of *ex gratia* payment to the victims by the US of a total of US$28 million in compensation damages to China. This agreement, and the actual payment of compensation, appears to show that the US assumed responsibility for the acts performed by its military force involved in the NATO operations, albeit without admitting any violations of international law. In addition, this successful invocation of responsibility by China against the US showed that it is the member states that have the capability to provide such compensation, and not the organisation itself. However, the compensation payment settlement does not establish any legal precedent but is rather a pragmatic solution that maintains the stability of political relations between China and NATO member states particularly the US.

From the two events during the Kosovo War described above, it appears that even though unlawful acts may be attributed to an international organisation, i.e. NATO, the responsibility of international liability is placed more upon the state members. In other words, each member state bears responsibility for the acts committed by its forces when they are engaged in NATO operations. The FRY brought its claims not against NATO, but against NATO’s ten member states. This step may be understood due to the procedural rules in the ICJ, which stipulate that only states can be parties in cases before the Court. Importantly, while some of NATO’s other member states accepted responsibility by stating their regrets, it was only the US that paid compensation to China. The US agreed to pay because the aircraft that was involved in the accident was part of its own

---


206 Indeed, it has been noted that all international organisations, except financial organisations, depend on obligatory contributions made by their member states. Amerasinghe, above n 7, at 359.
military forces, which again shows that responsibility falls more on the culpable state members, rather than on the organisation itself.

Having examined the rules and issues surrounding the responsibility of international organisations and their member states, it appears that the existing regime is still in a stage of development where there is room for improvement. One such improvement could be in clarifying whether wrongful acts will be attributed to the organisation or to its member states. The existing regime also opens the possibility of joint or parallel responsibility between the organisation and its member states. However, state practice shows that the burden of responsibility is placed on states rather than on the international organisation. In addition, there are limited fora for bringing claims against international organisations. Thus, it may be concluded that efforts to pursue responsibility of international organisations for consequences of war, particularly environmental damage, appear less than promising.

3.3. Individual Responsibility

Moving on from the discussion of the responsibility of states and international organisations, this section focuses on individual responsibility at international law. This is of importance because it demonstrates that conduct undertaken by individuals in the international arena may give rise to direct responsibility being placed on an individual. Thus, the key point this section examines is whether individual responsibility offers a viable option to remedy environmental damage resulting from armed conflict.

An individual can be held responsible for misdemeanours in international law without any requirement to link his or her actions with the state. Examination of

\[207\] With this payment, the US assumed responsibility for the acts performed by their military force involved in the NATO campaign but at the same time it did not admit any wrongdoing under international law. Gazzini, above n 205, at 425.
individual responsibility draws a clear distinction between the individual and the state in terms of international responsibility. This is explicit in the ILC’s Draft ARSIWA, where art 58 states that the articles on state responsibility do not affect any question of the individual responsibility of any person acting on behalf of a state under international law.208 This means that even when a state is responsible for a wrongful act of its officials or agents, those persons may also incur individual criminal responsibility for their acts.

Historically, individuals have long been recognised as an “object” of the international legal system, whereas the state is the main subject.209 However, in addition to the special status of individuals within the customary law of war, the development of international human rights law has changed this perception. Moreover, the dichotomous notion of “subject versus object” in international law has been criticised as an untenable principle.210 Some would prefer the position of individuals within the international legal system to be determined by “participation”.211 This “participation” is supported by commentators, one of whom, McCorquodale, argues that:

\[
\text{[p]articipation as a framework for considering the role of individuals in the international legal system is flexible and open enough to deal with developments in that system over the centuries and is not constricted to a state-based concept of that system or to appearances before international bodies. Accordingly, if it can}
\]

---


210 Ibid, at 287.

211 One of these is Rosalyn Higgins, who offers the participatory alternative approach by stating: “[t]he whole notion of ‘subjects’ and ‘objects’ has no credible reality, and, in my view, no functional purpose. We have erected an intellectual prison of our own choosing and then declared it to be an unalterable constraint. (…) [t]he topics of minimum standard of treatment of aliens, requirements as to the conduct of hostilities and human rights, are not simply exceptions conceded by historical chance within a system that operates as between states. Rather, they are simply part and parcel of the fabric of international law, representing claims that are naturally made by individual participants in contradistinction to state-participants”. Rosalyn Higgins Problems and Process: International Law and How We Use It (Clarendon Press, Oxford, 1994) at 49-50.

212 McCorquodale, above n 209, at 288.
be shown that individuals are exercising and enjoying ‘in fact’ certain rights, privileges, powers, or immunities in the international legal system then they can be presumed to be acting as international legal persons.

3.3.1. Individual Accountability in International Plane

Individual accountability at the international level may be initially illustrated by reference to the experience in the aftermath of World War I. In addition to civil compensation, the victorious Entente/Allied states decided to prosecute individual Central Powers leaders for acts contrary to international law. According to art 227 of the peace treaty with Germany, the Allied and Associated states publicly charged the former Emperor of Germany, Kaiser Wilhelm, for “a supreme offense against international morality and the sanctity of treaties” and intended to establish a special tribunal for the accused. This is the first time a treaty allocated individual responsibility to a head of state for conducting illegal acts, which subsequently came to be known as crimes of aggression or crimes against peace. Subsequent articles of Part VII made provisions for holding military personnel accountable for violations of the law of war and gave jurisdiction to the Allied states’ domestic courts individually or collectively.

---

213 The Allied states were mainly composed of the allegiance of the British Empire, the US, France and Russia.

214 The Central Powers included Austria-Hungary Monarchy and Germany.


216 Treaty of Peace with Germany (signed 28 June 1919) (1919) 13 AJIL 151, art 227. In reality, this prosecution failed because the Kaiser was granted asylum by the Dutch government and the latter refused to hand over him to the Allied states. Despite these obstacles from the Dutch government, the Allies states, especially Great Britain, seemed reluctant to prosecute a crowned head who was related to their own monarchies. M. Cherif Bassiouni “Justice and Peace: The Importance of Choosing Accountability Over Realpolitik” (2003) (35) Case W. Res. J. Int’l L. 191 at 193.


The position of individuals in international law was also noted by the Permanent Court of International Justice (PCIJ) in 1928 where the Court held that:\footnote{Jurisdiction of the Courts of Danzig (Advisory Opinion) [1928] PCIJ (Ser. B) No. 15 at 17-18.}

\[i\]t cannot be disputed that the very object of an international agreement, according to the intention of the contracting parties, may be the adoption by the parties of some definite rules creating individual rights and obligations and enforceable by national courts.

Later, the Nuremberg International Military Tribunal after World War II declared that an individual might be held responsible within the law of war even when acting as part of the organs of the state and under orders from the state. The Tribunal held that:\footnote{International Military Tribunal (Nuremberg) “Judgment and Sentences” (1947) 41 AJIL 172 at 221.}

\[c\]rimes against international law are committed by men, not by abstract entities \[of states\], and only by punishing individuals who commit such crimes can the provisions of international law be enforced. \((\ldots)\) Individuals have international duties which transcend the national obligations of obedience imposed by the individual state.

Given this statement, it is clearly possible for an individual to be tried before international courts. This mechanism has been practiced and developed since the end of World War II, as is evident in the establishment of many ad hoc international tribunals for war criminals together with their final judgments.\footnote{For example International Military Tribunals in Nuremberg and Tokyo and International Criminal Tribunals for Yugoslavia and Rwanda.}

Notably, there was an individual criminal case relating to environmental issues during the war before the Nuremberg Tribunal.\footnote{This case will be discussed in detail in Chapter 4 at [2.2.3.1].} The case involved a German General, Lothar Rendulic.\footnote{In this case, twelve German Army generals were indicted for war crimes committed during the invasion and occupation of Yugoslavia, Albania, Norway and Greece. Trial of Wilhelm List and Others (The Hostages Trial); Case No. 47 in The United Nations War Crimes Commission Law Reports of Trials of Major War Criminals, Vol. VIII (His Majesty’s Stationary Office, London,}
destruction of private and public property because he had ordered a scorched earth policy in Norway as a strategy which anticipated the Soviet troops’ attacks. He was accused of violating art 23(g) of the 1907 Hague Regulations, which proscribed seizure, or destruction of enemy’s property unless such seizure was “imperatively demanded by the necessities of war”.

3.3.2. Individual in Contemporary International Law

After these legal precedents, significant development and acknowledgement of individual rights in international law was clearly expressed in the area of human rights. Despite initial claims by states that human rights were matters of domestic jurisdiction under art 2(7) of the UN Charter, states finally accepted that this issue was of legitimate concern to the international community. In addition, certain individual rights based on an individual’s status, such as prisoners of war or non-combatants, were also stipulated within IHL.


224 Fourth Hague Convention, above n 29, annex, art 23(g).

225 Besides natural persons, international responsibility may now also be attributed to legal persons such as corporations for violations of international law. The possibility of corporations incurring such responsibility has been argued for in some areas of law such as international criminal law and international human rights law. See Andrew Clapham “Extending International Criminal Law beyond the Individual to Corporations and Armed Opposition Groups” (2008) 6 JICJ 899; Steven R. Ratner “Corporations and Human Rights: A Theory of Legal Responsibility” (2001) 111 Yale L. J. 443.

226 McCorquodale, above n 209, at 290.


As a consequence of having rights under international law, individuals can also be held responsible for actions in the international arena, albeit under limited circumstances – the major limit being that an individual can only incur criminal responsibility. Only individuals can incur this responsibility, states and international organisations cannot. Besides genocide, there are a number of crimes for which individuals may incur direct individual responsibility in the international legal system under both international criminal law and international human rights law, such as war crimes, perpetration of slavery, forced labour, torture, apartheid, and forced disappearances. In other words, “international individual responsibility is a traditional regime of criminal liability providing for the punishment of individuals who have perpetrated international crimes”.

In particular, the law of war provides that individuals may be held criminally responsible under national jurisdictions for violations of a state’s domestic rules. Article 146 of the Geneva IV Convention requires state parties to pass domestic legislation in order to prosecute those who commit or order actions amounting to proscribed actions, and to prosecute such offenders before their courts regardless of their nationality. The Convention also provides that states may hand over offenders to other states subject to any extradition agreements that exist between them. Furthermore, art 88 of the Additional Protocol I stipulates that state

---

229 Article IV of the Genocide Convention states: “[p]ersons committing genocide or any of the other acts enumerated in art III shall be punished, whether they are constitutionally responsible rulers, public officials or private individuals”. Convention on the Prevention and Punishment of the Crime of Genocide (opened for signature 9 December 1948, entered into force 12 January 1951), art IV.


232 Convention (IV) relative to the Protection of Civilian Persons in Time of War (opened for signature 12 August 1949, entered into force 21 October 1950), art 146.
parties must provide mutual cooperation in terms of criminal proceedings for grave breaches of the Conventions and the Protocol.\textsuperscript{233}

Ultimately, in 2002, the International Criminal Court (ICC) became the permanent international judicial body for judging individuals who have committed international crimes and war crimes.\textsuperscript{234} In terms of environmental damage during armed conflict, the “crime against the environment” during war is categorised as an international crime and included in the ICC Statute.\textsuperscript{235} The Statute states that the Court has jurisdiction in respect of war crimes that consist of:\textsuperscript{236}

\begin{quote}
[i]ntentionally 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 the concrete and direct overall military advantage anticipated.
\end{quote}

This point opens the possibility of bringing an individual who commits a war crime that result in severe damage to the environment before the international court.

Besides specific war crimes against the natural environment, the ICC also has jurisdiction over other war crimes which may cover environmental damage during the war.\textsuperscript{237} They are “the extensive destruction of property, not justified by

\textsuperscript{233} The 1977 Additional Protocol I, above n 29, art 88.
\textsuperscript{234} ICC Statute, above n 21.
\textsuperscript{235} In the spirit of this Convention, there is a current international campaign on the recognition of individual crime against the environment during both peacetime and wartime as the fifth crime against peace under the ICC jurisdiction. This campaign labels the crime “ecocide”. The target of this campaign is not only military leaders but also political leaders of states or Chief Executive Officers (CEOs) of corporations of which have policies that result in severe environmental damage. See Polly Higgins Eradicating Ecocide: Laws and Governance to Prevent the Destruction of Our Planet (Shepheard-Walwyn, London, 2010); <www.thisisecocide.com>.
\textsuperscript{236} ICC Statute, above n 21, art 8(2)(b)(iv).
military necessity and carried out unlawfully and wantonly”; 238 “the intentional
directing of attacks against civilian objects which are not military objectives”; 239
“the use of poison and poisoned weapons”; 240 and “the employment of
asphyxiating, poisonous, or other gases”. 241

Apart from prosecuting individuals with penal sanctions, the ICC has a
mechanism for reparation of the victims of international crimes. Article 75 of the
ICC Statute stipulates that: 242

[t]he Court shall establish principles relating to reparations to, or in respect of,
victims, including restitution, compensation and rehabilitation. On this basis, in
its decision the Court may, either upon request or on its own motion in
exceptional circumstances, determine the scope and extent of any damage, loss
and injury to, or in respect of, victims and will state the principles on which it is
acting.

This article is significant with respect to environmental damage caused during war
by the illegal conduct of military personnel. Article 75 also provides that the
Court is authorised to make an order specifying appropriate reparation for the
victims including restitution, compensation, and rehabilitation. The Court’s order
for reparations is made through a trust fund. 243

However, available funds under this provision are highly unlikely to cover the
cost of compensation for significant environmental damage resulting from armed

238 ICC Statute, above n 21, art 8(2)(a)(iv).
242 Ibid, art 75.
243 According to art 79: “(1) A Trust Fund shall be established by decision of the Assembly of
states parties for the benefit of victims of crimes within the jurisdiction of the Court, and of the
families of such victims; (2) The Court may order money and other property collected through
fines or forfeiture to be transferred, by order of the Court, to the Trust Fund; (3) The Trust Fund
shall be managed according to criteria to be determined by the Assembly of states parties”. Ibid,
art 79.
conflict. It appears that this fund prioritises compensation for individual victims and their families.

In relation to the UNSC, the Council has the power to refer allegations of violations of the law of war in an armed conflict to the ICC. Under art 13(b) of the ICC Statute, the ICC may exercise its jurisdiction over an alleged crime if it has referral from the UNSC acting under Chapter VII of the UN Charter. This process has been used in referring the armed conflicts in Sudan and Libya to the ICC.

Based on the discussion above, it is submitted that the characteristics of individual responsibility at international law become limitations when pursuing responsibility for environmental damage. First, individual responsibility is mainly criminal. Second, practice has shown that only international tribunals can impose such responsibility. Third, individual responsibility is exceptional in the international plane because it only occurs if the international community has agreed to a special international tribunal to adjudicate the concerned crime either by treaty or by UNSC resolution. In addition, an individual does not realistically have the capability to provide the huge amount of financial compensation to repair the damaged environment. Therefore, pursuing

---

244 Ibid, art 13(b).
247 Pellet, above n 9, at 8.
248 This limitation would even apply to corporate individuals of high net worth. Despite their large financial resources, such corporations remain unable to make the same payments that states can. As a comparison, in the case of the Gulf of Mexico oil spill in 2010, BP was only able to agree to an amount of US$7.8 billion in out-of-court settlements to victims of the spill. See “BP Reaches £5 billion Settlement with Fishermen over Gulf of Mexico Oil Spill” (4 March 2012) MailOnline <www.dailymail.co.uk>. On the other hand, Iraq, under its obligations to pay compensation arising from the Gulf War in 1991, has paid approximately US$35 billion with outstanding award amounts of US$17 billion. “Status of Processing and Payment of Claims” (26 January 2012) UNCC <www.uncc.ch>. It is exceedingly improbable, then, that a natural person would have access to the sums of money likely to be in issue.
individual criminal responsibility for unlawful conduct during armed conflict cannot adequately remedy the environmental damage.

Nevertheless, imposing individual responsibility plays an important role in providing a potential deterrent effect to prevent future military leaders from acting illegally in armed conflicts. Accordingly it appears that individual responsibility is worth pursuing for violations of international law during internal armed conflicts for this purpose at least.

4. Conclusion

This Chapter has examined how international law has responded to violations of its rules, particularly in the case of armed conflict that has resulted in significant environmental damage. In general, the regime concerning international responsibility has provided comprehensive rules for pursuing liability for internationally wrongful acts that were committed by states, international organisations and individuals – particularly during armed conflicts. As a consequence, the international community, and especially the victim, is entitled to invoke responsibility against the responsible belligerent.

Nevertheless, in considering who is best to pursue responsibility against, it is concluded that state responsibility is preferable to the other two types of responsibility. This is due to the fact that a suitable remedy for environmental damage can be better provided by states than by international organisations or individuals. This conclusion is based on the following reasons.

First, it appears that environmental damage during times of war can only be remedied by compensation payments, since the option of restitution appears to be almost impossible. Further, environmental damage during times of war is financially assessable, which has been shown in a number of cases. Given the
total costs of repairing the environment in every case, they may only realistically be compensated appropriately via the financial capability of a state, and not merely by an international organisation or individual. Therefore, it is logical to focus on state responsibility mechanisms when pursuing compensation for environmental damage during armed conflict.

Second, it appears that, in reality, efforts to pursue the responsibility of international organisations for consequences of war, particularly for environmental damage, appear less than promising. Based on the cases above, it is evident that the international community prefers to place the burden of responsibility on a state rather than on an international organisation, and there are limited forums for bringing claims against such organisations as exemplified in the ICJ and ECtHR cases above.

Finally, environmental damage cannot realistically be remedied or repaired only by pursuing individuals’ international criminal responsibility. Such an effort would only result in penal punishment to responsible individuals would be put behind bars without obtaining any real contribution to repair the damaged environment because as with international organisations, an individual is extremely unlikely to have the capability to provide the huge financial compensation required to repair the damaged environment.

249 For the examples of costs calculation in repairing environmental damage after hostilities, see Chapter 4.

250 Both of these judicial forums dismissed the cases involving international organisations as these tribunals do not have jurisdiction over the latter. See Behrami v France and Saramati v France, Germany and Norway, above n 167, at 44; Kuijper, above n 169, at 17; Legality of Use of Force (Yugoslavia v. Belgium), above n 200, at 140 (This decision is similar with the rest of other nine states).
CHAPTER 4
APPLICATION OF STATE RESPONSIBILITY FOR ENVIRONMENTAL DAMAGE DURING ARMED CONFLICT:
CASE STUDIES

1. Introduction

As established in Chapter 2, the existing formal legal protection of the environment during wartime is comprehensive enough to be capable of restraining belligerents from employing methods and means of warfare that could be destructive to the environment. In addition, as was concluded in Chapter 3, international law provides a similarly comprehensive mechanism able to respond to belligerents’ violations of these legal protections afforded to the environment. In theory, this enforcement mechanism is capable of ensuring that the appropriate states are held responsible for breaches of their international obligations, and that they make reparations to victim states. Unfortunately, as this Chapter shows, this is not always the case in practice.

Based on the cases studied in this Chapter, it is concluded that despite the formal adequacy of legal limitations on belligerents’ conduct, they have not prevented the occurrence of significant environmental damage during armed conflicts in fact. It is also concluded that most environmental damage caused during wartime has been caused by belligerents’ unlawful acts during the active war phase. Furthermore, which is regrettable, the implementation of the state responsibility regime to ensure reparations has been severely limited. This is despite the fact that violations of international law committed by the belligerents during the hostilities have clearly been established.
It appears that allocation of state responsibility for environmental damage during times of war primarily depends on the determination of responsibility for the consequences of war more generally, and has been heavily based on political considerations. In enforcing state responsibility after armed conflicts, two main factors at the end of the conflict influence its effectiveness:

a) whether there is a winner and defeated parties; and

b) whether or not the responsible state has strong political power in international relations. Situations discussed where a state does possess this have led to the conclusion that post-conflict determination of state responsibility preserves the paradigm of ‘victor’s justice’ settlements.

In a situation where there are victorious and defeated belligerents, and the latter is established to be in breach of international law, state responsibility is effectively enjoined solely upon the latter party by the victors. This responsibility may include paying compensation for the environmental consequences of any unlawful conduct committed by both belligerent parties.\(^1\) However, pursuing state responsibility of the defeated belligerent is, in practice, ineffective if it has strong political power in international relations.\(^2\)

In other situations where there are no victorious or defeated belligerents, then, irrespective of the political powers of the warring parties, there is generally no determination of responsibility, and thus no obligation to pay compensation for anything, including environmental damage. In this situation, the international community prefers to prioritise building peace between the belligerents over environmental repair.\(^3\)

Yet the worst situations are those where the belligerents that are solely responsible for environmental damage have both won the war and have strong political power.

---

\(^1\) See the cases of World Wars and the Gulf War at [2.1 - 2.2 and 3.3] below.

\(^2\) See the case of the Vietnam War at [3.1] below.

\(^3\) See the cases of the Iran-Iraq War and the Israel-Lebanon War at [3.2 and 4.3] below.
In these cases, the war settlement tends to ensure that the defeated parties bear responsibility for the consequences of war from both sides’ conduct, including obligations to repair the damaged environment.\(^4\)

The ineffectiveness of implementing state responsibility for environmental damage is also caused by the absence of a transparent and balanced mechanism to establish facts that lead to a fair allocation of responsibility amongst the belligerents. Given the precedent established in the aftermath of the 1991 Gulf War, the United Nations Security Council (UNSC) is one of the fora\(^5\) where state responsibility for the consequences of war is determined, including a determination of responsibility for environmental damage. Unfortunately, the UNSC does not consistently consider impartial and reliable data that is available from other entities that are concerned with environmental damage caused by the war. Accordingly, the UNSC adopts or determines responsibility based on information provided by its member states only, and ignores other factual evidence about environmental damage and the belligerents’ conduct of warfare.

In reaching these conclusions, this Chapter examines cases of armed conflict causing environmental damage that occurred throughout the 20th and 21st centuries. These observations will be confined to the following key armed conflicts: World War I (WWI); World War II (WWII); the Vietnam War; the Iran-Iraq War; the Gulf War; the Kosovo War; the Iraq War; and the Israel-Lebanon War.

---

\(^4\) See the cases of the Kosovo War and the Iraq War at [4.1 and 4.2] below.

\(^5\) There are other fora to determine whether there has been a violation of international rules and whether or not such violations are attributable to a state and incur responsibility. These are mainly international judicial institutions. See Malgosia Fitzmaurice and Dan Sarooshi (eds) *Issues of State Responsibility before International Judicial Institutions* (Hart Publishing, Oxford, 2004). This thesis, however, focuses only on the UNSC because the international community (with the exception of the World Wars and as found in this Chapter) has heavily relied on this body in responding to similar armed conflicts that have caused significant environmental damage.
This time-range allows examination of whether or not the implementation of state responsibility for environmental damage has been consistent and effective. Each of these cases offers particular lessons, which provide valuable insights into the allocation of state responsibility for environmental damage during wartime, and its repercussions. Although the environmental cost of war only became an issue of widespread concern during the Vietnam War,⁶ a discussion of the two World Wars has been included because they offer valuable lessons on the enforcement of state responsibility for the consequences of war in general.

Through these case studies, this Chapter examines the extent to which the environment has been a victim of war as a result of the way modern warfare is conducted. It then investigates whether or not belligerents’ conduct amounted to violations of applicable international rules that protect the environment during wartime, as discussed in Chapter 2.⁷ Finally, this Chapter focuses on how, and to what extent, the rules of state responsibility have been enforced in pursuing the liability of belligerents who have violated international law, causing damage to the environment as a result.

Based on the development of environmental awareness and the implementation of state responsibility, this Chapter divides the cases studied into three periods. Period I includes World War I and II, and is the period when state responsibility is implemented for the sole benefit of the victor states but without any reference to or awareness of the environment. Period II includes the Vietnam War, the Iran-Iraq War, and the Gulf War. This is the period when global awareness of the environment during wartime began to grow, reaching its peak when specific state responsibility for wartime environmental damage is upheld in the aftermath of the Gulf War. Period III, which includes the Kosovo War, the Iraq War, and the

---

⁶ United Nations of Environmental Programme *Protecting the Environment during Armed Conflict: An Inventory and Analysis of International Law* (United Nations of Environmental Programme, Nairobi, 2009) at 8.

⁷ Details of relevant rules applicable, which are listed in tables, in each armed conflicts, see Appendixes 1 and 2.
Israel-Lebanon War, is the period when no state responsibility for environmental damage has been determined despite global awareness and legal precedent from previous case. In addition, none of these states were held responsible for the wars they waged despite their unilateral unlawful resort to force, in contrast to the Gulf War precedent.

2. Period I: State Responsibility for the Vanquished Party

This period highlights the clear implementation of state responsibility for consequences of war, as stipulated in the form of peace treaties between victors and the vanquished. The points to note from this period are that the obligation to make reparations for war damages in general was imposed solely upon the vanquished for the benefit of the victors; and compensation was made without any reference to the issue of addressing the environmental damage resulting from these wars. Nevertheless, in this period, the possibility of criminal responsibility was introduced (in the aftermath of WWII) for those who allegedly committed environmental crime.8

2.1. World War I

The First World War (WWI) heralded unprecedented military strategies and weapons technologies, which had an alarming impact on not only humans, but also the environment.9 During this war, the environment was not considered as important an issue as the protection of civilians and combatants. Although attacks on the environment during this war were not a crime per se, these actions would still have been illegal under international law if the attacks on the environment severely affected civilians’ or combatants’ lives.

---

8 See the discussion at [2.2.3.2] below.

9 Joseph P. Hupy “The Environmental Footprint of War” (2008) 14 Env. & Hist. 405 at 413.
In addition, destruction of the environment during this war was often justified as a military necessity needed to achieve legitimate military objectives. However, despite this justification, it seems that the destruction of, or attacks on, the environment during this war offered little military benefit. Some environmental destruction during this war, as described below, had a significant impact on those living within the affected areas.

In terms of post-conflict settlements, this war provides examples of how the concept of state responsibility was enforced at the inter-state level, including the provision of mechanisms to pursue the liability of the responsible states. In general, state responsibility for the consequences of this war was enforced within the framework of the peace treaties adopted after the war. The main focus of these settlements was the payment of compensation by the defeated sides to the victorious states as a form of reparation for waging war illegally. The types of damages claimed in the aftermath of this war were more related to human injuries and the costs of war than repairing the damaged environment.

2.1.1. Armed Conflict and Environmental Effects

The belligerents of this war were initially two groups of European states called the “Central Powers” and the “Triple Entente/Allied Powers”. This war was
widened when other parties outside Europe became involved in this event. The Ottoman Empire joined the Central Powers, while Japan and the United States (US)\(^1\) joined the Allied Powers. This war became a truly “world war” when the armed conflicts were widely spread all over the world through the colonies of these powers.

On 11 November 1918, WWI ended when the Central Powers\(^1\) were defeated and an armistice agreement between the Allied States and Germany was concluded.\(^1\) Following this ceasefire agreement, the victorious Allied States gathered in Paris to conduct a peace conference in order to manage a post-war settlement.\(^1\) The most well-known product of this conference was the Treaty of Versailles, a peace agreement between Germany and the Allied Powers signed on 28 June 1919.\(^1\) Following this treaty, the Allied Powers adopted separate peace treaties with the other Central Powers, i.e. Austria,\(^6\) Bulgaria,\(^7\) Hungary\(^8\) and Turkey.\(^9\)

---

1 Which joined the war on 5 April 1917 after its various efforts to make peace between the belligerent sides failed and its disappointment with Germany’s conduct of war. Howard, ibid, at 81-95.

12 After defeated, the Austria-Hungary kingdom was then broken up into the new nations of Austria and Hungary. Treaty of Peace between the Allied and Associated Powers and Austria (signed 10 September 1919) (1920) 14 AJIL 1 [Treaty of Peace between Allied Powers and Austria]; Treaty of Peace between the Allied and Associated Powers and Hungary, and Protocol and Declaration (signed 4 June 1920) (1921) 15 AJIL 1 [Treaty of Peace between Allied Powers and Hungary].

13 Conditions of an Armistice with Germany (signed 11 November 1918) (1919) 13 AJIL 97. This agreement was drafted by the Americans and accepted by the Germans. Alan Sharp *The Versailles Settlement: Peacemaking in Paris, 1919* (2nd ed, Macmillan Education, Hampshire, 2008) at 17.

14 Besides adopting these treaties, the Paris conference, which began on 18 January 1919, also adopted a covenant establishing the League of Nations, which aimed to prevent future world wars. The text of the covenant was integrated in the first part of the peace treaties between the Allied and Central Powers. Ibid, at 24. See also Treaty of Peace between Allied Powers and Austria, above n 12; Treaty of Peace between Allied Powers and Hungary, above n 12; Treaty of Peace with Germany (signed 28 June 1919) (1919) 13 AJIL 151 [Treaty of Peace with Germany].


16 Treaty of Peace between Allied Powers and Austria, above n 12.
During WWI and its aftermath, it seems environmental protection was not a major concern for belligerents or the international community. This is evident from the fact that there was no international agreement for the conduct of warfare that directly protected the environment at that time. In addition, there are only limited numbers of reports or articles that discuss the environmental impacts of WWI.\(^{20}\)

The environmental impact from this war was firstly observed in relation to forests, with observers noting the severe damage that they suffered during the war.\(^{21}\) Forest damage during WWI may be categorised into one of three key areas: complete destruction; damage due to collateral effects of exploded artillery shells, mines, or bombs; and production to support the war effort. Approximately 2.5 billion board feet of lumber was destroyed during WWI in French forests.\(^{22}\) The battle areas and occupied zones in France included about 600,000 hectares of forest and 200,000 hectares were severely damaged, requiring artificial

---

\(^{17}\) Treaty of Peace between the Allied and Associated Powers and Bulgaria, and Protocol (signed 27 November 1919) (1920) 14 AJIL 185 [Treaty of Peace between Allied Powers and Bulgaria].

\(^{18}\) Treaty of Peace between Allied Powers and Hungary, above n 12.

\(^{19}\) Treaty of Peace between the Allied Powers and Turkey (signed 10 August 1920) (1921) 15 AJIL 179 [Treaty of Peace between Allied Powers and Turkey].


\(^{21}\) One of the observers lamented the impact of WWI on the forest: “[o]f all the injuries that are inflicted upon nature by war, forest destruction is one of the heaviest and most worthy of complaints. In any case, destroyed forests (...) must be tended with total effort for many years, often decades, until you can halfway celebrate their recovery and until you have completely healed the damage and devastation”. F.V. Mammen, *Significance of the Forest Particularly in War* (“Globus”, Wissenschaftliche Verlagsanstalt, Dresden, 1916) in German, 45-46, cited in Westing, above n 20, 53.

\(^{22}\) Hupy, above n 9, at 413.
Meanwhile, Britain’s productive forest was cut by 50 per cent during four years of supporting the war efforts.

Other land warfare methods, which had a severe environmental impact, were the artillery strategies, oilfield destroyions, and the creation of trenches for military strategy. The use of heavy artillery was a popular warfare method during WWI because of its ability to destroy targets before the infantry started ground operations in the front line. Unfortunately, this method of warfare brought indiscriminate damage to the environment. The artillery destroyed forests and significantly altered the landscape. Oilfields became military targets in this war when Allied forces bombed and burned oilfields and facilities during their invasion of Romania because of Romania’s allegiance to the Central Powers. This action resulted in serious harm to the surrounding environment. Another destructive environmental alteration for war purposes was the creation of a line of trenches 20 kilometres in width, from the English Channel to the border of Switzerland.

Belligerents during this war also utilised chemical weapons. Chemical weapons were first deployed by Germany in 1915, when its army released a cloud of chlorine gas onto French soldiers. The Allied States, primarily France, considered

---

23 Westing, above n 20, at 52.
25 Hupy, above n 9, at 412-413.
27 Nada Al-Duaij Environmental Law of Armed Conflict (Transnational Publisher, New York, 2003) at 35.
this attack to be a violation of The Hague Conference agreements\textsuperscript{30} although they retaliated with the same methods and means of warfare.\textsuperscript{31} In addition, the German army also dumped approximately 20,000 tons of stockpiled chemical weapons into the Baltic Sea at the end of the war. These chemicals poisoned the ecosystem, affecting both humans and marine organisms.\textsuperscript{32}

2.1.2. Analysis of Applicable Laws

It appears that, during this war, belligerents on both sides engaged in unlawful conduct and caused damage to the environment. In terms of damage to the forests, both warring parties violated rules from the 1907 Hague Regulations, particularly art 23(g).\textsuperscript{33} Given the extensive damage to the forest,\textsuperscript{34} it can be argued that their attacks on forests did not bring any significant military advantage and appeared to be merely destructive actions. Further, in regard to Germany, there was a violation of art 55 because it harvested France’s forests during its occupation of that country in a non-sustainable way,\textsuperscript{35} thus disobeying the rules of usufruct. Both sides also violated art 23(a) and (e) because they employed chemical or poisonous weapons, which resulted in unnecessary human suffering and the destruction of the environment.

\textsuperscript{30} The Hague Conferences of 1899 and 1907 expressly banned the use of poisoned projectiles to disburse poison gases. Final Act of the International Peace Conference (signed 29 July 1899) (1907) 1 AJIL 103 at 105; The 1907 Hague Convention (IV) Respecting the Laws and Customs of War on Land (opened for signature 18 October 1907, entered into force 26 January 1910), annex [the 1907 Hague Regulations], art 23(a).


\textsuperscript{33} The 1907 Hague Regulations, above n 30.

\textsuperscript{34} Hupy, above n 9, at 413; Westing, above n 20, at 52.

\textsuperscript{35} During Germany’s occupation over France, the former had ordered 22 million of trees in the forest of the latter. Westing, above n 20, at 52-53.
Therefore, violations of these rules should have activated the belligerents’ responsibility, making them liable to compensate victims for damage, including damage to the environment. Unfortunately, the post-war settlements did not specifically cover compensation for environmental damage, as explained below, and only the defeated belligerent sides were forced to pay compensation for all of the consequences of war.

2.1.3. Post-Conflict Examination

In the aftermath of WWI, a number of peace treaties were signed between the Allied and Central States. This section focuses on the Treaty of Versailles since it offers valuable lessons about enforcing state responsibility for consequences of war in general. In addition, the terms of responsibility and reparation in the Versailles treaty were similar to other peace treaties between the Allied States and Austria, Bulgaria, Hungary and Turkey. However, none of these peace treaties specifically address compensation for states that suffered environmental damage during the war.

Under the Treaty of Versailles, Germany was forced accept responsibility for the consequences of war. This was stipulated in the well-known war-guilt clause in art 231 of the Treaty.

[t]he Allied and Associated Governments affirm and Germany accepts the responsibility of Germany and her allies for causing all the loss and damage to

---

36 Treaty of Peace with Germany, above n 14; Treaty of Peace between Allied Powers and Austria, above n 15; Treaty of Peace between the Allied and Bulgaria, above n 17; Treaty of Peace between Allied and Hungary, above n 12; Treaty of Peace between Allied Powers and Turkey, above n 19.

37 Treaty of Peace with Germany, above n 14. See also Hessel E. Yntema “The Treaties with Germany and Compensation for War Damage” (1923) 23 Colum. L. Rev. 511 at 512.


39 Langdon, above n 10, at 2.

40 Treaty of Peace with Germany, above n 14, art 231.
which the Allied and Associated Governments and their nationals have been
subjected as a consequence of the war imposed upon them by the aggression of
Germany and her allies.

As a consequence, Germany was obligated to compensate the Allied and
Associated states. Despite the recognition of Germany’s inadequate resources, the
treaty stipulated that:41

[...]he Allied and Associated Governments, however, require, and Germany
undertakes, that she will make compensation for all damage done to the civilian
population of the Allied and Associated Powers and to their property during the
period of the belligerency of each as an Allied or Associated Power against
Germany by such aggression by land, by sea and from the air, and in general all
damage (...).

The above provisions show that Germany was responsible because of its unlawful
conduct of aggression, and therefore liable to compensate the victor states. It
appears that the legal basis for Germany’s responsibility was not from the law of
war, but from a norm that outlawed the act of “illegal” use of force against other
states.42

The total sum of compensation that Germany was to pay was 269 billion gold
marks, or the equivalent of 100,000 tonnes of gold.43 In managing compensation
claims, the treaty established a “Reparation Commission” which exclusively
consisted of representatives of the victorious Allied States.44 This Commission
had the task of determining the amount of damages to be paid by Germany.

41 Ibid, art 232.
42 This norm came from art 227 of the Versailles Treaty that charged the former German Emperor
(William II of Hohenzollern) personally with a supreme offence against international morality and
the sanctity of treaties. This charge against a former German Emperor may be considered as a
charge to the German state (although represented by its head of state).
43 Olivia Lang “Why Has Germany Taken So Long to Pay off Its WWI Debt?” (2010) BBC
<www.bbc.co.uk/news>.
44 The Reparation Commission consisted of one member each from France, Great Britain, Italy
and the US with the fifth seat alternating between: Belgium when Germany was under discussion;
Japan for maritime matters; and Yugoslavia for matters concerning the former Austro-Hungarian
Empire. Sharp, above n 13, at 98.
Germany was given the right to present evidence and arguments regarding its capacity to pay, as part of the entitlement to “a just opportunity to be heard”. However, Germany could not take part in decision-making within the Commission.46

In terms of claims that might be considered by the Inter-Allied Reparation Commission, the Versailles Treaty lists several claims in its annex.47 Of these, the one that most closely relates to repairing the environment is the claim of damage to property which had been destroyed by Germany or its allies. Unfortunately, there is no available data recording how many claims were submitted under this category. Nevertheless, while indirect, this category of claim offered reparation or compensation for the damaged environment.

It was not until 3 October 2010 that Germany finally paid off its remaining war debt to the Allied States in a final payment of EUR€70 million.48 Despite the enormity of this war debt, an observer claimed that Germany could have paid it earlier.49 Further, it has been argued that this tardiness was due to two factors:

45 Treaty of Peace with Germany, above n 14, art 233.
47 The claims are: (1) physical injury to or death of civilians caused by acts of war, and all the direct consequences thereof, and of all operations of war by the two groups of belligerents wherever arising; (2) damage caused by Germany or her allies to civilian victims of acts of cruelty, violence or maltreatment and to the surviving dependents of such victims; (3) damage caused by Germany or her allies in their own territory or in occupied or invaded territory to civilian victims and to the surviving dependents of such victims; (4) damage caused by any kind of maltreatment of prisoners of war; (5) cost of assistance by the Government of the Allied and Associated Powers to prisoners of war and injured war veterans and to their families and dependents; (6) damage as a result of forced labour by Germany and its allies; (7) damage of all property belonging to any of the Allied or Associated states which has been carried off, seized or destroyed by Germany or its allies directly in consequence of the war; and (8) damage in the form of levies, fines and other similar exactions imposed by Germany or its allies upon civilian population. Treaty of Peace with Germany, above n 14, Annex I, Part VIII.
49 Lang, above n 43.
refusal to pay during Hitler’s time in power;\textsuperscript{50} and the division of Germany into two countries in the aftermath of the WWII.\textsuperscript{51}

Besides exacting civil compensation from Germany, the Allied States also decided to prosecute the Central Powers’ individual leaders for acts done contrary to international law\textsuperscript{52} under Part VII of the Versailles Treaty.\textsuperscript{53} This section of the treaty was noted as an important development in the law of war because it stipulated a legal basis for prosecuting a head of state and individual military personnel for war crimes.\textsuperscript{54}

2.1.4. Summary

The post-conflict settlement of this war is, and has been seen as, a ‘victor’s justice’ settlement. As the victorious party, the Allied States blamed the Central Powers for initially waging unlawful war, and consequently determined that the Central Powers were fully responsible for the damage resulting from war. The terms and conditions for exacting compensation from the Central Powers were stipulated in the peace treaties which were drafted, enforced and monitored by the Allied States, without any contribution from the defeated states.

In reference to the environment, unfortunately, no specific item of reparation in the peace treaties addressed rehabilitation of the damaged environment. However, these peace treaties still offered reparation or compensation for the damaged

\textsuperscript{50} See Neil Tonge \textit{Documenting the World War II: The Rise of the Nazis} (Rosen Central, New York, 2009) at 10; Slavicek, above n 10, at 96-97.

\textsuperscript{51} Lang, above n 43. See the discussion of these events below at [2.2.3.1].


\textsuperscript{53} Treaty of Peace with Germany, above n 14, Part VII concerning Penalties.

environment, albeit indirectly, through their protection of Allied and Associated States’ property.

Nevertheless, these peace treaties can be considered to have enforced state responsibility, resulting from the illegal action (at international law) of waging war against the Allied States. However, there was no specific provision of international law cited in the peace treaties that the Central Powers were considered to have violated. The only provision that reflected the legal basis for responsibility in the peace treaty was the so-called “war-guilt” clause.

Finally, the horrible experience during WWI led the international community to take a firm position in prohibiting chemical weapons as a means of warfare because of alarming use of these weapons, which caused massive human casualties.\(^5^5\) In June 1925, the international community agreed to a Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare.\(^5^6\) As discussed in Chapter 2, this treaty is considered to offer substantial protection to the environment.

2.2. World War II

Just over two decades after WWI, states were again involved in a widespread armed conflict, World War II (WWII). Environmental damage resulting from this war was far greater than that resulting from WWI. As with WWI, destruction to the environment during WWII appears to have been justified under the principle of military necessity. However, the devastation of the environment was clearly

\(^{5^5}\) It was noted that the use of chemical weapons during World War I caused about 1.3 million human casualties. David B. Merkin “The Efficiency of Chemical Arms Treaties in the Aftermath of the Iran-Iraq War” (1991) 9 B. U. Int’l L. J. 175 at 177; David A. Koplow “Long Arms and Chemical Arms: Extraterritoriality and the Draft Chemical Weapons Convention” (1990) 15 Yale J. Int’l L. 1 at 8.

\(^{5^6}\) Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (opened for signature 17 June 1925, entered into force 8 February 1928).
disproportionate to the military benefit gained, and was often even unnecessary. These actions were committed by belligerents on both sides, and were in violation of the law of war. Therefore, both sides should have been held responsible for their actions, and also held liable for payment of compensation to rehabilitate or repair the environment.

Unfortunately, similar to the end of WWI, only one side of belligerent party was actually held responsible for damages resulting from this war. Further, no specific compensation was given to repair or rehabilitate the environment damaged by the war. The only consideration given to the environment was reflected in the individual criminal prosecution, before the military tribunal, of a German military officer who was charged with wanton destruction of the environment. However, this promising step in protecting the environment during war was ultimately fruitless since the Court acquitted the accused on the basis of military necessity.

2.2.1. Armed Conflict and Environmental Effects

Like the previous world war, WWII was a global armed conflict that lasted from 1939 to 1945 and mainly involved two opposing state military alliances, the Axis and the Allies. The war gathered momentum as European Axis states invaded the Soviet Union in June 1941. In the Pacific, Japan tried to dominate the region by attacking and occupying territories possessed by China, the US and other European states. Finally, when Japan attacked a US military base in Pearl

---

57 See the discussion of this case at [2.2.3.2] below.

58 The Axis group mainly consisted of Germany, Japan and Italy, while the Allies were comprised of the British Empire, the US, France and the USSR. The war took place in three main areas: Europe, the Mediterranean and the Asia Pacific region. The major protagonist in Europe was Germany, while Italy and Japan were protagonists in the Mediterranean and Asia respectively. These states were trying to rebuild or to expand their power by invading their neighbouring countries.

59 In September 1931, Japan invaded Northern China (Manchuria). Hillgruber, above n 10, at 58.
Harbour, Hawaii, the US felt compelled to enter the war, joining the Western Allies in the fight against the Axis powers.\textsuperscript{60}

Germany officially gave up its part in the war by signing an instrument of surrender to the Allies on 9 May 1945.\textsuperscript{61} The Allies attempted to halt hostilities with the Japanese, announcing the “Potsdam Declaration” on 26 July 1945, which demanded Japan’s unconditional surrender to the Allies to end the war, threatening “prompt and utter destruction” otherwise.\textsuperscript{62} This ultimatum was ignored by Japan, which led the US to drop two atomic bombs on the Japanese cities of Hiroshima and Nagasaki,\textsuperscript{63} on 6 and 9 August 1945 respectively.\textsuperscript{64} After these atomic bombings, Japan announced its surrender and signed its own instrument of surrender on 2 September 1945,\textsuperscript{65} which officially ended the war in Pacific and WWII as a whole.

Aside from the complete and utter devastation flowing from the nuclear attacks, the environmental damage incurred during this war was comparable to WWI.\textsuperscript{66} The most notable environmental damage was the destruction of forests, mainly in France. Having had insufficient time to recover from atrocities of WWI, forests in

\textsuperscript{60} George Feldman \textit{World War II: Almanac} (UXL, Detroit, 2000) at 3, 93; Adam J. Berinsky “Assuming the Costs of War: Events, Elites, and American Public Support for Military Conflict” (2007) 69 J. Pol. 975 at 987.

\textsuperscript{61} United States-Germany-Great Britain-Soviet Union: Unconditional Surrender of German Forces at Berlin (signed 9 May 1945) (1945) 39 AJIL 170 [Germany’s Instrument of Surrender].


\textsuperscript{63} These cities were targeted because they were Japan’s major ports used by the military and house large industrial complexes used for shipbuilding and repair. Erik Koppe \textit{The Use of Nuclear Weapons and the Protection of the Environment during International Armed Conflict} (Hart, Oxford, 2008) at 33.


\textsuperscript{65} United States--China--Great Britain--Soviet Union: Unconditional Surrender of Japan (signed 1 September 1945) (1945) 39 AJIL 264 [Japan’s Instrument of Surrender].

\textsuperscript{66} It has been noted that the environmental damage, at least in the countryside, was actually much more limited. This was due to technological advancements in munitions and changes in battlefield tactics. Hupy, above n 9, at 416.
Europe, especially in France, once again became the victims of human hostilities. This destruction was attributed to belligerents’ conduct both in direct military operations and in occupations. Approximately 400,000 hectares of forest in France was severely damaged due to direct military conduct such as bombing, shelling, burning and clearing. Meanwhile, during military occupation, Germany caused severe damage to 100,000 hectares of French forest. In fact, Germany enacted a decree that increased deforestation in France by more than 50 per cent.67 Besides destroying forests in France, Germany also committed similar acts in Poland68 and the Netherlands.69

Besides the devastation of forests, the belligerents also contributed to environmental damage by employing military strategies intended to starve their enemies during the war.70 The Allies destroyed Germany’s grain fields through incendiary attack.71 Meanwhile, German forces deliberately flooded some 30,000 hectares of farming lands in the Netherlands with saltwater to make them unusable for crops.72

The strategy of destroying dams was also employed in WWII, particularly by the Allied States. For example, in May 1943 Great Britain launched a military attack against Germany, demolishing two major dams in the Ruhr Valley in order to destroy Germany’s industrial economic base. Subsequently, 34.3 billion gallons of

67 Westing, above n 20, at 53.

68 In that case, the UN War Crimes Commission was asked to determine whether ten German civilian administrators who occupied Poland in 1939-1944 could be listed as war criminals because of pillaging Polish public property. Due to the available evidence of war crimes, the Commission agreed that nine of the ten officials charged be listed as accused war criminals. UN War Crimes Commission History of the United Nations War Crimes Commission and the Development of the Laws of War (His Majesty’s Stationary Office, London, 1948) at 496; Roberts, above n 20, at 124.

69 Westing, above n 20, at 51.


71 Westing, above n 20, at 56.

72 Al-Duaij, above n 27, at 38-39.
water was released from the Möhne Dam and another 52.8 billion gallons from the Eder Dam.\textsuperscript{73} This caused extensive damage to 125 factories and 25 bridges as well as to power-stations, coal mines, and railway lines, killing 1,294 German people.\textsuperscript{74}

Open warfare in the Western Pacific between the US and Japan also negatively impacted the environment. Many islands endured days of naval and aerial bombardment. Islands such as Tarawa, Iwo Jima and Attu were pummeled by heavy naval and aerial bombardment.\textsuperscript{75} Ships were wrecked and other military vehicles were damaged around the Pacific Islands, contributing to severe marine pollution and threatening people’s livelihoods. During WWII, 674 large US commercial ships were sunk by military actions, 152 of which were oil tankers.\textsuperscript{76} These shipwrecks caused severe oil pollution and damaged marine ecosystems, coral reefs and sea grass beds.\textsuperscript{77} The legacy of this environmental harm in the Pacific Islands continues today, yet debate surrounds who ought to clean up this grim legacy of the war.\textsuperscript{78}

Marine pollution not only occurred in the Pacific but also in Europe. In late 1943, German forces bombed Allied ships stationed at Bari Harbour, Italy. These damaged ships released 220,500 pounds of mustard gas into the Adriatic Sea, which was toxic to ocean mammals and also to humans. Swedish experts have

\textsuperscript{73} Lanier-Graham, above n 32, at 24.


\textsuperscript{75} Hupy, above n 9, at 414.

\textsuperscript{76} Westing, above n 20, at 165-166.

\textsuperscript{77} Al-Duaij, above n 27, at 39; Lanier-Graham, above n 32, at 62; James Paull IV “Salvaging Sunken Shipwrecks: Whose Treasure is It? A Look at the Competing Interests for Florida’s Underwater Riches” (1994) 9 J. Land Use & Envtl L. 347 at 369.

noted that this mustard gas forms a protective layer underwater which helps the chemical agent preserve its effectiveness for hundreds of years.\textsuperscript{79}

Another legacy of the war is the unmapped minefields that have continued to endanger people and their environment long after the end of the war.\textsuperscript{80} The worst example of this was in Poland, where almost 80 per cent of the territory was mined. These mines were deemed impossible to map. The Polish Ministry of Defence claimed that they exploded or destroyed millions of these remaining explosives between 1945 and 1982, with thousands of civilians lives lost during this effort.\textsuperscript{81}

In particular, there were two other major acts of environmental destruction which are important to discuss separately. They are the “scorched earth” policy\textsuperscript{82} by German troops in Norway and the use of atomic bombs by the US against Japan.

In the latter part of WWII, the German General Lothar Rendulic ordered the evacuation of all the inhabitants in the province of Finmark, in the northeast of Norway, in October 1944.\textsuperscript{83} In addition, he ordered the substantial destruction of this province. The purpose of this so called “scorched earth” policy was the complete destruction of private village housing, bridges, highways, communication facilities and port installations.\textsuperscript{84} According to Rendulic, this

\textsuperscript{79} Lanier-Graham, above n 32, at 28-29.


\textsuperscript{81} Tom H. Hastings \textit{Ecology of War & Peace: Counting Costs of Conflict} (University Press of America, Maryland, 2000) at 40.

\textsuperscript{82} It was noted that the Allied States were also practising this policy during this war. See Gillespie, above n 70, at 79.

\textsuperscript{83} Based on the evidence, no life casualty occurred directly because of this evacuation. Alfred M. de Zayas “International Law and Mass Population Transfers” (1975) 16 Harv. Int’l L. J. 207 at 218.

strategy was based on military necessity in order for German forces under his command to retreat, and to anticipate a major Soviet offensive.\textsuperscript{85}

Finally, among the most devastating experiences of WWII was the American use of atomic bombs against Japan.\textsuperscript{86} The environmental damage of the atomic bombs was immense, and had multiple effects.\textsuperscript{87} First, the blasts polluted the air with dust particles and radioactive fragments, as well as large amounts of smoke from the numerous fires caused by the bombs. Second, plants and animals were killed instantly in the area surrounding the blasts centres. This includes farming areas near ground zero, where agricultural products were destroyed. There were noticeable negative environmental impacts in Hiroshima within a radius of 10 kilometres of the city, while in Nagasaki the impacts were limited to within a one-kilometre radius.\textsuperscript{88}

2.2.2. Analysis of Applicable Laws

During this war, both sides of the belligerents violated both written and customary international laws of war in causing environmental damage. On the Axis side, Germany violated arts 23(g), 25 and 55 of the 1907 Hague Regulations\textsuperscript{89} when it

\begin{itemize}
  \item \textsuperscript{85} Ensign Florencio J. Yuzon “Deliberate Environmental Modification through the Use of Chemical and Biological Weapons: “Greening” the International Laws of Armed Conflict to Establish an Environmentally Protective Regime” (1996) 11 Am. U. J. Int’l L. & Pol’y 793 at 815.
  
  
  \item \textsuperscript{87} For general devastating effects of the nuclear bomb, see Koppe, above n 63, at 47-106.
  
  
  \item \textsuperscript{89} Article 23(g): “[t]he attack or bombardment, by whatever means, of towns, villages, dwellings, or buildings which are undefended is prohibited”; Article 55: “[t]he occupying state shall be regarded only as administrator and usufructuary of public buildings, real estate, forests, and agricultural estates belonging to the hostile state, and situated in the occupied country. It must safeguard the capital of these properties, and administer them in accordance with the rules of usufruct”. The 1907 Hague Regulations, above n 30.
\end{itemize}
destroyed forests in the Netherlands, Poland and France and undertook its “scorched earth” policy in Finmark, Norway. In addition, Germany also violated customary rules of humanitarian law by attacking farmlands in the Netherlands in order to starve the enemy’s population.90

On the other side, in a similar manner to the Germans, the British attempted to starve the German population by destroying grain fields in Germany. This action also violated the customary rule prohibiting starvation as a method of warfare.91 In addition, the use of atomic bombs by the US can be said to have violated some customary rules of the laws of war. Even though there was no specific international law prohibiting the use of nuclear weapons at that time, the impact of this kind of weapon failed to meet certain principles of the laws of war at the time.92

The use of atomic bombs, in particular, violated the prohibition against using means and methods of warfare which cause superfluous injury or unnecessary suffering,93 as well as the prohibition on using weapons which are by their nature indiscriminate.94 Further, one commentator has argued that the massive area destroyed by the atomic bombs and the military objectives achieved were


91 Ibid.

92 This conclusion was also reached by Tokyo District Court in Shimoda case in 1963. See Richard A. Falk “The Shimoda Case: A Legal Appraisal of the Atomic Attacks upon Hiroshima and Nagasaki” (1965) 59 AJIL 759. In 1996, the ICJ confirmed that no convention, environmental or otherwise, comprehensively and universally bars the threat or use of nuclear weapons as such. However, it also confirmed 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. Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion) [1996] ICJ Rep 226 at 266 (Judgment 2E) [Nuclear Weapons Advisory Opinion].

93 It is contended that Koppe’s assessment, that “the environmental consequences resulting from the use of nuclear weapons may conflict with certain requirements under ius ad bellum (…) which is either unnecessary or disproportionate” is accurate. Above n 63, at 384-385.

disproportionate, making the military necessity argument unpersuasive.\(^{95}\)
Therefore, the US should have been held responsible for the resultant damage because it was the party that deployed atomic weapons.

Unfortunately, as will be explained below, these violations of the laws of war were not taken into account after the war, when responsibility was being determined. The post-war regime was more focused on the defeated belligerents’ illegal acts of aggression, and forcing them to pay reparation costs. As well, there was no specific focus on reparation for environmental damage.

2.2.3. Post-Conflict Examination

The end of WWII was marked by the defeat and surrender of the two key Axis states: Germany and Japan.\(^{96}\) After these events, WWII largely ended. The Allied States had imposed various settlements on the individual Axis States in the aftermath of the war. For Germany, the end of the war was not followed by the adoption of a peace treaty, but by the Allied States’ occupation and assumption of power within Germany’s territory.\(^{97}\) Meanwhile the other Axis states were also occupied, later signing peace treaties with the Allied States.

2.2.3.1. Non-Monetary Reparation Regimes

On the eve of Germany’s defeat, in February 1945, the three leaders of the Allied powers (the US, the UK and the USSR), gathered in Yalta, USSR to discuss plans for the final defeat of Germany and subsequent settlements, including war reparation. In what was later called the Crimean Conference or Yalta Conference,


\(^{96}\text{Germany’s Instrument of Surrender, above n 61; Japan’s Instrument of Surrender, above n 65.}\)

\(^{97}\text{United States-France-Great Britain-Soviet Union: Declaration Regarding the Defeat of Germany and the Assumption of Supreme Authority with Respect to Germany and Supplementary Statements (signed 5 June 1945) (1945) 39 AJIL 171 [Declaration of Allied Assumption of Power over Germany].}\)
they demanded Germany’s unconditional surrender and planned to divide Germany into four occupation zones with an invitation to France to be the fourth occupying power.98 After considering the failure of the Versailles reparation regime of fixed monetary payment, the Allies decided that payment should be made in kind (in deliveries of goods or raw materials) and that no actual sum be specified.99

Soon after the signing of the final instrument of surrender by Germany,100 the Allied States assumed power there. They also decided the oversight of four occupation zones: the French would be in the southwest, the UK in the northwest, the US in the south, and the USSR in the east.101

As the main state responsible for the war in Europe, Germany was held liable for war reparations, mainly to the four war victors (i.e. the US, the UK, France and the USSR). Germany’s responsibility after the war was confirmed to be a result of its violation of the fundamental rule that emerged during the inter-war period: aggression as a breach of peace.102 Therefore, considering the points made at the Yalta conference, the Allied powers agreed in the Potsdam agreement that Germany was “compelled to compensate to the greatest possible extent for the loss and suffering that she [had] caused to the United Nations”.103 According to this agreement, war reparation claims by the USSR were exacted from its

---

99 J. E. Farquharson “Anglo-American Policy on German Reparations from Yalta to Potsdam” (1997) 112 Eng. Hist. Rev. 904 at 907. The two main objectives according to the US were: “to remove from Germany everything which might enable her to prepare a new war (…) [and] to assist the reconstruction of the devastated countries by allocating to them industrial equipment and machinery removed from Germany”, cited in D. B. “The Inter-Allied Reparations Agency Questions of Allocation and Dismantling” (1949) 5 Wld Today 266 at 266
100 Germany’s Instrument of Surrender, above n 61.
101 Declaration of Power Assumptions by Allied over Germany, above n 97, at 176.
occupation zone in eastern Germany and Germany’s external assets. Poland’s claims were also met from this portion. Meanwhile, war claims from the Western Allies were met from the western occupational zones in Germany.104

After the division, the western zones experienced increasing economic hardship as significant numbers of German refugees from the eastern zone flooded in.105 This led the US and the UK to decide to unify their zones economically, gradually preserving Germany’s industrial plants. The USSR rejected this decision and decided to depart from the Allied Control Council. This withdrawal put an end to the unified and concerted post-WWII reparation scheme.

In 1952 and 1954, the US, the UK and France agreed to abolish the 1949 Status of Occupation and to allow the Federal Republic of Germany (FRG) to continue as a sovereign state in domestic and foreign affairs. This treaty also determined the cessation of all material exaction from Western Germany as a form of war reparations.106 In 1953, the FRG negotiated with the Western Allied States that it would defer payments of pre-1945 war debts until a final settlement of German unification had been reached.107

104 Agreement on Reparation from Germany, on the Establishment of an Inter-Allied Reparation Agency and on the Restitution of Monetary Gold (signed 14 January 1946, entered into force 24 January 1946). The total reparations claimed by the Inter-Allied Reparation Agency included some 667 industrial plants worth about US$130 million, which were dismantled and distributed. In addition, about 254 German ships collected by the US and Great Britain pursuant to the Potsdam Conference Agreement. d’Argent, above n 102, at paragraph 10.

105 As a response to this exodus that weakened the economy of East Germany, the GDR’s soldiers began erecting the Berlin Wall to prevent further escapes to the western zone. Heinz Fassmann and Rainer Munz “European East-West Migration, 1945-1992” (1994) 28 Int’l Migration Rev. 520 at 529.


107 Agreement of German External Debts (signed 27 February 1953, entered into force 16 September 1953) [1953 London Agreement].
Meanwhile, in East Germany, the Potsdam Agreement allowed the Soviets to exact reparations from this zone for the benefit of the USSR and Poland. This mechanism was settled by a bilateral agreement between the Soviet Union and Poland on 16 August 1945. The agreement stipulated that Poland had to receive 15 per cent of the reparations collected by the Soviet Union.

The Soviet Union had by then stopped dismantling East Germany’s industrial plants, and had rather begun to control its production for the USSR’s benefit through a system of Soviet ownership (‘Sowjetische Aktiengesellschaften’). Four years after the establishment of the German Democratic Republic, in 1953, the Soviet Union declared that it had stopped claiming further reparations. This was followed by Poland making a similar declaration, but to Germany in general, which was confirmed by the 1970 Warsaw Treaty.

Based on the 1953 London Agreement, war reparation settlements had been postponed until the conclusion of a comprehensive treaty on German unification. Unfortunately, Germany’s unification treaty did not cover the issue of war reparations, but rather dealt with the issue of Germany’s full domestic and external sovereignty. Nevertheless, the FRG, as the final form of the post-WWII German state, agreed voluntarily to bear the obligations relating to restitution and

---

109 Ibid, art 2.
110 d’Argent, above n 102, at paragraph 16.
112 d’Argent, above n 102, at paragraph 16.
compensation of the war victims. As was noted above, Germany’s WWI debt was not paid until October 2010, something the 1953 London Agreement surely contributed to.

Five of Germany’s WWII allies were also held responsible and liable for reparations to the Allied States: Romania, Bulgaria, Hungary, Finland and Italy. The first four states were obliged to pay reparations totalling US$300 million, which had to be paid in the form of deliveries of goods and raw materials over a period of six to eight years to the designated states: the Soviet Union, Czechoslovakia, Yugoslavia, and Greece. Meanwhile, as one of the main states in the tripartite pact, Italy was obliged to pay reparations of US$360 million to the Soviet Union, Albania, Ethiopia, Greece, and Yugoslavia in the form of dismantled industrial plants and deliveries of goods or raw materials.

Besides the post-war reparation regime in Europe, the Allied States also implemented their reparation regime against Japan in the Pacific region. Since the occupation of Japan by the US in September 1945, the US had applied reparations regime based on the Potsdam Declaration that Japan should pay reparations in kind. However, as with the situation in Germany, the US realised that it needed to save Japan’s economy as well. The US then, in 1951, stopped

---

116 d’Argent, above n 102, at paragraph 18.
117 Lang, above n 43.
120 Interestingly, one scholar has noted that the US and its allies have formally gave compensation to people on pacific region for damages particularly the environment for damages occasioned by their Army, Navy, and Marine Corps forces. Despite the main purpose of maintenance of friendly relations to their colonies, this behaviour seems articulated a gesture of responsibility of state for (environmental) damage during warfare. See Judith A. Bennett Natives and Exotics: World War II and Environment in the Southern Pacific (University of Hawai‘i Press, Honolulu, 2009) 157-178.
121 d’Argent, above n 102, at paragraph 24.
dismantling industrial infrastructure and decided to make no further reparation claims against Japan. This represented a change from the reparations regime formally stipulated in the peace treaty between the Allies and Japan.\textsuperscript{122}

Based on the experience described above, state responsibility for violations of international law was enforced in the aftermath of WWII. However, this enforcement took place through laws which were subjectively designed by the victors to benefit themselves. Therefore, compensation to war victims was largely for the benefit of the victorious states.

In particular, none of the reparation regimes after WWII covers compensation to rehabilitate or repair the environment damaged during the war (within either the territories of victorious or defeated states). War compensation in the aftermath of this war was mainly focused on repaying all war expenses, saving victors’ assets and compensating them for human casualties.

The exaction of reparations from the defeated states was moderated as the rivalries of political ideology between the victorious states emerged. The occupying powers shifted their motivation from the impoverishment of enemy populations to re-industrialisation in order to gain sympathy for their respective ideologies and to support the armament race during the “Cold War”.\textsuperscript{123}

2.2.3.2. Efforts to Pursue Environmental Criminal Responsibility

Besides pursuing civil liability from the defeated states by various reparation regimes, as the victorious party, the Allied States also sought criminal justice against their enemies’ military leaders, who were accused of war crimes. Because

\textsuperscript{122} Allied Powers-Japan: Treaty of Peace (signed 8 September 1951, entered into force 28 April 1952).

\textsuperscript{123} d’Argent, above n 102, at paragraph 2.
of this, the Allied States adopted two agreements to create special tribunals to try these Axis criminals, mainly those from Germany and Japan.

After the War, the International Military Tribunals in Nuremberg and International Military Tribunal for the Far East in Tokyo were established by Charter.\textsuperscript{124} Of these two Charters, only the Charter for the Tribunal in Nuremberg included environmental protection in the statement about war crimes for actions that facilitated the “plunder of public or public private property, wanton destruction of cities, towns, or villages, or devastation not justified by military necessity”.\textsuperscript{125}

Notably, there was a special case before the Nuremberg Tribunal relating to environmental issues during the war. The case involved the German General Lothar Rendulic.\textsuperscript{126} As previously discussed, General Rendulic had ordered a scorched earth policy in the province of Finmark. He was charged with wanton destruction of private and public property and accused of violating art 23(g) of the 1907 Hague Regulations which proscribed seizure or destruction of enemy’s property unless such seizure was “imperatively demanded by the necessities of war”.\textsuperscript{127} Therefore, the main question was whether the devastation caused was justified by the principle of military necessity.

\begin{enumerate}
\item Charter of the International Military Tribunal (signed 8 August 1945, entered into force 8 August 1945) (IMT Charter); Charter of the International Military Tribunal for the Far East, <www.jus.uio.no/english/services/library/treaties/04/4-06/>.
\item Ibid, IMT Charter, art 6(b). Despite this provision, there was no prosecution brought before the Tribunal against the belligerents for their bombing campaigns. Gillespie, above n 70, at 36.
\item His case was included in the trial of a group of defendants called the \textit{Trial of Wilhelm List and Others (The Hostages Trial)}. In this case, twelve German Army generals were indicted for war crimes committed during the invasion and occupation of Yugoslavia, Albania, Norway and Greece. \textit{Trial of Wilhelm List and Others (The Hostages Trial); Case No. 47 in The United Nations War Crimes Commission Law Reports of Trials of Major War Criminals, Vol. VIII} (His Majesty’s Stationary Office, London, 1949) [the Hostages Trial] 34; Norbert Ehrenfreund \textit{The Nuremberg Legacy: How the Nazi War Crimes Trials Changed the Course of History} (Palgrave Macmillan, New York, 2007) at 101.
\item The 1907 Hague Regulations, above n 30, art 23(g).
\end{enumerate}
Despite obvious evidence of ecological destruction as a result of the scorched earth policy, the Tribunal found that General Rendulic was innocent by reason of military necessity. Despite recognising that the policy of scorched earth served no military advantage, the Tribunal determined that based on the circumstances in the field, the conclusion to carry out such a policy might be considered illegal, but was not a criminal act.128

This judgment showed that, in practice, the implementation of art 23(g) may be different than the written thresholds129 where the provision was applied at the lesser standard of “imperatively” rather than “reasonable connection”.130 Determination of military necessity is highly dependent on one’s individual belief, which leads to a wide margin of discretion in deciding one’s actions in time of war.131 Moreover, in this case the term “military necessity” served no function other than as an exemption clause to the principal rules of international humanitarian law.132

128 The Court concluded: “[i]t is our considered opinion that the conditions as they appeared to the defendant at the time were sufficient, upon which he could honestly conclude that urgent military necessity warranted the decision made. This being true, the defendant may have erred in the exercise of his judgment but he was guilty of no criminal act. We find the defendant not guilty on this portion of the charge”. The Hostages Trial, above n 126, at 69.


130 The Court determined that: “[d]estruction as an end in itself is a violation of International Law. There must be some reasonable connection between the destruction of property and the overcoming of the enemy forces. It is lawful to destroy railways, lines of communication or any other property that might be utilised by the enemy. Private homes and churches even may be destroyed if necessary for military operations” (emphasis added). The Hostages Trial, above n 126, at 66.


2.2.3.3. Efforts to Pursue War Reparations through Civil Litigation

As the defeated party, the Japanese government did not claim any compensation from the US since it agreed to waive any claims against the Allied States in the post-war settlement agreements. However, a group of Japanese nationals sought compensation from the Japanese government in lieu of pursuing the US (since that action would have been barred under the post-war peace treaty). The case for compensation has since become well known as the *Shimoda* case. In this case, the plaintiffs, who were survivors of the atomic bombs, claimed compensation for injuries sustained by them.

The case was brought before the Tokyo District Court. Unfortunately, the Court finally decided that these plaintiffs were not entitled to any compensation due to their lack of legal standing under international law. However, the Court determined that the American actions in dropping atomic bombs on Hiroshima and Nagasaki constituted a violation of international law on the grounds that this conduct violated general principles of international law, and in particular in the law of war. These principles were the prohibition against conducting an indiscriminate bombardment of undefended cities far beyond the requirements of destroying military objectives and the use of weapons which give rise to “unnecessary pain”.

2.2.4. Summary

As in WWI, the end of this war saw the victor states again imposing one-sided responsibility on the defeated states. This time, the winning states demanded that war reparation should be paid mainly in kind and not as a fixed amount of currency. Unfortunately, the war reparations regime did not address specific compensation to rehabilitate the environment.

---

133 *Shimoda* case, above n 94.
In addition, the Allied States not only pursued the Axis States’ civil liability, but also the criminal liability of individual military officers. Top officers and military personnel were brought before the Nuremberg and Tokyo IMTs, marking the birth of the system of international criminal law. Even though the Court acquitted General Rendulic, his trial was a watershed in international criminal law, as a crime against the environment was recognised as one of the crimes during a war, showing concrete consideration for environmental protection during international war.

These practices show that efforts to enforce responsibility for environmental damage in the aftermath of this war were exemplified through criminal prosecution rather than civil compensation. Further, such post-conflict settlements were taken despite the fact that both belligerent parties in the conflict contributed significantly to environmental destruction (in violation of the laws of war). This should have triggered state responsibility, for both sets of belligerents, to repair or to pay compensation to repair the damaged environment.

Finally, the devastating experience of WWII led states to comprehensively improve regulations for state conduct during armed conflict. In 1949, states successfully codified almost all of the rules and customs of warfare into four main conventions. One of these, the Fourth Geneva Convention, provides environmental protection during armed conflict. Although the Convention’s principal protection is for civilian persons, there are two provisions that protect

---


136 The Four 1949 Geneva Conventions (opened for signature 12 August 1949, entered into force 21 October 1950) [the Four 1949 Geneva Conventions].

137 See the discussion of this treaty in Chapter 2 at 2.1.3.
the environment as the property of individual persons which are stipulated in arts 53\textsuperscript{138} and 147.\textsuperscript{139}

3. **Period II: Growing Global Awareness to the Environment and State Responsibility for Wartime Environmental Damage**

After the World Wars, the advent of the Vietnam War triggered the international community’s awareness of environmental damage resulting from war.\textsuperscript{140} Despite the fact that state responsibility for such damage was not determined, this war led to states adopting new rules that specifically protected the environment during the war. This period reaches its ultimate development in the aftermath of the Gulf War, when Iraq was held liable for environmental damage resulting from a war that it unlawfully waged. The ultimate development concerned not only determination of responsibility but also its concrete implementation – seen with the establishment of the United Nations Compensation Commission (UNCC) to manage the payment of compensation for war damages including environmental damages.

\textsuperscript{138} Article 53: “[a]ny destruction by the Occupying Power of real or personal property belonging individually or collectively to private persons, or to the State, or to other public authorities, or to social or co-operative organisations, is prohibited, except where such destruction is rendered absolutely necessary by military operations”. Convention (IV) relative to the Protection of Civilian Persons in Time of War (opened for signature 12 August 1949, entered into force 21 October 1950).

\textsuperscript{139} Article 147: “[g]rave breaches, to which the preceding Article relates, shall be those involving any of the following acts, if committed against persons or property protected by the present Convention: ... extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly”. Ibid.

3.1. The Vietnam War

During this war, the use of technology in the conduct of war brought with it unprecedented environmental disaster which one commentator has even described as ecocide.\(^\text{141}\) Devastated by the Viet Cong’s guerrilla tactics, the US began to deploy more extreme and controversial military weapons and tactics, which caused severe and long-term environmental damage.\(^\text{142}\)

Despite the clear establishment of violations of the law of war (both written and customary) by the US, unfortunately it was not held responsible by the international community. Given the fact that the US was defeated by North Vietnam, this situation did not encourage the international community, including Vietnam, to invoke state responsibility on the US for its unlawful conduct during the war. This situation was highly likely caused by the fact that the US had strong political power in international relations including its privileged position as a permanent member of the UNSC. In addition, efforts to pursue US responsibility within domestic judicial fora were not successful as shown in the *Agent Orange* cases.\(^\text{143}\) Accordingly, in the aftermath of this conflict, the US has been able to escape from its international responsibility to repair and/or provide compensation for any environmental damage it caused.

3.1.1. Armed Conflict and Environmental Effects

The Vietnam War originated from a civil war between North and South Vietnamese over rival ideologies that emerged during the Cold War, communism


\(^{142}\) Hulme, above n 140, at 5.

\(^{143}\) See the case discussions at [3.1.3.1] below.
and democracy.\textsuperscript{144} This internal war became internationalised and notorious as foreign states became involved such as France, the People’s Republic of China (PRC) and ultimately the US. The armed conflict reached its peak as the US began to play a more active role in halting communist attacks in the South.\textsuperscript{145}

The Vietnam War was to last for approximately 15 years and was marked by the deployment of obviously different military methods by the belligerent parties. The US and South Vietnamese forces relied on high technology firepower, involving ground and airstrike operations, whereas the North Vietnamese Army employed a conventional guerrilla method of war. Nevertheless, the North Vietnamese were able to defeat the US military advancement, conquering the capital of the South Vietnam, Saigon, on 30 April 1975.\textsuperscript{146}

3.1.1.1. The Environmentally Hostile Military Strategies of the US

During this war the US employed methods of warfare that brought severe environmental damage mainly in the territory of South Vietnam. US methods of warfare were enhanced by innovations in weapons technology that enabled more profoundly destructive effects than in the past. In combating enemies with guerrilla strategies\textsuperscript{147} in the vast areas of forest, the US employed both

\begin{itemize}
\item \textsuperscript{146} Horsch, above n 144, at 116-146.
\item \textsuperscript{147} Guerrilla warfare in Vietnam was based on the teachings of Mao Tse-Tung, who stressed the need of quick and effective actions to surprise the enemy. This strategy necessitates the use of the natural environment for cover and camouflage during attack. Lawrence Juda “Negotiating a Treaty on Environmental Modification Warfare: the Convention on Environmental Warfare and Its Impact upon Arms Control Negotiations” (1976) 32 Int’l Org. 975 at 976.
\end{itemize}
conventional and unconventional anti-plant strategies which had the military purposes of eliminating the cover and camouﬂage that might be provided by forests; destroying logistical resources such as locally grown food crops; and eliminating the logistical and other support that might be provided by the indigenous civilian population. The strategies were the use of herbicides; the use of Rome ploughs; bombardment and artillery fire; and weather modiﬁcation.

3.1.1.1.1. The Use of Herbicides

The US began to employ the use of herbicides for military purposes in August 1961. By January 1971, the US had sprayed 8,365 cubic meters (1.84 million gallons) of Agent Orange and other dioxin-containing herbicides throughout southern Vietnam. These anti-plant agents were used for the purpose of denying the enemy forest cover and destroying food plants and industrial crops so that they would no longer beneﬁt the enemy. Operation Ranch Hand, as this spraying operation was called, was considered to be the most notorious operation of its kind ever employed by the US government.

In terms of damage to the forest of South Vietnam caused by this spraying operation, one observer has divided the damage into two categories of destruction: virtually complete obliteration, and partial damage. The ﬁrst category corresponds to forest which was sprayed four or ﬁve times and estimated to have experienced between 85 to 100 per cent tree mortality. The second category was for forest which was sprayed one to three times, and estimated to have had tree mortality of

152 Westing, above n 149, at 218.
153 Al-Duaij, above n 27, at 29.
between 10 to 50 per cent. The first category of damage covers some 50,000 hectares, while the second category extended to about 1.3 million hectares (equivalent to 12 per cent of South Vietnam’s total forest).\[154\]

Besides damage to the forest, the use of herbicides caused severe destruction to South Vietnam’s mangrove habitat. The damage was recorded to cover about 124,000 hectares (or 41 per cent) of South Vietnam’s mangrove habitat. The international scientific community in the early 1970s predicted that biotic recovery would take more than a century. One study conducted ten years after the attacks reported that the natural regeneration process had only occurred in one per cent of the destroyed zone.\[155\] These findings suggest that the damage caused by these chemical anti-plant agents has had severe and long-term effects.

The use of herbicides, in particular Agent Orange, during the Vietnam War\[156\] had another notorious legacy: harmful effects on human populations.\[157\] Hundreds of thousands of US soldiers returned from the war to develop cancer and illnesses suspected to be dioxin-related.\[158\] This is especially true of those who served during the spray programme period. As for the Vietnamese people, the effects were much worse because exposure to these herbicides was not only to the people but also to their place of living. It is estimated about three to seven million people, both soldiers and civilians, were affected.\[159\] This legacy of war brought both

\[154\] Westing, above n 148, at 374-375.

\[155\] Ibid, at 377-378.

\[156\] Herbicides were substances that consisted of various mixtures of compounds which were differentiated by their colours such as Agent Pink, Agent White, Agent Blue, Agent Purple, Agent Green and Agent Orange. Trien T. Nguyen “Environmental Consequences of Dioxin from the War in Vietnam: What Has Been Done and what Else Could Be Done?” (2009) 66 Int’l J. Environ. Stud. 9 at 12.


\[158\] Lacey and Lacey, above n 150, at 149.

\[159\] A 2001 study of 30 Vietnamese women exposed by Agent Orange reported that they experienced a relatively high number of miscarriages and premature birth. In addition, the women’s children developed congenital malformations and disabilities within the first year of being breast-fed. Nguyen, above n 156, at 12-14.
veterans and Vietnamese civilians to seek compensation from the US and/or the companies that manufactured such substances. These well-known cases, collectively known as the Agent Orange cases, will be discussed further below at [3.1.3.1].

3.1.1.1.2. The Use of Rome Ploughs

Environmental damage in this armed conflict was also caused by the military strategy of using heavy land-clearing tractors, called “Rome ploughs”. The Rome plough is a 33,000-kilogram armoured tractor equipped with an enormous and strong blade designed to split, shear and topple any tree. This gigantic machine was used for clearing roadsides in order to discourage enemy ambushes. It was also used for widespread forest removal, crop destruction, and the decimation of small towns and villages.\footnote{Westing, above n 149, at 221.}

This tactic was employed to eliminate cover for enemy troops, provide bases of operation, and create landing runways for aircraft and landing zones for troops deployed by helicopter.\footnote{Hupy, above n 9, at 415.} Using the Rome plough, US forces destroyed some 325,000 hectares, or approximately three per cent, of the total South Vietnamese forest lands.\footnote{Westing, above n 148, at 375.}

There are some notable ecological consequences of the use of Rome ploughs. The first major effect identified was soil erosion. This is thought to have been considerable, particularly in hilly landscapes and areas that experienced heavy rainfall during months before new vegetative cover was established. Besides soil erosion, cleared land aggravated flooding problems prior to reforestation. In addition, the tropical fauna was endangered due to loss of habitat and sources of

\footnote{Westing, above n 148, at 375.}
food after the mechanised land clearing operations took place.\textsuperscript{163} In fact, some analysts believe damage to the forest caused by the Rome plough method may be long-lasting and make regeneration phases of the original hardwood forest very unlikely.\textsuperscript{164}

3.1.1.1.3. Bombardment and Artillery Fire

Having enormous capabilities in weapons technology, the US military forces exploded 13 million tons of munitions both from the air and the ground during the war. US Air Force bombers in this armed conflict widely practiced a strategy called “carpet bombing”.\textsuperscript{165} Besides denying the enemy its camouflage, this strategy was also used to destroy large areas of agricultural land.\textsuperscript{166} As a result of these bombings, the Vietnamese landscape was described as scorched earth and most parts of it likened to a series of moonscapes of craters.\textsuperscript{167}

This warfare method has had a number of severe negative effects on the environment. It has made agricultural and timber land unusable for a considerable period. Craters on land caused by the bombings have displaced the structure of the soil with laterisation of the soil in and around the craters making agricultural uses impractical. Also, metal remains of the bombs have weakened trees, making them susceptible to fungal infection. In addition to these established negative effects, such military methods are likely to have caused less immediately obvious harm. Heavy unexploded ordnance may have degraded the quality of the land and injured humans and animals. In addition, craters on land are highly likely to

\textsuperscript{164} Falk, above n 141, at 88.
\textsuperscript{165} Frank Barnaby “Environmental Warfare” (1976) 32(5) B. Atom Sci. 36 at 42. The method entails three to 12 B-52 bombers flying over and laying down a large number of huge bombs into a targeted area that is thought to be a base for enemy forces. Westing, above n 149, at 218. More details on the bombing campaign during this war, see Gillespie, above n 70, at 37-38.
\textsuperscript{166} Falk, above n 141, at 89, 416.
\textsuperscript{167} Hupy, above n 9, at 417.
become the perfect sanctuary for mosquitos, thus increasing the incidence of malaria and dengue fever.\footnote{Falk, above n 141, at 89.}

3.1.1.1.4. Weather Modification

Finally, the most innovative strategy employed by the US during the Vietnam conflict was weather modification.\footnote{Mark D. Sameit “Killing and Cleaning in Combat: A Proposal to Extend the Foreign Claims Act to Compensate for Long-Term Environmental Damage” (2008) 32 Wm. & Mary Envtl L. & Pol’y Rev. 547 at 551.} This strategy was conducted during the dry seasons from 1967 until 1972 and involved seeding clouds in order to lengthen the rainy season. The extended and increased rainfall was intended to make the unpaved roads of North Vietnam unusable, and thus obstruct and slow the enemy’s movement and supply chain. The most notable target for this strategy was the Ho Chi Minh Trail.\footnote{Hans Blix “Arms Control Treaties Aimed at Reducing the Military Impact on the Environment” in Jerzy Makarczyk (ed) Essays in International Law in Honour of Judge Manfred Lachs (Martinus Nijhoff, The Hague, 1984) 703 at 708.}

The technique was also intended to engage North Vietnamese resources in fixing flooded roads, rather than in military activities, as well as being expected to make the enemy’s radar, usually used for targeting defensive land-to-air missiles, inoperable. In addition, the alteration of rainfall patterns aimed to assist the US bombing missions and secret ground operations.\footnote{Westing, above n 163, at 55-56.}

Unlike the other strategies discussed previously, the results of this weather modification project were indeterminate. The US Air Force believes that it increased the rain by up to 30 per cent in some areas. However, it also admits that the “results were certainly limited and unverifiable”.\footnote{Sameit, above n 169, at 551.}
This weather modification increased the flood damage and aggravated soil erosion. This damage is likely to have occurred in combination with extensive military land-clearing strategies such as the use of chemical anti-plant agents or Rome ploughing. In addition, disease-vector insects dependent on water would be favoured during increased rainfall, leading to increases in various diseases affecting wildlife, livestock and humans.  

3.1.2. Analysis of Applicable Laws

As severe environmental destruction mainly resulted from US military strategies employed during this armed conflict, it can be argued that the US had violated a number of wartime treaty and customary rules.

Firstly, the massive bombardment campaign violated the 1907 Hague Regulations. Article 25 of this Convention prohibits an attack or bombardment, by whatever means, of towns, villages, dwellings, or buildings which are undefended. The targets of the bombardment campaigns were frequently areas that were “thought” to have become bases for communist forces such as forests, agricultural areas, towns and villages.

As for the spraying of herbicidal substances, this conduct violated the provisions of the 1925 Geneva Protocol. In response to this allegation, the United Nations General Assembly (UNGA) issued a resolution to clarify the scope of the 1925 Protocol in relation to this conduct. This resolution confirmed that the Protocol banned at least some herbicide use in warfare. In response, the US delegation

---

173 Westing, above n 163, at 56.
176 It stated that the Protocol prohibited use of: “(a) [a]ny chemical agents of warfare—chemical substances, whether gaseous, liquid or solid—which might be employed because of their direct
rejected this interpretation by claiming that “[c]hemical herbicides (…) which were unknown in 1925, could not be included” in the scope of the prohibitions. Subsequently, the US declared that its use of herbicides and defoliants during the Vietnam War was justified and was not within the ambit of the Protocol’s prohibition.

Interestingly, in 1970, when the US was in the process of ratifying this Protocol, the US Military Assistance Command in Vietnam ordered the cessation of crop destruction and the end of the defoliation programme. The US has never employed this method since. These facts imply that the US was indeed aware that its actions were not legitimate under international law.

Apart from allegations of treaty law violations, the US military practices also violated customary laws stipulated in the general principles of the laws of war, such as the principles of military necessity, discrimination and proportionality. Even though the US justified its actions in destroying the environment by citing the principle of military necessity, its actions failed to meet the principles of discrimination and proportionality. The widespread application of herbicides and the “carpet bombing” campaign brought indiscriminate harm and destruction to Vietnam. These actions also violated the proportionality principle, resulting in severe damage to the environment that was out of proportion to any military advantage that could have been anticipated. Indeed, the end result of this war was that the US could not claim victory and was forced to withdraw its support for the Republic of Vietnam.

**toxic effect on man, animals or plants; (b) any biological agents of warfare—living organisms, whatever their nature, or infective material derived from them – which are intended to cause disease or death in man, animals, or plants, and which depend for their effect on their ability to multiply in the person, animal or plant attacked”.**

*Question of Chemical and Bacteriological (Biological) Weapons* GA Res 2603, XXIV (1969).

177 *Vietnam Association for Victims of Agent Orange v Dow Chemicals Co* 517 F 3d 104 (2nd Cir. 2008) [*VAVAO v Dow Chemicals Co*] at 109.


179 The US renounced the use of herbicides in war in 1975. Gillespie, above n 70, at 85.
Based on these clear violations of both treaty and customary laws of war, the US is responsible and should have been held liable to compensate the Vietnamese Government for environmental reparation and rehabilitation. However, in reality this has not occurred.

3.1.3. Post-Conflict Examination

Despite expressing its deep concern for the consequences of this war, the international community seemed reluctant to be involved in this internationalised armed conflict. There was not one single resolution adopted by the UNSC regarding this armed conflict. Even after the end of the war the UNSC did not address this armed conflict.

It is undeniable that this war affected the international peace and security that the UNSC has the mandate to maintain.\(^{180}\) This silence of the UNSC was highly likely due to American influence over the (political) UN body. In addition, after the war, Vietnam did nothing to pursue the attachment of responsibility to the US. Therefore, without any determination as to whether the US had committed violations of international law, there was no reparation regime adopted after this war.

Despite the absence of legal proceedings on the part of the international community in pursuing liability from the US, individual war victims did attempt to seek compensation within US domestic courts. These cases particularly focused on the consequence of herbicide use during the Vietnam War, and especially the chemical Agent Orange. They are worth examining because they provide facts

\(^{180}\) The powers of the UN Security Council stipulated within Chapter VII of the UN Charter concerning action with respect to threats to the peace, breaches of the peace and acts of aggression. Charter of the United Nations, Chapter VII.
relevant to the question of whether or not efforts to pursue state responsibility through domestic fora are effective.

3.1.3.1. The Agent Orange Cases

Almost a decade after the end of war, a class action lawsuit was undertaken on behalf of American, Australian and New Zealand veterans affected by Agent Orange against the chemical companies that had been contracted to produce the herbicides for the US government. This litigation effort, however, did not go to trial because in 1984 the companies agreed to pay an out-of-court settlement of US$180 million.\(^{181}\) Even without judicial backing, this event formed a valuable precedent in compensation settlement and prompted US lawmakers to pass the Agent Orange Act,\(^{182}\) which required the government to provide health care and compensation to US veterans without requiring strict test evidence of their exposures to the substances.\(^{183}\) These responses confirm that the US Government and the chemical companies recognise the negative effects of Agent Orange on humans. However, such a precedent was contrary to the results of legal efforts by Vietnamese nationals before the US courts, as discussed below.

Besides this class action lawsuit, in the absence of international legal proceedings following the end of the Vietnam War, some Vietnamese nationals conducted civil litigation against various US chemical companies before the US Eastern District Court of New York. In the case Re “Agent Orange” Product Liability Litigation,\(^{184}\) the Vietnam Association for Agent Orange Victims (VAAOV), a non-governmental organisation, acted on behalf of Vietnamese victims. The

---


\(^{183}\) Lacey and Lacey, above n 150, at 152; Nguyen, above n 156, at 18.

\(^{184}\) In re “Agent Orange” Product Liability Litigation 373 F Supp 2d 7 (ED NY 2005) [“Agent Orange” Product Liability Litigation].
plaintiffs submitted allegations against various chemical companies under the Alien Tort Claims Act (ATCA)\textsuperscript{185} of, inter alia, environmental war crimes.

According to the plaintiffs, these companies violated the law of nations because they manufactured and sold toxic defoliant herbicides to the US, which were then used in Vietnam during the Vietnam War.\textsuperscript{186} In terms of herbicide spraying, the plaintiffs argued that it inflicted harm on the civilian population in violation of the 1925 Geneva Protocol. These chemical agents allegedly caused property damage and personal injuries for which the plaintiffs were seeking compensation. Besides demanding compensation for their physical injuries, the plaintiffs sought injunctive and declaratory relief for environmental remediation of the allegedly contaminated areas in Vietnam by the defendants.\textsuperscript{187}

The Court rejected these claims and held that the prohibition (at least within the context of the 1925 Geneva Protocol) “extended only to gases deployed for their asphyxiating or toxic effects on man, not to herbicides designed to affect plants, that may have unintended harmful side-effects on people”.\textsuperscript{188} The Court also found that “[n]o treaty or custom affecting environmental protection created a rule effective before 1975 making illegal the use of herbicides as used in Vietnam”.\textsuperscript{189}

In its final decision, the District Court concluded that there was no basis for any of the plaintiffs’ claims under the domestic law of any nation or state or under any form of international law and ruled that the case be dismissed.\textsuperscript{190}

\textsuperscript{185} Under the US Alien Tort Claims Act, it is possible for foreign nationals to submit civil actions to the US District Courts to seek remedy or compensation against US citizens or corporates that are acting in violation of the law of nations or a treaty of the US. “[t]he District Courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the United States”. Alien Tort Claims Act 28 USC § 1350.

\textsuperscript{186} “Agent Orange” Product Liability Litigation, above n 184, at 15.

\textsuperscript{187} Ibid, at 38-39.

\textsuperscript{188} Ibid, at 120.

\textsuperscript{189} Ibid, at 127.

\textsuperscript{190} Ibid, at 145.
The plaintiffs appealed, contending that the use of Agent Orange by the US military violated international law, and that the chemical companies either aided and abetted those violations or committed independent violations by fulfilling the military’s demand for herbicides. In *Vietnam Association for Victims of Agent Orange v Dow Chemicals Co*,191 the US Court of Appeals for the Second Circuit confirmed the judgment of the US District Court for the Eastern District of New York.192

The Appeals Court decided that the international sources relied on by the plaintiffs, particularly the 1907 Hague Regulations, the Annex to the 1907 Hague Convention (IV), the 1925 Geneva Gas Protocol and the 1949 Geneva IV Convention did not support a universally accepted norm which would have prohibited the use of Agent Orange during the war in Vietnam. The Court further held that it could not find consensus on whether the prohibition against the use of poison that aimed to kill combatants in the 1925 Geneva Protocol would also cover the Agent Orange and other herbicide agents.193 In other words, the use of Agent Orange did not violate the international norms relied on by plaintiffs because it was intended to defoliate and destroy vegetation and not to poison human populations. The Court also ruled that the US military used Agent Orange to prevent enemy ambush and thus the chemical was not used deliberately as “weapon of war against human populations”.194

In response to another allegation that the use of Agent Orange violated customary norms prohibiting unnecessary suffering, the Court stated that wording such as “great suffering” or “serious injury” as contained in art 147 of the Fourth Geneva

---

191 *VAYAO v Dow Chemicals Co*, above n 177.
192 Ibid, at 123.
193 Ibid, at 120.
194 Ibid, at 108.
Convention were relative terms needing individual case-by-case analysis to determine their applicability.\(^{195}\)

Based on the considerations above, the Court concluded that the plaintiffs had failed to satisfy the standard for recognition of a tort under the ATCA and therefore declared that it lacked jurisdiction to consider their claims.\(^{196}\) This case came to a close when the US Supreme Court refused the plaintiffs’ petition for a writ of certiorari and thereby refused to re-consider the case.\(^{197}\)

These Courts’ decisions appear manifestly inconsistent with previous cases where US chemical companies had agreed to pay out-of-court compensation settlements to the Vietnam War veterans from the US and other ally countries; and with the decision of US lawmakers to pass the Agent Orange Act which required the government at that time to provide health care and compensation to US veterans without strict tests to evidence their exposure to the substances.

After these judicial rulings, the US declined to offer specific compensation for any environmental damage resulting from its methods of warfare during the conflict other than offering payment of *ex gratia solatia* (condolence) to civilian war victims.\(^{198}\)

3.1.4. Summary

The post-conflict situations of this war did not favour the attribution of state responsibility for environmental damage during armed conflict. This is based on the fact that despite it being clear that the US military’s conduct had violated rules

\(^{195}\) Ibid, at 121.

\(^{196}\) Ibid, at 123.

\(^{197}\) *Vietnam Association for Victims of Agent Orange Petitioners v Dow Chemical Company* 77 US 3487 (2009).

in the law of war; that these violations had resulted in severe, widespread, and long-term environmental injury; and the US was the defeated party, nothing has been done by the international community to pursue US liability to compensate Vietnam. Instead, the international community, through the UN, prefers to collaborate to give Vietnam financial aid in helping the country recover from the adverse effects of the war in general, including environmental damage. This choice may be explained by the fact that the US has strong political power and is a veto-wielding permanent member of the UNSC. Given this fact, the UNSC would be highly unlikely to reach agreement on a resolution that charged the US as the responsible belligerent and then declared the US liable to provide compensation to Vietnam.

In addition, efforts to seek remedies on the basis of civil liability in a domestic judicial forum were also ineffective. The US courts’ decisions are controversial in light of the facts that the US chemical companies and the US government have apparently acknowledged the dangerousness of Agent Orange by providing settlements and assistance to a number of soldiers who have claimed harm resulting from it. Thus it seems that, in the final analysis, the US government has been able to escape from its international responsibility of repairing and/or providing compensation for any environmental damage it caused.

Despite the failure to hold the US liable for environmental damage from the Vietnam War, the environmental experience of this war eventually gave rise to a greater global awareness of the need for environmental protection in general. In 1972, the international community under the auspices of the UN, held an international diplomatic conference on the environment in Stockholm.199 This event was the starting point of a rapid development of international environmental law. Following this conference, states have been more active in negotiating

treaties that specifically give protection to the environment, both in times of peace and in times of armed conflict.

This war particularly inspired the creation of specific norms that provide environmental protection within the law of war. These norms are arts 35(3) and 55 of the 1977 Additional Protocol I to the 1949 Geneva Convention and an entire section of the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD). Their adoption took into account the devastation resulting from the US defoliation campaigns and weather modification method during the Vietnam War and the growing concern over technological developments that allow states to greatly alter opponents’ environments as a weapon against them in armed conflicts.

3.2. The Iran-Iraq War

Approximately five years after the end of the Vietnam War, an armed conflict between two neighbouring states, Iran and Iraq, took place. Like the Vietnam War, this conflict resulted not only in widespread loss of life but also negatively impacted the environment. In contrast with the Vietnam War, specific reports which record the environmental effects of the Iran-Iraq War were much more

---


204 Stephen C. Pelletiere The Iran-Iraq War: Chaos in a Vacuum (Praegers, New York, 1992) at 34.
The international community seemed to pay little attention to this war (in general) and did not determine whether there had been violations of international law. This contrasts with the response to the earlier Vietnam War and with the later response to the conflict, which began when Iraq invaded Kuwait on 2 August 1990.

In the aftermath of this war, Iraq should have been held responsible both for environmental damage within Iran’s territory and for the human casualties among the Iranian people. This is because Iraq violated rules of prohibition on the use of force and humanitarian law by unlawfully invading Iran and employing prohibited means and methods of warfare against Iran.

In reality, however, there was no formal determination of Iraq’s responsibility for the war by the UNSC, so Iran never received any compensation from Iraq. This may be due to factors such as the international community’s lack of interest in the conflict and the subsequent armed conflict waged by Iraq against Kuwait in 1990. These factors may have been exacerbated by the fact that neither Iran nor Iraq could claim victory and Iran did not have the political power to invoke responsibility for this war on Iraq.

Nevertheless, the UN Secretary-General (UNSG) in its report to the UNSC eventually held Iraq responsible for this war. This report was pursuant to the UNSC’s request to enquire into the need for establishing an impartial body to


206 Despite the fact that the UNSC did not respond to this war, scholars worldwide have analysed this war. See the previous section on the Vietnam War at [3.1] above.

investigate whether or not there had been violations of international law during this armed conflict. This report offers valuable insights into a possible alternative option for determining the responsibility of belligerents – via the UNSG in situations where the UNSC cannot adopt decisive resolutions due to political tensions or lack of political will. This example may allow another authoritative body, besides the UNSC and the International Humanitarian Fact-Finding Commission (IHFFC), to establish whether or not a state has engaged in unlawful conduct during armed conflict and is thus responsible to make reparation or compensation.

3.2.1. Armed Conflict and Environmental Effects

The armed conflict between Iran and Iraq erupted when Iraq used great military force against Iran on 22 September 1980, marking the beginning of Iran-Iraq War. The main cause of this conflict was a border dispute, mostly centred in the Shatt-al-Arab (the joint waters of the Tigris and Euphrates rivers). This legal dispute was just one of many tensions between these states, including political problems between Iran and Iraq before the war began.

208 IHFFC, which was formally established by the 1977 Additional Protocol I, is a permanent body with a main duty to investigate allegations of grave breaches and serious violations of the laws of war. The 1977 Additional Protocol I, above n 201, art 90.


211 Michael Sterner “The Iran-Iraq War” (1984) 63 Foreign Aff. 128 at 130; Pelletiere, above n 204, at 1-18; Efraim Karsh The Iran-Iraq War 1980-1988 (Osprey, Oxford, 2002) at 9-15. Since Iran’s military revolution by a Shia group in 1979, Iraq was affected in negative ways. Iran actively encouraged conflict between Shia and Sunni groups within Iraq. Iran also openly supported a Kurdish insurgency in northern Iraq and committed acts of terror in Iraq’s territory and along their shared border. However, the most negative action came when Iran committed heavy artillery bombardment on Iraq’s civilian centres and closed international waters in the Shatt-al-Arab waterway shared by the two countries. In response to these provocative acts, Saddam Hussein conducted a series of reprisals, such as expelling some 200,000 residents of Iranian origin from Iraq and denouncing the 1975 Algiers Agreement as null and void, thus reclaiming Iraqi
The UNSC responded to this armed conflict by adopting a number of resolutions, most of which recommended an end to the conflict.212 It was much later, in 1987, that the UNSC adopted Resolution 598 – shifting its position from “calling” for a ceasefire to “demanding” one, making it imperative that the conflict be ended.213 Iran finally accepted Resolution 598 on 20 July 1988 and the ceasefire was effectively put into effect on 20 August 1988.214 Following Iran’s acceptance, marathon peace negotiations were conducted under the auspices of the UNSG. These negotiations focused on the issues involving withdrawing forces from international boundaries and the exchange of prisoners. Despite these negotiations, Iraq continued its occupation of Iranian territory until Iraq invaded Kuwait in August 1990.215

Notably, significant environmental damage occurred in this event. This was due to the controversial military methods that were employed by the belligerents such as “tanker war” by both parties216 and the deployment of chemical weapons by Iraq.217 These notorious methods of warfare arguably not only violated the general laws of war but also laws that protect the environment during wartime.


215 Ramazani, above n 207, at 75.


The “tanker war” resulted in severe pollution of the Persian Gulf as oil spilled from tankers which had been targeted. Around 447 oil tankers were attacked in the Persian Gulf between 1980 and 1987. In 1984 alone, approximately 2.035 million tonnes of oil spilled into the Gulf.\(^{218}\) However, the most severe oil pollution during the conflict came from the destruction of oil platforms in Iran. Between February and September 1983, Iraq attacked Iranian offshore oil platforms and wells in Nowruz and Ardesth, causing over two million barrels of oil to spill into the Gulf.\(^{219}\) This marine pollution was worsened by the fact that the war prevented the immediate capping of these platforms and wells. Soon after the attacks, Saudi Arabia had to close its desalination plants, while the United Arab Emirates banned all imports of fish from neighbouring Gulf countries due to discovery of oil-contaminated fish stocks.\(^{220}\)

In 1991, pollution from this war was still negatively impacting the Gulf. At that time, the shores of states in the southern Gulf, including their desalination plants, were still under threat because much of the oil had never been recovered. Further, “Persian Gulf beaches [were] still covered with hard asphalt mats – the equivalent of thousands of barrels of oil – from spills a decade old” and as a result of the attack on the Nowruz platform, oil slicks ended up in deep water in the central Gulf.\(^{221}\)

Another controversial means of warfare used during this war was the employment of chemical weapons. While the use of chemical weapons by Iraq has been

\(^{218}\) Antoine, above n 205, at 530.


\(^{220}\) Walker, above n 216, at 48-49.

confirmed, it is still uncertain whether Iran used the same method. 222 Like the tanker war, this chemical warfare was initiated by Iraq. 223 These poisonous substances have significant negative effects both on humans and the environment. Once mustard gas is released, it infiltrates air, water and soil. People exposed to this substance will experience immediate symptoms such as itchy skin, watery eyes and burning in the lungs and long-lasting sores over their entire body. Even though they can occur naturally in the environment, these agents are deadly. They are an effective means of poisoning water because they can move through water easily. Consequently, they can endanger ground water as they break down quickly and enter the soil. In addition, these agents can remain in the air for a long time. 224

3.2.2. Analysis of Applicable Laws

As stated above, the war between Iran and Iraq become notorious because of its length, controversial naval warfare and the use of chemical weapons. In addition, during its eight-year duration, the war brought widespread devastation to both people and the environment. Given these facts, it is crucial to examine whether or not the belligerents violated rules from the laws of war (ius in bello) that would make them responsible for consequences resulting from their unlawful conduct.

223 Frits Kalshoven “Prohibitions or Restrictions on the Use of Methods and Means of Warfare” in Ige F. Dekker and Harry H. G. Post (eds) The Gulf War of 1980-1988 (Martinus Nijhoff, The Hague, 1992) 98 at 101. The types of chemical weapons Iraq used were mustard gas and nerve agents. The most notable event employing chemical weapons during the conflict occurred in March 1988, when Saddam Hussein ordered an attack of the Kurdistan town of Halabja. This resulted in around 5,000 casualties among Kurdish people, most of them women and children. Five months after this attack, Iraq again employed chemical bombardment against Kurdish guerrilla bases; as a result over 100,000 Kurdish people became refugees, fleeing to Turkey and Iran. Demetrius Evison, David Hinsley and Paul Rice “Chemical Weapons” (2002) 324(7333) Brit. Med. J. 332 at 332; Eric Hooglund “The Other Face of War” (1991) 171 Mid. East Rep. 3 at 10.
Besides examining liability under *ius in bello*, it is equally important to examine whether belligerents had justification for using armed force against each other under the law on the use of force (*ius ad bellum*) because there were allegations among the belligerents of resort to unlawful armed force.\textsuperscript{225} Therefore, separate examination of these two branches of law is crucial since violation of either branch could activate state responsibility.\textsuperscript{226} This assessment is also applied to the subsequent cases considered since they were also, notoriously, waged without clear justification under *ius ad bellum*. The examination under *ius ad bellum* will be presented first.

3.2.2.1. *Ius ad Bellum*

As noted above, the war between Iran and Iraq erupted when Iraq attacked Iran with great military force on 22 September 1980.\textsuperscript{227} Iraq justified its action citing the need for preventive self-defence.\textsuperscript{228} Subsequent to this official statement, Iraq shifted its justification from preventive self-defence to pure self-defence, claiming the actions were a response to Iran's encroachments that amounted to armed attack and aggression against it.\textsuperscript{229}

\textsuperscript{225} Other examples of this kind of legal situation include when the Axis and Central powers were held liable for waging unlawful war during the World Wars; and when Iraq was held liable for any consequences of war resulting from the war which began with the illegal invasion of Kuwait in 1991.

\textsuperscript{226} See Chapter 2 at [3.4].


\textsuperscript{228} On 15 October 1980, Iraq’s Foreign Minister reported to the UNSC that in responding Iranian hostile acts, Iraq “was left with no choice but to direct preventative strikes against military targets in Iran. There was, to borrow from a well-known case [*Caroline* case], a necessity of self-defence, instant, overwhelming, leaving no choice of means and no moment of deliberations”. Report of Iraq’s Foreign Minister to the UNSC, 15 October 1980, reprinted in Wang, above n 210, at 88.

\textsuperscript{229} Wang, ibid.
However, neither of these justifications have a strong legal basis. Even if the action was an act of self-defence, it did not fulfil the criteria for lawful and legitimate self-defence as discussed below. In addition, “even if Iraqi actions were in accordance with the *Caroline case* during the first days of the war, the accordance became highly questionable as time wore on”.

Based on the law on the use of force, Iraq’s justification of self-defence was difficult to sustain since Iran’s encroachment on Iraq did not amount to an “armed attack” and Iraq’s self defence did not meet the two tests of necessity and proportionality.

The UNSG’s fact-finding report confirmed that “even if before the outbreak of the conflict there had been some encroachment by Iran on Iraqi territory, such encroachment did not justify Iraq’s aggression against Iran”. Iran’s encroachment was not considered to amount to an “armed attack” sufficient to justify measures of collective self-defence under art 51 of the UN Charter.

---

230 In 1837, the US ship *Caroline* was destroyed on US territory by British forces based in Canada on the grounds of self-defence. The British asserted that they anticipated that the ship would be used to aid Canadian rebels against their authority. In a responding letter from the US Secretary of State Daniel Webster to Britain’s Lord Ashburton, Webster contended that preventive self-defence “should be confined to cases in which the “necessity of that self-defence is instant, overwhelming, and leaving no choice of means, and no moment for deliberation””. Hunter Miller “The Caroline Case” (2008) The Avalon Project <www.yale.edu>.


232 It is well established in international law that resort to force against the territory of another state is prohibited. This prohibition is stipulated in art 2(4) of the UN Charter and reiterated again as a peremptory norm by the International Court of Justice (ICJ). Resort to armed force may be permissible and lawful only if it is conducted for the reasons of self-defence under art 51 and the collective action is authorised by the UNSC under Chapter VII of the Charter. Individual or collective self-defence is only permissible where there has been an “armed attack” and it is further subject to the proportionality and necessity tests. *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v United States of America) (Merits) [1986] ICJ Rep 4 at 237 [Nicaragua case]; Charter of the United Nations, arts 42-47, 51.

233 UNSG Report on SC Res 598, above n 209, at [7].

234 This is based on the precedent in the *Nicaragua case*, which has similar features to the Iran-Iraq War in terms of Iran’s encroachments, where the ICJ determined that border incursions by Nicaragua against El Salvador constituted illegal intervention but were not of sufficient magnitude to amount to an “armed attack”. *Nicaragua case*, above n 232, at 93-94.
In addition, Iraq’s actions were unnecessary since the 1975 Algiers Agreement between Iran and Iraq provided a list of peaceful mechanisms for solving their boundary dispute; mechanisms which Iraq should have employed before using force against Iran. Iraq’s invasion was disproportionate because it “far exceeded the undeniable Iranian provocation”. In response to border incidents and terrorist attacks, four Iraqi army divisions launched a full-scale invasion 110 kilometres into Iranian territory and accompanied the land invasion with widespread air strikes.

Finally, the UNSG’s report concluded that Iraq’s actions were illegal. It found that Iraq had used force illegally against Iran on 22 September 1980 by stating:

Iraq’s aggression against Iran – which was followed by Iraq’s continuous occupation of Iranian territory during the conflict – [was] in violation of the prohibition of the use of force, which is regarded as one of the rules of ius cogens.

Therefore, when the UNSG determined 22 September 1980 to be the day the war began, it added weight to the decision to label Iraq the aggressor state. This finding effectively rejected Iraq’s claim that the war began on 4 September 1980 when Iran attacked Iraq using 175 millimetre cannons.

235 Ramazani, above n 231, at 62.
236 Wang, above n 210, at 89-90.
237 UNSG Report on SC Res 598, above n 209, at [7].
238 By characterising Iraq’s invasion as an act of “aggression”, it appears that the UNSG had in mind the definition of aggression as set forth in Resolution on Definition of Aggression GA Res 3314, XXIX (1974). Article 2 of this resolution states that: “[t]he first use of armed force by a state in contravention of the Charter shall constitute prima facie evidence of an act of aggression such as invasion or bombardment by the armed forces of a state against the territory of another state, and the military occupation that may result from an invasion or attack”.
239 Ramazani, above n 231, at 59; Ramazani, above n 207, at 79.
3.2.2.2. *Ius in Bello*

During this war, there were clear violations of the laws of war, in particular the use of chemical weapons by Iraq.\(^{240}\) In addition, Iraq’s bombardment of Iran’s oil platforms during “tanker war” also arguably violated rules of the law of war.

The use of chemical weapons during this armed conflict by Iraq has been confirmed by investigative teams sent by the UN Secretary General in August 1988.\(^{241}\) These reports were then submitted to the UNSC.\(^{242}\) In responding this report, the UNSC adopted a resolution confirming violations of the 1925 Geneva Protocol. In this resolution, the Council:\(^{243}\)

> [c]ondemns resolutely the use of chemical weapons in the conflict between the Islamic Republic of Iran and Iraq, in violation of obligations under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, and in defiance of its resolution 612 (1988).

Despite this, the UNSC did not specifically hold Iraq responsible for its violations of the 1925 Geneva Protocol and thus did not demand any reparation from Iraq to Iran as the victim. In this resolution, the Council rather called upon all states to strengthen controls on the export of chemical products, especially to parties in a

\(^{240}\) UNSG Report on SC Res 598, above n 209, at [8]; Kalshoven, above n 223, at 98.


\(^{242}\) In this submission, the UNSG concluded that “[o]n the basis of the evidence obtained during this mission (...) in spite of repeated appeals by the United Nations, chemical weapons have been used against Iranian civilians in an area adjacent to an urban centre lacking any protection against that kind of attack. The fact that even children have been injured proves once more the unacceptable consequences of such action. The use of chemical weapons constitutes a violation of the Geneva Protocol of 1925. Their utilisation against civilians is particularly offensive to the human conscience and should be strongly rejected”. *Report of the Mission Dispatched by the Secretary-General to Investigate Allegations of the Use of Chemical Weapons in the Conflict between the Islamic Republic of Iran and Iraq* S/20134 (1988).

conflict. It appears that this resolution favoured Iraq because it freed the country from any obligation to pay reparations, and left Iranian victims without compensation for anything, including their damaged environment. No other resolution from the UNSC considering this issue has ever been adopted.

Besides the 1925 Geneva Protocol, Iraq’s attacks on civilians with chemical weapons also violated the 1977 Additional Protocol I’s prohibition on employing weapons, projectiles and material and methods of warfare of a nature which might cause superfluous injury or unnecessary suffering.\textsuperscript{244} Even though Iraq was not party to this treaty during this armed conflict, this rule is considered customary law\textsuperscript{245} which binds Iraq. It is clear that negative effects of the mustard gas, which was employed against Iranian civilians, brought superfluous injury and unnecessary suffering.

Besides violating the two principles above, Iraq’s actions also contravened the principle of proportionality. First, the use of chemical weapons violated this principle because it resulted in unnecessary suffering, civilian casualties and damage to civilian objects. Thus, the combined impact of these weapons was excessive in relation to the concrete and direct military advantage anticipated. Another aspect of Iraq’s conduct that breached this principle was its attacks on Iran’s oil platforms. As discussed above, the long-term negative effects of the severe marine pollution from oil spilled as a result far outweighed any military benefit gained by Iraq.

Besides violating rules from the laws of war, Iraq also violated peacetime regional environmental law: the 1978 Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution.\textsuperscript{246} The Convention consists

\textsuperscript{244} The 1977 Additional Protocol I, above n 201, art 35(2).


\textsuperscript{246} This Convention was agreed to by the eight coastal states that shared the Persian Gulf: Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. Kuwait Regional
of articles dealing with the duties and responsibilities of state parties in protecting and preserving the marine environment, which is under continuous threat of pollution from offshore and land-based activities. In causing oil spills in the Gulf, Iraq clearly violated its general obligation under art III of this Convention to prevent and abate marine pollution.247

This Convention was not applicable in the conflict between Iraq and Iran because the war constituted grounds for suspending agreements under the law of treaties.248 However, these grounds were not applicable to non-belligerent parties, hence the Convention remained valid between belligerents and neutral states during the war. Based on the law of neutrality, all state parties under this Convention, excluding Iran, could make a claim of compensation from Iraq for environmental damage, via marine pollution, as injured states. Unfortunately, no data was available at the time of writing to confirm whether any of these neutral member states have invoked Iraq’s responsibility under this Convention.

Based on the discussion above, Iraq’s conduct during the war violated both treaty and customary international law, and thus left Iraq potentially liable to state responsibility for any consequences of the conflict including environmental damage. However, in reality, Iraq has not been held responsible in accordance with the relevant law, as is examined below.

3.2.3. Post-Conflict Examination

In examining the post-war experience, the UNSG’s report and Resolution 598 are the focus of this study. Through Resolution 598, the UNSC requested UNSG to

---

247 Ibid, art III.
“explore (...) the question of entrusting an impartial body with inquiring into responsibility for the conflict”. Despite this narrow mandate, this report made a crucial conclusion in regard to who was responsible for the war. Unfortunately, despite its importance, this report did not receive adequate attention from the international community and no follow-up action was taken.

3.2.3.1. The UNSG Report Pursuant to UNSC Resolution 598

The UNSG report concluded that the Iran-Iraq war was initiated in violation of international law and was therefore subject to the law of state responsibility. It specified that the violation of international law was “the illegal use of force and the disregard for the territorial integrity of a member state”. This conclusion was based on the “outstanding event” of 22 September 1980 where Iraq’s explanations for its actions “[did] not appear sufficient or acceptable to the international community” and thus “[could] not be justified under the Charter of the United Nations, any recognised rules and principles of international law or any principles of international morality and entails the responsibility for the conflict”.

Despite its determination that Iraq was the responsible party for waging the war, the UNSG preferred not to recommend that the UNSC set up an independent body to inquire into the question of responsibility of the war. It is contended that this decision is unfortunate or disappointing in that it amounts to an ineffective implementation of state responsibility for the consequences of war. The UNSG

249 UNSC Res 598, above n 213, at [6].
250 Ramazani, above n 207, at 70-71.
251 According to the report, Iran’s previous confrontational actions could not be the justification for Iraq to use of force against Iran, or for the subsequent “continuous occupation of Iranian territory during the conflict” which was “in violation of the prohibition of the use of force, which is regarded as one of the rules of ius cogens”. UNSG Report on SC Res 598, above n 209, at [7].
252 Ibid, at [5].
253 Ibid, at [6].
based his decision on the observation that the events of the Iran-Iraq war “are well-known to the international community” and the positions of the parties “are also public knowledge” because of wide coverage from the media for many years.\textsuperscript{254}

The UNSG stressed the importance of facilitating peace between the parties because of the wider benefit to the region, rather than pursuing Iraq’s liability for any consequences of war.\textsuperscript{255} Nevertheless, if the UNSG’s findings were ever to be submitted to impartial third party adjudication, there would seem to be strong grounds for arguing that Iraq should bear much of the burden of responsibility for unlawfully initiating the war.\textsuperscript{256}

With its decision to prefer facilitating peace between the parties, the UNSG urged the implementation of paragraph 8 of Resolution 598, which “requests the Secretary-General to examine, in consultation with Iran and Iraq and with other states of the region, measures to enhance the security and stability of the region”.\textsuperscript{257} He also carefully noted that if this provision had been implemented in a timely fashion it “might have spared the region from the further tragedy that followed”.\textsuperscript{258} The phrase “further tragedy” clearly refers to the Iraqi invasion of Kuwait which triggered the Gulf War and caused further instability in the region.

Interestingly to note, despite the UNSG’s conclusion about the importance of settling the conflict and building peace in the region rather than reparation; on 24 December 1991, the UNSG eventually reported the results of his field investigation – that direct non-military damages in Iran amounted to approximately US$97.2 billion. The report then suggested that the UN convene a

\textsuperscript{254} Ibid, at [9].
\textsuperscript{255} Ibid.
\textsuperscript{256} Wang, above n 210, at 87.
\textsuperscript{257} UNSC Res 598, above n 213, at [8].
\textsuperscript{258} UNSG Report on SC Res 598, above n 209, at [9].
“round-table” to raise aid funds for Iran’s reconstruction. This practice shows that the UN, rather than the responsible states, preferred to take on the responsibility for raising funds to “compensate” Iran for damages, including damages to the environment, caused by Iraq’s unlawful conduct.

3.2.3.2. Reluctance to Hold Iraq Responsible

Based on the above discussion, the clear establishment of breaches of international law came both from *ius ad bellum* and *ius in bello*, pointing to Iraq as the party truly responsible for all consequences of war. Unfortunately, Iraq was never obliged to meet its legal responsibility to pay compensation to Iran. The international community appeared reluctant to pursue Iraq’s responsibility for its unlawful actions against Iran.

The main reason for this was the lack of attention from the international community in resolving this conflict. In fact, compared with the subsequent crisis between Iraq and Kuwait, the eight-year conflict was a low priority amongst the guardians of international peace and security. One may argue that this was due to the fact that Iran was still considered a wrongdoer by the international community after the 1979 US embassy hostage crisis. However, this previous “wrongdoing” should not be allowed to serve as a justification for the established powers in the UNSC to be indifferent to Iran, in relation to a later, unrelated event.

In addition, by the time the UNSG delivered his report finding Iraq responsible for an illegal war against Iran in December 1991, the world’s attention had been captured by Iraq’s invasion of Kuwait, and efforts to expel Iraq from Kuwait’s

---

259 Ramazani, above n 207, at 82.
260 This can be seen by the wording of the UNSC’s resolutions, adopted in 1980-1987, where they were only calling upon parties to refrain from using force. It was only in 1987 that the UNSC finally took firm action in Resolution 598 to demand a cease-fire after severe casualties from both Iran and Iraq.
261 Ramazani, above n 207, at 73.
Therefore, it can be assumed that any UNSG decision to further pursue Iraq’s obligation to pay compensation to Iran would have been useless due to the more current and “important” war settlement in the case of Kuwait.

3.2.3.3. Lessons from the UNSG’s Mission

In reference to the function of the UNSG in this war, the UNSG played several different roles: impartial mediator, investigator of violations and the voice of world conscience. Despite its disappointing conclusion against pursuing state responsibility of this war, the UNSG’s role as the initial investigator of violations is significant for this study.

First, the UNSG’s work in investigating violations of international law in this context could, in the future, become the way in which belligerents’ responsibility is determined after an armed conflict has ended. This may occur in situations where the warring parties cannot agree to employ the International Humanitarian Fact-Finding Commission (IHFFC) to investigate their conflict and where the UNSC is unable to adopt a resolution that determines one of the belligerents responsible. In the absence of such an impartial body, the UNSG, with its inherent impartiality, has already performed a role in finding facts and investigating whether or not there has been a violation of international law in the context of the Iran-Iraq War. Thus, based on the UNSG’s findings, the UNSC could determine who the responsible party is without needing to set up another impartial body to

---

262 In April 1991 the UNSC determined that Iraq was liable for any loss or damage, including environmental damage, as a result of its invasion of Kuwait, which was followed by the establishment of the United Nations Compensation Commission (UNCC) to pursue Iraq’s obligation to pay compensation. SC Res 687, UN Doc S/Res/687 (1991) [UNSC Res 687].


264 In the 1980s when the war took place, the IHFFC established in 1977 by art 90 of Additional Protocol I to the Geneva Conventions of 1949 was not yet into existence and would not do so until 20 declarations from the member parties have been submitted. It came into existence in 1991. Unfortunately, since its existence, the Fact-Finding Commission is never been called to action. Charles Garraway “The International Humanitarian Fact-Finding Commission” (2008) 34 CLB 813 at 814.
determine this responsibility. It should be noted that the UNSC also performed this role of determining responsibility when it held that Iraq was liable for the consequences of war, including environmental damage that resulted from Iraq’s actions in Kuwait.\(^{265}\)

Second, the UNSG is able to play an investigatory role that could be considered impartial and legitimate. He or she could be impartial because the UNSG is a person who has high integrity in international relations and is believed to have no special alliance to the established powers in the international community.\(^{266}\) In addition, the UNSG can work openly without any political pressure from the warring parties and other states that may have interests in the concerned conflict.\(^{267}\) This role is legitimate because in performing his or her duty to investigate violations of international law, the UNSG receives a mandate from the UNSC, the body with the primary duty of maintaining international peace and security.

3.2.4. Summary

Post-conflict settlement of this war has again not been favourable to the reparation of the damaged environment. Nevertheless, despite the absence of reparation payments from Iraq to Iran, this war experience contributed one significant precedent in the effort to pursue belligerents’ responsibility for unlawful conduct causing environmental damage. This is seen in the role of UNSG in determining responsibility in this war based on its independent investigation. The possibility of requesting the UNSG to conduct preliminary investigation of responsibility after conflicts may become a valuable alternative step in the future situations where the

\(^{265}\) Discussed below from [3.3].

\(^{266}\) Charter of the United Nations, art 97; Josef L. Kunz “The Legal Position of the Secretary General of the United Nations” (1946) 40 AJIL 786 at 789.

\(^{267}\) Regardless of his or her nationality, the respect given to the position of UN Secretary-General is likely to ensure that the work of UNSG as an independent observer in a conflict will not be questioned, and that the UNSG would not be subject to direct political pressure.
UNSC cannot decisively determine responsibility and if the warring parties cannot agree to employ the IHFFC.  

3.3. The Gulf War

About two years after the end of the Iran-Iraq War, the Gulf region experienced another crisis with Iraq’s invasion of Kuwait in 1990. This event became the focus of the international community not only because of the controversial aggression by Iraq but also because of the environmental effects of this armed conflict, which might be considered to have reached a crisis point. Environmental damage arguably occurred mainly during the military fighting between Iraq and the coalition states. This event also caused the international community to reconsider the adequacy of existing legal frameworks within the law of war to protect the environment during armed conflict. Accordingly, it resulted in a

268 In engaging the IHFFC’s fact-finding work, there must first be a request from states which are parties to the conflict, and then consents must be granted by them. The 1977 Additional Protocol I, above 201, art 90(2)(d).


270 This collective military operation was previously called “Operation Desert Shield”. It was prepared in case of Iraq’s non-compliance with the coalition’s deadline for Iraq’s unconditional withdrawal from Kuwait. By 15 January 1991, almost 800,000 soldiers from thirty-six countries, including 580,000 American troops, had assembled at the Saudi border. With Iraq’s non-compliance, on 16 January 1991, “Operation Desert Storm” was launched with massive air strikes against Iraq. After an air campaign, coalition forces drove the Iraqi army from Kuwait and southern Iraq and reinstated the Emir as ruler of a sovereign Kuwait. Roger Normand and Chris af Jochnick “The Legitimation of Violence: A Critical Analysis of the Gulf War” (1994) 35 Harv. Int’l L. J. 387 at 390.

271 See Chapter 1, particularly fn 4.
growing concern about the necessity of applying relevant peacetime treaties concerning environmental protection during times of war.272

To some extent, this case is an outstanding example of how state responsibility is enforced for consequences of war, especially for environmental damage. With Iraq’s defeat by the coalition states, the UNSC unanimously determined that Iraq was responsible for the consequences of the war (including environmental damage) as a result of its unlawful invasion of Kuwait. This was followed by the establishment of an international body to manage these claims: the United Nations Compensation Commission (UNCC).

This was the first time in history that the claims for environmental damage during war were recognised formally in an international post-war reparation regime. Many celebrated this event as establishing a valuable legal precedent in holding belligerents liable for future armed conflict having severe environmental impact.273

However, despite such positive responses, the UNCC’s establishment may be considered as unfair, since it placed full responsibility on Iraq for both sides’ destructive conduct during the war and limited Iraq’s participation in the claim-processing mechanisms. In addition, as examined in subsequent cases below, it appears that this event did not have a deterrent effect to prevent belligerents from causing significant environmental damage. Further, mechanisms developed in the aftermath of this conflict to enforce state responsibility (for example, Resolution 687 and the UNCC) were not applied to later conflicts which raised similar issues of environmental damage, such as the Kosovo War, Iraq War and Israel-Lebanon War.

272 See Chapter 2, particularly fn 179.

3.3.1. Armed Conflict and Environmental Effects

Hostilities began when Iraq invaded Kuwait on 2 August 1990 and were formally ended by the adoption of the UNSC Resolution 687 on 3 April 1991. Iraq invaded Kuwait claiming that it was a response to a request from the democratic Government of Kuwait that had overthrown the Al-Sabahs (the ruling family of Kuwait). Some considered that the invasion was caused by an oil production dispute together with the long historical dispute over the dependency of Kuwait on Iraq. After successfully invading Kuwait, Iraq declared on 28 August 1990 that Kuwait had become the nineteenth province of Iraq.

Soon after the invasion, the international community condemned this conduct and called for the unconditional withdrawal of Iraq from Kuwait. Many states then responded by unilaterally “punishing” Iraq by imposing sanctions such as freezing the country’s foreign assets, banning arms sales and implementing economic sanctions. After Iraq ignored the international community’s concerns and demands for withdrawal, the UNSC finally gave Iraq a withdrawal deadline of 15 January 1991 via Resolution 678. Based on this resolution, the UNSC, acting under Chapter VII of the UN Charter, authorised member states cooperating with


275 Hussein claimed that Kuwait had overproduced oil in violation of the Organisation of Petroleum Exporting Countries (OPEC) quotas and removed US$2.4 billion worth of Iraqi crude oil by “slant drilling” into the Rumaila oil field. Al-Duaij, above n 27, at 5. See also Christopher Greenwood “New World Order or Old? The Invasion of Kuwait and the Rule of Law” (1992) 55 Mod. L. Rev. 153 at 155.

276 Travers, above n 274, at 6.


278 Travers, above n 274, at 3-4.

the Government of Kuwait to use all necessary means to uphold and implement all relevant resolutions, and to restore international peace and security.280

As result of Iraq’s subsequent non-compliance with Resolution 678, UN member states cooperating with the government of Kuwait or the so-called coalition states281 on 16 January 1991 finally used military force to effectively expel Iraq from Kuwait.282 After almost two months of hostilities, the coalition states defeated Iraq and declared a ceasefire on 28 February 1991. Following this, the UNSC subsequently adopted Resolutions 687 and 692 that set out provisions for the cease-fire, including the neutralisation of Iraqi weapons of mass destruction through the creation of the United Nations Special Commission (UNSCOM) and the establishment of the UNCC.283

It was during these hostilities between Iraq and the coalition states that most environmental damage was caused. One cause was Iraq’s scorched earth policy which some commentators have described as “ecocide”284 or “environmental terrorism”.285 However, environmental damage to the Gulf area from this war was caused not only by the Iraqis’ actions but also by the conduct of the coalition forces.286

281 The coalition member states involved in the 1991 Gulf War were: Argentina, Australia, Bahrain, Bangladesh, Belgium, Canada, China, Czechoslovakia, Denmark, Egypt, France, Germany, Greece, Hungary, Italy, Kuwait, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Poland, Qatar, Saudi Arabia, Senegal, South Korea, Spain, Syria, United Arab Emirates, United Kingdom, and United States. In addition, Japan participated by sending medical assistance to Saudi Arabia. Al-Duaij, above n 27, xviii, fn 5.
282 Travers, above n 274, at 17.
284 Caggiano, above n 199, at 481.
In responding to attacks from coalition forces, Iraq deliberately attacked oil storage tanks and facilities not only in Kuwait but also in Saudi Arabia.\textsuperscript{287} Iraq exploded 60 oil wells in southern Kuwait and set refineries and tanks on the coast south of Kuwait City ablaze a week after the coalition forces had started their military operations. A month later, Iraq detonated the remaining wellheads in Kuwaiti territory.\textsuperscript{288} Iraqi President Saddam Hussein had consistently threatened to destroy these oil fields and facilities for some time before the actual hostilities took place,\textsuperscript{289} and during the time of Iraq’s occupation of Kuwait Iraqi troops detonated six oil wells, set fire to basins of oil in Kuwait and wired Kuwait’s oil fields with explosives in preparation for subsequent larger scale destructions.\textsuperscript{290} In total, Iraq damaged 755 wells: 608 of them were set alight, 42 were set gushing and 105 were damaged.\textsuperscript{291} The last oil fire was extinguished on 6 November 1991.\textsuperscript{292}

Besides setting oil on fire, Iraq began to pump oil onto the land and spill oil into the sea on 25 January 1991.\textsuperscript{293} Approximately 156 million barrels of crude oil

---


\textsuperscript{288} Arkin, above n 286, at 119.

\textsuperscript{289} Roberts, above n 287, at 243; Edgerton, above n 285, at 152.


\textsuperscript{291} Al-Damkhi, above n 269, at 33.

\textsuperscript{292} Bader Al-Khalaf “Pilot Study: The Onset of Asthma Among the Kuwaiti Population during the Burning of Oil Wells after the Gulf War” (1998) 24 Environ. Int’l 221 at 221. Based on this event, 6 November was observed annually as the International Day for Preventing the Exploitation of the Environment in War and Armed Conflict. \textit{The Observance of the International Day for Preventing the Exploitation of the Environment in War and Armed Conflict} GA Res 56/4, A/Res/56/4 (2001). The oil fires was ignited for the first time “barely one week” before the oil dumped onto the Gulf. Therefore, the oil fires last for approximately nine months with approximate oil consumption of these fires of 4.5 to 5 million barrels per day. York, above n 269, at 273.

\textsuperscript{293} Okorududu-Fubara, above n 219, at 129.
were released into the desert, forming 399 oil lakes and covering a surface area of 49.31 square kilometres. Approximately 11 million barrels of oil were deliberately released by Iraq into the Gulf from January 1991 to May 1991 from sunken or leaking vessels and terminals in both Kuwait and Iraq. This action resulted in an oil slick being created that spanned thousands of square kilometres. This oil spill was estimated to be more than 20 times larger than the Exxon Valdez spill.

The environmental effects of this war may be divided into three key groups: effects on the land environment, the marine environment and the aboveground environment (the air). As the armed conflict was land warfare, about 15-25 per cent of the desert vegetation was uprooted, trampled, and destroyed over the course of the war. Some agricultural areas in Kuwait were destroyed and covered with black soot and oily mist. Significant numbers of oil lakes caused contamination to groundwater. Further, some effects of the acid rain from the Kuwaiti oil fires caused excessive damage to agricultural production in the region. The main effects of acid rain are soil acidification, groundwater pollution, and damage to vegetation. In addition, widespread land mining by Iraqi troops endangered not only humans but also the land itself and animal

---

294 Al-Damkhi, above n 269, at 33.
296 Arkin et al, above n 221, at 62-63; UNEP Desk Study 2003, above n 283, at 67.
297 Al-Damkhi, above n 269, at 33.
299 Al-Damkhi, above n 269, at 36.
300 Westing, above n 20, at 79.
301 Al-Damkhi, above n 269, at 36.
302 Ross, above n 74, at 522.
populations. This was further exacerbated by the fact that Iraq did not insert metal pellets into its mines, which made their detection very difficult.

With the estimated 11 million barrels of oil that were deliberately released into the Gulf, at least 800 km of Gulf beaches were observed to have had oil released onto them and marine wildlife was devastated. Some 30,000 wintering seabirds died as a result of oil spills. Other marine wildlife were also negatively affected by the oil spill including turtles, dugongs, whales, dolphins, migratory birds like cormorants and flamingos, and sea snakes. The oil spill in the Gulf was also detrimental to the fishing industry. Prior to the conflict, the Gulf had yielded up to 120,000 tons of fish a year. However, the conflict disrupted the spawning of shrimp and fish, resulting in a significant decline in yields. Besides deliberate oil spills, at least 80 ships carrying oil and munitions were sunk during the Gulf War and these ships will remain a chronic source of pollution in the Gulf for many years.

In terms of air pollution, the United Nations Environmental Programme (UNEP) reported, in 2003, that the total emission of carbon dioxide from the oil fires was estimated to be $3 \times 10^8$ tonnes or about 1.5 per cent of worldwide annual emissions from fossil fuels and biomass burning. The dense smoke from oil fires not only affected Kuwait and Iraq but also reached several states in

---

303 Westing, above n 20, at 79.
304 Boelaert-Suominen, above n 46, at 238.
305 Sadiq and McCain, above n 295, at 6-7 and 13.
306 UNEP Desk Study 2003, above n 283, at 68.
307 Al-Damkhi, above n 269, at 35.
308 Sadiq and McCain, above n 295, at 11.
309 UNEP Desk Study 2003, above n 283.
310 The emissions might have also contained small quantities of mercury, benzene, toluene, ethylbenzene, xylene (BTEX), and poly-aromatic hydrocarbons (PAHs). The oil fires could have also produced dioxins due to the introduction of chlorine from the use of salt water for extinguishing the fires. Ibid, at 67.
neighbouring areas.\textsuperscript{311} This severe air pollution was reported to have had significant adverse effects on human health.\textsuperscript{312} As a result of these fires, daytime temperatures were far below normal,\textsuperscript{313} many people were hospitalised with respiratory problems and “black rain” damaged crops and water supplies.\textsuperscript{314}

As a result of Iraq’s conduct during this conflict, environmental damages in Kuwait alone were estimated to amount to US$40 billion\textsuperscript{315} and efforts to clean up the environment are similarly estimated to run into the billions. It was predicted that environmental damage would continue for the next twenty years.\textsuperscript{316}

Besides Iraq’s actions, the coalition forces also contributed to the environmental damage caused during the conflict.\textsuperscript{317} The coalition’s bombardment campaign brought a considerable level of unavoidable collateral damage on the natural environment\textsuperscript{318} in locations such as the Kuwaiti National Forest.\textsuperscript{319} One expert has argued that the “enormous devastation that did result from the massive aerial attacks suggests that the legal standards of distinction and proportionality did not have much practical effect”\textsuperscript{320}.

\begin{footnotesize}
\begin{enumerate}
\item Florentino P. Feliciano “Marine Pollution and Spoliation of Natural Resources as War Measures: A Note on Some International Law Problems in the Gulf War” (1992) 14 Hous. J. Int’l L. 483 at 493-494.
\item Westing, above n 20, at 80.
\item One study revealed that in the area of Gulf, there was a decrease in temperature reaching -4 degrees Celsius. S. Bakan et. al. “Climate Response to Smoke from the Burning Oil Wells in Kuwait” (1991) 350 Nature 361 at 361.
\item Edgerton, above n 285, at 153; Feliciano, above n 311, at 491.
\item UNEP Desk Study 2003, above n 283, at 67
\item Edgerton, above n 285, at 154.
\item Westing, above n 20, at 78; Arkin, above n 286, at 119; Roberts, above n 287, at 251.
\item Westing, ibid.
\item Boelaert-Suominen, above n 46, at 282.
\item Oscar Schachter “United Nations Law in the Gulf Conflict” (1991) 85 AJIL 452 at 466.
\end{enumerate}
\end{footnotesize}
The most significant coalition action in terms of negative environmental effects was the use of depleted uranium (DU) in its munitions. The US forces fired about 14,000 high-calibre shells containing DU during the war. It is recorded that there were more than 290,000 kilograms of DU-contaminated equipment and DU-contaminated soil on the battlefields of Saudi Arabia, Kuwait, and southern Iraq, all from US and UK forces.

The post-conflict effects of DU on humans and the environment have been the subjects of numerous studies. In addition, the use of DU in warfare has been severely criticised by many international lawyers. Indeed, prior to the Gulf

---


322 See UNEP Desk Study 2003, above n 283, at 68-69; Steve Fetter and Frank N. von Hippel “The Hazard Posed by Depleted Uranium Munitions” (2000) 8 Sci. & Global Sec. 125 at 125. Ammunitions with DU are popular for military use because they have certain practical benefits. DU is used to strengthen ammunitions because it is fifty-five per cent denser than lead. It is flammable and can penetrate even steel-armoured tanks. Even though it has a useful role in military tactics, DU is a real hazard to human health and the environment. Since DU has a half-life of 4.5 billion years, there is no means of cleaning up the remaining DU and therefore it remains radioactive waste. Christopher Michaelsen “The Use of Depleted Uranium Ammunition in Operation Iraqi Freedom: A War Crime?” (Working Paper No. 394, Strategic and Defence Studies Centre, The Australian National University, 2005) at 2; Al-Duaij, above n 27, at xix; Dan Fahey “Environmental and Health Consequences of the Use of Depleted Uranium Weapons” in Avril McDonald, Jann K. Kleffner and Brigit Toebes (eds) Depleted Uranium Weapons and International Law (TMC Asser, The Hague, 2008) 29; Jason A. Beckett “Interim Legality: A Mistaken Assumption? An Analysis of Depleted Uranium Munitions under Contemporary International Humanitarian Law” (2004) 3 Chinese JIL 43 at 61.

323 UNEP Desk Study 2003, above n 283, at 68; Al-Duaij, above n 27, at xix.

324 Fahey, above n 321, at 9.


326 It has been argued that: “DU weapons violate international law because of their inherent cruelty and unconfined death-dealing effect. They threaten civilian populations now and for generations to come. These are precisely the weapons and uses prohibited by international law for more than a century including the Geneva Conventions and their Protocols Additional of 1977”. Ramsey Clark “An International Appeal to Ban the Use of Depleted Uranium Weapons” (1997) International
War, the US Army had warned of the negative impacts of this type of ammunition on both human health and the environment.327

This wartime legacy328 has contaminated the environment with high radioactive and toxic dust. Small size particles formed during DU impacts and soluble uranium oxide dust formed by corroding DU, may be transported by the wind or water. Thus, they could contaminate food and water supplies which posed severe short and long term health problems if they were inhaled or ingested by humans.329 This contamination was exacerbated by the fact that in confining the radioactive impact of the DU, the contaminated soil should be scraped up and containerised for removal as radioactive waste. This is an effort which is extremely time-consuming and costly. Since this clean-up requires the removal of the top layer of soil, it could devastate the environment, contaminate arable lands or wetlands.330

Besides the use of DU, some of the attacks conducted by the coalition forces are difficult to justify in terms of military necessity, such as the attack on two operating nuclear reactors in south Baghdad.331 These attacks inevitably raised concerns that there might be considerable release of radioactive materials which

Action Center <www.iacenter.org>. Further, “[t]he damage caused by uranium weapons cannot be contained to ‘legal’ fields of battle; they continue to act after the conclusion of hostilities; they are inhumane because they place the health of non-combatants, including children and future generations, at risk; and they cannot be used without unduly damaging the natural environment”. “Policy Statement: Uranium Munitions - ‘Tolerable’ Radiological Weapons?” (2003) Medical Association for Prevention of War <www.mapw.org.au>. In other words, these weapons are indiscriminate, cause superfluous injury and create unnecessary suffering. Beckett, above n 322, at 44.

327 Fahey, above n 321, at 9.
329 Fahey, above n 321, at 11.
331 Westing, above n 20, at 78.
could cause environmental damage.\textsuperscript{332} In addition, the massive deployment and movement of troops and vehicles of the coalition forces has contributed to land degradation in fragile desert areas.\textsuperscript{333}

3.3.2. Analysis of Applicable Laws

As stated previously, this war was ignited by Iraq’s illegal invasion of Kuwait and became notorious as both sides of the belligerents’ conduct during the war resulted in severe and widespread damage to the environment. Therefore, in a similar manner to the Iran-Iraq War, belligerents’ conducts are examined under both \textit{ius ad bellum} and \textit{ius in bello}.

3.3.2.1. \textit{Ius ad Bellum}

Iraq’s decision to invade Kuwait on 2 August 1990 could not be justified whatsoever under the rules of \textit{ius ad bellum}.\textsuperscript{334} None of the reasons and facts presented by Iraq in invading Kuwait precludes Iraq’s violation of the general prohibition on the use of force against Kuwait.\textsuperscript{335} Therefore, such violation entails Iraq’s responsibility for any casualties of war (in a wide sense) resulting from the illegal invasion.

In contrast, the coalition states were justified using force against Iraq since they had an authoritative mandate from the UNSC to restore peace and security in the region by expelling Iraq from Kuwait. However, some of their military conduct was allegedly in violation of international law as presented further below.

\textsuperscript{332} Roberts, above n 20, at 140.


\textsuperscript{334} See Chapter 2 section [3.4].

\textsuperscript{335} See fn 275 above.
3.3.2.2. *Ius in Bello*

During this conflict, Iraq’s military conduct, which brought environmental disaster to the region, violated the law of war. Firstly, Iraq was in violations of arts 23(g) and 55 of the 1907 Hague Regulations and art 53 of the 1949 Geneva IV Convention because of its actions in spilling oil and setting fires to oil wells within Kuwait’s territory. Iraq’s acts may also be labelled as wanton and unnecessary destruction during armed conflict which is punishable as a grave breach under art 147 of the 1949 Geneva IV Convention.

Saddam Hussein defended his decision to order oil spilling and the setting on fire of oil wells on the grounds of self-defence in fighting the US. It was difficult to sustain this justification on the facts. Iraq’s invasion of Kuwait was highly likely influenced by the economic factor of oil production. Further, Iraq’s actions in spilling and setting fire to oil wells during its occupation of Kuwait could not be justified under the rules of usufruct because what was spilled and set on fire were...

---

336 The armed conflict in the Gulf region officially began on 2 August 1990. The rules of IHL were in force from the day of the invasion and continued to be valid during the Iraqi occupation and remain valid in belligerents’ territories until the termination of armed conflict or the conclusion of a peace agreement. In this conflict, the end of hostilities arguably occurred with the adoption of UNSC Resolution 687 on 3 April 1991. The application of the law of war is based on the parameters of common art 2 of the 1949 Geneva Conventions. It provides that international armed conflict occurs when two or more states (High Contracting Parties) are involved in armed conflict, regardless of whether or not the situation is recognised as armed conflict by one of the parties. Further, this provision does not require a formal declaration of war by the parties: a situation of actual armed conflict would suffice to trigger the application of these conventions. The Four 1949 Geneva Conventions, above n 136; *Prosecutor v Dusko Tadic* (Case No. IT-94-1-A, International Criminal Tribunal for Yugoslavia, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, 2 October 1995) at [70]; UNSC Res 687, above n 262.

337 Boelaert-Suominen, above n 46, at 280.

338 Jonathan P. Edwards “The Iraqi Oil Weapon in the 1991 Gulf War: A Law of Armed Conflict Analysis” (1992) 40 Naval L. Rev. 105 at 107. In terms of military strategies, it has been observed that Iraq’s action of spilling oil aimed to obstruct the movement of the coalition’s forces from the sea and on the ground. Setting fire to oil wells was intended to make black smoke, thus holding back the coalition air strikes against Iraqi forces. Hulme, above n 140, at 170.

339 Al-Damkhi, above n 269, at 37.
underground oil resources, *in situ*, un-extracted and unprocessed, and accordingly not at that stage susceptible to immediate military use.\(^{340}\)

Iraq arguably also violated the 1925 Geneva Protocol in spilling and burning huge amounts of oil to produce black fumes. Crude oil, which caused the environmental disaster in this war, essentially consisted of hydrocarbons, which are toxic and release poisonous gases if set ablaze. In addition, oil arguably falls in the category of “analogous liquids” as covered by the 1925 Geneva Protocol.\(^{341}\)

Apart from violations of treaty provisions, Iraq also violated customary laws stipulated in the general principles of the law of war, such as the principles of military necessity, discrimination and proportionality. As previously discussed, Iraq violated the principle of military necessity when it violated art 23(g) of the 1907 Hague Convention. In releasing crude oil to the sea and the land and setting fire to oil wells without any specific direction, Iraq failed to meet the requirement of discrimination in employing a method of war. Lastly, these actions also violated the proportionality test as they resulted in significant damage to the environment that was excessive compared to the military advantage anticipated.

On the other side, the coalition states, in particular the US, did violate some rules of IHL. As a consequence, these states were responsible for war-damage caused by their actions, including environmental damage. The coalition’s bombardment campaign brought enormous devastation to the environment and did not meet the requirements of either the distinction or proportionality principles.\(^{342}\) The use of DU munitions in this armed conflict is also contended to be in violation of arts 35 (3) and 55(1) Additional Protocol I.\(^{343}\) In fact, the UN special investigator of the

\(^{340}\) Feliciano, above n 311, at 514.

\(^{341}\) Okorodudu-Fubara, above n 219, at 190-191.

\(^{342}\) Westing, above n 286, at 78; Schachter, above n 320, at 466.

\(^{343}\) Michaelsen, above n 322, at 11.
Sub-Committee on the Promotion and Protection of Human Rights found the use of DU to be illegal under existing humanitarian law.\textsuperscript{344}

Besides the use of DU, the attacks on two operating nuclear reactors in South Baghdad were arguably violations of the necessity principle because these targets were not directly important to the war operation. Further, these attacks inevitably raise concerns that there might have been considerable release of radioactive materials which could have caused environmental damage.\textsuperscript{345} Therefore, these breaches of international law should have triggered state responsibility on the coalition states to pay compensation for any casualties or injuries, both to humans and the environment.

In terms of peacetime treaty laws that remain applicable during conflict, Iraq was in violation of the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR). In 1994, Walter Kälin, a former special rapporteur of the UN Commission of Human Rights in the 1991 Kuwait case, examined Iraq’s actions in releasing and setting fire to oil. He argued that this conduct had caused large-scale environmental damage which severely affects the health of a considerable proportion of the population concerned or creates risks for the health of future generations. He determined that this action amounts to a serious violation of the right to the enjoyment of the highest attainable standard of health as embodied in art 12 of the ICESCR.\textsuperscript{346}


\textsuperscript{345} Roberts, above n 20, at 140.

Similar to its actions during the earlier war with Iran, Iraq once more violated the 1978 Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution.\(^{347}\) By pumping crude oil into the Gulf, Iraq acted against the Convention’s primary object – to protect and preserve the marine environment against threats of pollution from offshore and land-based activities. Unfortunately, as in the Iran/Iraq conflict, there was no data available at the time of writing to confirm whether any of the other member states have invoked Iraq’s responsibility under this Convention.

In terms of customary law, Iraq violated its international obligations which prohibited trans-boundary harm to the environment of other states or to areas beyond the limits of national jurisdiction. Iraqi troops committed a scorched earth policy in Kuwait which brought severe environmental damage in Kuwaiti territory and beyond. Therefore, Iraq is responsible for any damage resulting from its actions. Regrettably, in spite of the fact that thousands of tons of oil and ash were deposited beyond areas of national sovereignty or control such as the high seas, the common atmosphere and the seabed, both during and after this war, neither states nor any international organisations have submitted a claim on behalf of the international community for damage inflicted on the environment.\(^{348}\)

3.3.3. Post-Conflict Examination

On 3 March 1991, the conflict was practically over as Iraq accepted Resolution 686, which established the conditions for a cessation of hostilities.\(^{349}\) However,
the armed conflict only formally ceased after the adoption of Resolution 687\(^\text{350}\) on 3 April 1991.\(^\text{351}\) It was this resolution that became a landmark decision in enforcing state responsibility for war damage, particularly environmental.

Specifically, the most important paragraph of Resolution 687 stated that the UNSC:\(^\text{352}\)

\[\text{[r]eaffirms that Iraq, (…) is liable under international law for any direct loss, damage, including environmental damage and the depletion of natural resources, or injury to foreign governments, nationals and corporations, as a result of Iraq’s unlawful invasion and occupation of Kuwait.}\]

In terms of environmental damage, this paragraph was crucially important because of its express provision recognising environmental damage as one of the compensable categories of direct loss. Further, it is the first instance in which environmental claims have been “recognised explicitly in an institutional claims context”.\(^\text{353}\)

Other important decisions contained in this resolution were the creation of a fund “to pay compensation for claims” arising from the war and the establishment of a commission to administer the fund called the United Nations Compensation Commission (UNCC).\(^\text{354}\) In the meantime, UNSC Resolution 705\(^\text{355}\) established,

\(^\text{350}\) UNSC Res 687, above n 262.


\(^\text{352}\) UNSC Res 687, above n 262, at [16] (emphasis added).


\(^\text{354}\) UNSC Res 687, above n 262, at [18].

\(^\text{355}\) SC Res 705, UN Doc S/Res/705 (1991). This resolution stipulates that “[c]ompensation to be paid by Iraq, as arising from section E of resolution 687 (1991) of 3 April 1991, shall not exceed 30 per cent of the annual value of its exports of petroleum and petroleum products”. This percentage has been subsequently reduced to 25 per cent and finally in May 2003, to 5 per cent. See SC Res 1483, UN Doc S/Res/1483 (2003) [UNSC Res 1483] at [21].
upon the recommendation of another report of the UNSG,\textsuperscript{356} that UNCC funds be assured by the allocation of a fixed percentage of revenues from Iraqi oil exports to be put under the authority of the UN. Although predicted to be inadequate to provide full compensation for all injuries arising from the conflict,\textsuperscript{357} the creation of the fund and the UNCC were crucial decisions in the development of the international community’s compensation practices for war-damage.

In terms of state liability, Resolution 687 does not mention which specific obligation under international law, whether treaty or custom-based, that Iraq violated in order to become liable for all the consequences of war. In addition, this resolution did not mention any peacetime international obligations under either treaty or customary law. However, it does state that responsibility must be borne by Iraq due to its unlawful invasion and occupation of Kuwait. This statement is in reference to the international obligation not to commit invasion or aggression which is embodied in art 2(4) of the UN Charter. Therefore, even if Iraqi conduct was not in violation of the laws of war, Iraq is still, under this resolution, liable to pay compensation for all damage due to its illegitimate cause for waging war.

The determination by the UNSC of the legal basis for Iraq’s liability as \textit{ius ad bellum} rather than \textit{ius in bello} has raised debate among scholars.\textsuperscript{358} Nevertheless, this decision was welcomed because it simplified the evidentiary process of holding Iraq liable for war damages.\textsuperscript{359} The resolution’s approach was that the use of force in violation of the UN Charter remains illegal even if the aggressor state complies with all rules of the \textit{ius in bello}.\textsuperscript{360}

\begin{itemize}
\item\textsuperscript{357} Gregory D. DiMeglio “Claims against Iraq: The UN Compensation Commission and Other Remedies” (1992) 86 ASIL Proc. 477 at 482.
\item\textsuperscript{358} Koppe, above n 63, at 317. See Chapter 2 at [3.4].
\item\textsuperscript{360} Boelaert-Suominen, above n 46, at 298.
\end{itemize}
Similarly to previous examples from the First and Second World Wars, where defeated parties consented or agreed to peace treaties with attendant obligations, Iraq also gave its “consent” to the UNSC resolutions which put blame and full responsibility upon this country. In a letter dated 3 March 1991,\textsuperscript{361} Iraq agreed to fulfil its obligations under Resolution 686.\textsuperscript{362} As a losing or “guilty” party, Iraq accepted its responsibility under Resolution 687, including liability for environmental damage.\textsuperscript{363} Further, as a member of the UN, Iraq is under obligations to accept and carry out any decisions made by the UNSC.\textsuperscript{364}

3.3.3.1. The United Nations Compensation Commission (UNCC)

Pursuant to paragraph 18 of Resolution 687 and the UNSG’s 2 May 1991 report,\textsuperscript{365} the UNSC then adopted Resolution 692 on 20 May 1991, formally establishing the UNCC as a subsidiary organ of the UNSC that would administer a system to provide compensation for damage arising from the Gulf conflict.\textsuperscript{366} The general operation of the UNCC has been associated with the “quick

\textsuperscript{361} Identical Letter from Iraq to UNSG in 1991, above n 349.

\textsuperscript{362} One of the obligations under this resolution was that Iraq accepted: “its liability under international law for any loss, damage or injury in regard to Kuwait and third states and their nationals and corporations, as a result of the invasion and illegal occupation of Kuwait by Iraq”. SC Res 686, UN Doc S/Res/686 (1991) at [2].

\textsuperscript{363} In accepting Resolution 687, Iraq was not without objection. It protested that the resolution was mainly illegal and it was not given any choice but to accept it. \textit{Identical Letter dated 6 April 1991 from the Permanent Representative of Iraq to the United Nations addressed respectively to the Secretary-General and the President of the Security Council S/22456 (1991)}.

\textsuperscript{364} Charter of the United Nations, art 25.

\textsuperscript{365} UNSG Report on SC Res 687, above n 356.

settlement of insurance claims”367 because it does not adjudicate claims, but merely considers and verifies them, and then determines the amount of losses.368

Even though stated to be a non-judicial body, some scholars doubt that the UNCC performs purely non-judicial tasks. This is first because, as described above, the Commission has the task of resolving disputed claims. In addition to this, the organisation’s fact-finding function cannot be separated from judicial tasks. Third, the Commission’s organs, such as the Governing Council and the Commissioners, use terminologies, techniques, procedures and reasoning that are particularly similar to those applied in a court of law. Lastly, the Commission’s tasks of considering and verifying claims and determining the amount of losses are in fact functions similar to those of judges or arbitrators in the judicial system.369

3.3.3.2. Environmental Compensation under the UNCC

The UNCC practice has produced a significant precedent for compensation for environmental damage during war370 by specifically ruling that “direct

---


368 Alzamora, above n 366, at 8. On the work on the UNCC, the UNSG described it in these terms: “[t]he Commission is not a court or 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”. UNSG Report on SC Res 687, above n 356, at [20].

369 Boelaert-Suominen, above n 46, at 252-253. Danio Campanelli has recognised that even though the UNCC was not intended to become a judicial body, it is a dispute settlement body with judicial features. See “The United Nations Compensation Commission (UNCC): Reflections on Its Judicial Character” (2005) 4(1) LPICT 107 at 139.

environmental damage and depletion of natural resources” includes losses or expenses resulting from the following efforts:371

(a) [a]batement and prevention of environmental damage, including expenses directly relating to fighting oil fires and stemming the flow of oil in coastal and international waters;
(b) [r]easonable measures already taken to clean and restore the environment or future measures which can be documented as reasonably necessary to clean and restore the environment;
(c) [r]easonable monitoring and assessment of the environmental damage for the purposes of evaluating and abating the harm and restoring the environment;
(d) [r]easonable monitoring of public health and performing medical screenings for the purposes of investigation and combating increased health risks as a result of the environmental damage; and
(e) [d]epletion of or damage to natural resources.

In addition, it is important to note that the “F4” panel decided to include “pure environmental damage” i.e. damage to environmental resources that have no commercial value.372 This inclusion is crucial because it acknowledges protection for the environment which is purely for the environment’s own sake or because of its intrinsic value, not as valued based on its benefit to humans.

In reality, states claiming categories of the compensable claims above not only come from those located in the Gulf region but also other states that have incurred expenses in assisting in the mitigation and reparation of environmental damage. This shows that claims of compensation are not limited to the injured states but also come from third states. The range of these claims may be seen in the table below.

372 This decision was made by the panel taking into account previous judgments of the Chorzów Factory and Trail Smelter cases and the interpretation of liability provision of Resolution 687. Report and Recommendations Made by the Panel of Commissioners Concerning the Fifth Instalment of “F4” Claims S/AC.26/2005/10 (2005) at [52-58].
Table 1. Category “F4” Instalments

<table>
<thead>
<tr>
<th>Instalment, Report Number</th>
<th>Subject</th>
<th>Claimant States</th>
<th>Sources of Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monitoring and assessment of environmental damage, including cultural heritage and public health (principally future costs)</td>
<td>Iran, Jordan, Kuwait, Saudi Arabia, Syria, Turkey</td>
<td>Pollutants from oil well fires and firefighting; Oil lakes formed by damaged wells; Mines, unexploded ordnance, and other remnants of war; Movement of military vehicles and personnel, construction of military trenches, fortifications; Oil spills into the Persian Gulf from pipelines, offshore terminals, and tankers; and Movement and presence of refugees.</td>
</tr>
<tr>
<td>2</td>
<td>Abatement and prevention of environmental damage (incurred expenses)</td>
<td>Australia, Canada, Germany, Iran, Kuwait, Netherlands, Saudi Arabia, United Kingdom, United States.</td>
<td>Pollutants from oil well fires and firefighting; Oil lakes formed by damaged wells; Mines, unexploded ordnance, and other remnants of war; and Oil spills into the Persian Gulf from pipelines, offshore terminals, and tankers.</td>
</tr>
<tr>
<td>3</td>
<td>Measures to clean and restore the environment (principally future costs)</td>
<td>Kuwait, Saudi Arabia</td>
<td>Pollutants from oil well fires and firefighting; Oil lakes formed by damaged wells; Mines, unexploded ordnance, and other remnants of war; Movement of military vehicles and personnel, construction of military trenches, fortifications; and Oil spills into the Persian Gulf from pipelines, offshore terminals, and tankers.</td>
</tr>
<tr>
<td>4</td>
<td>Measures to clean and restore the environment (principally future costs)</td>
<td>Iran, Jordan, Kuwait, Saudi Arabia, Syria, Turkey</td>
<td>Pollutants from oil well fires and firefighting; Oil lakes formed by damaged wells; Mines, unexploded ordnance, and other remnants of war; Movement of military vehicles and personnel, construction of military trenches, fortifications; Oil spills into the Persian Gulf from pipelines, offshore terminals, and tankers; and Movement and presence of refugees.</td>
</tr>
<tr>
<td>5</td>
<td>Measures to clean and restore the environment, depletion of or damage to natural resources, pure (non-commercial) environmental damage, monitoring of public health and medical screenings, other public</td>
<td>Iran, Jordan, Kuwait, Saudi Arabia, Syria, Turkey</td>
<td>Pollutants from oil well fires and damaged oil wells in Kuwait; Oil spills into the Persian Gulf from pipelines, offshore terminals, and tankers; Mines, unexploded ordnance, and other remnants of war; Influx of refugees; and Exposure of populations to pollutants</td>
</tr>
</tbody>
</table>

In terms of lodging claims, the UNCC Governing Council expressly stipulates that there are two basic elements of admissible losses. These elements are: first that the losses “must be the result of Iraq’s unlawful invasion and occupation of Kuwait”; and second, “that the causal link must be direct”. The Council further specified situations that would be compensated as a “direct” loss:

(a) military operations or threat of military action by either side during the period 2 August 1990 to 2 March 1991;
(b) departure from or inability to leave Iraq or Kuwait (or a decision not to return) during that period;
(c) actions by officials, employees or agents of the Government of Iraq or its controlled entities during that period in connection with the invasion or occupation;
(d) the breakdown of civil order in Kuwait or Iraq during that period; or
(e) hostage-taking or other illegal detention.

Even though Iraq’s liability was based on it violating the law on the use of force, this categorisation of the causes of loss also reflects Iraq’s responsibility under the law of armed conflict. Two of the five causes of loss (a and c) also mirror the principles of state responsibility law, as will now be discussed. This means that Iraq was also responsible for its unlawful actions under the law of war and liable to pay compensation.

---

374 The Council excluded losses resulting from the UN trade embargo from this category because this loss does not have a direct causal link to the invasion. United Nations Compensation Commission Decision No. 15: Compensation for Business Losses Resulting from Iraq’s Unlawful Invasion and Occupation of Kuwait where the Trade Embargo and Related Measures were also a Cause S/AC.26/1992/15 (1993) [UNCC Decision No. 15] at [3].
375 Ibid, at [6].
376 Crook, above n 273, at 147.
377 This obligation to pay compensation for all damages resulting from Iraq’s unlawful conduct under the law of war comes from art 3 of the 1907 Hague Convention IV and art 91 of the 1977 Additional Protocol I.
The first cause of loss is “military operations or threat of military action by either side during the period of 2 August 1990 to 2 March 1991”. The word “during”, and the period covered, means that all damages from military activities were eventually subject to the law of armed conflict. Further, the phrase “by either side” determined that Iraq was not only liable for the consequences of its own conduct but also for the conduct of the coalition forces (both lawful and unlawful).\(^{378}\)

The second cause of loss that reflects the wider rules of state responsibility is loss as a consequence of “actions by officials, employees or agents of the government of Iraq or its controlled entities during that period in connection with the invasion or occupation”.\(^{379}\) This is clearly consistent with the general rules on attribution of conduct to a state. However, the attribution of conduct under the UNCC regime is narrower than under the laws of war. The UNCC only allows for conduct from state (Iraqi) agents within a specific time, with a connection with or relevance to the invasion or occupation to be claimed for. In contrast, under the law of war, a state is responsible for all unlawful acts of members of its armed forces including the conduct of individuals acting privately or wholly unofficially.

3.3.3.3. Problems with the UNCC

Despite the fact that the post-conflict compensation regime recognised environmental damage as a compensable claim for the first time, the UNCC, unfortunately, does not prioritise these claims in a manner which would promptly mitigate and repair the damage to the environment. Therefore, environmental damage resulting from this armed conflict may continue with further deterioration occurring as the efforts to remedy are delayed.

\(^{378}\) See previous section at [3.3.2.2].

\(^{379}\) UNCC Decision No. 15, above n 374, at [6].
Under the UNCC regime, there are six compensable claim categories: A-F. Category “F” claims are subdivided into F1, F2, F3, F4 and E/F claims. Claims for environmental damage are classified as “F4” subcategory claims, which is nearly the bottom level of all claims. This placement may suggest that claims for environment damage have been included as an afterthought and this is likely to cause some problems.

Such a low prioritisation of environmental damage claims could diminish the full deterrent effect of the UNCC’s environmental liability provisions. In addition, the UNCC had only started reviewing environmental claims seven years after its establishment. This time frame was extremely different to that of other claims treatments, particularly claims for damages suffered by individuals which were considered as “urgent” matters with fixed award amounts and rapid, simplified procedures. Despite the UNCC decision which included any expenses and effort in mitigation, clean-up and restoration of environmental damage (both during and post conflict) as compensable claims, it is not truly favourable to the environment.

---

380 Category “A” claims are claims submitted by individuals who had to leave Kuwait or Iraq between the date of Iraq’s invasion of Kuwait on 2 August 1990 and the date of the cease-fire, 2 March 1991. Category “B” claims are claims submitted by individuals who suffered serious personal injury or loss of a family member as a result of Iraq’s invasion and occupation of Kuwait. Category “C” claims are individual claims for personal damages up to US$100,000. Category “D” claims are filed by individual claims for personal damages above US$100,000. Category “E” claims are claims filed by corporations, other private legal entities and public sector enterprises. This category is subdivided into E1, E2, E3 and E4. Lastly, category “F” claims are claims filed by governments and international organisations including claims for damage to the environment. In order to claim under these categories, specific deadlines must be met. Claims for categories “A”, “B”, “C” and “D” had to be submitted before 1 January 1995. Meanwhile, 1 February 1996 was the deadline for claim categories “E” and “F”, with the exception of environmental claims in category “F” which could be filed before 1 February 1997. United Nations Compensation Commission “Category “F” Claims” (2012) UNCC <www.uncc.ch/theclaims>.

381 Caron, above n 351, at 229.

382 Lee, above n 359, at 215.

If the environmental claims had been addressed promptly after the conflict was over, the actual damage may well have been less than what eventuated.\textsuperscript{384}

In addition, Iraq has been excluded from the claims process. Iraq was forced to do nothing and watch from the outside while its liability was being determined without a right to give any recommendation to the selection of the panels of Commissioners.\textsuperscript{385} Even though Iraq has been given the right to present additional information and views on the preliminary assessment of claims, the Commissioners are not obliged to take this information or other comments into consideration. Nor are the Commissioners required to respond to Iraq’s considerations or protests.\textsuperscript{386} In addition, the Governing Council’s decisions in approving the Commissioners’ determination of claims “will be final and are not subject to appeal or review on procedural, substantive or other grounds”\textsuperscript{387} except for in the cases of “computational, clerical, typographical or other errors”.\textsuperscript{388}

3.3.4. Summary

The Gulf War in 1991 produced many lessons in the implementation of state responsibility for environmental damage during armed conflict. This event has formed a positive precedent for the future enforcement of such state responsibility. This precedent should be welcomed as a way forward for the future management of similar cases because of the positive effects it had, as discussed below.\textsuperscript{389} Nevertheless, this positive development came with a number of

\textsuperscript{384} Caron, above n 351, at 229.
\textsuperscript{385} Boelaert-Suominen, above n 46, at 262.
\textsuperscript{386} Ibid, at 263.
\textsuperscript{388} Ibid, art 41(1).
\textsuperscript{389} Some scholars argue that the general compensation mechanism of the UNCC serves as a precedent for future action by the international community in dealing with similar cases. Rosemary E. Libera “Divide, Conquer, and Pay: Civil Compensation for Wartime Damages” (2001) 24 B.C.
limitations in terms of reparation for environmental damage as discussed above and should accordingly not be uncritically praised.

Resolution 687 upheld the concept of state responsibility at an inter-state level and confirmed that any violation of international obligations by a state incurs responsibility. In this case, Iraq had violated its obligation not to use force against another state’s territorial sovereignty and was therefore liable for all the consequences of war. This affirmation of the legal basis for Iraq’s liability has been recognised as an important step toward simplifying the evidentiary requirements for the enforcement of state responsibility to provide compensation for war damages including environmental damage. In particular, this resolution for the first time expressly recognised environmental damage as a compensable consequence of an armed conflict.

The establishment of the UNCC further signifies this improvement in post-conflict responsibility for war victims and should be welcomed as a positive precedent in terms of the actual enforcement and management of state responsibility. One author describes the UNCC as a “concrete manifestation of the international community's commitment to the principles of state responsibility”.

---


390 If art 2(4) had not been used as the legal basis for environmental compensation claims and claimants were required to prove direct loss under the laws of armed conflict, it would make the evidentiary process much more difficult. Lee, above n 359, at 218-219.

391 Bederman, above n 273, at 41, has submitted that the UNCC’s claim procedure such as the causal elements of claims, the eligibility of claimants and the methods of valuation used to award compensation will likely be followed by future post-war compensation institutions. Further, it is argued that claim processing mechanism within the UNCC may be suitable for future environmental cases both in wartime and peacetime. See David C. Caron “The Profound Significance of the UNCC for the Environment” Cymie R. Payne and Peter H. Sand (eds) Gulf War Reparations and the UN Compensation Commission: Environmental Liability (Oxford University Press, Oxford, 2011) 265-275.

392 Crook, above n 273, at 157.
This event also gave momentum to the growing debate on the inadequacies of existing law prohibiting or minimising environmental destruction during wartime and triggered a growing concern about applying peacetime treaties that were relevant to environmental protection during hostilities. In addition, it raised concerns in regard to the institutional implementation of state liability for environmental damage. Unfortunately, there was no guarantee that a similar procedure would be applied by the UNSC in subsequent cases with significant environmental damage.

In terms of environmental compensation, the low priority of environmental claims within the UNCC regime has negative effects both for the enforcement of state responsibility and the preservation of the environment itself. With such a low priority given to the environment, this legal precedent will not be a deterrent for parties who may consider causing environmental harm in future armed conflicts.

Besides the low priority of environmental claims under the UNCC, the reparation regime was reminiscent of the notion of ‘victor’s justice’ from previous armed conflict settlements. The implementation of this resolution has put Iraq as a defendant in all cases – Iraq is “the state on trial” without procedural due process. As a losing party, Iraq was made responsible for all of the negative consequences of this armed conflict, despite not having caused them all.

Further, regarding the rules and mechanism of the post conflict in the UNCC regime, Iraq was alienated by having no right to participate but only to bear the majority of the consequences of the war. On the other hand, the coalition forces

393 Andrea Gattini has argued, however, that the UNCC was not purely a victorious parties arrangement but “an ambitious attempt to substitute and strengthen the traditional loose pattern of co-operation between the victorious powers with a highly institutionalised framework provided by the UN, in order better to reach a settlement which satisfactorily achieves the imperatives of principle and policy”. “The UN Compensation Commission: Old Rules, New Procedures on War Reparations” (2002) 13 EJIL 161 at 164.

394 One author argued that post conflict resolutions in the Gulf War was strikingly similar to those of post-World War I in terms of imposing claims settlement system. Elyse J. Garmise “The Iraqi Claims Process and the Ghost of Versailles” (1992) 67 N.Y.U. L. Rev. 840 at 878.
do not bear any responsibility for the negative consequences resulting from their own conduct during this conflict.

4. **Period III: Discouraging Development for State Responsibility Implementation and Environmental Protection**

The positive precedents established from the Gulf War, unfortunately, have not been applied in similar subsequent cases, including the Kosovo War, the Iraq War, and the Israel-Lebanon War. None of the cases with significant environmental damage after the Gulf War place any responsibility on those belligerents who caused the environmental damage. This is despite the fact that such damage was caused during the period of the international community’s heightened awareness of the possible environmental impact of war. Notably, the unauthorised use of force by major states seems to have contributed to this discouraging development. Therefore, this period seems to be a retrograde step back to the period of victors’ justice, especially in the cases of the Kosovo and Iraq Wars. As for the Israel-Lebanon War, none of the belligerents could claim victory and thus no responsibility has been invoked. In general, no wartime environmental damage was compensated during this period.

4.1. **The Kosovo War**

Approximately eight years after the end of the Gulf War, the international community was again shocked when an internationalised armed conflict caused serious environmental destruction in the Balkan region. This conflict reached its peak when the North Atlantic Treaty Organisation (NATO)\(^{395}\) instituted a bombing campaign against the former Federal Republic of Yugoslavia (FRY). As if the belligerents had not learned the lessons from the Vietnam War and the Gulf War concerning the environmental damage, NATO’s air bombing operations

---

\(^{395}\) See Chapter 2 at fn 139.
caused significant environmental damage in the FRY’s territory. Meanwhile, NATO’s decision to use armed force without authorisation from the UNSC to protect the human rights of the Kosovar people had a significant effect on the development of the international community’s practice concerning the use of force in international relations.

In reference to environmental damage, the experience in this conflict was different than the two previous notable international events that had severe environmental impact: the Vietnam War and the Gulf War. In these events, the environment clearly became the target and environmental destruction was intentional. Conversely, in the Kosovo crisis, the environmental damage was, according to NATO, incidental to the destruction of other legitimate military targets. This kind of destruction was labelled “collateral damage”. Nevertheless, evidence of severe environmental damage within the FRY’s jurisdiction forced the international community to question whether or not NATO had made adequate environmental assessments in its selection of targets.

NATO’s decision to resort to armed force outside the UN framework influenced the development of international law in a controversial manner. The international community had a mixed reaction to this unsanctioned humanitarian intervention. The central issue was whether “humanitarian reasons” could become an additional exception to the general prohibition on the use of force against another state under international law. Otherwise, such military operations would be rendered violations of *ius ad bellum* and entail state responsibility for the consequences of war.

---


397 Schwabach, above n 175, at 118.

398 It is undisputed that there are two exceptions to general prohibition on the use of force i.e. self-defence and collective action under the Security Council mandate. Bruno Simma “NATO, the UN and the Use of Force: Legal Aspects” (1999) 10 EJIL 1 at 3.

399 On the legality of the war, see Aaron Schwabach “The Legality of the NATO Bombing Operation in the Federal Republic of Yugoslavia” (1999) 11 Pace Int’l L. Rev. 405; Antonio
It is contended that NATO should have been held liable for causing such damage resulting from its unlawful conduct of military campaign both under *ius ad bellum* and *ius in bello* against the FRY. NATO should have the obligation to pay compensation in order to repair and rehabilitate the damaged environment of the FRY. Unfortunately, concerted efforts, both legal and political, to pursue NATO’s responsibility have been unsuccessful due to procedural problems and the current power-balance in international relations. The burden for environmental clean-up was taken over by the UNEP with the support of other states, including some NATO member states.

The post-war resolution, via which the UNSC successfully imposed conditions on the FRY, appears to have confirmed the notion of ‘victor’s justice’ prevalent in earlier periods. This is similar to the experience after the Gulf War, although it differs in terms of the manner in which liability was determined. In these conflicts, both NATO and Iraq are clearly responsible for their unlawful invasions. However, NATO, as the victorious aggressor, could escape its responsibility for repairing or compensating the FRY’s damaged environment. Conversely in the Gulf War, Iraq, as the losing aggressor, could not free itself from the obligation of giving compensation for the consequences of war, which included environmental damage. Therefore, the response to the Kosovo War was a backward step in terms of enforcing state responsibility for environmental damage, after the positive developments resulting from the Gulf War.

4.1.1. Armed Conflict and Environmental Effects

Like the Vietnam War, the armed conflict in the Balkan region was originally an internal conflict within the FRY. It escalated to an international armed conflict...
because of the involvement of other states under the flag of NATO, which decided to use armed forces against the FRY because of humanitarian concerns, leading some to term it a “humanitarian intervention”. 401

After the dissolution of the Socialist Federal Republic of Yugoslavia (SFRY) in 1991, only the states of Serbia and Montenegro agreed to maintain the Yugoslav state. They established a new constitution for a new federal state, the FRY, in 1992. Within the FRY, Kosovo was a province with autonomy in the Republic of Serbia. However, this autonomy was done away with by the Serbian Government after the fall of communism and the breakup of the SFRY. 402

In response to this injustice, there was an opposition movement by the Kosovo Liberation Army (KLA). The conflict between Serbian forces and the KLA in Kosovo erupted in March 1998, triggered by attacks by Kosovar ethnic Albanian guerrillas on Serbian police forces. The FRY, under the control of President Slobodan Milosevic, sent police and military forces into Kosovo to drive the KLA forces out from populated areas. In this event, they allegedly conducted large-scale “ethnic cleansing” by driving people out of their homes and murdering both Kosovar soldiers and civilians. In addition, the Serbian forces systematically destroyed many towns in Kosovo by damaging private property as well as public water and waste systems. 403


In response to this escalating armed conflict, the international community raised its concerns through the UNSC by adopting Resolution 1160. The UNSC condemned the use of excessive force by Serbian police forces against civilians and peaceful demonstrators in Kosovo, as well as all acts of terrorism by the KLA. It also called on both the FRY and the Kosovar Albanians to work towards a political solution. In order to support this effort, the UNSC imposed a mandatory arms embargo on both parties and threatened additional measures if they failed to make progress toward a peaceful resolution.

With the same resolution, the UNSC requested the International Criminal Tribunal for the Former Yugoslavia (ICTY) Office of the Prosecutor look into events there which may have fallen within its jurisdiction. This led the ICTY to indict Slobodan Milosevic in May 1999 for alleged crimes in Kosovo. However, the UNSC in this resolution did not expressly determine that the crisis in Kosovo had amounted to a threat to peace and security.

After the adoption of Resolution 1160, peace was not forthcoming, which led the UNSC to adopt two resolutions during the remainder of 1998, Resolutions 1199 and 1203. In these resolutions, the UNSC finally affirmed that the crisis in Kosovo constituted a threat to the peace and security of the region. These resolutions also encouraged both parties to immediately cease the atrocities and re-establish respect for human rights. In particular, Resolution 1203 established a verification mission in Kosovo to verify compliance by all parties in Kosovo with Resolution 1199.

---

One serious event occurred on 15 January 1999, when Serbian forces attacked the village of Racak in Kosovo and 45 Kosovar-Albanian civilians were killed. Special reports about these atrocities in world media caught the attention of international community. This event became one of the key factors prompting NATO’s decision to use force against the FRY.

The alarming nature of the Kosovo conflict raised deep concerns in the international community, particularly among NATO’s member states, which paid special attention to this region. Mainly because of pressure from the NATO states, the government of the FRY agreed to sit in peace negotiations with the Kosovars in Rambouillet and Paris, France. However, at the end of the talks, the Kosovar Albanian delegation signed the proposed peace agreement but the Serbian delegation did not.

This lack of cooperation on the part of the FRY and the failure of the UNSC to adopt a resolution in response to this escalating conflict caused NATO to act. On 24 March 1999, the organisation unilaterally, and without any specific authorisation from the UNSC, launched a military air campaign called “Operation Allied Force”. With the aim of preserving lives, NATO targeted areas of strategic infrastructure. Unfortunately, however, NATO attacked infrastructure which carried a high risk of environmental impact (the targets included oil

---


409 Alexander, above n 403, at 434-435.

410 Ronald C. Santopadre has observed that the Serbian government would be highly unlikely to accept the proposals at the Rambouillet meeting because of some contentious points such as NATO’s unfettered access throughout the entire territory of Yugoslavia as well as occupation of Kosovo and the call for the use of NATO forces instead of UN peacekeepers. See “Deterioration of Limits on the Use of Force and Its Perils: A Rejection of the Kosovo Precedent” (2003) 18 St John’s J. Legal Comment 369 at 390-391.

refineries, pharmaceutical plants, fertiliser production facilities, and petrochemical plants).\textsuperscript{412}

NATO’s air campaign ended on 10 June 1999 as the FRY Government accepted the principles of a political solution to the Kosovo crisis, including an immediate end to violence and a rapid withdrawal of its military, police and paramilitary forces as stipulated in the UNSC Resolution 1244.\textsuperscript{413}

Besides condemning the humanitarian atrocities committed by the Serbian forces, the international community was also greatly concerned about the environmental impact of NATO’s military air campaign. In responding to environmental atrocities, the UN took the initiative in assessing the environmental damage through a joint mission of UNEP and United Nations Centre for Human Settlements (UNCHS). This joint team was called the Balkan Task Force (BTF).

The BTF reported that there were four environmental “hot-spots” which needed immediate action as well as further monitoring and analyses. These areas were Pancevo, Kragujevac, Novi Sad and Bor, which were industrial facilities, factories, oil refineries, and fuel storage facilities. The environmental contamination of all these sites was a consequence of the Kosovo conflict.\textsuperscript{414} Oil spills, black smoke from oil fires and leaks of toxic substances were the main sources of environmental pollution, not only in the FRY’s territory but also in neighbouring countries in the Balkan region.

\textsuperscript{412} Alexander, above n 396, at 471.

\textsuperscript{413} UNSC Res 1244, above n 400. This resolution authorised member states of the UN and relevant international organisations to establish an international security presence in Kosovo. This resolution also decided that international security’s responsibilities would include deterring renewed hostilities, demilitarising the KLA and establishing a secure environment for the return of refugees. The UNSC also authorised the UN Secretary-General to establish an international civil presence in order to provide an interim administration for Kosovo.

\textsuperscript{414} The Balkan Task Force also admitted that some of the environmental problems in Kosovo had resulted from several decades of environmental neglect and abuse previously. The 1999 BTF Report, above n 411, at 24.
Of these four “hot-spots” identified by UNEP, the area of most concern was Pancevo. This area contained important sites such as a fertiliser plant, a petrochemical plant, and a major oil refinery. In addition, there was an airplane factory nearby Pancevo, Lola-Utva. These factories were identified as beneficial for both military and civilian uses. According to Pancevo’s mayor, NATO attacked the chemical complex with at least 56 missiles between 24 March and 8 June 1999. As a result of these attacks, the complex’s storage tanks were destroyed, releasing thousands of tons of toxic chemicals such as ammonia, ethylene dichloride, vinyl-chloride monomer and chlorine. Some of these chemicals poured directly into the Danube River, thus worsening the environmental pollution in the marine ecosystem. Besides polluting the river, the bombing also released mercury into the groundwater surrounding the complex.

In general, similar incidents of environmental damage with different levels of intensity were noted by the BTF at Kragujevac, Novi Sad, Bor, and other locations throughout the FRY.

The NATO military campaign in Pancevo had severe impacts, both on humans and on the environment. The area’s atmosphere was dense with fumes for several days and residents experienced respiratory and stomach illnesses, as well as burning eyes. Pregnant women exposed to this pollution were advised to have abortions by their doctors. Meanwhile, the impact on the environment could be seen in several ways. The leaves on trees turned yellow or black, leading the local government officials to warn against eating vegetables from the Pancevo area. Fish caught in the Danube River were sickly and leeches used as bait looked white and boiled when taken from the river. Because of this pollution in the Danube

---

415 Ibid, at 33.
416 Schwabach, above n 175, at 119.
418 Alexander, above n 396, at 471-472.
River, there was a temporary prohibition on fishing downstream from Pancevo.\textsuperscript{419} In addition, other countries bordering the Danube downstream of the FRY, such as Romania and Bulgaria, expressed deep concerns over the long-term effects of oil spills and toxic chemical dumping on the rich Danube delta wildlife.\textsuperscript{420}

4.1.2. Analysis of Applicable Laws

As previously stated, the armed conflict in Kosovo between NATO and the FRY was controversial because NATO decided to use military force, justified by reference to humanitarian concerns, without authorisation from the UNSC. In addition, NATO’s humanitarian intervention by military force seemingly had caused significant damage to the FRY, including to its environment. Therefore, as with the experience of the Iran-Iraq War and Gulf War previously, this section analyses both the legality of NATO’s decision to use force under \textit{ius ad bellum} and its wartime conducts under \textit{ius in bello}, with the breach of either being sufficient to activate international responsibility.

4.1.2.1. \textit{Ius ad Bellum}

In addition to the doctrine of humanitarian intervention,\textsuperscript{421} NATO also declared that its action was based on the spirit and principles of the UN Charter.\textsuperscript{422} However, it appears that NATO decided to contravene the Charter framework because the UN was “paralysed” as the UNSC could not effectively act due to the veto mechanism.\textsuperscript{423}

\textsuperscript{419} Schwabach, above n 175, at 120.

\textsuperscript{420} Bostian, above n 402, at 235.


\textsuperscript{422} Medenica, ibid, at 337-338; Leslie A. Burton “Kosovo: To Bomb or Not to Bomb? The Legality is the Question” (2001) 7 Ann. Surv. Int’l & Comp. L. 49 at 55.

\textsuperscript{423} Simma, above n 398, at 9; Tania Voon “Closing the Gap between Legitimacy and Legality of Humanitarian Intervention: Lessons from East Timor and Kosovo” (2002) 7(1) UCLA J. Int’l & Foreign Aff. 31 at 33; Nigel S. Rodley and Başak Cali “Kosovo Revisited: Humanitarian
A few months before it resorted to force, NATO had put forward its position on the Kosovo crisis which it justified on the grounds that there were legitimate reasons to use force against the FRY.\(^{424}\) NATO did not seem to consider a UNSC mandate/authorisation obligatory, but rather politically appropriate, at a time when the veto of a permanent member becomes the main impediment. Further, the UNSG at that time, Kofi Annan, made a speech responding to the atrocities at Racak where he stated that to fulfil the preconditions for the use of force against the FRY, “normally a UN Security Council Resolution is required”.\(^{425}\) This statement might be seen by NATO as an implicit “agreement” to have recourse to force.

NATO’s decision to use force without authorisation from the UNSC has been considered a controversial event, arousing intense debate both in political and academic circles. NATO’s member states supported this decision, with the exception of Greece. Meanwhile in the UNSC, both China and Russia strongly...

\(^{424}\) This position was taken from the speech of NATO Secretary-General, Javier Solana, on 9 October 1998: “[t]he relevant main points that have been raised in our discussion yesterday and today are as follows: The FRY has not yet complied with the urgent demands of the International Community, despite UNSC Resolution 1160 of 31 March 1998 followed by UNSC Resolution 1199 of 23 September 1998, both acting under Chapter VII of the UN Charter; The very stringent report of the Secretary-General of the United Nations pursuant to both resolutions warned inter alia of the danger of a humanitarian disaster in Kosovo; The continuation of a humanitarian catastrophe, because no concrete measures towards a peaceful solution of the crisis have been taken by the FRY; The fact that another UNSC Resolution containing a clear enforcement action with regard to Kosovo cannot be expected in the foreseeable future; The deterioration of the situation in Kosovo and its magnitude constitute a serious threat to peace and security in the region as explicitly referred to in the UNSC Resolution 1199. On the basis of this discussion, I conclude that the Allies believe that in the particular circumstances with respect to the present crisis in Kosovo as described in UNSC Resolution 1199, there are legitimate grounds for the Alliance to threaten, and if necessary, to use force” (emphasis added). Letter from Secretary-General Solana, addressed to the permanent representatives to the North Atlantic Council, dated 9 October 1998, reprinted in Simma, above n 398, at 7.

\(^{425}\) Ibid, at 8-9 (emphasis added).
opposed NATO’s actions, as did India. Some supported NATO’s decision by the reasons of imminent and crucial human rights protection. On the other hand, many argued that acting militarily outside the UN framework, for whatever reasons, was illegal.

NATO’s decision to intervene in the FRY by military force was supported by certain western countries, human rights advocates and scholars. They argued that growing concerns for human rights from the international community had exposed the limitations of the UN system, in particular the veto mechanism in the UNSC, which has a monopoly on the use of force. One scholar has argued that:

NATO intervention was not “unilateral”; it was “collective”, pursuant to a decision by a responsible body, including three of the five permanent members entrusted by the UN Charter with special responsibility to respond to threats to international peace and security.

These advocates of the intervention also submitted that international law had moved beyond the positive norms represented in the UN Charter and there was a need to focus more on the morality, rather than the legality, of decisions to employ military force against sovereign states. Cassese argues that opposition to NATO’s decision to resort to force for humanitarian reasons was a purely legalistic stance that ignored moral considerations. While as a lawyer, he admitted that the bombing was illegal, he nevertheless asserted that the intervention was morally acceptable. He further submitted that the obligations to respect human

429 Henkin, above n 401, at 826.
430 Santopadre, above n 410, at 374.
rights now constitute a universal duty or *erga omnes*. Therefore, any law, including UNSC decisions, could not prevent military intervention aimed at enforcing norms of human rights.\(^{431}\)

There has also been considerable opposition to NATO’s decision to resort to force. Many experts rejected NATO’s decision because it clearly contravened international law\(^ {432}\) and the morality of a military action cannot absolve its illegality.\(^ {433}\) Further, some assert that the event of unauthorised military action by NATO was illegal and that is the end of analysis because it violated an *ius cogens* norm, i.e. the UN Charter.\(^ {434}\) It is considered that these contentions are justified, and more convincing than the arguments supporting NATO’s of force, as discussed below.

While NATO argued that its decision to use force against the FRY mirrored the spirit of the UN Charter, NATO has done little to justify its action under the UN’s rules and procedures. Indeed, an expert who supported NATO at the time of the use of force admitted that any attempt to justify under the UN Charter would be unlikely to succeed, and accordingly considered that NATO did not have a strong legal basis for initiating its armed intervention.\(^ {435}\) It has further been argued that the so-called ‘humanitarian exception’ is not available under the Charter as a reason for resorting to force against another state and, therefore, the “military intervention”\(^ {436}\) in Kosovo was a violation of international law.\(^ {437}\)

\(^{431}\) Cassese, above n 399, at 29.


\(^{433}\) Santopadre, above n 410, at 375.

\(^{434}\) Ibid, at 394.

\(^{435}\) Wippman, above n 432, at 131; Cassese, above n 399, at 24 and 29.

In reference to the UN’s legal framework, it is crucial to recall art 103 of the UN Charter. It provides that:

[i]n the event of a conflict between the obligations of the members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

This article strengthens member states’ obligations under the UN Charter, even if they are also members of NATO. Therefore, UN member states should prioritise their obligations under the Charter and any obligations arising under the UN, for example, binding UNSC decisions, over all other treaty commitments including NATO. Further, art 2(4) reflects a norm of *ius cogens* and thus any agreements, decisions and obligations, which are contrary to it, are invalid.

Besides the stipulation above, the Charter also regulates mutual relations between the UN and other regional organisations. Article 53(1) states that:

[The Security Council shall, where appropriate, utilise such regional arrangements or agencies for enforcement action under its authority. But no enforcement action shall be taken under regional arrangements or by regional agencies without the authorisation of the Security Council.]

This article opens the possibility of regional organisations, such as NATO, supporting enforcement action under the UNSC’s authorisation. By the same token, it reconfirms the necessity of the Council’s authorisation by prohibiting any action without its approval.

---


438 Charter of the United Nations, art 103.

439 Simma, above n 398, at 3.

440 Charter of the United Nations, art 53(1).
Based on the above description, a “humanitarian intervention” could be lawful if the UNSC had determined that grave violations of human rights by the Serbian authorities constituted a threat to peace and security, and the Council authorised enforcement action to stop these human rights violations. On the other hand, if such authorisation were absent, any military action, which aimed to make a state return to respecting human rights, would be a violation of art 2(4) of the Charter. As for the exceptions to the general prohibition on the use of force, recourse to humanitarian intervention under art 51 would be prohibited unless an armed attack had occurred. In this case, such an “armed attack” was never mounted against one of NATO’s member states.

Finally, allowing NATO’s decision to use force unilaterally for reasons of humanitarian intervention could set a legal precedent, further destabilising international politics and security. One pressing question, which has emerged post-Kosovo, is: other than the UNSC and NATO, who else can decide when and where to use force for humanitarian reasons? These concerns relating to unilateralism in resorting to use of force have been brought into sharp focus in the post-Kosovo case the Iraq War in 2003.

Based on the examination above, NATO’s decision to utilise armed forces against the FRY was illegal and a violation of the general prohibition on the use of force under the UN Charter. Therefore, NATO is responsible for any consequences of war resulting from its illegal conduct, including environmental damage.

441 Charney has wisely responded to the possibility of the event become precedent by stating that “…keeping such intervention illegal and requiring states to break the law in extreme circumstances may be the best and most likely way to limit abuse, although it remains an imperfect solution”. See above n 427, at 1242.

442 A hypothetical situation may be worth considering in relation to the question of future humanitarian interventions: If the Arab League decides to attack Israel because of massive human rights violation against Palestinians, would the western states allow this to happen? Santopadre, above n 410, at 423; Wippman, above n 432, at 135; Richard Bilder “Kosovo and the “New Interventionism”: Promise or Peril?” (1999) 9 J. Transnat’l L. & Pol’y 153 at 162-163.

443 See the discussion of this case at [4.2] below.
4.1.2.2. *Ius in Bello*

During its military campaign against the FRY, NATO violated the law of war.444 NATO’s major bombing campaign against the FRY’s territory, which caused destruction to the landscape and important infrastructures, violated art 23(g) of the 1907 Hague Regulation for the principle of military necessity.445 The attacks on “special selected” targets in the FRY such as oil refineries, pharmaceutical plants, fertiliser production facilities, and petrochemical plants in addition to city bridges, railways, public buildings, market places, hospitals, embassies, water supplies, and residential neighbourhoods446 can hardly be justified as being militarily imperative. Of its decision to select these targets, NATO argued that it used sophisticated weapons against carefully selected targets which would minimise environmental and other “collateral” damage.447 But, in reality, these attacks were merely punitive in nature since no real military advantage was gained by NATO, as discussed below. Rather than being only military, the casualties were instead human and environmental.448

NATO’s decision to attack targets with a high risk of environmental impact can also be challenged by the fact that its military forces had much opportunity to reassess their selection of military targets. There may be situations where belligerents prefer to violate international law to avoid become a loser belligerent or when its existence is at stake. However, this condition is not applicable to NATO’s member states. With its superior military capability, NATO had a high likelihood of winning the war, and none of the member states’ existences were at

445 According to this provision, a belligerent may, during active war, destroy or seize the enemy’s property if this action is “imperatively demanded by the necessities of war”. The 1907 Hague Regulations, above n 30, art 23(g).
446 Santopadre, above n 410, at 400.
447 The 1999 BTF Report, above n 411, at 5.
448 Ibid, at 29-61.
stake because of the FRY’s conduct in Kosovo. In terms of selecting the targets, NATO’s member states, which are mostly developed countries, have extensive resources for assessing environmental impact. These member states should also have had greater awareness of the environmental consequences of their actions than in previous wars, such as the Vietnam War or the Gulf War.

In addition, NATO’s bombing operation violated some rules of the 1977 Additional Protocol I to the Geneva Conventions in terms of civilian protection. First, NATO’s action violated art 52(1) due to the disproportionate gain of military benefits relative to civilian life losses. Examples of the violation were the attacks on civilian targets such as the Belgrade Radio Televizije Srbije (RTS) radio and television building.\(^{449}\) Second, NATO manifestly violated art 57(2)(b) by bombing a bridge in the presence of civilians. NATO decided not to postpone the attacks even after it became clear that the missiles would kill civilians.\(^{450}\)

Besides treaty-based violations, NATO’s action also violated general principles of the law of war, such as the discrimination and humanity principles. In this conflict, NATO decided to employ a high altitude bombing campaign to ensure zero casualties among its member armed forces. NATO’s bomber planes flew above 15,000 feet, an altitude at which they could not be reached by the FRY anti-aircraft artillery.\(^{451}\) While NATO’s pilots were correspondingly in less danger, this high altitude bombing policy posed a greater casualty risk to Kosovo civilians. This is because NATO’s pilots could not see the intended target clearly, so the bombs had a higher chance of hitting the wrong targets. Indeed, NATO’s pilots mistakenly attacked refugee convoys which they thought were the FRY’s military convoys.\(^{452}\)


\(^{450}\) Mandel, above n 437, at 116.

\(^{451}\) Santopadre, above n 410, at 401.

\(^{452}\) Ibid, at 402; Medenica, above n 408, at 406-07; Aaron Schwabach “NATO’s War in Kosovo and the Final Report to the Prosecutor of the International Criminal Tribunal for the Former

252
In terms of relevant peacetime obligations, NATO’s military campaign had amounted to a violation of art 12 of the 1966 ICESCR as environmental destruction severely affected the standard of health of the FRY’s population and created risks for the health of its future generation.453

Besides this possibility of violations of human rights rules under the ICESCR, a case was brought before an international court against NATO under human rights law. The legal claim was based on the event of a NATO bombing mission on 23 April 1999 that struck the radio and television station (RTS) in Belgrade. The bombing of RTS caused the death of 16 people as well as a number of injuries. The victims’ relatives brought a case before the European Court of Human Rights.454 The claimants alleged that NATO had violated arts 2 (Right to Life), 10 (Freedom of Expression) and 13 (Right to an Effective Remedy) of the European Convention of Human Rights.455 Unfortunately, the Grand Chamber of the European Court of Human Rights held a claim brought by six citizens of the FRY against 17 NATO state members inadmissible.456

In terms of environmental damage to land, sea and the atmosphere, NATO violated the general customary law of trans-boundary harm to the environment of other states, or of areas beyond the limits of national jurisdiction. Oil spills, black smoke from oil fires and leaks of toxic substances were the main sources of trans-

---

453 A former special rapporteur of the UN Commission of Human Rights in the 1991 Kuwait case gave this similar conclusion of the possibility of violation of human rights in terms of destruction to the environment. Kälin, above n 346, at 119.

454 The victims are “[t]he daughters of the first and second applicants, the sons of the third and fourth applicants and the husband of the fifth applicant were killed, and the sixth applicant was injured”. Banković v Belgium (52207/99) Grand Chamber, ECHR 12 December 2001 at [11].


456 Ibid, at [85].
border environmental pollution to neighbouring countries in the Balkan region. This pollution mainly occurred along the Danube River, which is shared by a number of states such as Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Italy, Macedonia, Moldova, Poland, Romania, Slovakia, Slovenia, Switzerland and the Ukraine.\textsuperscript{457} Unfortunately, in spite of this terrible pollution, both during and after the war, neither states nor any international organisations have submitted a claim for damage suffered by the environment.

It is clear from the examination above that the NATO military operation violated both treaty law and customary laws of war, and thus left NATO liable to be held responsible for any consequences of the conflict. In regard to the environmental damage, NATO is theoretically responsible and liable to compensate the FRY government for environmental reparation and rehabilitation. However, in practice, these responsibilities have not been undertaken in accordance with the law, as is examined below.

4.1.3. Post-Conflict Examination

Given the fact that NATO won this war, the international community did not proceed to investigate whether or not there were violations by NATO states to rules from either \textit{ius ad bellum} or \textit{ius in bello} after the conflict ended. Soon after the bombing campaign ceased, the UNSC adopted Resolution 1244\textsuperscript{458} that focused more on the political and military arrangements after the conflict in Kosovo. Despite many analyses indicating violations of both \textit{ius ad bellum} and \textit{ius in bello} by NATO states in this conflict, the UNSC did not make any effort to


\textsuperscript{458} In this resolution, acting under Chapter VII of the Charter, the Council demanded the withdrawal of all Yugoslav military, police and paramilitary forces from Kosovo, authorised NATO military deployment, and created a UN civil administration to develop “provisional institutions for democratic and autonomous self-government pending a political settlement, including the holding of elections”. UNSC Res 1244, above n 400, at [11].
determine which party was in violation of international law and therefore liable for compensation for the consequences of war.

Further, the adoption of Resolution 1244 was crucial for NATO in order to make its decision to resort to armed force against the FRY “legal”. The resolution did not challenge or condemn NATO’s unilateral use of force against the FRY. The UNSC seems implicitly to have tolerated NATO’s action in the name of “humanitarian intervention”. However, the acceptance of this resolution as a legal precedent in responding to similar cases in the future would be dangerous and could lead to an anarchic situation. Therefore, this ruling should be regarded as an extraordinary measure for a unique and complicated event.

In responding to the negative environmental impacts within the FRY, UNEP had taken the primary initiative in assessing and rehabilitating the damaged environment. The BTF noted that “serious” pollution posed “a threat to human health” with particular “hot spots” in areas affected by the armed conflict. Despite this, the BTF had difficulty separating the problems caused by the NATO bombing from earlier pollution. In this situation, the BTF preferred to make recommendations to prevent future pollution or destruction of the environment, rather than make judgments about political responsibility for existing damage.

The report appears to avoid using the words “widespread, long-term, or severe” (which appear in the 1977 Additional Protocol I) in relation to the environmental damage that resulted from the NATO bombing campaign. Their absence raised questions about whether the BTF intentionally left these words out to avoid attributing liability to NATO, or simply because it recognised the high threshold.

460 Soon after the conflict had stopped, UNEP and UNCHS (the Balkan Task Force) conducted both field missions and desk study between July and October 1999.
461 The 1999 BTF Report, above n 411, at 11.
of the terms stipulated in Additional Protocol I. Accordingly, the report did not mention any violation of international law by NATO or the US, which was the main actor in the bombing campaign.\textsuperscript{463}

In an effort to rehabilitate the environment, UNEP coordinated the implementation of the so-called “Clean-up Programme” which started at the end of 2000 and ran until early 2004. The aim of the Programme was to address the problems identified at the four environmental hot spots based on the findings from the earlier environmental assessment work. UNEP acknowledged this programme was made possible by the “generous contributions” of the governments of Denmark, Finland, France, Germany, Ireland, Luxembourg, the Netherlands, Norway, Sweden, and Switzerland.\textsuperscript{464} Some of these states were member states of NATO which took part in the bombing campaign. Financial contributions from these states could be regarded as a gesture of guilt-compensation for damaging the FRY’s environment. Nevertheless, the main actor of the NATO bombing campaign, the US, did not contribute in any direct way to the environmental rehabilitation under the auspices of UNEP.

4.1.3.1. Legal Efforts to Pursue NATO’s Responsibility

Despite the reluctance of the UN to prevent the conflict or to attribute responsibility for the resulting environmental damage, there were a number of legal avenues explored by the international community with the aim of challenging the legality of NATO’s bombing operation against the FRY before the ICJ and the ICTY. Though these efforts seemed promising at first, they did not bear fruit.

\textsuperscript{463} Alexander, above 375, at 479-480.

The first legal response was undertaken by the FRY in the midst of NATO’s bombing campaign. On 28 April 1999, the FRY filed a Request for the Indication of Provisional Measures to the ICJ to stop NATO’s bombing campaign against ten NATO member states individually, alleging (amongst other allegations) violations to the rules of *ius ad bellum* and *ius in bello*. Based on these claims, the FRY sought a determination of international responsibility from the NATO member states and requested preliminary measures to stop NATO’s action, as well as compensation for damages caused. Notably, the claims by the FRY included allegations that the member states of NATO had breached obligations “not to cause considerable environmental damage” by taking part in “the bombing of oil refineries and chemical plants” and by “the use of weapons containing depleted uranium”.

Unfortunately, these legal proceedings were unsuccessful and the merits of these allegations did not have the chance to be examined before the Court. On 2 June 1999, the Court denied the FRY’s requests for provisional measures in all ten cases. The Court decided that it had no jurisdiction due to the FRY’s issues.

465 The ten member States were Belgium, Canada, France, Germany, Italy, the Netherlands, Portugal, Spain, the United Kingdom and the United States. For example, see *Legality of Use of Force (Yugoslavia v Belgium)* (Application Instituting Proceedings) (ICJ, General List No. 105, 29 April 1999) [Yugoslavia v Belgium case]. The documents submitted by Yugoslavia in each of the ten cases were essentially identical.

466 Alexander, above n 396, at 473-474.

467 For example, see *Yugoslavia v Belgium* case, above 465.

468 Ibid.

with the succession of its subsequent states and accordingly dismissed the cases.

Second, in the aftermath of the conflict, the Office of the Prosecutor (OTP) of the ICTY was asked by a number of people and groups to investigate whether NATO’s member states’ military officials had committed war crimes during their bombing campaign against the FRY. In responding to this enquiry, the prosecutor established a committee to review NATO’s bombing campaign by conducting a preliminary assessment, presenting evidence available and advising the prosecutor whether or not to initiate a full investigation. In the report

---


published in June 2000, the committee recommended no full investigation was necessary because:

[i]n all cases, either the law is not sufficiently clear or investigations are unlikely to result in the acquisition of sufficient evidence to substantiate charges against high level accused or against lower accused for particularly heinous offences.

This advice was accepted by the prosecutor, sparking considerable debate and criticism. Some criticised the decision not to investigate these allegations of war crimes by arguing that human rights protection in times of war could benefit from such an investigation. In relation to environmental damage, one author noted that one of the reasons why the prosecutor decided not to prosecute NATO officials was the unreliability of scientific assessments and the linguistic ambiguity in the BTF report in regards to the level of environmental harm within the FRY. Regardless of whether the committee established by the OTP had conducted its assessment properly, this decision is regrettable given that the ICTY could have tried NATO officials for their bombing campaign, which allegedly violated rules of *ius in bello*.

4.1.4. Summary

Given this post-conflict management, it can be concluded that the process of determining liability for the environmental damage caused was ineffective. This is

---


476 Santopadre, above n 410, at 413.

mainly due to the fact that NATO was the victor, and could therefore impose its interests without any fear of legal proceedings for the alleged war crimes resulting from its bombing campaign. Even though NATO’s decision was widely criticised, efforts to scrutinise the legality of the organisation’s conduct have been unsuccessful, partly because of the balance of power in international politics. This is evident in the practice of the UNSC: not one of its resolutions has indicated that NATO’s use of force against the FRY was illegal.

This event was a backward step in according state responsibility for environmental damage after the positive developments resulting from the previous Gulf War in 1991. Unlike the situation after the armed conflict in the Gulf War, the belligerents who caused the most severe destruction to the environment won the war, and the losing party was forced to accept the “peace agreement” stipulated in Resolution 1244 without a single provision addressing the environmental damage within its jurisdiction.

The pursuit of NATO’s responsibility as an organisation appears difficult and not promising for the sake of environmental protection despite the existence of specific rules on international organisation responsibility that have been codified by the ILC. Efforts outside the UN system to hold NATO liable for its conduct, which caused substantial environmental damage, were also unsuccessful. Legal proceedings before the ICJ which were taken by the FRY (later by Serbia and Montenegro) against the ten NATO member states were dismissed due to lack of jurisdiction. Because of this, the merits of the cases, particularly the allegation of environmental destruction amounting to war crimes, were never examined. In addition, the prosecutor of the ICTY decided not to conduct a full investigation

479 After the dissolution of the SFRY, the FRY existed from 1991 to 2003. Subsequently, it was renamed as Serbia and Montenegro. Finally, in 2006, Serbia and Montenegro were separated and become two distinct states.
into allegations of war crimes against NATO military officials, based on the report by a special committee who conducted a preliminary assessment of the case.

In considering the environment, since no party has been determined responsible for the major destruction to the environment resulting from the war, the UNEP took the initiative in restoring and rehabilitating the environment with the support from certain states, including some NATO member states. These countries contributed financially to repair the FRY’s environment, not as the responsible parties, but rather as state donors. This financial support from some of NATO’s member states was considered by UNEP to be “generous”.\textsuperscript{480} By providing such aid, the states can recognise that there is a responsibility which they should bear without admitting to unlawful activity.\textsuperscript{481}

4.2. The Iraq War

After the devastation of the 1991 Gulf War, in 2003 Iraq was once again involved in an armed conflict against coalition forces led by the US and the UK. Similar to the 1991 Gulf War, this armed conflict again brought significant environmental harm, albeit with a different degree of severity. Notably, in this case the environmental destruction was both intentional and incidental to the destruction of legitimate military targets. Both sides of the conflict employed unlawful methods during the war that led to significant environmental damage even though it has been thought less devastating than the War in 1991.\textsuperscript{482}

Similar to the Kosovo War in 1999, the war in Iraq has been highly criticised for its illegality, being considered by some to have undermined the importance of the

\textsuperscript{480} UNEP Report on Serbia and Montenegro, above n 464, at 7.
\textsuperscript{481} Schwabach, above n 175, at 139-140.
\textsuperscript{482} Alice Louise Bunker “Protection of the Environment during Armed Conflict: One Gulf, Two Wars” (2004) 13 RECIEL 201 at 201.
The decision to invade Iraq by the US and its allies was highly questionable since it was committed outside of UN process and without UNSC authorisation.

Compared to the Gulf War in 1991, this war resulted in a different enforcement of state responsibility despite unlawful invasion by one of the warring parties being established on similar legal grounds. At the end of this war, the coalition states were not held responsible for their unlawful invasion and were free from the obligation to pay compensation to Iraq. This was in stark contrast to the aftermath of the Gulf War in 1991 where Iraq was held responsible for all war damages as a result of its unlawful invasion of Kuwait.

In this case, the coalition states should have also been held liable for the environmental damage resulting from their unlawful invasion of Iraq in 2003. Unfortunately, the international community in general, and the UNSC in particular, seem helpless to pursue the coalition’s responsibility due to the political power of the major supporters of the war: the US and the UK. As a consequence, the burden of Iraq’s general rehabilitation and environmental clean-up was taken over by the UN. Furthermore, as the party that experienced most of the casualties, Iraq has also had to contribute to the cost of its own rehabilitation – including environmental restoration. Nevertheless, Iraq’s contribution to reparations, to some extent, may be considered fair because it also caused significant damage to the environment in this conflict.

Overall, post-conflict resolution of this war again confirms the applicability of ‘victor’s justice’ during this period whereby as the winner of the war, the coalition

---


484 In April 1991, the UNSC held Iraq liable for any direct loss or damage including environmental damage resulting from its unlawful invasion of Kuwait. UNSC Res 687, above n 262.
states were able to escape their legal responsibility particularly concerning Iraq’s damaged environment.

4.2.1. Armed Conflict and Environmental Effects

The armed conflict between Iraq and the coalition forces began when coalition forces invaded Iraq on 19 March 2003. Like the Kosovo crisis in 1999, this armed conflict was considered controversial because it amounted to unilateral action taken by the US and its allies. The initial reason for this decision to invade Iraq emerged from the US foreign policy of fighting states that were allegedly involved in international terrorism.485

Following the war in Afghanistan,486 President George W. Bush claimed that there are some states which were highly likely to be in alliance with the terrorists, and therefore threatened the US homeland and the security of its overseas interests. Therefore, the US had the moral and political right to use force against states which were allegedly harbouring terrorists and/or possessing the capability to produce weapons of mass destruction (WMD), including nuclear bombs. These

485 Following the events of 11 September 2001 (known as the 9/11 attacks), the US under the Bush administration, had been extremely active in fighting “international terrorists” world-wide with the well-known campaign dubbed the “war on terror”. As the alleged responsible actor behind the 9/11 attack was the Al-Qaeda organisation, which is a non-state actor, the US named any state which gave this entity a safe haven as responsible for the 9/11 attacks. Helen Duffy The ‘War on Terror’ and the Framework of International Law (Cambridge University Press, Cambridge, 2005) at 73.

486 Afghanistan was held responsible because it openly endorsed the 9/11 attacks, and had allowed Al-Qaeda to set up a home base and training facilities within its borders. With “Operation Enduring Freedom”, the US and its allies successfully toppled the Taliban regime from power in Afghanistan. However, this operation failed to capture the main suspect said to be behind the attacks, Al-Qaeda leader Osama bin Laden. See Carl Conetta “Strange Victory: A Critical Appraisal of Operation Enduring Freedom and the Afghanistan War” (Research Monograph #6, Commonwealth Institute, 30 January 2002) <www.comw.org/pda>. It was in May 2011 when the US finally found and killed Osama bin Laden in his hiding place in Pakistan. James M. Lindsay “George W. Bush, Barack Obama and the Future of US Global Leadership” (2011) 87 Int’l Aff. 765 at 775.
states were dubbed the “axis of evil” or “rogue states” and consisted of Iraq, Iran and North Korea.487

Based on the assumption of potential attacks from these states, the Bush administration came to the conclusion that the US should prevent these threats from becoming reality by conducting pre-emptive attacks against the “axis”. This policy is well-known as the Bush Doctrine.488 Among these states, the US argued that Iraq posed the most imminent threat to the safety of the US.489

In addition, the US claimed that military action against Iraq would be a punishment for violations of international law because Iraq had broken many of the UNSC’s resolutions.490 The US argued that one solution to these problems was through “regime change” and it was the duty of the US to change Iraq’s ruling government.491


488 The “Bush Doctrine” is stipulated in the US National Security Strategy in 2002: “[w]e must be prepared to stop rogue states and their terrorist clients before they are able to threaten or use weapons of mass destruction against the United States and our allies and friends. (…) Given the goals of rogue states and terrorists, the United States can no longer solely rely on a reactive posture as we have in the past. The inability to deter a potential attacker, the immediacy of today's threats, and the magnitude of potential harm that could be caused by our adversaries’ choice of weapons, do not permit that option. We cannot let our enemies strike first. (…) The greater the threat, the greater is the risk of inaction - and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy’s attack. To forestall or prevent such hostile acts by our adversaries, the United States will, if necessary, act pre-emptively”. President of the United States of America “The National Security Strategy of the United States of America, 17 September 2002” reprinted in Dominic McGoldrick From ‘9-11’ to the ‘Iraq War 2003’: International Law in an Age of Complexity (Hart Publishing, Oxford, 2002) 213 at 222-223.


491 According to the US, Iraq had violated the “No Fly Zones” which were set up after the 1991 Gulf War and had been consistently uncooperative towards the International Atomic Energy Agency (IAEA) and the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) inspection teams for WMD verifications. Galen Turner “The History and Application of Christian Just War Theory as Related to Pre-emptive Attack” (Master’s Thesis, University of Kansas, 2003) <www.ku.edu> at 81.
Based on these considerations, the US with its allies\footnote{Apart from strong support from the UK, the coalition was only supported by small number of other states such as Australia, Poland, the Czech Republic and Slovakia. Rodney P. Carlisle and John S. Bowman \textit{Iraq War} (Fact on File, New York, 2007) at 73. The Kingdom of Saudi Arabia and Kuwait were involved by providing military bases and allowing military fly zones for attacking Iraq.} finally decided to invade Iraq on 20 March 2003.\footnote{Nigel White and Eric Myjer “Editorial: The Use of Force against Iraq” (2003) 8 JC&SL 1 at 8.} Unlike the Afghanistan War, which seems to have been supported by most states, the notion of invading Iraq had already been widely opposed by most of the international community before it had even begun.\footnote{The war went ahead despite massive, widespread, opposition from every level of the international community. See Stefaan Walgrave and Dieter Rucht (eds) \textit{The World Says No to War: Demonstrations against the War on Iraq} (University of Minnesota Press, Minneapolis, 2010); Vaughn P. Shannon and Jonathan W. Keller “Leadership Style and International Norm Violation: The Case of the Iraq War” (2007) 3 Foreign Pol’y Analysis 79 at 79.} This time, many challenged the legality of the US decision to use force against Iraq as discussed further below.

With sophisticated and highly advanced weaponry, the US-led coalition forces attacked Iraq in an operation named “Operation Iraqi Freedom”.\footnote{Carlisle and Bowman, above n 492, at 1.} In the first days of the invasion, the coalition forces conducted a precision-guided air campaign, in which every weapon was aimed at a specific strategic target, such as a military base, radar or artillery installation, or a specific government office building. As a consequence, there were relatively few instances of collateral damage or casualties among those not connected with the Iraqi regime.\footnote{Ibid, at 74-75.} Despite fewer civilian casualties, the coalition forces deployed much larger quantities of ammunitions compared with the 1991 Gulf War.\footnote{UNEP noted in 2003 that as of 15 April 2003, coalition air forces had used 18,275 precision-guided munitions (67 per cent of all munitions deployed) and around 8,975 unguided munitions. In particular, as of 12 April 2003, more than 800 Tomahawk cruise missiles had been fired. This figure is extremely high compared to the 288 similar missiles fired during the 1991 Gulf War. UNEP Desk Study 2003, above n 283, at 71.} This meant that the destructive effects of the weaponry on Iraq’s environment were much worse.
On 10 April 2003, US soldiers successfully entered and conquered the Iraq’s capital, Baghdad, which was marked by the toppling of the large statue of Iraq’s President, Saddam Hussein. On 1 May 2003, President Bush announced that the “combat phase of the war” had ended\textsuperscript{498} and marked the beginning of the military occupation of Iraq by coalition forces.\textsuperscript{499}

As stated above, this armed conflict caused significant environmental damage which occurred mostly within Iraq’s territory. Both Iraq and the coalition forces arguably caused this destruction to the environment, as discussed below. Notably, UNEP conducted environmental impact assessments of this armed conflict in 2003\textsuperscript{500} and 2005.\textsuperscript{501}

UNEP noted that Iraq’s natural environment had already been in poor condition prior to 2003, due to the 1988 Iran-Iraq War, the 1991 Gulf War and because the Iraqi government considered environmental management to be a low priority.\textsuperscript{502} As a consequence, the war in 2003 certainly worsened existing environmental problems that had accumulated over the previous two decades.

As the air strikes by the coalition forces began, UNEP reported that some major cities in Iraq experienced serious disruptions to their power supplies, along with severe impacts on water distribution and sanitation systems. As a result, many civilians were deprived of basic health services placing them at higher risk of

\textsuperscript{498} Ibid, at 125.

\textsuperscript{499} Based on the UNSC Resolution 1483, the US and the UK are recognised as the occupying powers that are responsible for rebuilding Iraq. UNSC Res 1483, above n 355. It was not until 18 December 2011 that the US troops withdrew their presence in Iraq. “Last US Troops Withdraw from Iraq” (2011) BBC <www.bbc.co.uk/news/>.

\textsuperscript{500} UNEP Desk Study 2003, above n 283; United Nations of Environmental Programme 

\textsuperscript{501} United Nations of Environmental Programme Assessment of Environmental “Hot Spots” in Iraq (United Nations Environment Programme, Nairobi, 2005) [UNEP Assessment of Environmental “Hot Spots” in Iraq].

\textsuperscript{502} UNEP Desk Study 2003, above n 283, at 70.
disease epidemics. The air strikes targeted Iraqi military objectives such as ammunition storage and logistic supply sites. Destruction of these sites posed serious hazards to the environment and human health such as the possible presence of unexploded ordnance, toxic or radioactive substances, and pollutants such as oil and petroleum products.

In this armed conflict, the US and the UK forces also employed a large amount of ammunition made from DU. According to UNEP, UK forces used 1.9 tonnes of DU munitions, approximately twice as much as they employed in the 1991 Gulf War. The quantities of DU used by the US forces are still unknown. The employment of this kind of ammunition was controversial in light of the experience in previous wars which were widely criticised, namely the 1991 Gulf War and the 1999 Kosovo conflict.

Finally, intensive military activities from the coalition forces, including massive deployment of soldiers and heavy military vehicles, brought widespread degradation to fragile desert ecosystems that may take many decades to recover.

---

503 This problem was exacerbated by the fact that the conflict disrupted Iraq’s waste management systems. Inadequate waste systems in populated areas would lead to an increase in long-term acute health and safety risks including disease vectors (vermin, insects, dogs, and pathogens) sourced to human remains, clinical waste, and food waste; and exposure to dust and debris potentially containing asbestos and other hazardous materials. Ibid, at 71.

504 Ibid.


506 In the same year, UNEP also assessed the risk of DU ammunitions in Bosnia-Herzegovina. UNEP noted that human exposure to DU could result in exposure to radiation both externally via direct contact and internally through inhalation or ingestion. Besides negative impacts to human, the environment is affected as well. All of these findings may equally be applied to the situation in Iraq and therefore need to be taken into consideration. Notable negative effects of radiation are mainly an increased risk of cancer, with the magnitude of risk depending on the part of the body exposed and on the radiation dose. One potential risk of internal contamination through ingestion comes from the possibility of people picking up ammunition remains contaminated with DU that are lying on the ground. Another potential risk is that this ammunition, which remains on the surface or under the ground, may dissolve and slowly contaminate ground water and drinking water. In addition, ammunition, which is hidden below the ground, may be dug up during construction work, thus creating a possible risk of internal exposure by contamination via hands and by inhalation. United Nations of Environmental Programme Depleted Uranium in Bosnia and Herzegovina. Post-Conflict Environmental Assessment (United Nations Environment Programme, Nairobi, 2003) at 17-34.
Iraq also contributed to this destruction during war as the country defended itself. As in the 1991 Gulf War, Iraq manipulated the atmosphere for military purpose by setting fire to oil well-heads and oil-filled trenches.\textsuperscript{507} These oil fires produced huge quantities of dense black smoke that contained a range of toxic substances, posing potential health risks for local people. Oil mist from the fires can also be carried for a few hundred metres before falling back to ground. This smothered plant leaves, damaged buildings and artefacts, and deprived ground micro-fauna of oxygen.\textsuperscript{508} Meanwhile, the oil-filled trenches also caused soil pollution and potentially contaminated ground water bodies and drinking water supplies. According to UNEP, some of the crude oil spilled on the land surface would sink into the soil and thus infiltrate to the groundwater causing severe pollution. Some of the oil would have remained on the surface and been covered by dust, building a shallow layer of oily, tarry soil that would remain for very long time and would be technically difficult to remediate.\textsuperscript{509}

4.2.2. Analysis of Applicable Laws

As noted above, the US-led coalition forces decided to invade Iraq without any clear authorisation from the UNSC. Yet, justification of the invasion was based on a unilateral interpretation of Iraq’s violation of UN Resolution 1441 and the right of anticipatory self-defence. Therefore, it is important for this part to analyse the legality of the coalition’s decision to use force under \textit{ius ad bellum}.\textsuperscript{510} In addition, this part assesses whether or not belligerents’ conduct during the war violated the law of war or \textit{ius in bello}. Accordingly, it will determine whether Iraq and the

\textsuperscript{507} UNEP Desk Study 2003, above n 283, at 71.
\textsuperscript{508} Ibid, at 72-79.
\textsuperscript{509} UNEP Assessment of Environmental in Iraq, above n 501, at 129.
\textsuperscript{510} Similarly to what happened in previous wars (the Iran-Iraq War, the Gulf War, and the Kosovo War), the international community questioned severely the decision made by the US and its allies to wage this war.
coalition states can be held responsible for violations of this during the war that have caused severe environmental damage.

4.2.2.1. *Ius ad Bellum*

In this part of the analysis, the US position in deciding to invade Iraq is the main focus since it was the party that actively started the war. The primary official justification for the US decision to attack Iraq was found in the letter from the US Representative on the UNSC soon after the invasion took place. The letter outlined the reasons as follows:

> [t]he actions being taken are authorised under existing Council resolutions, including its resolutions 678 (1990) and 687 (1991). (...) It has been long recognised and understood that a material breach of these obligations removes the basis of the ceasefire and revives the authority to use force under resolution 678 (1990). (...) In view of Iraq’s material breaches, the basis for the ceasefire has been removed and use of force is authorised under resolution 678 (1990).

In addition, according to the US and the UK, Operation Iraqi Freedom was also based on the notion of anticipatory self-defence, where Iraq’s possession of WMD constituted an imminent threat to the US and to the international community in general.

The supporters of the invasion argued that the US-led coalition forces’ decision to invade Iraq was authorised by the UNSC resolutions. Resolution 1441’s findings

---


and determination of Iraq’s violations of various resolutions triggered Resolution 678’s authorisation to use force in Iraq. It followed that suspending the cease-fire under Resolution 687, and resuming hostilities with Iraq, were the proper responses to Iraq’s material breaches of Resolution 687.513

UNSC Resolution 1441 determined that there was a clear violation of Iraq’s obligations concerning the disarmament and inspection regime established under Resolution 687.514 This resolution then threatened Iraq with “serious consequences” for such material breaches by stating: “the Council has repeatedly warned Iraq that it will face serious consequences as a result of its continued violations of its obligations”.515

Supporters of the war had interpreted the term “serious consequence” as the revival of the term “all necessary means” used in Resolution 678. This is based on the fact that Resolution 1441 “recalled” Resolution 678 twice and explicitly restated that Resolution 678’s clause confirming the ability of member states “to use all necessary means to uphold and implement Resolution 660 (1990) and all subsequent relevant resolutions and to restore international peace and security in the area”.516 This means that Resolution 1441 triggered these authorisations rather than negating them.517

514 It stated in operative paragraph 1 that: “Iraq has been and remains in material breach of its obligations under relevant resolutions, including resolution 687 (1991), in particular through Iraq’s failure to cooperate with United Nations inspectors and the IAEA, and to complete the actions required under paragraphs 8 to 13 of resolution 687 (1991)” (emphasis added). UNSC Res 1441, above n 490.
515 Ibid, at [13].
517 Yoo, above n 513, at 568.
In supporting this revival approach, it is claimed that a UNSC resolution does not have an expiry date. Resolution 678 has no time limit on its authorisation, which would continue if not terminated as stipulated in Resolution 687. The latter resolution only declares that “a formal cease-fire is effective between Iraq and Kuwait and the member states cooperating with Kuwait in accordance with Resolution 678 (1990)”. As is discussed below, the US, as one of the member states cooperating with Kuwait, considers this resolution to be an armistice treaty, and not a peace treaty that may end an armed conflict for good. Therefore, the US took the position that it could terminate the cease-fire created by Resolution 687 and recommence the use of force as authorised by Resolution 678.

In addition, the US founded its decision to invade Iraq on an existing right under customary international law to take reasonable anticipatory action in self-defence. This right is a wider part of the “inherent right” stipulated in art 51 of the UN Charter. Under this “right”, an actual armed attack does not necessarily have to occur because every state has “the right (...) to protect itself by preventing a condition of affairs in which it will be too late to protect itself”.

---

518 In normal UN practice when the UNSC intends to end its authorisation to use force, it does so (and has only ever done so) in two ways: either by expressly terminating the prior authorisation or by setting a time limit on the authorisation at the outset. Yoo, ibid.

519 UNSC Res 687, above n 262, at [33] (emphasis added).

520 Yoo, above n 513, at 569. The argument was based on customary rules on armistice which ruled that “[a]n armistice suspends military operations by mutual agreement between the belligerent parties. If its duration is not defined, the belligerent parties may resume operations at any time, provided always that the enemy is warned within the time agreed upon, in accordance with the terms of the armistice” and “[a]ny serious violation of the armistice by one of the parties gives the other party the right of denouncing it, and even, in cases of urgency, of recommencing hostilities immediately”. The 1907 Hague Regulations, above n 30, arts 36 and 40.

521 Yoo, ibid, at 571.

522 Article 51 states that: “[n]othing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security” (emphasis added). Charter of the United Nations, art 51.

523 Memorandum for the Attorney General, from Norbert A. Schlei “Re: Legality under International Law of Remedial Action against Use of Cuba as a Missile Base by the Soviet Union” (1962) 6(2) Green Bag 195 at 196. This argument is based on, and further relies on, previous cases of resorting to anticipatory self-defence such as the Caroline case, the Cuban Missile Crisis and
In this case, the US argued that its anticipatory self-defence fulfilled the tests of necessity and proportionality. The magnitude of the threat posed by Iraq was sufficient to determine that self-defensive military action was necessary, and that no other option was available. Iraq’s alleged possession of WMDs, and its potential to deliver these weapons by both conventional and more sophisticated means, posed “imminent” threats to the US and its national interests.\(^{524}\) Therefore, the US claimed that it was legitimate to use anticipatory force against Iraq, including removing Iraq’s hostile mastermind, Saddam Hussein (and his regime), to protect the US, its citizens and its allies.\(^{525}\)

Contrary to these justifications, it is strongly arguable that the military action taken by the US-led coalition forces cannot be justified, since there were insufficient legal grounds to resort to armed force against Iraq. Neither the justification under the UN resolutions, nor the arguments of anticipatory self-defence have strong legal bases which would support the invasion against Iraq, as is explained below. Furthermore, as time goes on, an agreement is emerging among many states, jurists and scholars that the war was unlawful.\(^{526}\)

\(^{524}\) Yoo, above n 513, at 573. This was confirmed by the US House Joint Resolution in authorising the use of force against Iraq, which stated that: “[t]he risk that the current Iraqi regime will either employ those weapons to launch a surprise attack against the United States or its Armed Forces or provide them to international terrorists who would do so, and the extreme magnitude of harm that would result to the United States and its citizens from such an attack, combine to justify action by the United States to defend itself”. The resolution then further states that: “[t]he President is authorised to use the Armed Forces of the United States as he determines to be necessary and appropriate in order to: (1) defend the national security of the United States against the continuing threat posed by Iraq; and (2) enforce all relevant United Nations Security Council resolutions regarding Iraq”. United States of America “Authorisation for Use of Military Force against Iraq: Resolution of 2002” House Joint Resolution 114, 107th Congress, was signed 16 October 2002, as Public Law 107-243 (2002) <www.c-span.org/> at [§ 3(a)].

\(^{525}\) Yoo, above n 513, at 574.

Relying on the UNSC’s authorisation, the proponents of the war, predominantly the US and the UK, appear inconsistent in their positions. In drafting Resolution 1441, the US and the UK were actively trying to construct a resolution that expressly authorised the use of force against Iraq. These efforts failed and, as a result, Resolution 1441 was adopted in its current form. Close to the beginning of the invasion, the US and the UK tried again to convince the UNSC to adopt another resolution that explicitly authorised the use of force against Iraq. This effort was also unsuccessful. Therefore, in defending its justification based on the UNSC resolutions, it seems that the two states were pushing these resolutions beyond the limits of their authorisation.

In the case of the US position on Resolution 1441, the US representative to the UN stated at that time:

> [a]s we have said on numerous occasions to Council members, this resolution contains no ‘hidden triggers’ and no ‘automaticity’ with respect to the use of force. If there is a further Iraqi breach, reported to the Council by UNMOVIC, the IAEA or a Member State, the matter will return to the Council for discussions as required in paragraph 12. The resolution makes clear that any Iraqi failure to comply is unacceptable and that Iraq must be disarmed. And, one way or another, Iraq will be disarmed. If the Security Council fails to act decisively in the event of further Iraqi violations, this resolution does not constrain any Member State from acting to defend itself against the threat posed by Iraq or to enforce relevant United Nations resolutions and protect world peace and security.

From this statement, the US confirms that there would be no automaticity in resorting to force against Iraq for non-compliance to Resolution 1441. However, when it comes to the situation in which the Council fails to act decisively towards

---

527 Ibid, at 97.
528 Alex J. Bellamy “International Law and the War with Iraq” (2003) 4 Melb. J. Int’l L. 499 at 518. Efforts of the US State Secretary, Collin Powell, on 5 February 2003 to convince the Security Council by providing intelligence-based evidence showing that Iraq had not fulfilled its obligation to eliminate weapons of mass destruction also failed. Carlisle and Bowman, above n 492, at 70.
a further breach by Iraq, it reconfirms that Resolution 1441 does not prohibit the US from defending itself. Therefore, the US relies on the right of self-defence, rather than on any authorisation from UN resolutions as legal grounds for its military action.531

The wider international community also confirmed the “no automaticity” authorisation for use of force against Iraq in Resolution 1441. Within the UNSC, most of the state members including the UK, France, Russia, China, Mexico, Ireland, Norway, Syria, Bulgaria and Cameroon shared this understanding.532 While the leaders of many other large countries, such as France, Germany and Canada made comments in the same vein outside the UNSC forum, stating that Resolution 1441 did not explicitly or implicitly authorise any use of force and that they opposed any military action without legal authorisation from the UNSC.533

The term “serious consequences” was not and could not be considered an explicit approval by the UNSC for UN member states to use force.534 Furthermore, to say the term “serious consequences” authorises the use of force would be inconsistent with UNSC practice both before and after the Iraq War. In fact, the UNSC has consistently used the word “necessary” (often in conjunction with “means”, “assistance” or similar) in authorising the use of force by states535 both prior and after the Iraq War in Korea (1950),536 Congo (1961),537 Rhodesia/Zimbabwe

531 Iwanek, above n 526, at 98.
532 UNSC Meeting Record 4644, above n 530, at [5-7].
535 Iwanek, above n 526, at 99.
536 The UNSC “recommends that the Members of the United Nations furnish such assistance to the Republic of Korea as may be necessary and to restore international peace and security in the area” (emphasis added). SC Res 83, UN Doc S/Res/83 (1950).
537 The UNSC authorised the United Nations Operation in the Congo (UNOC) forces to “take immediately all appropriate measures to prevent the occurrence of civil war in the Congo,

Therefore, if the wording 

necessary means, necessary measures or necessary assistance

is not found in a UNSC resolution, then the council has not approved the use of force.

In reference to the justification based on Iraq’s supposed breach of the “cease-fire” agreement under Resolution 687, the reasoning may be said to be ill-founded for several reasons. First, the idea that the use of force against Iraq in 1993 and 1998 was based on the continuation of approval of Resolution

including (...) the use of force, if necessary, in the last resort” (emphasis added). SC Res 161, UN Doc S/Res/161 (1961) at [1].

The UNSC “calls upon the Government of the United Kingdom to prevent by the use of force if necessary the arrival at Beira of vessels reasonably believed to be carrying oil destined for Southern Rhodesia (…)” (emphasis added). SC Res 221, UN Doc S/Res/221 (1966) at [5].

The UNSC “authorises member states (…) to use all necessary means to uphold and implement (…) all relevant resolutions and to restore international peace and security in the area” (emphasis added). UNSC Res 678, above n 280, at [2].

The UNSC authorises “the UNSG and member states cooperating to implement (this resolution) to use all necessary means to establish as soon as possible a secure environment for humanitarian relief operations in Somalia” (emphasis added). SC Res 794, UN Doc S/Res/794 (1992) at [10].

In this resolution, the Council used the term “all necessary measures” three times i.e. in paragraphs 15-17. SC Res 1031, UN Doc S/Res/1031 (1995).

The UNSC “authorises the member states participating in the International Security Assistance Force to take all necessary measures to fulfil its mandate” (emphasis added). SC Res 1386, UN Doc S/Res/1386 (2001) at [3].

The UNSC decides that “states and regional organisations (…) may undertake all necessary measures that are appropriate in Somalia, for the purpose of suppressing acts of piracy and armed robbery at sea” (emphasis added). SC Res 1851, UN Doc S/Res/1851 (2008) at [6].

The UNSC “authorises Member States that have notified the Secretary-General, acting nationally or through regional organisations or arrangements, and acting in cooperation with the Secretary-General, to take all necessary measures … to protect civilians and civilian populated areas under threat of attack in the Libyan Arab Jamahiriya” (emphasis added). SC Res 1973, UN Doc S/Res/1973 (2011) at [4].


Yoo, above n 513, at 570.

On 17 January 1993, President George H. W. Bush instructed that air strikes be performed against a nuclear facility near Baghdad due to Iraqi violations of the terms of the cease-fire. Ibid.
has been rejected – in fact, the international community has considered it to be illegal and beyond the limits of rules on the use of force.\footnote{49} Second, Resolution 687 clearly necessitates “further steps as may be required for the implementation of the present resolution”.\footnote{50} This means that subsequent actions, even necessary use of force, could be performed only in the form of a resolution that contained a clear expression of authorisation. This reconfirms the fact that the UNSC is the only body with the competence to authorise collective use of force.\footnote{51}

In addition, the argument claiming that Resolution 678 does not have an expiry time of application\footnote{52} is highly questionable. The UNSC does not give unlimited authorisation to use force. Despite the absence of an explicit time limitation, Resolution 678 was abolished by Resolution 687,\footnote{53} and the latter resolution confirmed that the Council had to take further steps in regards to the subsequent development of the case. Therefore, individual member states were not authorised to act alone. In addition, Resolution 678 was specifically adopted in the particular context of Iraq’s invasion of Kuwait. Therefore, it is only for such a context that this resolution can be recalled. Allowing an infinite authorisation would defeat the whole system of general maintenance of international peace and security by prohibiting the use of force.\footnote{54}

\footnote{48} In December 1998, the President Clinton ordered the use of force against Iraq in response to Iraq’s breaches of its obligations under resolutions of the UNSC. The attack targeted Iraq’s facilities of WMD programs that threatened Iraq’s neighbours or US forces. Ibid.
\footnote{51} UNSC Res 687, above n 262, at [34].
\footnote{52} Iwanek, above n 526, at 104.
\footnote{53} Yoo, above n 513, at 567.
\footnote{54} Franck, above n 483, at 612; Bellamy, above n 528, at 506; Ronli Sifris “Operation Iraqi Freedom: United States v Iraq – The Legality of the War” (2003) 4 Melb. J. Int’l L. 521 at 528
\footnote{55} Iwanek, above n 526, at 104.
In terms of the justification of self-defence, even though anticipatory or pre-emptive self-defence to repel “imminent and overwhelming threats” is known of, and may be lawful under international law,\(^556\) the coalition’s reasoning based on this factor was highly problematic. Lawful self-defence is subject to two main requirements: necessity and proportionality.\(^557\) Further, anticipatory self-defence is lawful when it meets three conditions: the threat is unavoidable; the attack is imminent (which means the attack would occur within hours or days and not weeks or months); and the action of defence must be directed at the state in question.\(^558\) None of these parameters could be established by the coalition states, especially not the US.

Justifications based on allegations of Iraq’s possession of WMDs and capability to use them, and Iraq’s allegiance or links with the Al-Qaeda network\(^559\) were unconvincing as they were unable to be proved.\(^560\) To this day, there has been no authoritative source of information confirming Iraq’s possession of WMDs or the country’s actual capability to use them against the US or its allies. In the moments before the invasion took place, the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) and the International Atomic Energy

---


\(^557\) The Court’s findings are confirmed in other cases such as *Oil Platforms* case and Nuclear Weapons opinion. *Case Concerning Oil Platforms (Islamic Republic of Iran v United States of America) (Judgment)* [2003] ICJ Rep 161 at 183 [*Oil Platforms* case]; Nuclear Weapons Advisory Opinion, above n 92, at 245; Nabati, ibid, at 778

\(^558\) *Nicaragua* case, above n 232, at 103-104; Iwanek, above n 526, at 111.


Agency (IAEA) had reported their findings following their inspections in Iraq. The summary of the findings were that Iraq was relatively cooperative in its inspection; that there was no evidence that Iraq was reactivating its nuclear programme; and that no WMDs were found, but a small number of empty chemical munitions were present.561

In addition, UNEP reported that there was no strong evidence that chemical or biological weapons were used by Iraq at any time during the conflict. The only related material found was protective clothing at Iraqi military bases and some drugs used to counteract the effects of chemical weapons in a Nasiriya hospital. The latter finding led the coalition to speculate that the Iraqi regime was prepared to use chemical weapons. However, UNEP reported again that on 22 April 2003, the US stated that no chemical weapons, biological agents or any nuclear devices had so far been found. It only noted some potential “dual use” materials had been located, however the quantities of these materials and the substances themselves do not indicate possible military use.562

In terms of the link between Iraq and Al-Qaeda, there was no strong evidence for a terrorist presence in Iraq or that Iraq had ties with Al-Qaeda, and there was a low likelihood of possible of future terrorist attacks from Iraq.563 Furthermore, even if Iraq possessed WMD capacity, there is no evidence that Iraq posed an imminent threat to the US and its allies.564 Finally, given the fact of its failure to prove its allegations against Iraq, the US later changed its justification for invading Iraq, citing the reason of a humanitarian intervention.565


562 UNEP Desk Study 2003, above n 283, at 82-83.

563 Meessen, above n 556, at 352

564 Marcelli, above n 560, at 41; Michael Bothe “Terrorism and the Legality of Pre-emptive Force” (2003) 14 EJIL 227 at 234.

signals an implicit admission by the US that its initial justifications to invade Iraq were illegitimate and unlawful.

Based on the examination above, the coalition’s decision to resort to armed force against Iraq in 2003 was illegal and a violation of the general prohibition under the UN Charter. Therefore, the coalition states are responsible for any consequences of war, including the environmental damage that resulted from their illegal conduct. Nevertheless, this finding does not make the coalition states the only responsible belligerents, especially in the case of environmental damage. Iraq is also responsible for its actions in damaging the environment during the battle, as is explained below.

4.2.2.2. Ius in Bello

As was noted above, the armed conflict in Iraq started when the US-led coalition forces decided to invade Iraq on 20 March 2003. In this armed conflict, the laws of war are applicable up to December 2011. This is due to the fact that, since the fall of Saddam Hussein’s regime, the coalition forces (particularly US troops) remained in Iraq, serving as interim military occupying powers and supporting the Iraqi transitional authority. According to the US-Iraq Status of Forces Agreement in 2008, US military forces began to withdraw from Iraq by 30 June 2009 and the entire forces would be completely out of Iraq by 31 December 2011.

As described previously, the environmental damage caused by both Iraq and the coalition forces was mainly committed during the active battle between them. Therefore, the question is whether or not the belligerents during this armed

---

566 During the invasion of Iraq, the coalition forces consisted of the US, the UK, Australia, Poland, Czech Republic and Slovakia. Carlisle and Bowman, above n 492, at 73.
conflict violated international law and can thus incur state liability, particularly for environmental damage.

During this war, Iraq employed similar military methods to defend itself as in the 1991 Gulf War, bringing similar destruction to the environment. What makes this case significantly different is that the environmental destruction in the 2003 war was committed by Iraq within its territory, and not in another state’s jurisdiction. However, the environmental impact of Iraq’s actions also affected other states in Gulf region.

Iraq’s military actions arguably violated rules from the 1925 Geneva Protocol and the 1977 ENMOD Convention. Iraq’s action in setting fire to oil well heads to produce black fumes violated the 1925 Geneva Protocol. In a similar situation to the Gulf War, expert scientists have reported that crude oil essentially consisted of hydrocarbons, which are toxic and release poisonous gases if set ablaze. In addition, oil arguably falls in the category of "analogous liquids" which are prohibited by the 1925 Geneva Protocol. Therefore, without any clear military advantage of burning the oil, Iraq was clearly in violation of the Protocol.

As a signature party to the ENMOD Convention, Iraq breached its obligation by manipulating crude oil as a mean of warfare by setting fire to hundreds of oil wells, which released vast clouds of black smoke into the atmosphere. The Convention proscribes “military” or “hostile” uses of environmental modification techniques that have “widespread, long-lasting, or severe effects”. It was clear

---

568 Okorodudu-Fubara, above n 219, at 190-191.  
that the conditions of “hostile” or “military” intent were fulfilled by Iraq, as they were intended to prevent aerial and satellite surveillance by the coalition forces.

Apart from these violations of treaty law, Iraq also violated customary laws within the laws of war, such as the principles of discrimination and proportionality. In releasing crude oil into the trenches and setting fire to oil wells without any specific direction, Iraq failed to meet the requirement of discrimination in employing a method of warfare. Lastly, these actions also violated the proportionality test as they resulted in significant damage to the environment that was excessive compared to the military advantage anticipated.

As for the coalition forces, they generally observed the law of war during the active combat phase of the operation. This can be seen from the fact that there were few reports of violations of international law by coalition forces during their invasion of Iraq. The only method or conduct of warfare during the invasion that could be seen as a violation of international law, which brought environmental impact, was the substantial use of DU ammunition.

In terms of peacetime obligations, it can be argued that all belligerents violated art 12 of ICESCR, by causing severe and negative effects on Iraq’s environment, so that Iraqi people could not attain a healthy environment of a reasonable standard. In addition, Iraq also violated the general customary law of transboundary harm to the environment of other states or of areas beyond the limits of national jurisdiction. This violation is a result of the black smoke from oil fires.


572 The coalition’s use of DU ammunitions brought enormous devastation to the environment and did not meet the requirements of the distinction and proportionality principles. This action is also contended to be in violation of arts 35 (3) and 55(1) of the 1977 Additional Protocol I. In fact, it has been reported by the special investigator of the Sub-Committee on the Promotion and Protection of Human Rights that the use of DU is illegal under existing humanitarian law. Michaelsen, above n 322, at 11; Bertell, above n 344, at 518.

573 Kälin, above n 346, at 119.
which was the main source of trans-border environmental pollution in neighbouring countries in the Gulf region.

It is clear from the above discussion that both Iraq and the coalition states violated both treaty and customary law during wartime, and thus activated state responsibility for any consequences of war. In regard to environmental damage, Iraq is responsible for repairing the damage to its environment resulting from the severe pollution created by Iraqi forces. Meanwhile, the coalition states are also responsible and liable for compensating Iraq for its use of radioactive ammunitions. However, in actuality, once more, this theoretical responsibility has not been put into practice, as is examined further below.

4.2.3. Post-Conflict Examination

At the end of active hostilities, the victorious coalition states, mainly the US and the UK, unilaterally established an interim authority called the Coalition Provisional Authority (CPA). This establishment was then reported to the UNSC in a joint letter from the US and the UK on 8 May 2003. Also in this letter, the occupying powers offer a role to and expect the involvement of the UN.

---

574 With the establishment of the Coalition Provisional Authority (CPA), it is clear that the coalition forces’ presence in Iraq is a situation of military occupation. Therefore, rules from the law of war continue to be in force for all parties involved in post-conflict activities.

575 In this letter, the US, the UK and coalition partners stated that: “[a]cting under existing command and control arrangements through the Commander of Coalition Forces, have created the Coalition Provisional Authority, which includes the Office of Reconstruction and Humanitarian Assistance, to exercise powers of government temporarily, and, as necessary, especially to provide security, to allow the delivery of humanitarian aid, and to eliminate weapons of mass destruction”.


576 The letter states: “[t]he United Nations has a vital role to play in providing humanitarian relief, in supporting the reconstruction of Iraq, and in helping in the formation of an Iraqi interim authority. The United States, the United Kingdom and Coalition partners are ready to work closely with representatives of the United Nations and its specialised agencies and look forward to the appointment of a special coordinator by the Secretary-General”. Ibid.
After receiving this letter, on 22 May 2003, the UNSC adopted Resolution 1483.\textsuperscript{577} It is arguable that Resolution 1483 was a backward step in terms of enforcement of state responsibility for wartime environmental damage. Furthermore, Resolution 1483 shows the political hegemony of the US and the UK as this resolution does not attribute responsibility for any of the consequences of war to any of the coalition states. Moreover, Resolution 1483 offers no condemnation from the UNSC of the US and UK’s unauthorised use of force; nor, despite the clear establishment of illegal invasion by the coalition states against Iraq, did Resolution 1483 determine that coalition states had conducted an illegal invasion of Iraq. This latter omission freed the US from any responsibility for casualties or damage arising from the war.\textsuperscript{578}

Evidence that shows the UNSC’s support of the coalition states includes Resolution 1483’s express recognition of the US and the UK as the occupying powers, calling them the “authority”. This recognition implies that, in the end, the UNSC finally tolerated the invasion of Iraq without its express authorisation, and sanctioned the position of the coalition states as the interim authority. This situation could become a precedent for other states to use force without the approval of the UNSC. States with strong political power might use unauthorised force against other states if they perceive they can secure victory and then escape responsibility to the UNSC for their actions as aggressors.

With Resolution 1483, the coalition states have made the UN share the burden of cleaning up and helping Iraq to recover from the negative effects of the war. However, while no provision in this resolution named the coalition as responsible for this damage, neither does it state that Iraq is responsible for its unlawful military methods during the war. In its preamble, Resolution 1483 states that the UN should play a vital role in humanitarian relief, the reconstruction of Iraq, and

\textsuperscript{577} UNSC Res 1483, above n 355.

\textsuperscript{578} This situation is also similar to Resolution 1244 where it did not determine that NATO was responsible for its unlawful humanitarian intervention against the FRY.
the restoration and establishment of national and local institutions for representative governance.  

This statement implies that the UN must take on responsibility and effectively free the coalition states, as the possibly responsible parties for waging unlawful war, from any independent role in repairing and reconstructing Iraq. Accordingly, the UNSC encourages and even appeals to other UN member states that are not part of the coalition to contribute personnel, equipment and other resources under the authority to reconstruct Iraq.

In support of the re-building of the state of Iraq, Resolution 1483 establishes a special financial reserve called the Development Fund (the Fund).  

Unlike the compensation fund managed by the UNCC, the Fund’s disbursement is subject to the coalition authority’s approval, in consultation with the Iraqi Interim Administration. The sources of this fund are unencumbered funds in the accounts established pursuant to paragraphs 8(a) and 8(b) of Resolution 986 (1995); funds for Iraqi Government that were provided by the UN member states to the Secretary-General as requested in paragraph 1 of Resolution 778 (1992); funds from all export sales of petroleum, petroleum products, and natural gas from Iraq; and overseas funds or other financial assets or economic resources that have been removed from Iraq, or acquired, by Saddam Hussein or other senior officials of the former Iraqi regime and their immediate family members. Funds

---

579 On 14 August 2003, the UNSC established the UN Assistance Mission for Iraq (UNAMI) to enable the UN to carry out the mandate assigned to it by this resolution. SC Res 1500, UN Doc S/Res/1500 (2003).

580 According to the UNSC, this fund shall be used “in a transparent manner to meet the humanitarian needs of the Iraqi people, for the economic reconstruction and repair of Iraq’s infrastructure, for the continued disarming of Iraq, and for the costs of Iraqi civilian administration, and for other purposes benefiting the people of Iraq”. UNSC Res 1483, above n 355, at [14].

581 Ibid, at [12-13].

582 Ibid, at [17].

583 Ibid, at [20].

584 Ibid, at [23].
from oil sales are still subject to the condition that five per cent of the revenue be deposited into the Compensation Fund under the UNCC scheme.\textsuperscript{585}

The Development Fund appears similar to the compensation fund for war victims, but is focused on reconstructing Iraq. Ironically, it was only Iraq that was obliged to contribute to this fund – not the coalition states. This allocation of contributions may be considered unfair. First, Iraq was the victim of an unlawful invasion, which put the country into a terrible position. Second, being the victim of the war, Iraq is forced to contribute to the Development Fund, part of which is drawn from oil sales and its other financial assets. Third, the obligation to contribute to the Development Fund is worsening Iraq’s economic situation, as the country is still responsible for compensating war victims resulting from the previous Gulf War. In contrast, despite committing an unlawful invasion, the coalition states as the occupying powers are given the responsibility for managing the Development Fund with the authority to decide on the disbursement of the funds in “consultation” with the Iraq interim administration. In addition, these coalition states have no obligation to contribute to the fund.

Besides the Development Fund, Resolution 1483 also recognises there were crimes and atrocities committed by Saddam Hussein and his regime, and also appeals to the member states not to give safe haven to these criminals and to bring them to justice.\textsuperscript{586} The resolution does not specify what kind of crimes these officials are alleged to have committed. Nevertheless, this clause became the legal basis for the CPA to issue a Statute for Iraqi Special Tribunal (IST) on 10 December 2003.\textsuperscript{587}

\textsuperscript{585} Ibid, at [21].
\textsuperscript{586} Ibid, at [3].
Under this statute, the Tribunal gained jurisdiction over crimes committed by Iraqi nationals or residents of Iraq including high officials of the Ba’ath party and Saddam Hussein. The statute then specified crimes that were included within its jurisdiction: the crime of genocide; crimes against humanity; war crimes; or violations of certain Iraqi laws which were committed from 17 July 1968 and up and until 1 May 2003. The only possible provision to lay charges for environmental crime is found under the war crimes section. Under art 13, war crimes are:

> grave breaches of the Geneva Conventions of 12 August 1949, namely, any of the following acts against persons or property protected under the provisions of the relevant Geneva Convention: … (5) Extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly.

As examined previously, Iraq committed unlawful destruction of the environment by spilling oil onto the desert land and setting fire to oil-filled trenches during the war. Regrettably, there is no available data showing any prosecution for this type of crime before the IST.

Even though the coalition states have not been deemed responsible for compensating the Iraqi people, the US in particular has established an unofficial
system of compensation for aggrieved Iraqis, called “condolence payments”. This allows Iraqi people to file claims for things such as death, wounding and property damage. However, this compensation system “does not admit guilt or acknowledge liability or negligence... [but, is rather] a gesture that expresses sympathy in concrete terms”. Further, the US considers condolence payments “as a public relations tool – sort of a no-hard-feelings type of payment. It is not designed to make them whole again, only to alleviate their hardships”. This suggests that the establishment of this system indicates the victor states’ reluctance to admit to, or take responsibility for, damages incurred during armed conflict.

Furthermore, the efforts made in claiming and receiving claims under this system are not as informal and easy as it would appear. Under the system, the burden of proof of claims is placed on the Iraqi people’s shoulders, and eligibility is decided by US military commanders without any right of appeal. It seems that the decision about whether to uphold a claim could be open to bias, as the decision is not made by an impartial body like the UNCC.

During the 2005 and 2006 fiscal years, the US made condolence payments to Iraqi individuals of approximately US$29 million. Given this figure, there should have been an establishment of a UNCC-like body to ensure Iraqi people are adequately compensated for their environmental losses as well. As the casualties

---


592 Ibid.


594 Zucchino, above n 591.

to Iraqi people and the environment damages are obvious, they deserve a payment of compensation that could make their lives, or at least their environment, whole again, via a system that has a fair, accessible claims process.\textsuperscript{596}

Therefore, rather than allowing for a “pity-based” payment system, the UN needs to establish a UNCC-like body which could impose civil liability on coalition states for environmental damage. However, once again, this is heavily dependent on the willingness of the UNSC to determine whether or not coalition states conducted an illegal war in Iraq.

4.2.4. Summary

In general, Resolution 1483 reflects and strengthens the notion of victor’s justice found in many post-conflict situations. Further, this event shows that state responsibility for environmental damage resulting from armed conflict is not implemented effectively. In this conflict, the winning party, though widely acknowledged as being responsible for the unlawful use of force, has been able to free itself from such responsibility. In addition, it has also been allowed to determine subsequent legal matters relating to the conflict, such as the compensation made to war victims. These situations show that state practice during and after this war has discouraged the implementation of state responsibility for illegal war, including its consequences (particularly environmental damage).

4.3. The Israel-Lebanon War

The armed conflict between Israel and Lebanon in 2006 has been the most recent armed conflict with notable environmentally destructive effects. In this conflict, none of the warring parties could claim victory because neither of them reached

\textsuperscript{596} Jonathan Tracy “Responsibility to Pay: Compensating Civilian Casualties of War” (2007) 15 Hum. Rts Brief 16 at 16; McManus, above n 593, at 448.
their ultimate goals as examined below. Environmental damage occurred in both parties’ territories, and was caused by unlawful conduct of both of the belligerents.

In reference to Israel, it violated the general rules on the use of force because its military response against Lebanon did not meet the principle of proportionality and prohibition of unnecessary destruction to the environment. On the other side, Hezbollah – Lebanon’s state organ – violated wartime rules by indiscriminately attacking Israel’s forest by way of reprisal. Unfortunately, despite legal establishment of violations of international law by both belligerents, there was no determination as such at the end of the conflict. Post-war settlement by the UNSC was more focused on restoring peace between the two states without pursuing any liability for compensation war damages including the environment.

At the end of this conflict, there was no victor or vanquished belligerent. None of the states invoked responsibility upon each other. Interestingly, despite the fact that Israel has more political power than Lebanon due to its affiliation with the US, Israel did not pursue Lebanon’s liability for environmental damage to their territory. This inaction may be interpreted as a reluctant recognition of Israel’s own unlawful invasion and warfare conduct in Lebanon.

4.3.1. Armed Conflict and Environmental Effects

This armed conflict started when Lebanon’s militia group, Hezbollah (the Party of God), conducted a raid, crossing its border into Israel’s territory, kidnapping two Israeli soldiers and killing eight others on 12 July 2006 as a response to

597 Hezbollah is a Shiite organization that began to take shape during the Lebanese civil war. It originated as a merger of several groups and associations that opposed and fought against the 1982 Israeli occupation of Lebanon. Hezbollah has grown to an organisation active in the Lebanese political system and society, where it is represented in the Lebanese parliament and in the cabinet. It also operates its own armed wing, as well as radio and satellite television stations. Report of the Commission of Inquiry on Lebanon Pursuant to Human Rights Council Resolution S-2/1 A/HRC/3/2 (2006) [HRC Commission of Inquiry on Lebanon] at [37].
Israel’s occupation of southern Lebanon.\textsuperscript{598} Despite the Lebanese Government’s denial of responsibility for Hezbollah’s actions,\textsuperscript{599} Israel still conducted a military operation\textsuperscript{600} against Lebanon, demanding that its soldiers be returned.\textsuperscript{601} Israel argued that since Hezbollah is under Lebanon’s jurisdictional control, the Lebanese were responsible for the armed kidnapping. Israel also argued that this military action was an act of self-defence after Hezbollah’s action, which Israel considered an armed attack against its territory.\textsuperscript{602}

Besides human casualties,\textsuperscript{603} Israel’s military operations also brought devastating environmental damage. In particular, its attacks on a power plant caused

\textsuperscript{598} HRC Commission of Inquiry on Lebanon, ibid, at [30-40]. Hezbollah conducted the raid called ‘Operation Truthful Promise’ after its leader, Hassan Nasrallah, had pledged publicly for more than a year and a half previously to capture Israeli soldiers and exchange them for Lebanese prisoners imprisoned in Israel. Aseel A. Takhshe, Meg Huby, Sofia Frantzi and Jon C. Lovett “Dealing with Pollution from Conflict: Analysis of Discourses around the 2006 Lebanon Oil Spill” (2010) 91 J Environ. Manage. 887 at 888.

\textsuperscript{599} The Government of Lebanon declared in a letter to the Secretary-General and the President of the Security Council, that “the Lebanese Government was not aware of the events that occurred and are occurring on the international Lebanese border” and that “the Lebanese Government is not responsible for these events and does not endorse them”. Identical letters dated 13 July 2006 from the Chargé d’affaires a.i. of the Permanent Mission of Lebanon to the United Nations addressed to the Secretary-General and the President of the Security Council A/60/938-S/2006/518 (2006).

\textsuperscript{600} The military operation was called “Operation Change of Direction” with Israel’s military official threatened to “turn back the clock in Lebanon by twenty years”. Victor Kattan “Israel, Hezbollah and the Conflict in Lebanon: An Act of Aggression or Self-Defense?” (2006) 14 Hum. Rts Brief 26 at 26.

\textsuperscript{601} HRC Commission of Inquiry on Lebanon, above n 597, at [43].


\textsuperscript{603} From this campaign, Lebanon’s human casualties included 1,191 deaths, 4,409 injuries and more than 900,000 displaced people. In terms of the high number of civilian casualties, Israeli officials claimed that it was collateral damage as Hezbollah was hiding in the middle of civilian areas and using them as human shields. However, a report from a team sent to southern Lebanon by the Human Rights Watch to investigate this allegation found that Israel’s claim had been much exaggerated. HRC Commission of Inquiry on Lebanon, above n 597, at [21, 76-77]; Victor Kattan
significant environmental damage. On 13 and 15 July 2006, Israel attacked Jiyyeh’s power station, located 30 kilometres south of Beirut. The power station contained several fuel tanks situated within one hundred feet of the Mediterranean Sea. The first attack on 13 July 2006 caused the release of approximately 12,000 tons of oil into the Mediterranean Sea. Two days later, the Israelis bombed this target again, causing an additional 3,000 tons of oil to spill into the sea. The actual total amount spilt was 35,000 tonnes of heavy oil. As a result of these attacks, four storage containers were burned completely and one container smouldered, releasing a toxic cloud that drifted over the southern half of Lebanon.

The environmental effects within Lebanon’s territory may be divided into three key groups: effects on the marine environment; impact on the aboveground environment (the air); and the effects on the land environment.

The marine environment of Lebanon’s beaches and the Mediterranean Sea was severely damaged. As a consequence of oil spills, much of the beach was contaminated and its ecosystem was seriously impacted. The impact of oil spills was exacerbated by the geography of the Mediterranean Sea, which is almost entirely surrounded by land. This geographical condition means that this marine area has “a relatively slow renewal period of eighty to one-hundred years for its

---


604 Tucker, above n 140, at 162-163.

605 During the first attack one of the tanks was damaged, but retaining walls prevented the oil from spilling into the ocean. During the second attack a second and third tank were damaged and the retaining wall destroyed, and the oil flowed into the Mediterranean. HRC Commission of Inquiry on Lebanon, above n 597, at [210].


607 Tucker, above n 140, at 163.
waters” and this “delays dilution by oceanic waters and contributes to accumulation of persistent hazardous pollutants”.608

Lebanon’s beaches were covered by an oil slick nearly 100 kilometres long, as were parts of other countries’ coastlines along the Mediterranean Sea.609 Further, the shoreline oiling impacted on the Vermetid terraces (coralline reef communities).610 Beach dwelling birds and mammals were negatively affected by toxic contamination from inhaled vapours and destruction of food sources and habitat and will face possible future reproductive problems.611 The oil on beaches prevented baby turtles, which are an endangered species, from reaching the sea after they hatched. Further, some of the oil, which reached the sea floor, threatened areas where tuna were spawning.612

Further, large amounts of oil seeped into the rock underneath in the sea, potentially contaminating groundwater wells in the area.613 Even seven months after the attack, oil was still polluting Lebanon’s shores, and new slicks were still being discovered. It is noted that recovery and restoration of the marine ecosystem may take up to a decade.614 According to UNEP, initial clean-up costs of this oil spill were approximately US$60 million.615

609 Takshe et al, above n 598, at 888.
611 Huang, above n 606, at 110.
In terms of the aboveground environment, the immense burning of oil from power plants sent waves of black smoke for several kilometres causing air pollution. This plume of smoke from the fires released a number of toxic pollutants into the atmosphere including soot, particulate matter, carbon monoxide, and methane.\textsuperscript{616}

Lebanon’s land environment was also significantly affected. Israel’s bombing campaign against Beirut City caused significant damage to Lebanon’s infrastructure and landscape such as roads, bridges, and other targets such as the Beirut International Airport, ports, water and sewage treatment plants, electrical facilities, fuel stations, commercial structures, schools, hospitals, and private homes.\textsuperscript{617} Collapsed buildings, damaged power transformers, fuel stations, and chemical and other industrial plants discharged hazardous substances and materials such as asbestos and chlorinated compounds into the ground. These hazardous materials seriously affected underground and surface water supplies, as well as the health and fertility of the arable land.\textsuperscript{618} In addition, Israel’s bombing campaign also caused significant damage to United Nations Educational, Scientific and Cultural Organisation’s (UNESCO) protected world heritage sites, such as the Byblos and Baalbeck archaeological sites, Chamaa mausoleum and a tomb dating from the Roman era in Tyre.\textsuperscript{619}

In addition, the Israeli forces used cluster bombs during the conflict. Cluster bombs are single artillery shells that contain several hundred smaller sub-munitions, which are usually dropped from the air to cover a large target area.\textsuperscript{620} These sub-munitions frequently fail to explode on impact and stay on the ground, thus putting humans and the environment at risk. One cluster bomb releases

\textsuperscript{616} UNEP Lebanon Report 2007, above n 613, at 45.
\textsuperscript{618} HRC Commission of Inquiry on Lebanon, above n 597, at [213].
\textsuperscript{619} Ibid, at [221-226].
\textsuperscript{620} Gross, above n 602, at 10.
enough bomblets to contaminate an area of up to eight acres. There were up to one million unexploded bomblets in Lebanon after the conflict. Further, these weapons were used intentionally by Israeli forces “to turn large areas of fertile agricultural land into ‘no go’ areas for the civilian population”.

Another important part of the Lebanese land environment affected by this hostility was the forests. Numerous forest fires were ignited during the hostilities, which continued to spread after their cessation. These fires either resulted from direct bombing or from fallen flares. These fires may have been worsened by the inability of Lebanon’s civil defence and army at controlling and extinguishing them. According to the Lebanese Government, more than 100 hectares of forest fire burned on Mount Lebanon during the war and this number increased to more than 900 hectares after the war. Meanwhile, in South Lebanon, more than 800 hectares of forests and other wooded lands were scorched during the war.

The environmental impact of this conduct of war was exacerbated by the fact that Israel employed an aerial and naval blockade for approximately two months. In fact, the blockade was one of the primary methods of warfare used by Israel during the conflict. This blockade not only worsened human casualties during

622 HRC Commission of Inquiry on Lebanon, above n 597, at [256].
623 UNDP Lebanon Report 2006, above n 617, at 6-1 – 6-3.
625 Tucker, above n 140, at 167. On 13 July 2006, Israel imposed the naval blockade, stationing its naval ships on the Lebanese ports and harbours. The next day, Israel enforced the aerial blockade by destroying runways and fuel tanks at Rafik Hariri International Airport, Lebanon’s only international airport. HRC Commission of Inquiry on Lebanon, above n 597, at [268].
the war, but also delayed immediate assessment and clean-up efforts of any environmental damage within Lebanon’s territory by foreign aid agencies.626

On the other side, Israel also experienced the environmental impact of the conflict when Hezbollah attacked northern parts of Israel’s territory. In response to Israel’s bombing campaign, Hezbollah rained thousands of katyusha rockets on northern parts of Israel and ignited significant fires in significant areas of forest.627 In general, these rocket attacks caused human casualties and the destruction of thousands of homes.628 Further, they also destroyed or severely damaged a great deal of civilian infrastructure such as hospitals and public utilities.629

Two green areas were most significantly affected: the Galilee and Mount Naftali forests. In the Galilee forest more than 800 fire incidents were reported and more than 3,000 acres of old woodland was blackened by the fires intentionally ignited by Hezbollah.630 The Galilee forests were destroyed. In the Mount Naftali Forest, fire wiped out some 750 acres of forest, trapping wild animals such as gazelles, coyotes, jackals, rabbits and snakes.631 These fires threatened the ecosystem of the forest particularly, and the environment in general. According to Omri Bonneh, the director of the Jewish National Fund’s northern region, forests will need 50 to

626 Steiner, above n 610, at 8.
630 Fighel, above n 627, at 805. According to a report from the Israeli Ministry of Environmental Protection, the damage to Israel’s natural environment included 800 forest fires; 750,000 burned trees; 12 square km of burned forests; 66 square km of burned nature reserves, national parks, and open landscapes; and 71 square km of burned pasture land. A total of 120 square km of landscape was burned as a result of Hezbollah’s rockets hit on July 2006. Israeli Ministry of Environmental Protection “Restoring Burned Forests in Israel’s North” (2007) 32 Israel Environmental Bulletin <www.sviva.gov.il/> at 26.
60 years to regenerate to the state they were in before fighting started. The cost to restore the damage to forests was estimated at nearly NIS20 million\textsuperscript{632} or over US$5 million.\textsuperscript{633}

4.3.2. Nature of the Conflict

As mentioned above, the armed conflict was mainly between the Israeli Defence Force and the Lebanese militant armed group Hezbollah.\textsuperscript{634} The law of war in general only recognises states as the main actors in armed conflict.\textsuperscript{635} In this conflict, Hezbollah was not an official organ of the Lebanese Government. In addition, neither Israel nor Lebanon took the position that the hostilities fell into the category of armed conflict. One commentator suggested that this conflict was not an armed conflict of common arts 2/3 of the 1949 Geneva Convention but rather a new category of war, a “hybrid” armed conflict. This kind of armed conflict has similarities to the US’s “war on terror” against Al-Qaeda.\textsuperscript{636} Therefore, it is instructive to examine whether or not Hezbollah’s actions could be attributed to Lebanon as a state. The conclusion to this enquiry is of great importance because Hezbollah’s categorisation determines whether or not international humanitarian law applies to this conflict.

Hezbollah is a legitimate political party in Lebanon. It was founded in 1982, initially to gather forces to fight the Israeli occupation of southern Lebanon.\textsuperscript{637}

\textsuperscript{632} NIS (New Israeli Shekel) is the currency of the State of Israel.


\textsuperscript{634} HRC Commission of Inquiry on Lebanon, above n 597, at [55]. See previous section at [4.3.1].

\textsuperscript{635} Common art 2 of the 1949 Geneva Conventions states that: “[t]he present Convention shall apply to all cases of declared war or of any other armed conflict which may arise between two or more of the High Contracting Parties, even if the state of war is not recognised by one of them”. The Four 1949 Geneva Conventions, above n 136 (emphasis added).


\textsuperscript{637} Bloom, above n 627, at 65.
Hezbollah has been supported by Syria and Iran financially, logistically and militarily. In 1992, Hezbollah decided to participate in the Lebanese elections, shifting its image from a militia group to a political party. In spite of the adoption of UN Security Council Resolution 1559 which clearly called for the disarmament of all Lebanese militia, Hezbollah maintained its military force in southern Lebanon due to ongoing illegal occupation of Sheeba Farms by Israel – an area which Hezbollah claimed as part of Lebanon’s territory.

In determining whether or not the conduct of Hezbollah could be attributed to the state of Lebanon, the general rules of state responsibility in international law become relevant, as discussed in Chapter 3. Based on these rules, there are two parameters to determine whether or not Hezbollah’s conduct could be attributable to Lebanon. First, whether Lebanon had control over Hezbollah’s military conduct; and second, whether Hezbollah acted as an official organ authorised by the Lebanese government.

In terms of the control parameters, Lebanon did not have control over Hezbollah because Hezbollah mainly had financial and military support from foreign states such as Syria and Iran. However, Hezbollah is not merely a “subordinate” organisation under Lebanon’s jurisdiction but has achieved a significant position

---

639 Besides winning some seats in the Lebanese parliament, there are two Hezbollah ministers in the current Lebanese government’s cabinet. Ibid, at 133.
641 This farmland is located in southern Lebanon, an area which remains in dispute between Israel and Lebanon. For details of the history of this area, see Asher Kaufman “Who Owns the Sheeba Farms? Chronicle of a Territorial Dispute” (2002) 56 Middle E. J. 576.
642 Bloom, above n 627, at 68.
643 Ibid, at 79.
644 Stefan Kirchner “Third Party Liability for Hezbollah Attacks against Israel” (2006) 7 German L. J. 777 at 782.
in Lebanon both in government and Parliament.\textsuperscript{645} From these facts, it is arguable that Lebanon has to take responsibility for actions taken by Hezbollah.

Further, in this conflict Israel not only attacked a Hezbollah-occupied region but also various other parts of Lebanon. Only Hezbollah responded to these attacks, not the official Lebanese army. Instead, Lebanon fully supported Hezbollah’s actions to defend the country against Israel. This support can be seen from the facts that Lebanon did not investigate Hezbollah’s conduct, nor did Lebanon go after the leader of Hezbollah and try to stop his command to attack Israel. Therefore, Lebanon’s support of Hezbollah, and its refusal to intervene in any capacity, means that Hezbollah was in fact acting on behalf of Lebanon, and was consequently a state actor.\textsuperscript{646}

Another important fact was that Hezbollah’s presence in the southern part of Lebanon indicates that Lebanon had empowered Hezbollah with what is ordinarily a state’s duty: territory control. Moreover, any border dispute is always between Israel and Hezbollah. The dispute occurred because Lebanon consciously allowed, and continues to allow, Hezbollah to control the border between Israel and Lebanon. This situation has occurred despite the fact that the military power of Lebanon is capable of controlling its southern border. Therefore, implicitly empowering Hezbollah to carry out border control clearly supports the notion that Hezbollah is a Lebanese-sponsored state actor.\textsuperscript{647}

Besides the attribution factor that classifies this as an inter-state conflict, Israeli officials have stated numerous times that Israel was not only responding to the actions of Hezbollah, but to the state of Lebanon as well.\textsuperscript{648} Israel considered the


\textsuperscript{646} Bloom, above n 627, at 80-81.

\textsuperscript{647} Ibid.

\textsuperscript{648} Human Rights Watch “Questions and Answers on Hostilities between Israel and Hezbollah” (2006) <www.hrw.org/>.
kidnapping of its soldiers to be an act of war and claimed that Lebanon was responsible for its failure to control Hezbollah’s actions along their shared border.\textsuperscript{649} Therefore, it is considered that the state of Lebanon was an involved party because the state allowed its territory to be used as a base to conduct hostile operations against Israel.

Based on the above assessment, Hezbollah is a state actor, on behalf of the State of Lebanon. Therefore, any action of Hezbollah is attributable to Lebanon. Accordingly, it is established that this conflict is in fact an international conflict, and that the general law of war is applicable.

4.3.3. Analysis of Applicable Laws

Prior to examining each of the belligerents’ conduct under \textit{ius in bello}, it is important to assess the legality of Israel’s use of force against Lebanon as it has been deemed controversial and disproportionate.

4.3.3.1. \textit{Ius ad Bellum}

Israel justified its military operations against Lebanon as a response to Hezbollah’s raid and kidnapping of its soldiers, which allegedly amounted to an “armed attack” under the right of self-defence in international law. Based on the analysis below, Israel’s war tactics, such as bombardment, blockade and ground operations in southern Lebanon could not be justified as acts of self-defence under international law, because these military operations were unnecessary and disproportionate. In fact, Israel’s actions appear to be offensive and punitive acts of aggression which were in violation of international law.\textsuperscript{650}

\textsuperscript{649} HRC Commission of Inquiry on Lebanon, above n 597, at [269]. Israeli authority stated that “The Lebanese government is openly violating the decisions of the Security Council by doing nothing to remove the Hezbollah threat on the Lebanese border, and is therefore fully responsible for the current aggression”. Ibid.

\textsuperscript{650} Ibid, at [14, 20, 23-25].
Prior to examining whether Israel’s campaign meets the tests of necessity and proportionality, it is necessary to discuss whether Hezbollah’s raid and kidnapping of Israel’s soldiers amounted to an “armed attack”, as stipulated in art 51 of the UN Charter. The most relevant jurisprudence concerning this criterion comes from the ICJ’s decision in the Nicaragua case. In that case, the ICJ stipulates that an armed operation could be considered an armed attack under art 51 of the UN Charter if the operation “because of its scale and effects, would have been classified as an armed attack rather than a mere frontier incident had it been carried out by regular armed forces”.651 The ICJ suggests that the “scale and effects” of the attack are the most significant elements. It appears that this phrasing establishes a higher threshold for defining the use of force as an armed attack.652

Applying the ICJ’s reasoning above, Hezbollah’s raid operation against Israel would not be grave enough to trigger the application of art 51 of the UN Charter. As observed above, the conflict in southern Lebanon between Israel and Hezbollah was an on-going conflict of many years. There had been a number of similar border disputes prior to 12 July 2006 between Israel and Hezbollah.653 Further, Hezbollah’s raid on 12 July 2006 was more likely a classic border dispute than an armed attack, which falls outside the scope of art 51 of the UN Charter.654

651 Nicaragua case, above n 232, at 103-104 (emphasis added).

652 Despite criticisms of the Court complaining that this high threshold would give incentive for low-intensity conflict, and of the vague explanation of these thresholds, the Court was attempting to prevent states from easily justifying their decision to use military force in the name of self-defence. This legal reasoning has been reaffirmed in the ICJ’s subsequent decisions and opinions in the Iranian Oil Platforms case and the Democratic Republic of Congo (DRC) v Uganda case. Oil Platforms case, above n 557, at 186-187, 191-192; Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of Congo v Uganda) (Merits) [2005] ICJ Rep 168 at 223.

653 Bloom, above n 627, at 81; Heinze, above n 602, at 91.

Despite initial support of Israel’s claim of self-defence,\textsuperscript{655} the international community subsequently raised concerns over Israel’s disproportionate military operation against Lebanon.\textsuperscript{656} It can be seen that the initial endorsement of Israel’s right of self-defence was not followed by strong support of the way in which Israel conducted its operations, due to the disproportionality of Israel’s response.

First, Israel’s major military operations against Lebanon, (“Operation Change Direction”), did not meet the requirement of necessity.\textsuperscript{657} Further, such military operation by Israel was not a prompt response to Hezbollah’s actions. Soon after the raid by Hezbollah, Israel retaliated by sending a group of soldiers into Lebanon to liberate their fellow soldiers captured by Hezbollah – “Operation Just Reward”. However, this early mission failed and caused further casualties among Israeli soldiers. This failure led Israel to launch the bigger and more wide-scale “Operation Change Direction”.\textsuperscript{658}

Some politicians claimed that this latter operation aimed to prevent further Hezbollah campaigns involving launching long-range rockets at Israel. However, in this conflict Hezbollah launched its rockets only \textit{after} Israel had bombarded Beirut’s international airport on 12 and 13 July 2006. Previously, Hezbollah had only launched mortars towards the Sheeba Farms as distraction tactics, while it

\textsuperscript{655} Heinze, above n 602, at 91.

\textsuperscript{656} The G8 issued a response to the armed conflict between Israel-Lebanon in which it warned Israel to “be mindful of the strategic and humanitarian consequences of its actions” and urged Israel to “exercise utmost restraint, seeking to avoid casualties among innocent civilians and damage to civilian infrastructure and to refrain from acts that would destabilise the Lebanese government”. G8 “St. Petersburg Declaration on Middle East” (2006) <http://en.g8russia.ru/>.

\textsuperscript{657} The principle of military necessity is codified in art 52 of the 1977 Additional Protocol I. It stipulates that warring parties must ensure that their targets are military objects, not civilian objects. If the belligerents are in doubt of its nature, they should assume that the target is civilian object and they are prohibited from attacking it. Military objects are those “which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite military advantage”. The 1977 Additional Protocol I, above n 201, art 52.

\textsuperscript{658} Kattan, above n 600, at 36.
carried out its raid operation on the border. It appears that the first military operation clearly met the necessity principle, because it was conducted immediately after the kidnapping, and a reasonable number of soldiers were employed. However, the second operation seems unnecessary, because it was premeditated and systematically destroyed Lebanon.

Second, Israel’s self-defence did not meet the principle of proportionality. With such a high number of human casualties and massive destruction to Lebanon, most institutional reports and scholars agree that Israel used its military force disproportionately. As previously discussed, the consequences of Israel’s military operation against civilian and civilian objects were alarmingly severe. An Israeli official has claimed that the casualties were collateral damage, as Hezbollah personnel were hiding among civilians and using them as “human shields”. The Human Rights Watch (HRW) found that this claim had been much exaggerated, and the objects of Israeli attacks seemed to be purely civilian, with little military value. This finding was also supported by the UN Human Rights Commission’s team which conducted an on-site investigation to this

---

659 Kattan, above n 600, 36-37.
661 This principle requires that the use of weapons and tactics of warfare must be proportionate to any military objectives. In other words, even when attempting to fulfil legitimate military objectives, armed forces should not employ excessive weapons and tactics which might bring severe collateral damage. This principle is usually mentioned together with the principle of military necessity because of their simultaneous application. This principle is stated in the Additional Protocol I by obliging States to “refrain from deciding to launch any attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated”. The 1977 Additional Protocol I, above n 201, art 57(2)(iii).
663 HRC Commission of Inquiry on Lebanon, ibid, at [77-78].
664 Kattan, above n 600, at 37.
In answer to Hezbollah’s raid, it is hard to claim that such a large-scale military operation could be proportional to the end which it needed to achieve: the liberation of Israel’s soldiers.

4.3.3.2. *Ius in Bello*

The armed conflict between Israel and Lebanon officially began on 12 July 2006 and ended with the adoption of UNSC Resolution 1701 on 11 August 2006. As examined previously, the environmental damage caused by both parties was mainly committed during the conflict. The question is whether or not the warring parties violated international law and can therefore incur state liability for environmental damage.

Israel’s colossal bombing campaign against Lebanon’s territory, which caused destruction to the landscape and important infrastructure, violated art 23(g) of the 1907 Hague Regulations: the principle of military necessity. The attacks on most of Lebanon’s civilian infrastructures can hardly be justified as being militarily imperative. These attacks were merely punitive in nature since no real military advantage was gained by Israel, other than causing human and environmental casualties. Of the targeted infrastructures, only targets such as airport, roads, bridges and ports may have had a military advantage in weakening Hezbollah’s military force. The other targets had little relevance to the advancement of the war. Further, HRW observed that the objects of Israel’s bombing appeared to be purely civilian, with scant to no military value.

---

666 HRC Commission of Inquiry on Lebanon, above n 597, at [21].
667 Ibid, at [12].
669 According to this provision, a belligerent may during active war destroy or seize the enemy’s property if this action is “imperatively demanded by the necessities of war”. The 1907 Hague Regulations, above n 30, art 23(g). Despite its self-defence claim, Israel’s retaliatory military action in overall could not be excused as an act of self-defence under international law, as the actions were unnecessary and disproportionate. Kattan, above n 600, at 32.
Besides violating the treaty provision above, Israel’s warfare conduct, which caused a major oil spill, also violated customary principles of the law of war. The principles of military necessity and proportionality are relevant principles in relation to the legal assessment of the fundamental question: whether the attack on the oil storage facility at Jiyeh was legitimate conduct.671

According to the Israeli authorities, the Jiyeh power plant was a legitimate military target and military advantage would be gained by destroying this target.672 However, several facts contradict this proposition. Huang notes that the local Lebanese who live in the area surrounding the Jiyeh power plant said that the area had no strong ties to Hezbollah and that the attack was merely a punitive measure that had the intention of forcing the Lebanese government to take action against Hezbollah. In addition, Hezbollah’s military force did not use large amounts of fuel, since it relied on rocket launches.673 These facts made this power plant insignificant to Hezbollah during the conflict. Thus, it should not have been considered as a legitimate military target.

The attack on this fuel storage facility did not proffer a definite military advantage. In a similar way to the events during the Gulf War in 1991, bombing and spilling oil into the sea may have been seen to provide two potential military benefits: to produce visual obscurants to impair the other party; or to deprive the other party of an important source of fuel. The conclusions of the US Department of Defence674 could equally be applied to Israel’s attack on the oil storage facility.

671 Huang, above n 606, at 111.
672 The Israeli Ministry of Foreign Affairs stated that: “[t]errorist activity is dependent, inter alia, on a regular supply of fuel without which the terrorists cannot operate. For this reason a number of fuel depots which primarily serve the terrorist operations were targeted. From intelligence Israel has obtained, it appears that this step has had a significant effect on reducing the capability of the terrorist organisations”. Israel Ministry of Foreign Affairs “Responding to Hizbullah Attacks from Lebanon: Issues of Proportionality” (2006) <www.mfa.gov.il/>.
673 Huang, above n 606, at 110.
674 The first potential benefit was ruled out by the US Department of Defence in its report on the First Gulf War. The report concluded that: “[t]he oil well destruction had no military purpose, but
at Jiyyeh. This attack did not have any military advantage since Hezbollah did not use air strikes and thus visual obscurants were unnecessary. Further, this visual obscurant would only have military effect on an enemy from outside the territory i.e., in this case, Israel itself. Not only would Israel have gained no advantage by obscuring its own potential target, but in any event, Hezbollah had no presence in the area and was not likely to establish one (as mentioned above, its military strategy did not rely on large amounts of fuel). These examinations further strengthen the claim that the Israeli attacks on the Jiyyeh power plant did not proffer any military advantage, and therefore failed to meet the requirement of military necessity.

In terms of the proportionality principle, the attacks on the Jiyyeh power plant again fail to pass muster. As examined above, the attack had no clear military benefit. On the other hand, it caused clear and significant environmental damage. With its access to high technology, Israel should have had information from satellite photos and aerial photography that showing that the fuel storage facilities were very close to the shoreline. Israel should also have known that any attack on these premises would bring a high level of environmental damage compared to any military benefit that could be gained. As examined in the previous section, the oil spill resulting from the Jiyyeh power plant caused widespread and severe environmental damage. All things considered, the environmental devastation caused by these attacks far outweighs any small military advantage Israel could have potentially gained.675

was simply punitive destruction at its worst. Had the purpose of the fires been to create an obscuring, oil wells in that field on each side of the border undoubtedly would have been set ablaze; Iraqi destruction was limited to oil wells on the Kuwaiti side only. As with the release of oil into the Persian Gulf, this aspect of Iraq’s wanton destruction of Kuwaiti property had little effect on Coalition offensive combat operations”. US, Department of Defence, Final Report to Congress on the Conduct of the Persian Gulf War, Appendix O, The Role of the Law of War. Cited in Jean-Marie Henckaerts and Louise Doswald-Beck Customary International Humanitarian Law. Volume II: Practice (Cambridge University Press, Cambridge, 2005) at 853.

675 Enzo Cannizzaro has also concluded that Israel failed to meet proportionality in ius ad bellum because of three considerations: “[t]he scale of its action, which considerably exceeded what was deemed necessary for repelling the attack; the fact that the response involved the destruction of military and civilian infrastructures located hundreds of miles from the area attacked, which were
Lastly, Israel’s warfare strategy of blockade also significantly worsened the environmental damage to Lebanon during the conflict.\textsuperscript{676} Israel justified the blockade by citing the need to “block the transfer of terrorists and weapons to the terror organisations operating in Lebanon”.\textsuperscript{677} The blockade was put in place over both sea and land assets.\textsuperscript{678} Israeli naval vessels positioned themselves off the coast of Lebanon, and the Israeli air force imposed a “no fly zone” over the region.\textsuperscript{679} France and Russia criticised Israel’s blockade, calling it a “disproportionate use of force”.\textsuperscript{680} These criticisms reached their peak when a massive oil spill, resulting from Israeli’s attacks on the Jiyyeh power plant, was not responded to.\textsuperscript{681} Because of this blockade, proper clean-up measures for this oil spill did not start until the war had ended.\textsuperscript{682}

\textsuperscript{676} HRC Commission of Inquiry on Lebanon, above n 597, at [273].
\textsuperscript{678} A military blockade is acknowledged as a legitimate method of warfare in international armed conflict. In order to be lawful, certain requirements need to be fulfilled. These are based on customary rules and have been codified in an international document called the San Remo Manual, which is intended to provide a contemporary restatement of international law applicable to armed conflict at sea. It has been positively received by the international community. According to the manual, a blockade is prohibited if: “(a) it has the sole purpose of starving the civilian population or denying it other objects essential for its survival; or (b) the damage to the civilian population is, or may be expected to be, excessive in relation to the concrete and direct military advantage anticipated from the blockade”. Article 102, San Remo Manual; Wolff Heitschel von Heinegg “The Current State of the Law of Naval Warfare: A Fresh Look at the San Remo Manual” in Anthony M. Helm (ed) The Law of War in the 21st Century: Weaponry and the Use of Force (Naval War College, Rhode Island, 2006) 269 at 276; Louise Doswald-Beck “The San Remo Manual on International Law Applicable to Armed Conflicts at Sea” (1995) 89 AJIL 192 at 193; Louise Doswald-Beck (ed) The San Remo Manual on International Law Applicable to Armed Conflicts at Sea (Cambridge University Press, Cambridge, 1994) at 5; Michael Bothe “Customary International Humanitarian Law: Some Reflections on the ICRC Study” (2005) 8 YIHL 143 at 149.
\textsuperscript{679} James G. Stewart “The UN Commission of Inquiry on Lebanon: A Legal Appraisal” (2007) 5 JICJ 1039 at 1057.
\textsuperscript{680} Tucker, above n 140, at 167.
\textsuperscript{682} Richard Steiner has identified three major factors that severely limited the clean-up efforts. First, there was no responsible-party (spiller) such as an oil company, ship owner, shore facility
In regard to Israel’s blockade, the Human Rights Commission found that the blockade resulted in “great suffering by the civilian population, damage to the environment, and substantial economic loss”\(^\text{683}\). The Commission also found that the naval blockade, no-fly zone, and destruction of all roads leading into Lebanon had seriously disrupted the ability of humanitarian relief supplies to enter that country. Two World Food Programme (WFP) vessels carrying food and fuel were not able to enter Lebanese waters because of a lack of security guarantees and other relief ships were also unnecessarily prevented from delivering humanitarian goods.\(^\text{684}\)

Further, the effect of the blockade has led to other serious damage or health problems to the civilian population of not only Lebanon but also other countries along the coastline of Mediterranean Sea. Israel was blamed in particular for not lifting the blockade to enable a prompt assessment of the extent of the oil spill and allow for clean-up measures to be put in place.\(^\text{685}\) Therefore, this blockade was in violation of customary rules because it caused excessive damage to the civilian population and the environment of both Lebanon and the region relative to the military benefit anticipated.

On the other side, the only conduct from Hezbollah, which can be examined against applicable humanitarian law, is its rocket campaign against the Northern forests of Israel. This campaign caused major areas of forest fires and destroyed all kinds of ecosystems that exist in those forest areas. Of these actions, Hezbollah’s actions in destroying Israel’s forests were in violation of art 23(g) of

\(^{\text{683}}\) HRC Commission of Inquiry on Lebanon, above n 597, at [275].
\(^{\text{684}}\) Ibid, at [272].
\(^{\text{685}}\) Tucker, above n 140, at 193.
the 1907 Hague Regulations and arts 35(3) and 55 of the 1977 Additional Protocol I.

Lebanon, or in this case Hezbollah, violated art 23(g) of the 1907 Hague Regulations because it destroyed forests (public/state property) without legitimising this action as a military necessity. The launching of thousands of rockets into Israel’s territory by Hezbollah was simply a response to Israel’s own campaign. Igniting fires in the forests in fact had no benefit for Hezbollah whatsoever in weakening Israel’s military forces. Meanwhile, Hezbollah also violated arts 35(3) and 55 of the 1977 Additional Protocol I because the attack on forests was clearly a premeditated act, specifically intended to destroy the forests.686

This attack arguably caused widespread, long-term and severe damage to the environment. With a total of 120 square kilometres of forest fires and hundreds of thousands of burned trees, this action caused widespread and severe damage to the environment. In addition, as noted above, it is predicted that it will take a significant time to rehabilitate the forest, making this damage truly long-term. Lastly and as previously discussed, the rocket campaign by Hezbollah was only in response to Israel’s warfare campaign against Lebanon, and did not play a part in any specific strategy to weaken Israel’s military forces. Therefore, this action was simply a means of reprisal, making it a violation of art 55(2) of the 1977 Additional Protocol I.

In reference to peacetime obligations that remain valid during wartime, both Israel and Hezbollah violated art 12 of ICECSR by causing significant environmental damage that severely affected the health of their opponent’s population. The oil spill that resulted from the bombing of the Jiyyeh power plant and the forest fires

686 Despite having capabilities of long-range rockets/missiles, most of the rockets were directed to the northern part of Israel’s forest which is the closest area to southern Lebanon.
resulting from the launching of rockets, severely affected the health and the environment of both the Israeli and Lebanese populations.

Israel also violated the rules of the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention) due to its attacks on world cultural and natural heritage sites within Lebanon’s territory. Under this treaty, besides having duties within their territories, state parties are also obliged “not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage (...) situated on the territory of other states parties to this Convention”. This rule was violated by Israel since its acts of warfare have had a negative impact on the protected sites in Lebanon. Therefore, Israel is liable for any consequences arising from its violation of this Convention.

In order to rehabilitate these sites, the World Heritage Convention provides mechanisms whereby Lebanon could request international assistance. The World Heritage Committee may give assistance in the form of providing experts and skilled technicians, training staff and specialists, and, most importantly, funds. Besides voluntary and compulsory contributions from state parties, funds can be drawn from “other resources authorised by the Fund’s regulations, as drawn up by the World Heritage Committee”. This means that, the Committee has the power to make the responsible state party, in this case Israel, pay additional funds for some part of the rehabilitation cost.

---

687 Convention Concerning the Protection of the World Cultural and Natural Heritage (opened for signature 23 November 1972, entered into force on 17 December 1975).
688 Ibid, arts 4 and 5.
689 Ibid, art 6(3).
690 Ibid, art 22.
691 Ibid, art 15(3).
Last, both Israel and Lebanon are parties to the 1976 Convention for the Protection of the Mediterranean Sea against Pollution. This multilateral Convention was still valid during the conflict since it protected common goods i.e. the Mediterranean Sea. One of the Convention’s protocols specifically protects the Mediterranean Sea from land-based pollution, which is relevant to the assessment of environmental damage from this conflict. Unfortunately, no states took the Convention into consideration in responding to the bombing of a coastal power plant and the oil spill from the bombed plant.

4.3.4. Post-Conflict Examination

This inter-state armed conflict was formally ended by the adoption of UNSC Resolution 1701 on 11 August 2006. The post-conflict settlements arising out of this war, unfortunately, did not determine who would be responsible for war consequences including environmental damage.

Besides calling for the cessation of hostilities, Resolution 1701 highlighted other important areas of need; demanded that Israel withdraw all of its forces from Lebanon in parallel with the deployment of Lebanese and United Nations Interim Force in Lebanon (UNIFIL) soldiers throughout the South Lebanon; called for the Government of Lebanon to disarm Hezbollah and to secure its borders/entry points to prevent the entry into Lebanon of arms or related material without its consent; and reiterated that full control of Lebanon ought to be in the hands of the government of Lebanon. However, no single provision from this resolution

693 Apart from Israel and Lebanon, other member state parties are Albania, Algeria, Croatia, Cyprus, Egypt, France, Greece, Italy, Libya, Malta, Monaco, Morocco, Slovenia, Spain, Syria, Tunisia, and Turkey.
695 Takshe et al, above n 598, at 894.
addresses responsibility for environmental damage in either Israel or Lebanon. This resolution was adopted in spite of the well-recorded, severe environmental impact of this armed conflict.

On the same day that Resolution 1701 was finalised, on 11 August 2006, the Human Rights Council established a high-level commission of inquiry to investigate the systematic targeting and killings of civilians by Israel in Lebanon; to examine the types of weapons used by Israel and their conformity with international law; and to assess the extent and deadly impact of Israeli attacks on human life, property, critical infrastructure and the environment. This report is important because it was intended to be independent and impartial, considering whether there had been violations of both human rights and humanitarian law by all of the parties. Further, the resolution which established this special commission noted, with concern, the “environmental degradation caused by Israeli strikes against power plants and their adverse impact on health”.

In its report, the Commission concluded that Israel was responsible for “excessive, indiscriminate and disproportionate use of force against Lebanese civilians and civilian objects” during the conflict. It also found that Israeli forces had a “lack of respect for the cardinal principles regulating the conduct of armed conflict” and “clearly failed to distinguish between civilian and military targets”. Particularly in terms of environmental damage, the Commission concluded that Israel’s premeditated strikes against oil tanks caused long-term and severe environmental damage. According to the Commission, the damage showed the Israel Defense Forces’ (IDF) failure to take the necessary precautionary

---

697 Tucker, above n 140, at 191.
698 HRC Commission of Inquiry on Lebanon, above n 597.
699 Ibid, at [13].
700 Ibid, at [80].
701 Ibid, at [25].
measures and thus violated Israel’s obligations to protect the natural environment and the right to health. Besides attacks on oil tanks, cluster munitions were also found to have been used intentionally to turn large areas of fertile agricultural land into “no go” areas for the civilian population.\footnote{Ibid, at [23-24].}

However, these findings did not lead to a determination of state responsibility for the results of unlawful conduct during this conflict. As stated previously, the legal edict from the UNSC that ended this war only came from Resolution 1701, and no other subsequent resolution was adopted. This situation occurred despite the fact that the UNGA, through its resolutions,\footnote{Legally speaking, the UNGA resolutions and declarations indeed are not binding to the UN member states. However, they may give political influence to the concerned state in international relations. See UN Charter, art 10-18.} had requested Israel to assume responsibility for compensation of the oil-spill damage caused by its bombardments.\footnote{Oil Slick on Lebanese Shores GA Res 61/194 (2006); Oil Slick on Lebanese Shores GA Res 62/188 (2007); Oil Slick on Lebanese Shores GA Res 63/211 (2008); Oil Slick on Lebanese Shores GA Res 64/195 (2009); Oil Slick on Lebanese Shores GA Res 65/147 (2010).}

Since no party was held responsible for any environmental damage resulting from this armed conflict, both Israel and Lebanon realistically have no other option than to repair and rehabilitate their environment with or without the international community’s assistance. In Lebanon’s case, its lack of resources and its incapacity to effectively deal with environmental pollution or damage was noted during and after the conflict.\footnote{Takshe et al, above n 598, at 893.} Therefore, in repairing and restoring its environment, Lebanon was helped by the international community through the UN and its agencies. With the UN military forces providing a secure environment, other UN agencies such as the United Nations Development Programme (UNDP) and United Nations Children’s Fund (UNICEF) played a role in helping to repair the environment. The UNDP contributed critical coordination functions, particularly in the initial relief phase of post-war interventions, while UNICEF was mostly

\footnote{Takshe et al, above n 598, at 893.}
involved in repairing damaged water and sewerage infrastructure.\textsuperscript{706} Besides assistance from the UN, Lebanon also received a significant budget from Iran and Syria for reconstruction (albeit via Hezbollah).\textsuperscript{707}

In response to the oil spill in Lebanon on 17 August 2006, there was a high-level meeting, convened by the International Maritime Organisation (IMO) and the UNEP, to draw up and to finalise an international assistance action plan. From this meeting, a US$64 million plan was agreed on that would assist the government of Lebanon in cleaning-up the coastal oil pollution and preventing any damage to neighbouring countries. Besides the aid fund, some countries have also pledged personnel, training and equipment to assist the clean-up efforts.\textsuperscript{708}

Meanwhile, in responding to the damage from the forest fires, the government of Israel gave an emergency aid package to northern towns and villages. In this matter, UNESCO has invited the government of Israel to approach the UN if they need aid to support those efforts.\textsuperscript{709} The Government of Israel has paid compensation to business owners and families and opened treatment centres for those suffering from the impact of the conflict.\textsuperscript{710} These facts showed that Israel had the capabilities to repair and restore its environmental damage without the assistance of international community.


\textsuperscript{707} Bassam Fattouh and Joachim Kolb “The Outlook for Economic Reconstruction in Lebanon after the 2006 War” (2006) 6 MIT-EJMES 96 at 105.


\textsuperscript{709} Report of the Secretary-General on the Implementation of Resolution 1701, ibid, at [46].

\textsuperscript{710} UNSG Report on UNSC Res 1701, above n 624, at [8].
4.3.5. Summary

This armed conflict received much attention from the international community partly due to the fact that one of the belligerents was a non-state actor. This fact highlights the contemporary problem of non-state actors playing more active roles in recent armed conflicts around the world. In addition, this armed conflict brought severe environmental impacts on both territories. Unfortunately, no party to this conflict was held responsible for the environmental damage that occurred during the war. The UNSC’s Resolution 1701 neither mentions any environmental damage nor determines any party responsible for it.

In spite of a report made by the UN Commission on Human Rights that recorded violations of humanitarian law on both sides, there was no legal process or even political resolutions initiated by states to resolve issues after the conflict as there was in the aftermath of the 1991 Gulf War.\(^{711}\) As a consequence, both Israel and Lebanon have tackled the environmental damage using their own capabilities and resources, though Lebanon has received assistance from the international community, while Israel did not receive any aid from foreign donors.

Therefore, it appears that state responsibility has not been effectively implemented since the international community was reluctant to enquire into any violations of international law that could incur international responsibility and liability. In the absence of a liability determination, it seems that Lebanon, as the country that suffered from the most significant environmental damage, should receive “compensation” from the international community. On the other side, Israel could manage environmental damage within its territory with its own resources and capabilities.

\(^{711}\) The only legal action was taken by an Israel civilian who submitted a civil lawsuit in the US seeking compensation to be taken from Lebanese assets in US territory. This was based on the claim that the Lebanese government failed to prevent Hezbollah’s actions in harming Israeli citizens from a platform in its own territory, thus violating the International Convention for the Suppression of Terrorism. Tani Goldstein “Compensation Claim against Lebanese Gov’t in Works” (2006) Ynetnews <www.ynetnews.com>; Fattouh and Kolb, above n 707.
5. Lessons Learned and Conclusions

Having examined all armed conflicts that have had significant impacts on the environment, a number of final observations can be made which reflect on the international community’s practice. In general, this Chapter has found that the theoretical adequacy of legal limitations on belligerents’ conduct does not stop the occurrence, in practice, of significant environmental damage during armed conflicts, resulting from unlawful acts committed by the belligerents.

Furthermore, the enforcement of state responsibility for environmental damage caused by this type of unlawful conduct has been inconsistent and ineffective. Most of the existing post-conflict settlements maintain the ‘victor’s justice’ paradigm. The closest experience to truly enforcing state responsibility for environmental damage during an armed conflict came in the aftermath of the Gulf War in 1991.\footnote{This was not a “true” implementation of state responsibility because in reality Iraq had to bear all of the environmental consequences resulting from the coalition’s unlawful conduct during the war. The UNCC Governing Council decided that losses arising from such situations would be compensated as a “direct” loss, inter alia: “[m]ilitary operations or threat of military action by either side during the period 2 August 1990 to 2 March 1991”. UNCC Decision No. 15, above n 374, at [6] (emphasis added).} With the exception of the two World Wars, the remaining cases, which have been considered, did not lead to any determination of state responsibility, despite violations of international law committed by the belligerents during the hostilities being clearly established.

These conclusions have been reached based on a number of findings from the cases above as follows.

First, in reference to the environmental damage in most of the cases examined above, both sides of the belligerent parties contributed to the environmental damage during the war by employing military strategies hostile to and destructive.
of the environment. Some of these cases happened in the period when the international community had developed a high level of concern for the environment during armed conflict. The wide-scale pollution and major alterations to the environment caused by these conflicts may have reached (and in most of the cases, did reach) the prosecutable level of damage thresholds under the law of war and accordingly negatively affected the ecosystem, impacting on the lives and livelihoods of humans.

Second, state responsibility for environmental damage resulting from armed conflict has never been consistently implemented, despite consistent findings that the belligerents violated international laws. In the aftermath of the conflicts, post-war settlements to determine those responsible for consequences of wars, especially environmental damage, have not automatically taken place. The types of legal settlements that end war can be divided into two categories: those before and after the establishment of the UN in 1945.

Before 1945, wars were ended by the adoption of peace treaties between the belligerent parties, or between the victor states and the defeated states. These peace treaties were drafted, monitored and enforced by the victor states. In these peace treaties, responsibility for war was placed solely upon the defeated states because of their decision to wage unjust aggressive hostilities. War settlements during these periods were focused on repayment of the cost of war and damages resulting from the war in general, without a particular focus on the environment. The notion of victor’s justice is clearly illustrated in the settlements after the World Wars, where compensation was paid by or exacted from the defeated states for the benefit of the victor states.

After the establishment of the UN in 1945, the responsibility for maintaining international peace and security was allocated to the UNSC. Therefore, at least in

---

713 There are only two cases where only one side of the belligerents caused severe environmental damage: the US in the Vietnam War, and NATO in the Kosovo War.
theory, every conflict that threatens or impacts on international peace and security should be the domain of the UNSC. In each of the examined conflicts, with the exception of the Vietnam War, a UNSC resolution followed the end of the war, functioning as the primary instrument for war termination. Unfortunately, only one such resolution made any reference to violations of international law and determined a responsible party: the aftermath of the 1991 Gulf War. The other resolutions did not refer to any breach of international law and consequently allocated no state responsibility.

It seems that the determination of a responsible party really occurs only when there is a defeated belligerent that does not have strong political power. For example, in addition to the World Wars’ settlements, after Iraq was successfully expelled from Kuwait in 1991, its political power was completely devastated, and the UNSC held it responsible for the unlawful invasion of Kuwait.

In the cases where no party could claim victory, the UNSC has preferred to focus more on restoring peace between the belligerents, rather than pursuing responsibility for the violation of international rules in causing environmental damage. This can be seen in the cases of the Iran-Iraq War and Israel-Lebanon War.

The UNSC seems helpless to respond decisively if the responsible belligerents are major states with strong political power, or members of the UNSC with veto power. In the Vietnam War, the UNSC did not determine that the US was responsible for environmental damage despite the fact that the US was in violation of international wartime obligations in employing defoliants. Despite being defeated, the US still preserved its political power, which appears to be the main

---

714 During the Cold War, the UNSC appeared “paralysed” and could not perform its duty as the guardian of collective security as planned under the UN Charter. Further, the end of Cold War did not result in the UNSC being able to prevent armed conflicts between states. Christine Gray “The Charter Limitations on the Use of Force: Theory and Practice” in Vaughan Lowe, Adam Roberts, Jennifer Welsh and Dominik Zaum (eds) The United Nations Security Council and War: The Evolution of Thought and Practice since 1945 (Oxford University Press, Oxford, 2008) 86 at 87.
reason why the international community was reluctant to strongly respond to the eco-crimes committed by the US during the Vietnam War.

In the Kosovo and Iraq Wars, during which some NATO states and the US and its allies clearly engaged in an unauthorised use of force against the FRY and Iraq respectively, the UNSC appears to have been paralysed because of the potential use of veto power against any effort to determine these states responsible for their violations of *ius ad bellum*.

Third, just as there has been limited determination of responsibility for armed conflicts, compensation for environmental damage during war has also been very limited. Though there have been payments of war compensation, the World Wars post-conflict settlements did not provide specific compensation claims for environmental damage. In fact, there has only been one event where damage to the environment has been compensated as a result of war reparation claims: the Gulf War. This landmark development in recognising the importance of compensating a state for the damaged environment as a result of armed conflict, however, was not followed in subsequent post-war settlements of similar cases with significant environmental impacts.

Fourth, rules from *ius in bello* have never become the legal basis for holding states responsible for environmental damage during wartime, nor liable to pay compensation. In reality, violations of the law on the use of force have become the main legal basis for holding belligerents responsible for the consequences of war, including environmental damage. Examples of this are seen in the Gulf War in 1991 and the peace treaties ending the World Wars.

However, the determination of state responsibility based on violations of *ius ad bellum* is inconsistent as well. There are some cases where violations of *ius ad bellum* are clearly established. Regrettably, these conflicts were not followed by the determination of the belligerents’ responsibility for their unlawful acts. Such
situations are found in NATO’s humanitarian intervention against the FRY in 1999, the US and its allies’ invasion of Iraq in 2003, and Israel in its unlawful ‘self-defence’ against Lebanon in 2006. Thus, no responsibility was imposed on any of these belligerents.

Finally, it appears that state responsibility for environmental damage during wartime depends greatly on whether or not there has been a determination of state responsibility for the consequences of war in general. In addition, the ineffectiveness of state responsibility implementation, particularly for environmental damage, is also caused by the absence of a transparent mechanism to establish facts that lead to a fair allocation of responsibility to the belligerents.

Currently, the international community relies heavily on the UNSC as the forum for determining state responsibility for the consequences of war. Unfortunately, the UNSC is not consistently considering impartial and reliable data that is available from other entities which are concerned with environmental damage in the aftermath of a war. The Council’s main consideration of post-conflict management would largely depend on the political climate among the member states and not be based on the factual data available in a particular case. Accordingly, the UNSC only adopts or determines responsibility based on partial information (which comes from a member state of this body) and it ignores factual evidence about environmental damage and the belligerents’ conduct of warfare.

Therefore, in light of the fact that the international community has some experience in producing post-conflict data and analysis, it is arguable that the UNSC’s lack of reliable data may be improved by making post-conflict fact-finding activities mandatory as part of the UNSC’s reporting process. In reference to environmental damage resulting from war, post-conflict fact-finding activities

715 Notably, such activities were conducted by some international NGOs, the UNSG, UNEP, and the Human Rights Commission.
are important in order to gather information on whether any environmental
damage resulting from the conflict has reached a prosecutable level and to
determine whether or not there has been any violation of international law by the
belligerents. The conclusion of such an enquiry would assist the determination of
responsible state or states by the UNSC, including a fair allocation of liability to
pay compensation for the consequences of war, particularly environmental
damage. This possibility is further discussed next in Chapter 5.
CHAPTER 5
FACT-FINDING PROCEDURES TO IMPROVE THE DETERMINATION OF STATE RESPONSIBILITY FOR ENVIRONMENTAL DAMAGE DURING ARMED CONFLICT BY THE UNITED NATIONS SECURITY COUNCIL

1. Introduction

Having a fair decision that determines responsibility for environmental damage caused by war is of particular importance for two reasons: to deconstruct the unfair victor’s justice paradigm; and to ensure that a remedy for the damaged environment is provided by the appropriate, responsible, party. In the cases where post-conflict settlements have fitted within the victor’s justice paradigm, the defeated parties bear most or all of the responsibility to compensate for the wartime environmental damage. In other cases, when responsibility has not been

---

1 See the discussion of the World Wars in Chapter 4 at [2]. One commentator has argued that post-conflict prosecution usually leads to the “impression of a victor’s justice and punitive peace”. Richard Falk “The Inadequacy of the Existing Legal Approach to Environmental Protection in Wartime” in Jay E. Austin and Carl E. Bruch (eds) The Environmental Consequences of War (Cambridge University Press, Cambridge, 2000) 137 at 147. Further, this condition has been described by another commentator in these terms: “[t]he noble cause of compensation for wrongs committed by all belligerent parties, has been replaced by ‘rule’ that only defeated parties need to pay compensation, regardless of their status during the war (occupied state or occupying state). (...) The peace treaties usually lay an obligation on the vanquished state to pay a more or less random amount, determined in relation to its perceived financial capabilities, and not really in relation to the damage caused”. Sonja Boelaert-Suominen “Iraqi War Reparations and the Laws of War: A Discussion of the Current Work of the United Nations Compensation Commission with Specific Reference to Environmental Damage during Warfare” (1996) 50 Austrian J. Pub. & Int’l L. 225 at 295.

2 This responsibility includes environmental damage that was caused by the victorious parties as a result of unlawful conduct. As established in Chapter 4, this was clearly the situation in the aftermath of the 1991 Gulf War, the Kosovo War and the Iraq War.
determined, the environment is left unrepaired and/or without compensation being made.3

Both for war consequences in general and wartime environmental damage in particular, a victor’s justice settlement in post conflict has frequently resulted in unfairness and less than optimal reparation for environmental damages. It is unfair because, despite clearly contributing to war damage in general which resulted from unlawful conducts, victorious parties have always managed to impose responsibility for war reparation solely onto the vanquished. The victor’s justice paradigm has also shaped state belligerents belief in war that “the likelihood of defeat will exceed the likelihood of having to pay reparations”.4 In other words, state belligerents do not have to have responsibility to pay reparation as long as they can secure a victory in an armed conflict. In addition, having only one side make reparation for environmental damage would not be as effective as having all parties responsible to do the same. If both sides are responsible and make efforts to repair the environment, damage to the environment as a result of the war would be more effectively mitigated and repaired.

As established previously, the existing formal legal protection for the environment during the war is of sufficient scope to provide adequate protection; and the legal framework available to respond to violations of these rules by determining state responsibility is similarly comprehensive.5 Given this, it appears that the problem causing inconsistencies in the level of protection afforded to the environment in fact lies in the decision-making process which determines state responsibility for wartime environmental damage.

---

3 Also discussed in Chapter 4, cases where there has been no determination as to who is responsible for environmental damage include the Vietnam War, the Iran-Iraq War and the Israel-Lebanon War.


5 See Chapters 2 and 3.
Since the establishment of the United Nations (UN), the UN Security Council (UNSC) has played an active role in responding to armed conflicts that threaten international peace and security, as mandated by the UN Charter. This active role includes the authority to determine whether states should be held responsible for the consequences of war.\(^6\) This fact challenges UNEP’s finding that “there is no permanent international mechanism to monitor legal infringements and address compensation claims for environmental damage sustained during international armed conflicts”.\(^7\) Therefore, post-war state responsibility may, in future, be established via the UNSC forum.\(^8\) Unfortunately, this body has not been consistent in implementing its duty to determine states’ responsibilities for the consequences of war.\(^9\)

The only occasion where the UNSC has determined that a state was responsible for the consequences of war, particularly environmental damage, was in the aftermath of the Gulf War in 1991. Although that was a remarkable development, this allocation has also been considered unfair given the fact that Iraq was held solely responsible, with coalition states, which had also contributed to the environmental damage by committing unlawful acts during this war, escaping any

\(^6\) Chapter 4’s discussion of selected conflicts, with the exception of the World Wars and the Vietnam War, has shown how the UNSC’s active roles were implemented.


\(^8\) One scholar notes that international organisations in general now possess regulatory, adjudicatory and dispute resolution powers. Sabino Cassese “A Global Due Process of Law?” (paper presented to Hauser Colloquium on Globalization and its Discontents at New York University, New York, September 2006).

\(^9\) As established in Chapter 4, many armed conflicts have resulted in significant damage to the environment in situations where the belligerents were bound by international rules that protect the environment. Furthermore, despite clear evidence that belligerents were in violation of these international rules, the processes for holding them responsible for such violations has been both ineffective and inconsistently implemented. In fact, the only time a state has been held liable for its unlawful conduct causing environmental damage during wartime was the 1991 Gulf War.
responsibility. In addition, the UNSC’s process of determining responsibility has been characterised by its lack of both facts and legal considerations.

Based on these precedents, therefore, there is room for crucial improvements within the UNSC system to alleviate these inconsistencies. With the involvement of fact-finding missions, the decision-making process of the UNSC may be made more transparent. This type of process would lead to fairer resolutions being adopted by the UNSC, guaranteeing that parties who actually commit unlawful actions causing environmental damage during wartime will be held responsible, regardless of their status after the war ends of being either the victor or the vanquished.

Reform of the process to this end is in accordance with the general “polluter pays” principle: the wrongdoer (the polluter) is under the obligation “to make good the damage” he or she has caused. If such a goal came to fruition, it would certainly phase out the concern, common in the aftermath of war, that “the low potential for victors to be brought to justice will reduce the chances that such crimes are ever prosecuted and may even explain why such crimes seem non-prosecutable”. It would also serve as a deterrent to all potential state belligerents as they could not escape responsibility just because they can secure a victory. Accordingly, maximum protection for the environment could be achieved by preventing future belligerents causing more significant damage to the environment.

Therefore, this Chapter proposes a model decision-making process within the UNSC in order to obtain fair determination of responsibility for the consequences

---

10 See Chapter 4 at [3.3.3].
11 The only consideration in Resolution 687 is Iraq’s unlawful invasion against Kuwait. The resolution does not consider other independent reports concerning the war by other parties such as non-UNSC member states and NGOs.
of war, particularly environmental damage. The key feature of this model is that there should be fact-finding missions to investigate the actions of both sides to any conflict. The UNSC may obtain reliable and balanced reports of facts from such an independent fact-finding mission (“objective” reports) as well as from the belligerents (“subjective” reports). An objective report would be produced by an independent fact-finding mission, appointed by the UNSC. On the other hand, subjective reports would be produced, at the invitation of the UNSC, by internal fact-finding missions appointed by the parties to the conflict.

These fact-finding reports would establish the facts in a conflict, and examine whether or not there have been any violations of international law that have caused significant environmental damage. In addition, these reports would also address the extent to which each of the belligerent contributed to the actual environmental damage. Such reports would each be given equal consideration by the UNSC and be made accessible to the international community. With these sources of information, it is expected that the UNSC could make a more transparent determination as to which party is responsible for environmental damage and allocate it according to the real portion of damage that has been caused.

This type of equal consideration would mean that due process would be observed for all parties involved. Having a UNSC decision-making process that fulfils due process in determining state responsibility for the consequences of war is of

---

14 It is crucial to note that this study does not seek to present an exhaustive list of options for improving all decision-making processes within the UNSC. While there may be such alternatives available that can also be used to improve the UNSC, these alternatives may deserve a study of their own – the focus here is solely on the involvement of fact-finding missions in the decision-making process of the UNSC.

15 As discussed below, such invitations would show that the UNSC provides opportunity for all warring parties to present their justifications and findings.

16 The application of the concept of “due process” in this thesis is by analogy of the “due process” right in the protection of basic human rights where “all legal proceedings will be fair and that one will be given notice of the proceedings and an opportunity to heard before the state acts to take away one’s life, liberty or property”. See Peter Spiller New Zealand Law Dictionary (7th ed, LexisNexis, Wellington, 2011) at 95.
importance for two reasons. First, for the sake of fair treatment, any party to an
armed conflict should be given the opportunity to participate in presenting their
own “voice” or “findings” before the Council. With such a mechanism, no state
would feel left out of the process. Second, having a fair procedure is important to
build international consensus in accepting the Council’s decision. As one scholar
noted, “recognising participatory rights in the global legal order may (…) increase
international organisations’ legitimacy”.

However, this study is not primarily concerned with what the UNSC’s final
decision would be after considering all the proposed fact-finding reports, but
rather with formulating a more robust and reliable decision-making process. At
the very least, it is expected that both conflicting parties’ conduct be taken into
consideration equally by the UNSC. Finally, if those reports are accessible to the
public, the international community could itself assess which belligerent states
should or should not be held liable for repairing the damaged environment. Such
assessments by the international community might put additional pressure on the
UNSC to adopt a fair resolution.

This Chapter begins with the analysis of the UNSC as a special body that has a
major role in maintaining international peace and security. It will focus on the

---

17 It is worth noting that “[i]n domestic settings, the right of affected individuals to have their
views and relevant information considered before a decision is taken is one of the classical
elements of administrative law. Versions of such a principle are increasingly applied in global
administrative governance (…)”. Benedict Kingsbury, Nico Krisch and Richard B. Stewart “The
18 Cassese, above n 8.
19 This is due to the fact that there is always a high possibility of last minute political pressure in
determining the final content of a UNSC resolution – especially from the permanent members of
the Council.
20 It is a fact that, in the event of deadlock in the UNSC where it could not adopt a proper
resolution due to never ending use of veto, states could bring this issue before the UNGA for
special session under the “uniting for peace” emergency procedure. However, the outcome of this
session would likely a political embarrassment despite a resolution determining responsibility to
the appropriate parties. More discussion on this special procedure, see Helmut Volger “Uniting for
UNSC’s power to determine state responsibilities for the consequences of war, including environmental damage. This will be followed by an examination of the importance of fact-finding missions in international relations, particularly within the UN system, in the settlement of disputes or post-conflict settlements. Finally, with reference to some of the UNSC’s previous actions, this Chapter proposes a model decision-making mechanism that uses fact-finding reports to improve the UNSC’s system in respect of its transparency and, as well, its ability to achieve fair decisions when allocating state responsibility.

2. The UNSC and Determination of State Responsibility

Considering the failure of the League of Nations, states agreed to form a special body within the UN with a specific mandate to maintain international peace and security – called the UNSC.\textsuperscript{21} Specifically, the UNSC has a duty to respond to breaches of the peace and to restore peace by a system of collective security.\textsuperscript{22} In order to achieve this aim, the UNSC has adopted a number of resolutions aimed at restoring and maintaining world order.\textsuperscript{23} These resolutions deal with both inter-state and intra-state conflicts\textsuperscript{24} which are considered to be a threat to world order.\textsuperscript{25}

\textsuperscript{21} Charter of the United Nations, art 24(1).


\textsuperscript{24} Records of UNSC Resolutions are available at <www.un.org>. One scholar comments about the UNSC’s actions in maintaining international peace and security: “[t]he action taken by the Security Council covers a large panoply of coercive measures, some of which can only nominally be hinged on Chapter VII. The Council has qualified the acts of states and non-state entities as illegal and invalid, called for collective non-recognition, imposed arms embargoes, selective and quasi-comprehensive economic, financial and diplomatic measures, authorised the use of military force for limited, as well as wide-ranging purposes, assessed reparations, assumed the responsibility for ‘technical’ demarcation of boundaries, drawn up what has been termed a virtual peace treaty, imposed disarmament, and decided on the establishment of an international criminal tribunal”. Vera Gowlland-Debbas “Security Council Enforcement Action and Issues of State Responsibility”(1994) 43 ICLQ 55 at 56.

Some have noted that the UNSC is a political organ and not a judicial or quasi-judicial organ. Therefore, its duty to maintain or to restore international peace and security is not identical with the maintenance of international law (law enforcement). However, in reality, some UNSC resolutions have tried to enforce, or have in fact successfully enforced, international law by determining member states’ responsibility for the consequences of war resulting from their unlawful actions. Indeed, the law of war makes provision for the UN’s involvement in ensuring respect for and enforcement of its rules. Further, the UNSC has been active in adopting resolutions that expressly confirm the violations of international rules by states, such as in the aftermath of the Iran-Iraq War in the late 1980s and the Gulf War in 1991.

Given these events, therefore, the UNSC forum is an important mechanism for safeguarding international law, because it determines whether or not there has been a violation of international law and allocates liability accordingly. With such a determination by the UNSC, it is expected that responsible states (as UN

29 Bourloyannis, above n 25, at 340-343. In the Iran-Iraq War, the UNSC determined that the use of chemical weapons by Iraq had violated rules of international law and decided to make enquiries into facts concerning responsibility for the war by requesting the UN Secretary-General (UNSG) to conduct an investigation. SC Res 598, UN Doc S/Res/598 (1987) [UNSC Res 598]; SC Res 620, UN Doc S/Res/620 (1988) at [1]. In the Gulf War, the UNSC expressly held Iraq responsible as a consequence of its illegal invasion of Kuwait. SC Res 687, UN Doc S/Res/687 (1991) [UNSC Res 687].
members) will promptly fulfil their obligation to make reparation for the consequences of war or otherwise face further serious sanctions from the UNSC.\textsuperscript{30}

In the interests of repairing the environment, any determination that a state was responsible for environmental damage during wartime would be more favourably viewed if it came from the UNSC rather than from the judicial process of an international judicial body or arbitration. This proposition is based on two factors: the binding nature of decisions made by the UNSC and the time frame of decision-making processes.

Though acting as a non-judicial body, decisions from the UNSC are legally binding on all UN member states by virtue of art 25 of the UN Charter\textsuperscript{31}. More specifically, under Chapter VII, the UNSC is granted the power to impose legally binding measures on all UN member states.\textsuperscript{32} As of August 2012, the total number of UN member states is 193.\textsuperscript{33} Thus, virtually all states are member parties to the UN and are therefore bound by UNSC resolutions. In the situation of non-compliance with a resolution, the UNSC may adopt a further resolution to force the sanctioned state to comply with the previous resolution by imposing collective measures. These include economic embargoes or military action conducted by other UN member states collectively. Such a binding power on all states is lacking from judicial institutions, because their jurisdiction is dependent on consent from

\textsuperscript{30} Charter of the United Nations, arts 25, 41-42. UNEP gave another option of forum to determine such responsibility under the General Assembly. See UNEP 2009, above n 7, at 53. Unfortunately, this option offers least certainty on whether or not states are willing to carry out the Assembly’s decision since the product of this body is only political declaration with no binding force.

\textsuperscript{31} Article 25 states that: “[t]he Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter”. Charter of the United Nations.

\textsuperscript{32} Article 48 states that: “[t]he action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the Members of the United Nations or by some of them, as the Security Council may determine”. Ibid, art 48.

the states involved and their determinations are limited to the conflicting parties only.\textsuperscript{34}

In addition, the process of decision-making within the UNSC forum is relatively fast compared with the processes undertaken by international courts. A speedy process is crucial in cases of environmental damage during wartime, because the environment can be promptly remedied by the payment of compensation, allowing the damage to be mitigated and repaired as soon as possible. Driven by strong political imperatives, the UNSC’s resolutions are usually adopted within weeks of the conflict situation.\textsuperscript{35} In contrast, judicial processes before international courts may take several months before the court is able to make a decision.\textsuperscript{36}

Despite the benefits of a relatively short timeframe for decision-making and the binding nature of decisions made, UNSC resolutions are inherently politically motivated.\textsuperscript{37} As the UNSC is composed of individual states, it is difficult to separate political bias from the UNSC’s decision-making process.\textsuperscript{38} As one scholar notes:\textsuperscript{39}

\textsuperscript{34} For example, the ICJ statute provides that “[c]ases are brought before the Court, as the case may be, either by the notification of the special agreement or by a written application addressed to the Registrar. In either case the subject of the dispute and the parties shall be indicated”. Statute of the International Court of Justice (opened for signature 26 June 1945, entered into force 24 October 1945) [ICJ Statute], art 40(1).

\textsuperscript{35} For example, resolution 687 which set Iraq’s responsibility for the Gulf War was adopted on 3 April 1991 – four weeks after Iraq was successfully evicted from Kuwait on 27 February 1991.

\textsuperscript{36} “List of Cases referred to the Court since 1946” (2012) International Court of Justice <www.icj-cij.org>.


\textsuperscript{38} Such political bias may also be seen from the fact that the UNSC is “the product of historical developments and political contestation and is disproportionately shaped by the values and
[s]tates are political institutions, not judges, and their ‘bias’ against states of quite different political persuasions is an accepted fact of life. It would be impossible to compose any UN political organ free of such ‘bias’. Moreover, it has to be assumed that, acting collegiately, the Council members allow for, and take account of, any such bias in the weight they attach to the views of individual states.

In addition, the right of veto held by the Council’s permanent members has become the main impediment to adopting fair resolutions. Despite being the key international body created in the aftermath of the World War II, today the UNSC is perceived as unrepresentative. Further, with veto rights in the hands of the privileged few, the UNSC is perceived to be undemocratic as it frequently decides the interests of more than 100 UN member states. Such views are based on the reality that the UNSC’s composition is no longer relevant to contemporary reality because the members, especially some of the permanent members, are no longer considered to be major powers – France, Russia and even Britain are no longer the major powers they were in 1945. Thus, these countries still have a considerable voice in international politics only because of the veto rights, not because of any real (economic or military) power that they possess outside of the UNSC.

In the history of the UN, there has been only one successful reform of the UNSC, the composition enlargement in 1963. With no change to the permanent members,

40 See Schindlmayr, above n 37.
42 NugrohoWisnumurti “UN Reform: Expectation of Justice” (2005) 3 IJIL 1 at 18.
43 Morris, above n 23, at 266; Dimitris Bourantonis The History and Politics of UN Security Council Reform (Routledge, New York, 2005) at 7.
including the right of veto, the six non-permanent members was increased to ten, with five representatives from Africa and Asia, two from Latin America, two from Western Europe and other areas, and one from Eastern Europe.\textsuperscript{45} Since this, there has been no other successful reform within the UNSC, despite a number of attempts to implement change.\textsuperscript{46}

Nevertheless, despite these facts, there are options to improve the UNSC’s decision-making processes, making them more transparent, so that decisions adopted are fairer and more acceptable to the whole international community. The first option is for the UNSC to adopt a resolution establishing an international adjudicative body that could decide what states have violated international rules and are thus responsible for the consequences of this violation.\textsuperscript{47} The second option is that the UNSC by its own power could investigate and determine the state responsible for the consequences of war, including environmental damage.\textsuperscript{48} Given these two options, the latter option is more favourable to remedy the damaged environment after armed conflict, for several reasons.

The first option, that the UNSC create a special court to adjudicate on environmental crime, would be highly likely to be accepted by the majority of international community because it would create an authoritative and impartial body to consider legal matters pertinent to the specific issues that the UNSC referred to. Through its history, the UNSC has adopted resolutions that have established special tribunals to try those who were responsible for atrocities

\textsuperscript{45} Schindlmayr, above n 37, at 220.


\textsuperscript{48} Such a process was implemented by the UNSC in the aftermath of Gulf War in 1991.
committed during armed conflicts.\textsuperscript{49} However, that option has significant limitations that would make it difficult to promptly remedy environmental damage caused by armed conflict. The main limitation of a tribunal or judicial forum is that such a mechanism can only impose criminal responsibility of individuals and a relatively long time is needed to process claims.\textsuperscript{50}

As established in Chapter 3, individual responsibility is unlikely to remedy environmental damage resulting from armed conflicts.\textsuperscript{51} This is because criminal punishment does not contribute to repairing the environment\textsuperscript{52} and an individual does not realistically have the capability to provide the huge amount of financial compensation necessary to repair the damaged environment. In addition, a judicial process before a court will likely delay any decision. Such delay would be likely to further exacerbate wartime environmental damage, due to the possibility that environmental damage has a continuing character. The longer those mitigation efforts take place, the greater the possibility that the damage will become irreparable.

The second option, in which the UNSC determines state responsibility for the consequences of war by its power under Chapter VII of the UN Charter, presents greater potential benefits to the environment.\textsuperscript{53} These benefits are exemplified in considering the aftermath of the 1991 Gulf War when the UNSC adopted

\textsuperscript{49} In 1993, the International Criminal Tribunal for the Former Yugoslavia (ICTY) was established by UNSC Resolution 827. In 1994, the International Criminal Tribunal for Rwanda (ICTR) was established by UNSC Resolution 955.

\textsuperscript{50} For example, in the case of Zlatko Aleksovski before the ICTY, he was indicted on 10 November 1995 and received his final judgment from the Court on 24 March 2000. See <http://www.icty.org/action/cases/4>. Further, judicial processes before the ICJ may take several months or years before the court is able to make a decision. See fn 36 above.

\textsuperscript{51} For detail discussion, see Chapter 3 from [3.3].

\textsuperscript{52} Legal precedents for charging individuals for environmental crimes during wartime are limited, and have not resulted in any contributions towards remedying the damaged environment. See the discussion of the General Rendulic case (in the aftermath of World War II) in Chapter 4 at [2.2.3.2].

\textsuperscript{53} As concluded in Chapter 3, state responsibility is the most promising type of responsibility that can be invoked in respect of remediying damage to the environment resulting from armed conflict.
Resolution 687, which determined Iraq’s guilt under international law and imposed obligations on that state to make reparation for the consequences of war.\footnote{UNSC Res 687, above n 29.}

One state demonstrated considerable opposition to the UNSC’s power to determine responsibility for unlawful conduct and appropriate compensation by way of reparation in the aftermath of the Gulf War in 1991. Cuba, one of the UNSC member states at that time, contended that the UNSC did not have “the power to make decisions as to liability or to determine compensation or restitution” because such matters could only be addressed by the International Court of Justice (ICJ),\footnote{See art 36, ICJ Statute, above n 34.} the principal judicial organ of the UN.\footnote{Verbatim Record of UN Security Council 2951st Meeting S/PV.2951 (1990) at [58].} This contention can be laid to rest by noting that the UNSC did not determine the amount of compensation, and in reality it only confirmed what the Fourth Geneva Convention stipulated: that a state is liable for grave breaches committed by it.\footnote{Convention (IV) relative to the Protection of Civilian Persons in Time of War (opened for signature 12 August 1949, entered into force 21 October 1950), art 148. See Jean S. Pictet The Geneva Conventions of 12 August 1949, Commentary IV: Relative to the Protection of Civilian Persons in Time of War (International Committee of the Red Cross, Geneva, 1960) at 602.} In other words, the UNSC’s declaration did not impose additional obligations on Iraq beyond what it already bore as a state party to the Geneva Conventions. Iraq was therefore obliged to make reparations in the case it violates international rules.\footnote{Bourloyannis, above n 25, at 349. As stipulated in Resolution 697, Iraq was held responsible due to its violations of \textit{ius ad bellum}. However, the UNCC, through its Decision No. 15 also confirmed that Iraq also responsible for war consequences as a result of unlawful conduct under \textit{ius in bello}. See Chapter 4 at [3.3.3].}

In addition, seeking civil compensation from a responsible state appears a promising way to mitigate and repair the damaged environment, as exemplified in the aftermath of the Gulf War.\footnote{See Chapter 3 at [3.1] and Chapter 4 at [3.3].} Given Iraq’s significant financial capability,
provided by revenue from oil sales, it was well equipped to provide compensation for war injuries, including environmental damage. Further, Resolution 687 was adopted by the UNSC on 3 April 1991, approximately one month after the declaration of a ceasefire by the coalition force on 28 February 1991.\(^60\) It should be noted that this period occurred without the involvement of fact-finding missions to gather information needed in determining the appropriate responsible parties. Nevertheless, as discussed below at [4.2.2], the UNSC could ensure this time frame short by specifying the period of time in conducting such fact-finding missions and adopted a proper resolution in timely manner. This relatively short time frame in which responsibility was determined illustrates how the decision-making within the UNSC is faster than the courts.\(^61\)

Unfortunately, the decision to allocate responsibility which was made by the UNSC was mainly based on information from UNSC members and lacked consideration of reliable and authoritative reports, something which may be seen as unfair.\(^62\) This may be seen as one of the UNSC’s limitations in maintaining peace and security amongst the international community. In the spirit of correctly allocating responsibility for the consequences of war, including environmental damage, this limitation could be improved by the mandatory involvement of fact-finding mission or missions.

By taking into consideration the fact-finding mission’s report, the UNSC’s decision-making process would become more transparent and would likely lead to the adoption of a fair resolution in determining which party is actually responsible


\(^{61}\) See fn 50 above.

\(^{62}\) For discussion of problems on UNSC practice in determining responsibility for wartime environmental damage, see [4.1] below. In other cases, conversely, there are some situations where the UNSC did not determine any responsibility so that the actual responsible states could escape their liability only because they have strong political power such as in the Vietnam War, the Kosovo War and Iraq War. See their discussion in Chapter 4.
for the consequences of war, including environmental damage, regardless of whether it is a victor or a losing belligerent. In addition, fact-finding reports would also help the UNSC in allocating responsibility based on the extent of damage that each of the belligerent parties have actually caused. Finally, such determination of responsibility would send a strong message as a deterrent to all potential state belligerents that they could not escape responsibility just because they can secure a victory. Thus, due to the deterrent effect of this message, maximum protection of the environment would be achieved by preventing future state belligerents causing more significant damage.

Before discussing the proposed model for improving the UNSC decision-making process, the following section discusses how fact-finding activities have actually been undertaken in international relations generally, and in particular within the UN system. This is to demonstrate that fact-finding activities have contributed to make the process of dispute or post-conflict settlement more transparent and has resulted in acceptable solutions. Specifically, it will examine how this practice presents some lessons to positively contribute in improving the process by which the UNSC determines state responsibility for the consequences of war.

3. Fact-Finding and Allocation of Responsibility

In international relations, fact-finding is not a novel idea/concept. Indeed, the international community has recognised the benefits of fact-finding procedures,

---

particularly in the process of dispute settlements. Fact-finding has the primary aim of clarifying disputed facts through an investigation. The resulting report can be used to facilitate a solution to the dispute. In the aftermath of an armed conflict, fact-finding can be employed to objectively establish “what really happened” and thus avoid the facts being lost in a stream of false accusations.

The fact-finding activity usually involves independent and impartial experts, who may act individually or in a group. They may either be appointed ad hoc or be drawn from standing panels available in certain international bodies. In addition to the task of fact-finding, some bodies may be required to evaluate the facts for the purpose of a legal examination that will lead to the allocation of responsibility, and may have to present recommendations for the resolution of the dispute.

Up to the present, fact-finding has played a major role in international relations, and has become one of the mechanisms by which compliance with international law in general is ensured, and/or disputes settled. A high level of certainty as to the relevant facts is crucial as an initial step towards settling a dispute or drawing any conclusions, such as the determination of responsibility for certain conduct. There are at least four actors that engage in discovering facts within international relations: states; organs established by two or more states; inter-governmental organisations (or specific organs of these organisations); and non-governmental organisations. According to Amnesty International, from 1974 to 2007 there

---

64 Along with negotiation, mediation, good offices and conciliation, the fact-finding process is an important means of reaching peaceful dispute settlements in international relations. Other means of dispute settlement also include arbitration and litigation. Charter of the United Nations, art 33.
65 Boutruche, above n 63, at 5.
67 It has been noted that fact-finding contributes to decrease the impression that the law of war is never complied with. Boutruche, above n 63, at 36.
were at least 32 truth commissions established in 28 countries. These commissions were established in post-conflict situations as part of processes to re-establish normalcy in societies disrupted by conflict by means of establishing facts relevant to the dispute or conflict.

Notably, fact-finding missions within the UN system have occurred many times. These have not only been conducted by the UNSC but also by the UN Human Rights Council (UNHRC). Examining these two bodies is important in seeking to clarify the best practices of fact-finding for the purpose of determining responsibility for wartime environmental damage. These two bodies are examined below.

3.1. Fact-Finding within the UN Security Council

In relation to the UNSC decision-making system, the UN Charter sanctions fact-finding by the UNSC by empowering it to “investigate any dispute, or any situation, which may lead to international friction or give rise to a dispute” in order to determine whether continuance of the dispute or situation may endanger the maintenance of international peace and security.

To date, the UNSC has adopted resolutions to determine whether or not states have violated the law of war. Such determinations are crucial in putting public pressure on the state concerned, and also in ensuring that denials of wrongdoing by that state can be more easily dismissed. In drafting, and finally adopting, such resolutions, the UNSC relies on information from other UN principal organs,

---

70 Bothe, above n 68, at 251.
71 Charter of the United Nations, art 34.
72 Bourloyannis, above n 25, at 343.
the member states, the media and reports from fact-finding activities and investigations initiated by the UNSC itself. 73

The fact-finding missions that the UNSC has employed in the past may be categorised into two types: fact-finding missions conducted by the UNSG on the UNSC’s request; and fact-finding missions established on the UNSC’s own initiative.

There are a number of notable armed conflicts where the UNSC has requested that the UNSG continuously monitor and report on any information about the allegations of violations of the law of war. These are the armed conflicts between Israel and the Arab states in 1967; 74 India and Pakistan in 1971; 75 Israel and Palestine in 1980; 76 Israel and Syria in 1981; 77 Israel and Lebanon in 1982; 78 and Iran and Iraq in 1987. 79

The experience following the Iran-Iraq War is a particularly important example of how the UNSC has attempted to allocate responsibility for the consequences of war. 80 In that case, the UNSC requested that the UNSG “explore…the question of entrusting an impartial body with inquiring into responsibility for the conflict”. 81 In spite of such a narrow mandate, the UNSG made an explicit determination that

73 Ibid, at 344.
79 UNSC Res 598, above n 29.
80 See Chapter 4 at [3.2.3.1].
81 UNSC Res 598, above n 29, at [6].
Iraq was responsible for the war because it had violated international law by conducting illegal use of force and disregarding the territorial integrity of Iran.82

Another notable case of the UNSG setting up an investigation into responsibility for the consequences of war was during the crisis in the former Federal Republic of Yugoslavia (FRY) in 1992. In that case, the UNSC requested that the UNSG establish a commission of experts to investigate and report on evidence of grave breaches of the 1949 Geneva Conventions and other violations of international humanitarian law (IHL) rules in the FRY.83 In its final report, the Commission of experts concluded that grave breaches of the Geneva Conventions and other violations of IHL had been committed in the territory of the FRY.84 A similar process was also conducted in responding to the conflict in Rwanda.85

Following the establishments of two ad hoc international courts in Yugoslavia and Rwanda, the UNSC has continued its active role in conducting fact-finding missions in some areas that have experienced conflict such as Liberia,86 Burundi,87 Sierra Leone,88 Palestine,89 and Sudan.90

82 Further Report of the Secretary-General on the Implementation of Security Council Resolution 598 (1987) S/23273 (1991) [UNSG Report on SC Res 598] at [5]. Unfortunately, despite this determination, the UNSG did not recommend that the UNSC set up an independent body to inquire into the question of responsibility for the war. See Chapter 4 at [3.2.3.1].


84 Final Report of the Commission of Experts Established Pursuant to Security Council Resolution 780 (1992) S/1994/674 (1994). Nevertheless, two days prior to the submission of this report, the UNSC decided to establish the ICTY which has aims to “put an end to such crimes and take effective measures to bring to justice the persons who are responsible for them” and thus “contribute to the restoration and maintenance of peace”. SC Res 827, UN Doc S/Res/827 (1992).


Besides requesting that the UNSG conduct fact-finding missions, the UNSC has also conducted such activities by itself by establishing ad hoc bodies to examine the implementation of IHL rules and to determine whether or not there have been violations of the law of war. In 1979, the UNSC established a commission, consisting of three of its members, “to examine the situation relating to settlements in the Arab territories occupied since 1967, including Jerusalem”.\(^91\) The Commission concluded that the settlement policy of Israel constituted a violation of the Fourth Geneva Convention,\(^92\) a conclusion endorsed by the UNSC.\(^93\)

3.2. Fact-Finding within the UN Human Rights Council

Besides the UNSC, there is another UN body that conducts fact-finding missions: the UN Human Rights Council (UNHRC).\(^94\) The experience of this body’s fact-finding missions is of importance in examining how fact-finding reports not only come from a mission outside the concerned state but can also come from the state itself. This procedure is aimed at achieving balanced reporting and including the concerned state in the decision-making process. The idea is that the process of adopting a resolution is made more transparent and balanced.

In recent UNHRC investigations, the use of fact-finding has been employed not only in response to allegations of human rights violations, but also IHL


\(^94\) The Human Rights Council is an inter-governmental body within the UN system made up of 47 states responsible for strengthening the promotion and protection of human rights at the international level. The Council was created by the UN General Assembly on 15 March 2006 to replace the Commission on Human Rights with the main purpose of addressing situations of human rights violations and make recommendations on them. “The Human Rights Council” (2011) <www.ohchr.org>; Human Rights Council GA Res 60/251, A/Res/60/251 (2006).
violations. This is exemplified in a number of missions which were conducted or supported by the UN Office of the High Commissioner for Human Rights (UNOHCHR). Of these missions, some focused on human rights violations in peacetime, others responded to violations of human rights during armed conflict and others still covered the violations of both human rights and IHL.

When considering the implementation of or violations of human rights laws, there are three methods, within the human rights mechanisms, of fact-finding: investigation; indirect fact-finding as part of the examination of state reports; and complaints-based fact-finding.

These three types of fact-finding are employed within both the UN Charter-based and treaty-based human rights systems. Direct or investigative fact-finding is employed if it is deemed necessary in a particular case where there have been allegations of serious violations of human rights. This direct fact-finding is

---


97 Boutruche, above n 63, at 3.


99 In monitoring the implementation of international human rights law, a number of bodies have been established. They have a centralised office in Geneva called the Office of the High Commissioner for Human Rights (OHCHR). This office consists of UN Charter-based bodies, including the Human Rights Council, and bodies created under the international human rights treaties and made up of independent experts mandated to monitor state parties’ compliance with their treaty obligations. “Human Rights Bodies” (2011) OHCHR <www.ohchr.org>.

100 Such fact-finding is one of the methods employed as part of the so-called “Special Procedures”. It is the mechanism established by the Commission on Human Rights and assumed by the UN Human Rights Council (UNHRC) to address either specific country-situations (country mandates) or thematic issues in all parts of the world (thematic mandates). Special Procedure mandates are
followed by a report to the UNHRC. A similar mechanism is also provided by the treaty-based bodies.\textsuperscript{101}

On the other hand, indirect fact-finding is a method of examining the implementation of human rights by analysing periodic reports from all state parties on how well states comply with particular human rights treaties.\textsuperscript{102} Lastly, fact-finding may also be initiated based on individual communications or complaints.\textsuperscript{103} For the purpose of this study, only the first two types of fact-finding will be discussed.\textsuperscript{104}

3.2.1. Direct Investigation

Only one fact-finding mission of this type has been initiated by the UNHRC, concerning not only human rights abuses and humanitarian casualties, but also environmental damage resulting from a conflict. This mission came in the aftermath of the Israeli-Lebanon War, in 2006.\textsuperscript{105} It was established to:


\textsuperscript{101} As an example, under Article 20 of the Convention against Torture (CAT), the CAT Committee may conduct an inquiry including a field visit, if it receives “reliable information” indicating that torture is being practised systematically in the territory of a state party to CAT. Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (opened for signature on 10 December 1984, entered into force on 26 June 1987), art 20 [CAT].

\textsuperscript{102} Viljoen, above n 98, at 59. As an example, under the Convention on Civil and Political Rights and Convention against Torture, state parties have the obligation to “take the necessary steps … to adopt such legislative or other measures as may be necessary to give effect” to the treaty, or to “take effective legislative, administrative, judicial or other measures” to prevent such prohibited acts. Respectively, International Covenant on Civil and Political Rights (opened for signature 19 December 1966, entered into force 10 October 1976), art 2(2) and CAT, ibid, art 2(1).

\textsuperscript{103} Ibid, at 61.

\textsuperscript{104} The process of individual complaint-based fact-finding is not relevant to this study because that procedure is not recognised within the UNSC system (which this study is concerned with), where only states can bring the Council’s attention to a certain case. Charter of the United Nations, art 35(1).

\textsuperscript{105} See Chapter 4 at [4.3.4].
a) investigate the systematic targeting and killing of civilians by Israel in Lebanon;

b) examine the types of weapons used by Israel and their conformity with international law; and

c) most importantly for this study’s purposes, assess the extent and impact of Israeli attacks on human life, property, critical infrastructure and the environment.  

In particular, the resolution which established this Commission of Inquiry was expressly concerned with the “environmental degradation caused by Israeli strikes against power plants and their adverse impact on health”.  

In its report, the Commission concluded that Israel was responsible for “excessive, indiscriminate and disproportionate use of force against Lebanese civilians and civilian objects” during the conflict. In terms of environmental damage, the Commission concluded that Israel’s premeditated strikes against oil tanks caused long-term and severe environmental damage. Cluster munitions were also found to have been used intentionally to turn large areas of fertile agricultural land into “no go” areas for the civilian population.

In general, despite being conducted by independent experts who are appointed by human rights bodies, reports resulting from direct fact-finding frequently receive criticism for incorporating biased and inaccurate data. These criticisms often come from the states that are being investigated or have political interests in the report. Examples of reports that have been so criticised are the Working Group on

---

106 Grave Situation of Human Rights in Lebanon Caused by Israeli Military Operations Special Session Resolution S-2/1 (2006) at [7].

107 Ibid, at Preamble.


109 Ibid, at [23-24].
Arbitrary Detention Report on Australia in 2002\textsuperscript{110} and the UN Fact Finding Mission on the Gaza Conflict in 2009.\textsuperscript{111}

These reports have faced strong criticism and rejection from Australia\textsuperscript{112} and Israel\textsuperscript{113} respectively. From the perspective of the concerned states, rejection or criticism is understandable, because fact-finding missions sent by human rights bodies are seen as “outsiders” or “strangers” that come into one’s territory to investigate certain issues – usually related to a problem or conflict. Such criticism may be considered as one of the issues that may decrease the acceptability of these missions’ conclusions to the international community as a whole.

Nevertheless, these fact-finding missions may be called “objective” investigations because they are conducted by independent and prominent experts who have high integrity and do not have any particular interests in the issues or the states concerned. In fact, despite major criticisms by the states being investigated in the cases above, the two reports were endorsed, published globally and followed up by other relevant UN bodies.\textsuperscript{114} This shows that level of trust from the international community of this type of fact-finding mission is relatively high.

Therefore, based on the discussion above, it is arguable that reports from such independent missions could become a highly valuable (generally and evidentially)

\textsuperscript{111} Goldstone Report, above n 95.
source of information for the UNSC to consider when it allocates state responsibility for war damage in general, including environmental damage.

3.2.2. Indirect Investigation

On the other hand, indirect fact-finding in the form of a report compiled by the concerned state may be considered “subjective” because no third party is involved in reviewing the state’s compliance with human rights law. Such a report as a result of indirect investigation by the monitoring body would more likely be accepted by the state concerned because any fact-finding result would be based on the state’s own periodic report. In addition, using the state’s periodic report would be more appreciated by that state because the report represents its “voice” and would be circulated globally.

Both each of the methods of fact-finding has its own limitations. The objective report may be seen by the concerned state as biased and lacking independence. Such a report may be considered to discredit or even ruin the state’s political reputation. This type of report also positions the concerned state as a mere spectator in fact-finding activities. On the other hand, reports compiled by the individual states are also likely to be criticised because of their partiality. Nevertheless, the limitations of each type would be diminished if they were conducted simultaneously, in order to provide an opportunity to balance out the information provided in each report. Such an application may be seen in the proposed model further below.

3.3. UNEP Recommendation in 2009

In responding to environmental atrocities committed by states, it is noteworthy that UNEP in its 2009 special report has recommended an option to determine liability and compensation under the UN system. After discussing some obstacle in the implementation of wartime environmental protection, UNEP recommends
UN Member States to consider establishing a **permanent body**, either under the General Assembly or under the Security Council with the mandate to investigate and decide on alleged violations of international law during international and non-international armed conflicts. This body also handles and processes compensation claims related to environmental damage and loss of economic opportunities as well as remediation activities.\(^{115}\)

This recommendation is worth to be welcomed in the effort to determine liability and to address wartime environmental damage. However, it also may raise a number of difficulties to implement. First, if the body is establish under the General Assembly, it is expected that the level of compliance from states would be lower compare to the body which is established under the UN Security Council.\(^{116}\) Second, as explained below at [4.2.2.1], the establishment of a permanent institution would be a long process requiring states to agree to appointments and finance the institution. Therefore, it is arguable that UNEP’s recommendation needs some re-evaluation.

### 4. Proposed Model for Utilising Fact-Finding Missions in the Determination of State Responsibility for Environmental Damage during Armed Conflict by the UNSC

Prior to presenting a proposal of a model reporting process for the UNSC – which it would use to allocate state responsibility for environmental damage during armed conflict – it is necessary to analyse the current precedents in this area. This is in order to identify issues which have hampered the UNSC in adopting fair resolutions. The experience of the post-Gulf War in 1991 is the best example, of the implementation of state responsibility for significant environmental damage, compared with other cases of armed conflict.\(^{117}\) However, the following

---

\(^{115}\) UNEP 2009, above n 7, at 53.

\(^{116}\) See footnote 30 above.

\(^{117}\) See Chapter 4 for a discussion of cases of environmental damage during armed conflicts.
discussion serves only to highlight all the crucial issues that may need to be considered in proposing a model to improve the UNSC’s procedures.


As discussed in Chapter 4, the UNSC adopted a resolution holding Iraq liable for the consequences of war, including environmental damage, in the aftermath of the 1991 Gulf War. This decision was based on the UNSC’s determination that Iraq had violated international law prohibiting the use of force by invading Kuwait without legal justification. The UNSC then established the United Nations Compensation Commission (UNCC) to administer the award and payment of claims relating to the consequences of war, including claims for repairing the damaged environment.

However, despite being a remarkable development in the implementation of state responsibility for environmental damage caused during wartime, some potentially unfair aspects of the post-conflict settlement need to be highlighted. Resolution 687, which stipulated Iraq’s liability was severely criticised by Iraq, the losing party in the conflict. Iraq contended that the resolution was biased and contained incorrect facts. Given the fact that Iraq had no option but to accept Resolution 687, such a position appears reasonable, especially since Iraq was not involved in the decision-making process for allocating responsibility or given a chance to present facts based on its own investigation.

---

118 The UNSC adopted a resolution placing responsibility for the war on Iraq by stating that Iraq was “liable under international law for any direct loss, damage, including environmental damage...as a result of their unlawful invasion and occupation of Kuwait”. UNSC Res 687, above n 29, at [16].

119 UNSC Res 687, above n 29. See Chapter 4 at [3.3.3.1 and 3.3.3.2].

Resolution 687 was adopted by the UNSC based on agreement among its members. This means that UNSC’s consideration was based on each member’s information, which may have been coloured by each member’s political aspirations – in particular, the permanent members.\(^\text{121}\) There was no prior authoritative report about the consequences of the war, or about environmental damages resulting from the conflict considered by the UNSC. Such a report would have described whether there had been any unlawful action by only one side, or by both sides in the conflict that had caused injuries to people or the environment beyond what is normally permitted. Such a report would have also explained to what extent the belligerents have each contributed to the environmental damage.

In addition, Iraq was not given an opportunity to present information based on its own investigation, or to justify its actions to the extent it had contributed to the damage. Despite the likelihood of Iraq fully denying all allegations, such a submission would have at least been a balance to the information that the UNSC had received from its members. In addition, this submission would have shown the international community that Iraq had been given a fair treatment in the UNSC’s reporting process.

\(^\text{121}\) As some of permanent members were involved in the Gulf War and also allegedly violated some international rules, it is arguable that they have bias against Iraq to escape any responsibility for breaches which may have occurred. See Chapter 4 at [3.3]. It is crucial to note also that the decision to severely punish Iraq has been considered as amounting to a “double-standard” compared to similar cases involving Israel in 1967. The difference in treatment is argued to be mainly based on whether or not the state concerned is in alliance with the major state, the US. One scholar concludes: “As an ally to the United States, Israel has been permitted to remain in violation of international law. Iraq, on the other hand, was swiftly punished for its actions. Given the action taken against Iraq, there is no reason for the UN not to meaningfully address the Israeli-Palestinian conflict. This conflict is the source of great deal of unrest in the Middle East. If the UN is to maintain credibility as a body committed to international peace, it must not permit one country to make the rules for the world. Instead, it needs to address similar situations consistently. The UN must meaningfully address Israel’s continuing and unlawful occupation.” Carlos Ortiz “Does a Double Standard Exist as the United Nations? A Focus on Iraq, Israel and the Influence of the United States on the UN” (2004) 22 Wis. Int’l L. J. 393 at 415.
Despite the fact that coalition military forces were also reported to have contributed to the environmental damage during the war, the UNSC imposed full responsibility for compensation of all war injuries, including environmental damage, solely upon Iraq. This allocation of responsibility can be seen in the UNCC Governing Council’s decision that admissible claims for compensable losses could involve “direct” loss arising from “military operations or threat of military action by either side during the period 2 August 1990 to 2 March 1991”. Some might legitimately question the balance of this allocation of responsibility. Despite Iraq’s initial unlawful action that triggered the armed conflict in the region, it must be questioned whether Iraq should bear sole responsibility for all war damages, especially those that did not result from its own actions, but from the actions of others.

It appears from this experience that the mechanism for determining state responsibility for the consequences of war, including environmental damage, suffers some limitations. First, a lack of consideration of authoritative reporting of environmental damage means the current mechanism lacks transparency. This is because the UNSC bases its determinations on information provided only by its member states. Second, this decision-making process also excluded Iraq’s right to present its defence – Iraq had no chance to submit a report with its own findings. This makes the decision-making process unbalanced and reflects the victor’s justice paradigm. These limitations have made the UNSC’s decision-making

---


mechanism for determining state responsibility inconsistent and somewhat unfair.  

4.2. The Proposed Model

Departing from this precedent and other cases discussed in Chapter 4, this thesis proposes a model reporting process for use within the UNSC. This model process has the goal of increasing transparency in order to lead to the adoption of fair resolutions accepted by the international community. In this model, two-fold fact-finding reports become the main evidence to be considered by the UNSC when it determines state responsibility for war consequences particularly environmental damage. The illustration of the proposed model in diagrammatic form is provided in figure 1 later in this Chapter.

4.2.1. The UNSC’s Initial Response

In cases of armed conflict that cause environmental damage, the existing usual practice is that the international community receives its preliminary information from the general media. With the rapid improvement of technology, the world can easily be updated with news developments concerning environmental harm during times of war. If the damage worsens and is further exacerbated by belligerents, it is likely that environmental activists will raise the problem on the world stage through multiple means. This is likely to be followed by expressions of concern from states at the international level through diplomatic channels. States that raise concerns over environmental issues are likely to be those directly affected, and will usually be one of the belligerents or geographically proximate states (because, for instance, the damage to the environment has crossed the territorial borders of the belligerents).

124 Maximum remediation of the environmental damage would be achieved if all parties (possibly both of the warring parties) are held responsible due to their actual unlawful conduct that caused such damage during hostilities regardless of their post-conflict status, the victor or the loser.
After the commencement of the armed conflict, the UNSC currently responds by calling on the conflicting parties to pursue peaceful means in solving their problems, and urges them to respect applicable laws during the war. If the conflict worsens, affected states and NGOs often begin submitting allegations to the UNSC. These allegations often refer to violations of international law committed by the belligerents resulting in environmental damage, which may have severe, widespread and long-term effects.

In responding to these submissions and allegations from the international community, the UNSC may well recognise that the conflict has threatened international peace and security. By so doing, this conflict will fall within the Council’s domain, making it necessary for the Council to act in managing this conflict, a duty which is mandated by the UN Charter. When the conflict ends, whether as a result of a cease-fire agreement or the victory of one of the belligerents, then the UNSC needs to adopt a resolution to restore peace and security. In its efforts to restore peace, besides establishing a political settlement between the belligerents, the UNSC also needs to address the issues of the consequences of war, including the issue of environmental damage, by fairly determining responsibility for reparations. As observed above at [2], a more timely decision is better for the environment. Thus, it is preferable for the UNSC to determine responsibility on its own, rather than having to refer the case to an international tribunal or court.

---

125 Actions that may be taken by the UNSC include economic and diplomatic sanctions and finally military intervention to mitigate further humanitarian casualties. Charter of the United Nations, arts 41-42.

126 See fn 50 above.
4.2.2. Establishment of the Fact-Finding Missions

At this stage, the UNSC should not promptly determine state responsibility based purely on the political considerations of the Council’s member states, as this thesis has contended is the current practice. As exemplified by the Gulf War experience, the UNSC adopted Resolution 687 outlining the responsibility of Iraq just one month after its defeat by the coalition states, without any consideration of any authoritative report on environmental damage; and without examination of the lawfulness of both sides’ conduct during the war.\footnote{Resolution 687 was adopted on 3 April 1991 after the coalition states defeated Iraq and declared a ceasefire on 28 February 1991. United Nations of Environmental Programme \textit{Desk Study on the Environment in Iraq} (United Nations of Environmental Programme, Nairobi, 2003) [UNEP Desk Study 2003] at 56.} Therefore, it is crucial for the UNSC to obtain and consider reliable and balanced information of empirical facts in allocating state responsibility.\footnote{See section [3] above.} Such information can best be obtained from two different sources of fact-findings: an independent mission established or requested by the UNSC and belligerents’ self-investigations as invited by the UNSC. Ideally, these two missions need to be conducted simultaneously and within a reasonable period of time, to avoid delay in repairing the damaged environment and other injuries.

4.2.2.1. Independent Mission

First, the UNSC needs to establish an independent mission with a duty to gather all relevant information regarding injuries or damage, including damage to the environment, which has resulted from armed conflict. The mission should also be tasked with responsibility to inquire as to whether or not there has been violations of international rules during the war that have caused damage or injuries. In addition, this enquiry should gather information concerning the extent of environmental damage the belligerents have contributed to.

\footnote{Resolution 687 was adopted on 3 April 1991 after the coalition states defeated Iraq and declared a ceasefire on 28 February 1991. United Nations of Environmental Programme \textit{Desk Study on the Environment in Iraq} (United Nations of Environmental Programme, Nairobi, 2003) [UNEP Desk Study 2003] at 56.}
In establishing such a mission, the UNSC has two options: to request the UNSG to conduct the mission or to establish a new, ad hoc, independent commission of enquiry. A UNSG mission is likely to be similar to past missions it has conducted, as outlined above at [3.1]. However, if the UNSC prefers to establish a new independent Commission, the following issues need to be discussed.

In terms of the proposed independent Commission’s membership, it is crucial for it to be impartial. It should be made up of independent and prominent individuals who have expertise in environmental and legal studies. They need not be scientists with legal backgrounds, or lawyers with scientific knowledge. They can be experts in their own area, but they would have to co-operate with each other as an independent Commission. The UNSC could appoint these experts from the available relevant international bodies such as the United Nations of Environmental Programme (UNEP) and the International Humanitarian Fact-Finding Commission (IHFFC). Both of these bodies have staff members who are expert in these areas.

Up until today, UNEP has been the major actor in the history of international environmental issues. In particular, UNEP has frequently been involved in recording the environmental impact of armed conflicts in events such as the Gulf War and the Iraq War, the Kosovo War, and the Israel-Lebanon War. During or after these events, UNEP has worked either autonomously or in

---


collaboration with other bodies to specifically record and assess the environmental impact of these wars. Its reports arguably present complete and comprehensive information about environmental harm in the form of reliable scientific data. In conducting its field missions, UNEP employs staff with expertise in environmental science, so they can produce a reliable and accountable report about harm to the environment. Unfortunately, these reports are purely scientific reports about actual damage to the environment, without any reference to attribution of blame.132

Meanwhile, as the main rules applicable during wartime, IHL regulates fact-finding missions in order to present evidence of any allegation of violations of international law, including those that have caused significant environmental damage. Article 90 of the First Additional Protocol to the Geneva Conventions establishes the IHFFC.133 Officially constituted in 1991,134 the IHFFC is a permanent body with the main duty of investigating allegations of grave breaches and serious violations of the laws of war.135 Many have welcomed the establishment of this permanent fact-finding body.136

Despite such a prominent mandate, unfortunately, the IHFFC has never been called to action since its establishment.137 This lack of real work has meant

132 In the aftermath of the Kosovo War, the Balkan Task Force (UNEP and UNHCS) in its post-conflict report preferred to make recommendations to prevent future pollution or destruction of the environment, rather than make judgments about political responsibility for existing damage. The 1999 BTF Report, above n 130, at 9-10.

133 The 1977 Additional Protocol I, above 28, art 90.


IHFFC is regarded as a “sleeping beauty”. In engaging the IHFFC’s fact-finding work, there must first be a request from states which are parties to the conflict, and then consents must be granted by them. The reluctance by states to employ the IHFFC is understandable, particularly in the case of belligerent states that are alleged to have violated international law. It is highly unlikely that such states would be willing for their own (mis)conduct to be investigated.

In light of this situation, a fact-finding service may be requested by the international community through the UNSC. With a mandate to maintain international peace and security, the UNSC could adopt a resolution requesting the work of fact-finding team. As discussed previously, it appears from the examination of previous cases that the UNSC prefers to set up ad hoc commissions in order to support the work of maintaining peace and security. Therefore, the UNSC could employ members of the IHFFC on an ad hoc basis. If this were to happen, it would give IHFFC members the opportunity to prove their expertise in investigating breaches of IHL.

Therefore, employing experts from UNEP and IHFFC seems a promising option. These prominent individuals may signal to the international community that they would work to complement each other in order to effectively find the facts about wartime environmental damage and recommend any allocation of state responsibility on this basis.

In establishing the proposed independent Commission, it is suggested that the UNSC should opt to have an ad hoc rather than permanent commission for two


140 See section [3.1] above.

141 Henckaerts, above n 134, at 610-611.
reasons. First, the establishment of an independent Commission on an ad hoc basis is more flexible, because the Council appoints members as suitable to the particular case at hand. Establishing a permanent institution would be a long process requiring states to agree to appointments and finance the institution.

In addition, since significant environmental damage does not necessarily occur in every armed conflict, there is no pressing need for members of the UNSC to establish a permanent commission of inquiry for examining environmental damage during times of war. Doing this would likely incur unnecessary additional long-term financial obligations, which would be imposed on all member states of the UN.

Second, with the power granted by Chapter VII of the UN Charter, the UNSC may appoint individual experts from both UNEP and IHFFC without being obligated to involve these bodies as institutions. Appointing individual experts to work outside the auspices of UNEP and IHFFC does not impair the reputation of the individual experts.

In regard to the damage thresholds, it is important to establish whether the damage to the environment is severe, widespread and long-term. Establishing the level of destruction may lead to an examination of whether there have been violations of international law protecting the environment during wartime, committed by either belligerent party. Therefore, it is important for the proposed independent Commission to set clearly the thresholds of environmental damage. As well as being clear, the thresholds should also be set at a reasonable level to ensure that they are practically useful and able to catch significant environmental damage.  

In order to set these clear and practically calibrated parameters, as discussed in Chapter 2, it is contended that the Commission should use the thresholds provided

---

142 Compare the 1977 Additional Protocol 1’s environmental damage thresholds as discussed in Chapter 2 at [2.1.5].
by the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention).  

4.2.2.2. Individual Missions

In order to balance the report from the independent Commission, it is proposed that the UNSC also needs to invite belligerents to conduct their own fact-finding missions. The aim of this invitation would be to give belligerents an opportunity to present their version of the events, based on their knowledge and perspectives. More importantly, the availability of these subjective reports will balance the information obtained from the proposed independent Commission. After an invitation, the warring parties could choose whether or not to accept to conduct their own fact-finding mission. If they choose not to accept the invitation, they would need to openly declare that they will accept the report from the commission of inquiry. With such a mechanism, the international community could ensure that belligerents are involved in the fact-finding efforts, ensuring that none of the belligerent parties are left out of the decision-making process.

4.2.3. Final Consideration by the UNSC

If both objective and subjective reports are available, the UNSC’s member states could analyse them, and accordingly determine responsibility for the consequences of war, including environmental damage. This proposed decision-making process may be considered more transparent than the status quo because the UNSC would take into account both the reports of independent missions and of parties to the conflict, thus affording a measure of due process.

143 See Chapter 2 at [2.1.4]. According to the Understanding of the ENMOD Convention, ‘widespread’ may cover an area on the scale of several hundred square kilometres; ‘long-lasting’ may take times of a period of months, or approximately a season; and ‘severe’ involves serious or significant disruption or harm to human life, natural and economic resources or other assets. The Understanding relating to Article I, Report of the Conference of the Committee on Disarmament Volume I A/31/27 Supp. No. 27 (1976) at [91].
In the case of conflicting data between these reports, the UNSC would examine the facts with a preference for the objective report. This is due to the fact that subjective reports are likely be influenced by the concerned states to their own advantage. Nevertheless, assuming good faith, subjective reports would still be considered as they eventually present some true facts that can strengthen the objective report and they serve as the opportunity to be heard in the reporting process.

With such evidential sources of information, it is expected that the UNSC would allocate liability among the belligerents according to the extent of each state’s responsibility for the damage caused, regardless of whether they are the victorious or losing party. Such decisions would be less open to challenge on the basis that the political interests of the UNSC’s member states were behind them. It is arguable that this process would be more acceptable to the international community, which is likely to improve the Council’s reputation in restoring and maintaining international peace and security.

4.2.4. Commission to Manage Compensation Claims

In addition to having a fair resolution that allocates state responsibility appropriately, it is important also for the UNSC to establish an ad hoc compensation commission to manage the process of claims and awards. This body would be similar to the UNCC. Indeed, the work of such a Commission would

need to resemble that of the UNCC, albeit with a number of improvements. There are at least four essential areas (in respect of environmental claims particularly) in which this compensation commission would need to maintain the UNCC’s strengths and simultaneously improve on its weaknesses.

First, the proposed Compensation Commission would need to have a firm and clear definition of environmental damage just as the UNCC does at present. In the interests of repairing the environment, the UNCC has set a broad definition of “environmental damage”.145 Further, the coverage for compensable environmental damage has been broadened to include “pure environmental damage”, that is, damage to environmental resources that have no commercial value.146 This is crucial because it acknowledges the need to protect the environment because of its intrinsic value, and not simply because on its benefit to humans.

Second, the proposed Compensation Commission needs to adopt the same decision-making mechanism as the UNCC for reviewing and awarding claims. The process of the verification and awarding of claims within the UNCC is relatively fast and effective. In reference to environmental-related claims specifically, the UNCC has awarded 109 out of 168 claims filed.147 This achievement should be viewed in light of the fact that the UNCC received 2.6

145 According to the Governing Council of the UNCC, compensable claims include claims for: “[a]batement and prevention of environmental damage (...); measures already taken to clean and restore the environment or future measures (...); monitoring and assessment of the environmental damage (...); monitoring of public health (...); and depletion of or damage to natural resources”. Paragraph 35, United Nations Compensation Commission Decision No. 7: Criteria for Additional Categories of Claims S/AC.26/1991/7/Rev.1 (1992) at [35].

146 Report and Recommendations Made by the Panel of Commissioners Concerning the Fifth Instalment of “F4” Claims S/AC.26/2005/10 (2005) at [52-58].

147 In June 2005, after 12 years of operation, the UNCC had reviewed and awarded around 1.5 million claims from the total of 2.6 million claims filed. UNCC “The UNCC at a Glance” (2011) <www.uncc.ch>.
million claims in total. 148 Such a process would take much longer if those claims were lodged in a court with standard judicial processes. 149

Third, in contrast with the UNCC, the proposed Compensation Commission should consider environmental damage claims to have the same level of importance as injuries to humans. It is an unfortunate characteristic of the UNCC system that environmental damage claims are placed nearly at the bottom of the priority list of all compensable claims, and have only begun to be reviewed approximately six years after the commencement of the UNCC’s work. 150 An improvement in the level of priority given to environmental damage claims would provide the opportunity for the environment to be repaired more quickly and could prevent the damage from becoming more severe and permanent.

Finally, in reference to the ideal allocation of responsibility, i.e. responsibility imposed upon those who actually make or cause the environmental damage, reparation funds should be collected from offending states in a manner similar to those that have been collected for the UNCC. In ensuring the sustainability of the fund, additional sources of funding may need to be collected from other interested parties 151 in the form of voluntary contributions and taxes. 152

151 They may include neighbouring states which may have been affected by the environmental disruption and states that have other interests such as economic or political agenda.
152 See Huston, above n 144, at 923-929.
5. Conclusion

In pursuing state responsibility for environmental damage resulting from armed conflicts, a fair and transparent process for determining responsibility is essential. Furthermore, to ensure that responsibility is allocated to those that are the true perpetrators of environmental damage, fact-finding missions are crucial tools within the decision-making process. In other words, the end goal of truth and justice is the accountability of the perpetrators.\textsuperscript{153}

The previous experiences of the UNSC in determining state responsibility for wartime environmental damage illustrate how the current mechanism for allocating responsibility needs to be improved, although the remarkable achievements that have been made in some cases is acknowledged. Such improvements should be focused on the use of fact-finding activities in order to gather reliable information. Thus, responsibility is imposed on those belligerents that are in fact responsible for the environmental damage, regardless of their status as a victor or a vanquished party. This kind of fair settlement for repairing the environment or providing compensation would likely deconstruct the common, and currently dominant, paradigm of post-war resolution, that of victor’s justice.

In order to obtain reliable facts, the UNSC may request the UNSG to conduct a fact-finding mission or establish a new commission of enquiry. In the case of the latter, a Commission would consist of experts from two prominent international bodies, UNEP and IHFFC. These institutions currently have staff with expertise relevant to determining whether or not environmental damage during a conflict has reached the level beyond that permissible at international law. After such a determination, the commission may recommend to the UNSC how state responsibility may be apportioned.

However, having a single report from this commission will likely create an imbalance of information. It is likely that such a report would draw criticism mainly from the belligerents, because they would feel dissatisfied with outcomes due to their lack of involvement in gathering information. To alleviate this problem, the UNSC needs to invite the belligerents to present their own findings based on their knowledge and perspectives. With such involvement, no warring party will be left out in the decision-making process that determines responsibility. The reports from the belligerents are expected to provide a balance of information to the commission’s ‘objective’ findings.

With these two types of reports available, the UNSC would be better placed to adopt a final resolution to determine responsibility in accordance with the facts, and to impose such responsibility appropriately. In adopting such a process, the UNSC would possess a fairer and more transparent mechanism for determining state responsibility for environmental damage in times of armed conflict.
**Figure 1:** Model of Proposed UNSC Decision-Making Process when Determining and Allocating State Responsibility for Environmental Damage during Armed Conflict.

International Armed Conflict with Significant Environmental Damage

States and NGOs

Information & Allegation of Law Violations during Wartime

Either of these

United Nations Security Council

Gaining reliable facts & data

Establishment

UNSG mission

Either of these

Commission of Inquiry

Objectives

Subjective Report(s)

Belligerents (Self-Investigation)

Final consideration

Determination of State Responsibility & Liability for War Consequences including Environmental Damage

An acceptable and fair UNSC Resolution

Establishment of a UNCC-like model Compensation Commission to manage claims, including environmental damage claims, and distribute compensation.

Consists of experts from

UNEP

IHFFC
1. Overview

Protection for the environment during armed conflict has been an important issue in international law, awareness of which has been growing along with more general global environmental awareness. An important factor in the increasing awareness is the alarming level of environmental damage caused by many armed conflicts. This damage has often been exacerbated by the fact that the environment has been frequently left un repaired because no party was held responsible for reparation.

This thesis has explored the legal protection given to the environment during inter-state armed conflicts and examined the implementation of state responsibility for wartime environmental damage. Having considered the potential application of the law to several case studies involving significant environmental harm, it has argued that the law has been inconsistently applied. In only some cases have states been held liable for the damage they have unlawfully caused. The main problem is neither an inadequacy of the law protecting the environment during war nor the law as to state responsibility for reparations when violations of applicable international rules have been established. Instead, the problem has been that the international community, represented by the United Nations Security Council (UNSC), has failed to consistently implement the applicable international rules. These conclusions are based on the following four major findings.

2. Adequacy of Legal Protection for the Environment during Armed Conflict

Some scholars have contended that the current state of legal protection for the environment during armed conflict is inadequate because relevant provisions/rules
are limited in number and scattered over many conventions.\textsuperscript{1} This, the argument goes, leads to belligerent states continuing to cause damage to the environment in many armed conflicts despite the existence of such rules. Accordingly, these scholars argue that it is necessary adopt a new, single, convention devoted to the protection of the environment during armed conflicts.\textsuperscript{2}

While it is true that international law, in its current and past forms, has not stopped belligerents from causing severe damage to the environment, it is not correct to claim that this is due to a lack of applicable rules. In fact international law provides plenty of provisions to theoretically protect the environment during armed conflict, which come both from wartime regimes and also from relevant peacetime regimes.

2.1. Main Legal Protection Afforded by the International Humanitarian Law (IHL)

As the main regime applicable during armed conflict, IHL provides significant and adequate, in the aggregate, direct and indirect environmental protection, arising under treaty and customary laws.

Environmental protection provisions from treaty law are found in a number of conventions. They are arts 23(g) and 55 of the 1907 Hague Regulations; art 53 of the 1949 Fourth Geneva Convention; the 1925 Geneva Protocol; the 1977 ENMOD Convention arts 35(3) and 55 of the 1977 Additional Protocol I to the


Of these treaties, two are worth special mention because they have substantially shaped the international legal framework for the protection for the environment during armed conflict. They are the 1977 ENMOD Convention and the 1977 Additional Protocol I. Under these two treaties, three thresholds of environmental damage during wartime are established, and need to be fulfilled in order to reach the prosecutable level. They are “severe”; “long-lasting”; and/or “widespread”. These provisions offer clear and specific protection to the environment during armed conflict.

Besides treaty rules, the environment is also protected during times of war by customary laws of war. Some protection for the environment is provided through general principles of the law of war including the principles of necessity, humanity, proportionality and discrimination. Despite offering indirect protection, if these principles are taken together then any action causing massive environmental damage where “they do not serve a clear and important military purpose, would be questionable on many grounds, even in the absence of specific rules of war addressing environmental matters in detail”.  

---

3 See Chapter 2 at [2.1].
4 Article I of ENMOD and arts 35(3) and 55 of the 1977 Additional Protocol I. Unfortunately, the two treaties differ in their requirements as to fulfilment of these thresholds before a breach of the treaty is established. ENMOD requires only the fulfilment of only one of the thresholds, meanwhile Additional Protocol I requires the cumulative fulfilment of all thresholds of damage. See Chapter 2 at [2.1.4-2.1.5].
In addition, there comes another source of customary law protection for the environment. These are the wartime treaty obligations that protect the environment but have also attained customary status. This status is attained either because the provisions are declaratory of pre-existing norms of customary international law, or the provisions may have developed into customary international law. Either way, they bind belligerent states that do not subscribe to the particular treaty in question. These provisions include environmental protection from the 1907 Hague Regulations, the 1925 Geneva Gas Protocol, the 1949 Geneva IV Convention, and ENMOD.6

2.2. Additional Legal Protection from the Peacetime Obligations

The protections in the law of war are buttressed by relevant international peacetime rules that offer protection to the environment and remain valid during times of war. With the identification of such rules in Chapter 2, this thesis has submitted that the environment is afforded an additional layer of legal protection during armed conflict.

Generally, the applicability of peacetime treaty provisions during wartime is based on the widely acknowledged principle that the event of armed conflict does not automatically suspend or terminate pre-existing treaties. Indeed, subject to the law of neutrality, treaty relationships between belligerents and neutral states are largely unaffected and remain valid.

Thus, peacetime treaties remain applicable between belligerents during times of war.7 These are treaties whose objects are largely unaffected by the advent of war between parties to the agreements and/or which the parties intended to continue during such periods. Of these categories, environmental protection during wartime may be found in two branches of law: international human rights law and

---

6 See Chapter 2 at [2.2.2].
7 See Chapter 2 at [3.1].
international environmental law. In addition to these two fields of law, rules from another peacetime regime, *ius ad bellum* (or the law on the use of force), also provide significant protection from environmental harm during times of war albeit indirectly, despite their primary applicability during peacetime.

2.2.1. International Human Rights and International Environmental Law

Provisions from international human rights law are considered valid both during peacetime and wartime. This is because the object of these laws is to enforce basic universal human protection, which is also the main goal of the law of war in general. Specific environmental protection under this regime is found in the general acknowledgement of international declarations and reports of human rights commissioners. The most relevant treaty provision from human rights law that offers explicit protection to the environment is art 12 of the International Covenant on Economic, Social and Cultural Rights.

Some treaties within international environmental law potentially remain valid during wartime by way of an analogous approach. They include treaties protecting areas beyond national jurisdiction and treaties protecting “common goods”. These categories of environmental treaty may remain valid during wartime because they serve the interests of the international community as a whole and are comparable to two categories of peacetime obligations which remain valid during wartime: treaties creating permanent regime or status (objective regimes) and treaties protecting fundamental human rights.

---

8 See Chapter 2 at [3.2].


12 See Chapter 2 at [3.3].
respectively.\textsuperscript{13} Since the objects of these treaties are common to all members of the international community, it is arguable that inter-state cooperation (to achieve common goals) is a primary objective even during times of war. Therefore, these obligations do not cease in the event of armed conflict.

Two key examples of international environmental agreements relating to areas beyond national jurisdiction are the United Nations Convention on the Law of the Sea (UNCLOS)\textsuperscript{14} and the Antarctic Treaty.\textsuperscript{15} In protecting areas beyond national jurisdiction, UNCLOS covers areas such as the seabed and the high seas in the provisions in Parts XI and XII respectively. These provisions contain no indication that the parties did not intend them to apply in wartime.\textsuperscript{16} The Antarctic Treaty contains numerous references to the fact that it serves the interest of the international community.\textsuperscript{17} These references establish that this Treaty protects the Antarctic area in the interests of the international community.\textsuperscript{18} The permanent special status designation of Antarctica has shown that it is the signatory states’ intention to protect certain areas beyond national jurisdiction, and without any time limitation.


\textsuperscript{15} The Antarctic Treaty (opened for signature 1 December 1959, entered into force on 23 June 1961) [the 1959 Antarctic Treaty].

\textsuperscript{16} The 1982 UNCLOS, above n 14, Part XI and XII.

\textsuperscript{17} The 1959 Antarctic Treaty, above n 15, preamble, arts I, XIII(1).

\textsuperscript{18} Having established this legal position, Vöneky also argues that other treaties within the Antarctic Treaty System also serve the interest of the international community as a whole, such as the Convention for the Conservation of Antarctic Seals, the Convention on the Conservation of Antarctic Marine Living Resources, the Convention on the Regulation of the Antarctic Mineral Resource Activities and the Protocol on Environmental Protection to the Antarctic Treaty. Vöneky, above n 13, at 27, fn 83.
Drawing an analogy with human rights treaties, environmental treaties having the object of protecting common goods or global environmental resources are of a similar character and should also remain valid during times of war. This is because these treaties are specifically intended to protect environmental goods which are considered to be indispensable for human survival; to maintain an environmental balance in the interests of the state community as a whole; and to seek “the protection of territorial integrity or other national interests as only a side-effect”.

There are notable treaties under this category, including the UN Framework Convention on Climate Change; the Convention on International Trade in Endangered Species of Wild Fauna and Flora; the Convention on the Conservation of Migratory Species of Wild Animals; the Convention on Biological Diversity; the Vienna Convention for the Protection of the Ozone Layer; the World Heritage Convention; and the Convention on Wetlands of International Importance (commonly known as the Ramsar Convention).

2.2.2. Environmental Protection Afforded from Ius ad Bellum

Besides the legal protection derived from human rights and environmental laws, the environment during wartime is also afforded significant protection from the rules of the law on the use of force, or ius ad bellum, albeit in an indirect way.

---

19 Human rights treaties remain valid during armed conflict because they regulate the universal interests of the international community.

20 The protection of “common goods” is different from protection of areas beyond national jurisdiction because common goods may be located within national jurisdiction, but nonetheless the purpose of their protection is for the benefit of the international community as a whole.


23 See Chapter 2 at [3.3.2].

24 As discussed in Chapter 2, legal obligations under ius ad bellum are considered to be peacetime obligations because they regulate states’ decisions to resort to armed force in times of peace.
Protection under this regime is provided by the fact that aggressor states are held accountable for paying compensation for the consequences of war, including environmental damage. This kind of compensation has occurred after the World Wars and the 1991 Gulf War. In these cases, aggressor states were found to be responsible for waging unlawful wars, and were accordingly held liability to pay compensation. Payment to compensate for environmental damage, however, only came in the aftermath of the Gulf War, not the World Wars.

Thus, even though these peacetime obligations do not regulate a state’s conduct during armed conflict, together “they reinforce civil liability and help define criminal responsibility under the laws of war”.25 These peacetime obligations could also play a crucial role in filling the gaps in the general principles of law recognised by nations, particularly in cases when international conventions and customary international law fail to address a particular problem.26

In addition, it is valid to claim that the environment is sufficiently protected by international law during international hostilities. Given this, it is contended that there is no urgent need to create a new, specific international agreement focusing on environmental protection during times of war. This also means that any violation of these rules by any warring party that causes environmental damage creates international responsibility as discussed below.

3. A Comprehensive Legal Framework to Hold Belligerents Responsible For Environmental Damage

This thesis has found that the international regime governing the consequences for any breach of international rules (i.e. the law on international responsibility) offers comprehensive coverage. It may be used to hold three possible types of

26 Ibid.
actors (states, international organisations, and individuals) responsible for any unlawful environmental damage caused during armed conflict. Thus, in the event of unlawful actions under international law particularly during armed conflicts, the international community, and especially the victim, is entitled to hold the relevant belligerent or belligerents responsible.

In considering which of the types of actors (states, international organisations, and individuals) it is best to pursue responsibility against for the benefit of the damaged environment, this thesis has argued that state responsibility is preferable. This is due to the fact that a suitable remedy for environmental damage can be better provided by states than by international organisations or individuals for the following reasons.

First, it appears that compensation payment for environmental damage caused by war is the most suitable form of remedy since the option of restitution appears to be almost impossible. Further, as has been shown in a number of cases, environmental damage during times of war is financially quantifiable. This calculation is based on the expenses which have been or may be used to mitigate and repair the environment, as close as possible, to its pre-war condition.

In addition, given the extremely high figures of cost correlated with the total damage to the environment in every case, only a state party may realistically be in a position to provide appropriate compensation. Therefore, it is logical to focus on state responsibility mechanisms when pursuing compensation for environmental damage during armed conflict.

Second, past efforts to pursue the responsibility of international organisations and individuals for consequences of war, particularly for environmental damage, have
had less than promising results.\textsuperscript{27} Based on the case studies, it is evident that the international community prefers to place the burden of responsibility on a state rather than on an international organisation, and there are limited fora for bringing claims against such organisations as exemplified in the International Court of Justice and European Court of Human Rights cases.\textsuperscript{28} It also appears that environmental damage cannot be remedied or repaired if the only goal is to pursue an individual’s international criminal responsibility. Success would only result in penal punishment where responsible individuals are put behind bars, but without any real contribution towards repairing the damaged environment.

4. The Continuation of Severe Wartime Environmental Damage as Evidence of the Ineffectiveness of Current International Protection Regimes

Despite having a sufficient and comprehensive legal regime of wartime environmental protection as well as suitable rules of state responsibility, this thesis has, unfortunately, found that belligerents continue to engage in unlawful conduct causing severe environmental damage during armed conflicts. This has been the case in the Vietnam War, the Iran-Iraq War, the Gulf War, the Kosovo War, the Iraq War, and the Israel-Lebanon War.

It appears from most of the case studies that both sides of the conflicts have contributed to environmental damage during the war by employing military strategies that are hostile and destructive to the environment.\textsuperscript{29} Ironically, some of

\begin{footnotes}
\item[27] See Chapter 3 at [3.2-3.3]. Despite state responsibility implementation for such war consequences happened only once, at least this kind of responsibility has a remarkable precedent in the history.
\item[28] Behrami v France and Saramati v France, Germany and Norway (2007) 45 EHRR SE10 (ECHR) at 44; Pieter Jan Kuijper “Introduction to the Symposium on Responsibility of International Organisations and of (Member) States: Attributed or Direct Responsibility or Both?” (2010) 7 IOLR 9 at 17; Legality of Use of Force (Yugoslavia v. Belgium) (Provisional Measures, Order of 2 June 1999) [1999] ICJ Rep 124 at 140 (This decision is similar with the rest of other nine NATO states before the ICJ for the same case during the Kosovo War).
\item[29] There are two cases where only one side of the conflicts caused severe environmental damage: the US in the Vietnam War, and NATO in the Kosovo War.
\end{footnotes}
these cases have happened in the period when the international community professes to have a high level of concern for the environment during armed conflict. The severity and scale of destruction to the environment caused by these conflicts have arguably reached the prosecutable level of damage thresholds under the law of war.

Furthermore, the enforcement of state responsibility in the aftermath of armed conflicts for environmental damage caused by unlawful conduct has been inconsistent and ineffective. This has occurred despite consistent findings of violations of international law against the belligerents. Most of the existing post-conflict settlements fit squarely within the victor’s justice paradigm. This arguably has incentivised (or at least not dis-incentivised) belligerents from continuing to cause severe environmental damage. This is because belligerent states seem easily able to avoid responsibility for environmental reparation if they can secure a victory, or manage to preserve their political power in international relations. This point leads to the last major finding below.

5. Ineffective and Inconsistent Efforts by the UNSC to Hold Appropriate Belligerent States Responsible for War Consequences including Environmental Damage

Finally, this thesis has found that reparation for environmental damage during war has been as limited, as have the international community’s efforts to hold state

30 These cases are the Iran-Iraq War, the Gulf War, the Kosovo War, the Iraq War, and the Israel-Lebanon War.

31 The closest experience to truly enforcing state responsibility for causing unlawful environmental damage during an armed conflict only came in the aftermath of the Gulf War in 1991. This was not a “true” implementation of state responsibility because in reality Iraq had to bear all of the environmental consequences which resulted from the coalition’s unlawful conduct during the war. The UNCC Governing Council decided that losses arising from such situations would be compensated as a “direct” loss, inter alia: “Military operations or threat of military action by either side during the period 2 August 1990 to 2 March 1991”. United Nations Compensation Commission Decision No. 15: Compensation for Business Losses Resulting from Iraq’s Unlawful Invasion and Occupation of Kuwait where the Trade Embargo and Related Measures were also a Cause S/AC.26/1992/15 (1993) at [6] (emphasis added).
parties responsible for the general consequences of war. Throughout the 20th and 21st centuries, there have been only three events where state responsibility was enforced for the consequences of war and only one event relating to environmental damage. The types of legal settlements that have ended wars can be divided into two categories: those occurring before and those occurring after the establishment of the UN in 1945.

Before 1945, post-war settlements are clear examples of “victor’s justice” because all peace treaties were drafted, monitored and enforced by the victor states for their own benefit. In these treaties, responsibility for war was placed upon the defeated states because of their decision to wage hostilities perceived to be unjust or unlawful. Unfortunately, war settlements during these periods were focused on repayment of the costs of war and damages resulting from the war in general, without a particular focus on the environment.

After the establishment of the UN in 1945, the responsibility for maintaining international peace and security was transferred to the UNSC, including the possibility of holding states responsible for the consequences of war. In every conflict studied, with the exception of the Vietnam War, a UNSC resolution has followed the end of the war, functioning primarily as the instrument for war termination or post-conflict settlements. Unfortunately, there has been only one UNSC resolution that has referred to violations of international law and determined a responsible party. This resolution made in the aftermath of the 1991 Gulf War. The other resolutions have not referred to any breach of international law and consequently have allocated no state responsibility.

From the cases studied, it appears that a determination of a responsible party only occurs when there is a defeated belligerent that does not have strong political power. This occurred in the World War settlements as well as in Iraq. After Iraq was successfully expelled from Kuwait in 1991, its political power was completely devastated, and the UNSC held it responsible for the unlawful invasion of Kuwait. Such a determination was arguably only possible because of Iraq’s lack of political power.\textsuperscript{33}

In the cases of the Iran-Iraq War and the Israel-Lebanon War, where no party could claim to be winner of the war, the UNSC prefers to focus primarily on restoring peace between the belligerents, rather than pursuing responsibility for unlawfully causing environmental damage.

In other cases where major, strong, political states are the responsible parties, the UNSC seems helpless in its inability to respond decisively. In the Vietnam War, the UNSC did not find the United States (US) responsible for environmental damage despite the fact that it was in violation of international wartime obligations in employing anti-plant military means and strategies. Despite being defeated in that war, the US still preserved its political power. It appears that this is the main reason why the international community did not respond to the eco-crimes committed by the US during the Vietnam War.

Similarly, despite a clear establishment of violation of \textit{ius ad bellum} by certain North Atlantic Treaty Organisation (NATO) states as well as the US and its allies in the Kosovo and Iraq Wars respectively, the UNSC again appears to have been paralysed. This is likely because of the potential use of veto power against any effort to hold these states responsible for their violations of \textit{ius ad bellum}.

\textsuperscript{33} Based on past experience, it seems that the situation would be much different if Iraq held significant political power in international relations. Iraq would then be in a position similar to the aftermath of the Vietnam War where the US as the defeated state was nevertheless able to escape any responsibility for war consequences to Vietnam. See Chapter IV at [3.1].
In terms of legal bases for holding a belligerent state responsible for the consequences of war in general and for environmental damage in particular, the international community has never firmly based responsibility on violations of the rules of the law of war. Rather, violations of the law on the use of force have become the main legal basis for holding belligerents responsible for the consequences of war, including environmental damage as exemplified in the aftermath of the Gulf War in 1991 and the peace treaties ending the World Wars.

Despite those precedents, state responsibility based on violations of *ius ad bellum* is also inconsistently implemented. There are some cases where violations of *ius ad bellum* are clearly established, yet no state party has been held responsible. As discussed in Chapter 4, these situations are found in NATO’s humanitarian intervention against the former Federation Republic of Yugoslavia (FRY) in 1999; the US and its allies’ invasion of Iraq in 2003; and Israel’s unlawful retaliation against Lebanon in 2006.

In terms of post-war environmental damage reparation, it is true that the experience of the Gulf War has been celebrated as the landmark precedent. However, this precedent does not represent a truly transparent and fair allocation of state responsibility for the consequences of war. First, it lacks transparency because the UNSC did not consider any authoritative, widely available, report on environmental damage. Instead, it based its determinations on relatively closely-held information provided only by its member states, particularly the permanent members. Second, this decision-making process has put Iraq as a defendant in all cases – Iraq is treated as “the state on trial” but without procedural due process. Iraq’s right to present its defence was excluded – there was no chance to submit a report with its own findings. As the losing party, Iraq was made responsible for all of the negative consequences of this armed conflict, despite not having caused

---

34 As shown in the case studies at Chapter 4, most environmental damage during armed conflicts was caused by belligerent states’ conduct that violated the laws of war.

35 See fn 31 above.
them all.36 This makes the decision-making process unbalanced and reflects the victor’s justice paradigm.

Finally, from the experience described above and as argued earlier, this thesis submits that the main problems causing the ineffectiveness of environmental protection during armed conflict are the inconsistency of the UNSC in enforcing state responsibility and the lack of transparency and fair treatment in its decision-making process. These situations have led to the absence of a credible deterrent effect to prevent state belligerents from causing environmental damage in times of armed conflicts.

6. Proposal for the Future: Modifying the UNSC Decision-making Processes

In order to improve current and future conditions to protect the environment during armed conflict, relevant international rules need to have a strong deterrent effect to discourage future belligerent states from causing severe environmental damage. In order to have such a strong effect, the implementation of international responsibility to repair the damaged environment in the aftermath of a conflict should be effective and fair to the appropriate parties.

Holding the appropriate parties responsible for environmental damage based on factual evidence is of importance because it would dissolve the paradigm of victor’s justice and create a deterrent effect for future belligerents. In addition, imposing responsibility due to belligerents’ unlawful actions shows that international law is effectively implemented and in accordance with the “polluter pays principle”. Finally, with the possibility of both warring parties being held responsible for the damage, maximum reparation for environmental damage would be achieved.

36 See Chapter 4 at [3.3.1].
Unfortunately, as established earlier, the current implementation of such responsibility has been ineffective and limited in the last century. Nevertheless, it seems possible that this situation may be improved by modifying the decision-making process of the UNSC, it being the forum where violations of international law and allocations of responsibility usually take place.

It should be noted that this thesis is not proposing one general solution to solve all problems that may occur within the UNSC. The proposal in this thesis could not stop the members of the UNSC from using their political power to influence the final decision of the Council. Rather, the aim of the proposed model is to formulate a realistic modified reporting process for the UNSC. This would be more transparent and the involvement of fact-finding missions would increase the likelihood that a fair resolution would be adopted by the Council. With such involvement, it is expected that authoritative and reliable reports would be available for the UNSC to consider in assigning responsibility for the consequences of war to the appropriate responsible state belligerents.

As illustrated in the case studies, state responsibility for environmental damage during wartime depends solely on whether or not there has been a determination of state responsibility for war consequences in general.\(^37\) In addition, the ineffective implementation of state responsibility, particularly for environmental damage, appears to be caused by the absence of a transparent mechanism to establish facts, leading to a fair allocation of responsibility amongst the belligerents.

Currently, the UNSC’s main post-conflict considerations heavily depend on the political climate among the member states. They are not based on factual data relevant to a particular case. Accordingly, the UNSC only adopts or determines responsibility based on partial information provided only from its member states.

\(^{37}\) See Chapter IV at [5].
It ignores other factual evidence about environmental damage and the belligerents’ conduct of warfare.

In addition, as exemplified in the Gulf War case, the state under investigation for allegations of violations of international law is not necessarily given an opportunity to present information based on its own investigation. Nor is it necessarily able to explain the extent of actual damage that it has caused. This situation amounts to a lack of due process within the UNSC system.

The lack of reliable data and absence of due process within the UNSC may be improved by making post-conflict fact-finding activities mandatory as part of the UNSC’s decision making process. With reference to environmental damage resulting from war, post-conflict fact-finding activities are important to gather information as to whether environmental damage has reached the prosecutable level, as well as whether or not any belligerents have violated international law. In addition, a fact-finding report would have also explained the extent to which each of the belligerents contributed to the environmental damage. The conclusion of such inquiry would assist the UNSC in determining the responsible states and the fair allocation of liability to pay compensation.

In actuality, post-conflict fact-finding activities are already practiced by the international community in general and the UNSC in particular. Many states have established Truth Commissions in post-conflict situations as part of the processes of re-establishing normalcy in societies disrupted by conflict, and establishing facts relevant to the conflict. The UNSC, in fact, is empowered to undertake such activities in relation to disputes or situations that may endanger international

---

peace and security. The mandate has been upheld by the UNSC in numerous cases.

Current UNSC practice allows two possible avenues for conducting fact-finding missions: missions conducted by the UNSG on behalf of the UNSC and ad hoc missions established at the UNSC’s initiative. In both cases, the mission’s aim is to collect data concerning the consequences of war, including environmental damage, and to clarify whether or not there has been violation of international law. It is crucial for the UNSC to have an impartial and authoritative report that it can use as its main source when deciding whether to allocate responsibility to a belligerent.

It is proposed that ad hoc missions established by the UNSC, in particular, consist of experts from two prominent international bodies, the United Nations Environmental Programme (UNEP) and the International Humanitarian Fact-Finding Commission (IHFFC). These institutions currently have staff with expertise relevant to determining whether or not environmental damage during a conflict has breached the permissible level at international law.

Having only one report, however, it would at least seem to be unbalanced. It is likely that belligerents, unsatisfied with the reports due to their lack of involvement in gathering information, would criticise or reject them. To alleviate

39 Charter of the United Nations, art 34.
40 See Chapter 5 at [3.1].
41 As discussed in Chapter 5 at [4.2.2.1], in establishing the proposed independent Commission, it is suggested that the UNSC should opt to have an ad hoc rather than permanent commission for two reasons. First, the establishment of an independent Commission on an ad hoc basis is more flexible, because the Council appoints members as suitable to the particular case at hand. Establishing a permanent institution would be a long process requiring states to agree to appointments and finance the institution. Second, with the power granted by Chapter VII of the UN Charter, the UNSC may appoint individual experts from both UNEP and IHFFC without being obligated to involve these bodies as institutions. Appointing individual experts to work outside the auspices of UNEP and IHFFC does not impair the reputation of the individual experts.
42 See discussion of these bodies in Chapter 5 at [4.2.2.1].
this problem, the UNSC also needs to invite belligerents to present their own findings based on their knowledge and perspectives (due process). The reports from the belligerents are expected to provide a balance of information of the commission’s findings.

It should be noted that it would not be mandatory for belligerent states to conduct their own fact-finding missions. If belligerents choose not to conduct their own fact-finding mission, they would need to openly declare that they would accept the report from the fact-finding mission established by the UNSC. Such declaration would show the international community that the state belligerents have been given equal opportunity to be heard and included in the process of the Council’s decision-making.

With two types of reports available, the UNSC’s member states could more fairly and transparently determine responsibility for the consequences of war, including environmental damage. It is expected that the UNSC would impose responsibility to appropriate belligerents regardless of whether they are the victorious or losing party. In addition, such allocation of responsibility would be in accordance with the actual portion of damage caused by each belligerent. By so doing, this process will send a strongly deterrent message, that no responsible belligerent state will escape liability for war reparations, including payments to repair the environment when it is damaged by unlawful state action during wartime.
BIBLIOGRAPHY
(Alphabetical Order)

Books


Feldman, G *World War II: Almanac* (UXL, Detroit, 2000).


Pendergast, T and Pendergast, S *World War I Almanac* (UXL, Detroit, 2002).


R Provost (ed) *State Responsibility in International Law* (Ashgate, Dartmouth, 2002).


Walgrave, S and Rucht, D (eds) *The World Says No to War: Demonstrations against the War on Iraq* (University of Minnesota Press, Minneapolis, 2010).


**Chapters in Edited Books**


**Journal Articles**


Al-Khalaf, B “Pilot Study: The Onset of Asthma Among the Kuwaiti Population during the Burning of Oil Wells after the Gulf War” (1998) 24 Environ. Int’l 221.


Bertell, R “Depleted Uranium: All the Questions about DU and Gulf War Syndrome are Not Yet Answered” (2006) 36 Int. J. Health Serv. 503.


Fenwick, CG “Germany and the Crime of the World War” (1929) 23 AJIL 812.


Greenwood, C “New World Order or Old? The Invasion of Kuwait and the Rule of Law” (1992) 55 Mod. L. Rev. 153.


Hurst, CJB “The Effect of War on Treaties” (1921) 2 BYIL 37.


Kacerauskis, V “Can a Member of the United Nations Unilaterally Decide to Use Pre-emptive Force against Another State Without Violating the UN Charter?” (2005) 2(1) Int’l J. Baltic L. 73.


Kirchner, S “Third Party Liability for Hezbollah Attacks against Israel” (2006) 7 German L. J. 777.


Kunz, JL “International Law by Analogy” (1951) 45 AJIL 329.
Kunz, JL “The Legal Position of the Secretary General of the United Nations” (1946) 40 AJIL 786.
Lenoir, JJ “The Attitude of the Supreme Court as to the Effect of War on Treaties” (1935) 7 Miss. L. J. 309.


Orfield, LB “The Effect of War on Treaties” (1933) 11 Nebraska L. Bull. 276.


Plant, G “Legal Aspects of Marine Pollution during the Gulf War” (1992) 7 Int’l J. Estuarine and Coastal L. 217.


Pradelle, ADL “The Effects of War on Private Law Treaties” (1948) 2(4) ILQ 555.


Rank, R “Modern War and the Validity of Treaties” (1953) 38 Cornell L. Q. 321.


Ridsdale, PS “War’s Destruction of British Forests” (1919) 25 Am. Forests 1027.


Ronen, Y “Illegal Occupation and Its Consequences” (2008) 41 Israel L. Rev. 201.


Schlei, NA “Re: Legality under International Law of Remedial Action against Use of Cuba as a Missile Base by the Soviet Union” (1962) 6(2) Green Bag 195.


Simma, B “NATO, the UN and the Use of Force: Legal Aspects” (1999) 10 EJIL 1.


Yntema, HE “The Treaties with Germany and Compensation for War Damage” (1923) 23 Colum. L. Rev. 511.

Yoo, JC “International Law and the War in Iraq” (2003) 97 AJIL 563.


**Dissertations and Thesis**


**Working Papers and Conference Papers**

Boelaert-Suominen, SAJ “International Environmental Law and Naval War; The Effect of Marine Safety and pollution Conventions during International Armed Conflict” (Newport Paper No.15, Naval War College, 1997).


**Internet Materials**


APPENDIX 1

Relevant International Humanitarian Law in Force between Belligerents during the Selected Armed Conflicts

I. World War I (28 July 1914 – 11 November 1918)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1907 Hague Regulations</td>
</tr>
<tr>
<td>Germany</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>France</td>
<td>(R) 07-10-1910</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>(S) 18-10-1907</td>
</tr>
<tr>
<td>Austria-Hungary</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Italy</td>
<td>(S) 18-10-1907</td>
</tr>
<tr>
<td>Japan</td>
<td>(R) 13-12-1911</td>
</tr>
<tr>
<td>Turkey</td>
<td>(S) 18-10-1907</td>
</tr>
<tr>
<td>Great Britain</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Russia</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>United States</td>
<td>(R) 27-11-1909</td>
</tr>
</tbody>
</table>

(R) – Ratification; (A) – Accession; (S) – Signature.

II. World War II (3 September 1939 – 2 September 1945)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1907 Hague Regulations</td>
</tr>
<tr>
<td></td>
<td>1925 Geneva Protocol</td>
</tr>
<tr>
<td>Germany</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Italy</td>
<td>(R) 07-10-1910</td>
</tr>
<tr>
<td>Japan</td>
<td>(R) 13-12-1911</td>
</tr>
<tr>
<td>Soviet Union</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Great Britain</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>United States</td>
<td>(R) 27-11-1909</td>
</tr>
</tbody>
</table>

(R) – Ratification; (A) – Accession; (S) – Signature.

III. The Vietnam War (May 1961 – 30 April 1975)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1907 Hague Regulations</td>
</tr>
<tr>
<td></td>
<td>1925 Geneva Protocol</td>
</tr>
<tr>
<td></td>
<td>1949 Geneva IV Convention</td>
</tr>
<tr>
<td>Australia</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(A) 12-05-1969</td>
</tr>
<tr>
<td></td>
<td>(R) 18-09-1956</td>
</tr>
<tr>
<td>FRANCE</td>
<td>(R) 07-10-1910</td>
</tr>
<tr>
<td></td>
<td>(R) 10-05-1926</td>
</tr>
<tr>
<td></td>
<td>(R) 28-06-1951</td>
</tr>
<tr>
<td>Laos</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(A) 29-10-1956</td>
</tr>
<tr>
<td>Philippines</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(A) 08-06-1973</td>
</tr>
<tr>
<td></td>
<td>(R) 06-10-1952</td>
</tr>
<tr>
<td>South Korea (Republic of Korea)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(A) 16-08-1966</td>
</tr>
<tr>
<td>New Zealand</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(A) 24-05-1930</td>
</tr>
<tr>
<td></td>
<td>(R) 02-05-1959</td>
</tr>
<tr>
<td>Thailand</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(R) 06-06-1931</td>
</tr>
<tr>
<td></td>
<td>(A) 29-12-1954</td>
</tr>
<tr>
<td>South Vietnam</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td>North Vietnam</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td>People’s Republic of China</td>
<td>(A) 10-05-1917</td>
</tr>
<tr>
<td></td>
<td>(A) 13-07-1952</td>
</tr>
<tr>
<td></td>
<td>(R) 28-12-1956</td>
</tr>
<tr>
<td>Soviet Union</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td></td>
<td>(A) 05-04-1928</td>
</tr>
<tr>
<td></td>
<td>(R) 10-05-1954</td>
</tr>
<tr>
<td>United States</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td></td>
<td>(R) 10-04-1975</td>
</tr>
<tr>
<td></td>
<td>(R) 02-08-1955</td>
</tr>
</tbody>
</table>

(R) – Ratification; (A) – Accession.

### IV. The Iran-Iraq War (22 September 1980 – 17 July 1988)

<table>
<thead>
<tr>
<th>Treaty Laws</th>
<th>Iran</th>
<th>Iraq</th>
</tr>
</thead>
<tbody>
<tr>
<td>1907 Hague Regulations</td>
<td>(S) 08-10-1907</td>
<td>-</td>
</tr>
<tr>
<td>1925 Geneva Protocol</td>
<td>(A) 05-11-1929</td>
<td>(A) 08-09-1931</td>
</tr>
<tr>
<td>1949 Geneva IV Convention</td>
<td>(R) 20-02-1957</td>
<td>(A) 14-02-1956</td>
</tr>
<tr>
<td>1977 ENMOD Convention</td>
<td>(S) 18-05-1977</td>
<td>(S) 15-08-1977</td>
</tr>
<tr>
<td>1977 Additional Protocol I</td>
<td>(S) 12-12-1977</td>
<td>-</td>
</tr>
<tr>
<td>1981 Protocol III to CCW</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(R) – Ratification; (A) – Accession; (S) – Signature

### V. The Gulf War (2 August 1990 – 3 April 1991)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1907 Hague Regulations</td>
</tr>
<tr>
<td></td>
<td>1925 Geneva Protocol</td>
</tr>
<tr>
<td></td>
<td>1949 Geneva IV Convention</td>
</tr>
<tr>
<td></td>
<td>1977 ENMOD Convention</td>
</tr>
<tr>
<td></td>
<td>1977 Additional Protocol I</td>
</tr>
<tr>
<td></td>
<td>1981 Protocol III to CCW</td>
</tr>
<tr>
<td>Argentina</td>
<td>-</td>
</tr>
<tr>
<td>Australia</td>
<td>-</td>
</tr>
<tr>
<td>Bahrain</td>
<td>-</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>(R) 08-08-1910</td>
</tr>
<tr>
<td>Canada</td>
<td>(R) 06-05-1930</td>
</tr>
<tr>
<td>China</td>
<td>(A) 10-05-1917</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>(R) 16-08-1938</td>
</tr>
<tr>
<td>Denmark</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Egypt</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>(R) 07-10-1910</td>
</tr>
<tr>
<td>Germany</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
</tr>
<tr>
<td>Hungary</td>
<td>-</td>
</tr>
<tr>
<td>Iraq</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>-</td>
</tr>
<tr>
<td>Kuwait</td>
<td>-</td>
</tr>
<tr>
<td>Morocco</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>New Zealand</td>
<td>-</td>
</tr>
<tr>
<td>Nigeria</td>
<td>-</td>
</tr>
<tr>
<td>Norway</td>
<td>(R) 19-09-1910</td>
</tr>
<tr>
<td>Oman</td>
<td>-</td>
</tr>
<tr>
<td>Pakistan</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>(A) 09-05-1925</td>
</tr>
<tr>
<td>Qatar</td>
<td>-</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>-</td>
</tr>
<tr>
<td>Senegal</td>
<td>-</td>
</tr>
<tr>
<td>South Korea</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>-</td>
</tr>
<tr>
<td>Syria</td>
<td>-</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>-</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>United States</td>
<td>(R) 27-11-1909</td>
</tr>
</tbody>
</table>

(R) – Ratification; (A) – Accession.

### VI. The Kosovo War (24 March 1999 – 10 June 1999)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1907 Hague Regulations</td>
</tr>
<tr>
<td></td>
<td>1925 Geneva Protocol</td>
</tr>
<tr>
<td></td>
<td>1949 Geneva IV Convention</td>
</tr>
<tr>
<td></td>
<td>1977 ENMOD Convention</td>
</tr>
<tr>
<td></td>
<td>1977 Additional Protocol I</td>
</tr>
<tr>
<td></td>
<td>1981 Protocol III to CCW</td>
</tr>
<tr>
<td>Belgium</td>
<td>(R) 08-08-1910</td>
</tr>
<tr>
<td>Canada</td>
<td>(R) 06-05-1930</td>
</tr>
</tbody>
</table>

424
<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>(R) 07-10-1910</td>
</tr>
<tr>
<td>Germany</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Italy</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>Portugal</td>
<td>(R) 13-04-1911</td>
</tr>
<tr>
<td>Spain</td>
<td>(R) 22-08-1929</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>United States</td>
<td>(R) 27-11-1909</td>
</tr>
</tbody>
</table>

(R) – Ratification, (A) – Accession, (S) – Signature

### VII. The Iraq War (20 March – 1 May 2003)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>-</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>-</td>
</tr>
<tr>
<td>Iraq</td>
<td>(A) 08-09-1931</td>
</tr>
<tr>
<td>Poland</td>
<td>(A) 09-05-1925</td>
</tr>
<tr>
<td>Slovakia</td>
<td>(R) 16-08-1938</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>(R) 27-11-1909</td>
</tr>
<tr>
<td>United States</td>
<td>(R) 27-11-1909</td>
</tr>
</tbody>
</table>
(R) – Ratification, (A) – Accession, (S) – Signature

### VIII. The Israel – Lebanon War (12 July – 11 August 2006)

<table>
<thead>
<tr>
<th>Belligerents</th>
<th>Treaty Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israel</td>
<td>-</td>
</tr>
<tr>
<td>Lebanon</td>
<td>-</td>
</tr>
</tbody>
</table>
(R) – Ratification; (A) – Accession.
APPENDIX 2

Relevant Peacetime Obligations that Remain in Force between Belligerents during the Selected Armed Conflicts

I. The Gulf War (2 August 1990 – 3 April 1991)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>(R) 08-08-1986</td>
<td>(R) 23-08-1978</td>
<td>(R) 08-04-1981</td>
<td>-</td>
<td>(R) 18-01-1990</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>(R) 21-12-1975</td>
<td>(R) 22-08-1974</td>
<td>(R) 27-10-1976</td>
<td>-</td>
<td>(A) 16-09-1987</td>
<td></td>
</tr>
<tr>
<td>Bahrain</td>
<td>(R) 01-02-1988</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(R) 07-02-1990</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>-</td>
<td>(R) 20-07-1976</td>
<td>(A) 03-10-1979</td>
<td>-</td>
<td>(A) 02-08-1990</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>(R) 01-01-1984</td>
<td>(R) 12-07-1982</td>
<td>01-10-1990</td>
<td>-</td>
<td>(R) 17-10-1998</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>(A) 28-05-1981</td>
<td>(R) 09-07-1975</td>
<td>(R) 11-06-1981</td>
<td>-</td>
<td>(R) 04-06-1986</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>-</td>
<td>(A) 08-04-1981</td>
<td>-</td>
<td>-</td>
<td>(A) 11-09-1990</td>
<td></td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>(R) 23-12-1975</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(A) 01-01-1998</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>(A) 02-01-1978</td>
<td>(R) 24-10-1977</td>
<td>(R) 19-04-1978</td>
<td>01-11-1983</td>
<td>(R) 29-09-1988</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>(R) 09-09-1988</td>
<td>(A) 04-04-1978</td>
<td>(A) 01-04-1982</td>
<td>01-11-1983</td>
<td>(R) 09-05-1988</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>(A) 04-11-1980</td>
<td>(A) 09-08-1978</td>
<td>(A) 11-09-1978</td>
<td>01-07-1990</td>
<td>(A) 04-12-1987</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>(R) 20-06-1976</td>
<td>(R) 24-05-1983</td>
<td>01-10-1984</td>
<td>-</td>
<td>(R) 30-09-1998</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>(R) 23-08-1983</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(R) 29-12-1989</td>
<td></td>
</tr>
<tr>
<td>Iraq</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>(R) 14-04-1977</td>
<td>(R) 31-12-1979</td>
<td>(R) 27-11-1981</td>
<td>01-11-1983</td>
<td>(R) 19-09-1988</td>
<td></td>
</tr>
<tr>
<td>Kuwait</td>
<td>(A) 02-01-1980</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Morocco</td>
<td>(R) 14-01-1976</td>
<td>(R) 14-01-1976</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>(R) 15-04-1983</td>
<td>(R) 20-06-1976</td>
<td>01-10-1984</td>
<td>-</td>
<td>(R) 30-09-1988</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>(A) 09-08-1978</td>
<td>(A) 23-08-1983</td>
<td>-</td>
<td>-</td>
<td>(A) 29-12-1989</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>(A) 07-09-1990</td>
<td>(A) 09-09-1978</td>
<td>-</td>
<td>(P) 02-06-1987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oman</td>
<td>(R) 15-02-1979</td>
<td>(R) 21-12-1975</td>
<td>(R) 25-10-1976</td>
<td>01-08-1985</td>
<td>(R) 23-09-1986</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>(A) 23-11-1976</td>
<td>(A) 19-07-1976</td>
<td>(A) 27-02-1986</td>
<td>01-12-1987</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>(R) 12-03-1990</td>
<td>(R) 08-6-1978</td>
<td>-</td>
<td>-</td>
<td>(A) 13-07-1990</td>
<td></td>
</tr>
<tr>
<td>Qatar</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Senegal</td>
<td>(A) 11-11-1977</td>
<td>(A) 03-11-1977</td>
<td>-</td>
<td>01-06-1988</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>-</td>
<td>-</td>
<td>(A) 02-12-1986</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>(A) 04-09-1982</td>
<td>(R) 19-07-1978</td>
<td>01-05-1985</td>
<td>(A) 25-07-1988</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syria</td>
<td>(A) 21-04-1969</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(A) 12-12-1989</td>
<td></td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>(A) 09-05-1990</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(A) 22-12-1989</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>(R) 31-10-1976</td>
<td>(R) 16-05-1978</td>
<td>01-10-1985</td>
<td>(R) 15-05-1987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>(P) 18-04-1987</td>
<td>(R) 01-07-1975</td>
<td>(R) 17-01-1980</td>
<td>-</td>
<td>(R) 27-08-1986</td>
<td></td>
</tr>
</tbody>
</table>

(S) = Signature; (R) = Ratification; (A) = Accession; (P) = Participation; (Ds) = Signature Definitive

---

 This information starts with the Gulf War since peacetime obligations begun to be claimed as additional legal protection for the environment during armed conflicts. See Chapter 2 at [3] and Chapter 4 at [3.5].

1 International Covenant on Economic, Social and Cultural Rights
2 Convention on Wetlands of International Importance.
3 Convention Concerning the Protection of the World Cultural and Natural Heritage.
5 Convention on Migratory Species.
6 The Vienna Convention for the Protection of the Ozone Layer.
### II. The Kosovo War (24 March 1999 – 10 June 1999)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>(R) 21-04-1983</td>
<td>(R) 04-07-1986</td>
<td>(R) 01-01-1984</td>
<td>(R) 12-07-1982</td>
<td>01-10-1990</td>
<td>(R) 17-10-1988</td>
</tr>
<tr>
<td>Germany</td>
<td>(R) 17-12-1973</td>
<td>(A) 30-11-1978</td>
<td>(R) 20-06-1976</td>
<td>(R) 24-05-1983</td>
<td>01-10-1984</td>
<td>(R) 30-09-1988</td>
</tr>
<tr>
<td>Italy</td>
<td>(R) 15-09-1978</td>
<td>(A) 14-04-1977</td>
<td>(R) 31-12-1979</td>
<td>(R) 27-11-1981</td>
<td>01-11-1983</td>
<td>(R) 19-09-1988</td>
</tr>
<tr>
<td>Portugal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(R) 11-12-1980</td>
<td>01-11-1983</td>
<td>(A) 17-10-1988</td>
</tr>
<tr>
<td>United States</td>
<td>(S) 05-10-1977</td>
<td>(P) 18-04-1987</td>
<td>(R) 01-07-1975</td>
<td>(R) 17-01-1980</td>
<td>-</td>
<td>(R) 27-08-1986</td>
</tr>
</tbody>
</table>

(S) – Signature; (R) – Ratification; (A) – Accession; (Ap) – Approval; (Sc) - Succession

### III. The Iraq War (20 March – 1 May 2003)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>(R) 10-12-1975</td>
<td>(R) 21-12-1975</td>
<td>(R) 22-08-1974</td>
<td>(R) 27-10-1976</td>
<td>01-09-1991</td>
<td>(A) 16-09-1987</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>(A) 22-02-1993</td>
<td>(Sc) 22-04-1993</td>
<td>(Sc) 26-03-1993</td>
<td>(Sc) 14-04-1993</td>
<td>01-05-1994</td>
<td>(Sc) 01-01-1993</td>
</tr>
<tr>
<td>Iraq</td>
<td>(R) 25-01-1971</td>
<td>-</td>
<td>(A) 05-03-1974</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>(R) 18-03-1977</td>
<td>(A) 22-03-1978</td>
<td>(R) 12-03-1990</td>
<td>(R) 08-06-1978</td>
<td>01-05-1996</td>
<td>(A) 13-07-1990</td>
</tr>
<tr>
<td>Slovakia</td>
<td>(A) 28-05-1993</td>
<td>(Sc) 22-04-1993</td>
<td>(Sc) 31-03-1993</td>
<td>(Sc) 02-03-1993</td>
<td>01-03-1995</td>
<td>(Sc) 28-05-1993</td>
</tr>
<tr>
<td>United States</td>
<td>(S) 05-10-1977</td>
<td>(P) 18-04-1987</td>
<td>(R) 01-07-1975</td>
<td>(R) 17-01-1980</td>
<td>-</td>
<td>(R) 27-08-1986</td>
</tr>
</tbody>
</table>

(S) – Signature; (R) – Ratification; (A) – Accession; (Ap) – Approval; (Sc) - Succession

### IV. The Israel-Lebanon War (12 July – 14 August 2006)

<table>
<thead>
<tr>
<th>Treaty Laws</th>
<th>Belligerents</th>
<th>Israel</th>
<th>Lebanon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966 ICESCR</td>
<td>(R) 03-10-1991</td>
<td>(A) 03-11-1972</td>
<td></td>
</tr>
<tr>
<td>1971 Ramsar Convention</td>
<td>(R) 12-03-1997</td>
<td>(A) 16-08-1999</td>
<td></td>
</tr>
<tr>
<td>1972 World Heritage Convention</td>
<td>(A) 06-10-1999</td>
<td>(R) 03-02-1983</td>
<td></td>
</tr>
<tr>
<td>1973 CITES</td>
<td>(R) 17-03-1980</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1979 CMS</td>
<td>(R) 01-11-1983</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1982 UNCLOS</td>
<td>-</td>
<td>(R) 05-01-1995</td>
<td></td>
</tr>
<tr>
<td>1985 Ozone Layer Convention</td>
<td>(A) 30-06-1992</td>
<td>(A) 30-03-1993</td>
<td></td>
</tr>
<tr>
<td>1992 CBD</td>
<td>(R) 07-08-1995</td>
<td>(R) 15-12-1994</td>
<td></td>
</tr>
<tr>
<td>1992 UNFCCC</td>
<td>(R) 04-06-1996</td>
<td>(R) 15-12-1994</td>
<td></td>
</tr>
</tbody>
</table>

(S) – Signature; (R) – Ratification; (A) – Accession
PUBLICATIONS AND CONFERENCE PRESENTATIONS
(Chronological Order)

Journal Articles


Conference Presentations

“State Responsibility for International Environmental Protection during International Armed Conflict”, First Annual CILS International Conference on International Law, University of Indonesia Faculty of Law, 4-5 October 2010, Jakarta, Indonesia.

“State Responsibility for Environmental Damage during International Armed Conflict post the UNCC”, the 2011 ANZSIL Postgraduate Workshop, the ANU Law School, 23 June 2011, Canberra, Australia.


“The Adequacy of International Legal Obligations for Environmental Protection during International Armed Conflict”, the Third CILS International Conference on Human Security, 26-27 November 2013, the Faculty of Law the University of Hasanuddin, Makassar, Indonesia.