

ECO-TERRORIST ACTS DURING THE PERSIAN GULF WAR: IS INTERNATIONAL LAW SUFFICIENT TO HOLD IRAQ LIABLE?

I. FACTUAL BACKGROUND

On August 2, 1990, Iraqi forces overtook Kuwait in a "lightning-like" conquest.¹ In response to the invasion, the United Nations marshalled an international coalition which ultimately drove Iraq out of Kuwait.² However, the aftermath of Iraq's occupation of and retreat from Kuwait was devastating; a 350 square mile oil slick in the Persian Gulf,³ thousands of dead or dying birds and other wildlife,⁴ and over 550 burning Kuwaiti oil wells⁵ were the legacy of Iraq's occupation. The attempt at wholesale destruction of Kuwait and the Persian Gulf led several commentators to coin the terms "ecocide" and "environmental terrorism" to describe Iraq's actions.⁶ Incredibly, however, the devastation of Kuwait and the Gulf was foreseeable.

¹ Walter V. Robinson, *Iraq Tightens Its Control Over Kuwait; 'Revolutionary' Regime Installed; Arab Leaders Withhold Criticism; The Invasion of Kuwait*, BOSTON GLOBE, Aug. 3, 1990, at 1.

² *Bush Halts Offensive Combat; Kuwait Freed; Iraqis Crushed*, N.Y. TIMES, Feb. 28, 1991, at 1; see, e.g., Bob Hepburn, *Kuwait's Oil-Fire Nightmare Lifting; Real Impact of Catastrophe Will Take Months to Judge*, TORONTO STAR, July 20, 1991, at A3 (noting the environmental damage Iraq inflicted in retreat); see also Nick B. Williams, Jr., *Middle East Still Suffers from Fallout of Warfare; Legacy: Rubble Clearing Goes On, and the Historical Impact of Iraq's Defeat Is Not Yet In View*, L.A. TIMES, Jan. 17, 1992, at A1 (stating ground offensive drove Iraqi army from Kuwait in only four days).

³ See, e.g., *Millions of Gallons of Crude Oil Flow into Persian Gulf from Kuwaiti Tanks*, 14 INT'L ENV'T REP. CURRENT REP. (BNA) 37 (Jan. 30, 1991) [hereinafter *Millions of Gallons*].

⁴ See, e.g., *id.*; Robert D. McFadden, *War in the Gulf: The Environment; Oil Threatens Fishing and Water Supply*, N.Y. TIMES, Jan. 26, 1991, at 1.

⁵ See, e.g., Tom Wicker, *In the Nation; Smoke Over Kuwait*, N.Y. TIMES, Apr. 3, 1991, at 21.

⁶ See *Millions of Gallons*, *supra* note 3, at 37 (Pentagon spokesman calling Gulf spill "an act of environmental terrorism"); R.W. Apple, Jr., *War in the Gulf; U.S. Says Iraq Pumps Kuwaiti Oil into Gulf; Vast Damage Feared from Growing Slick*, N.Y. TIMES, Jan. 26, 1991, at 1; see also *U.S. Trade Mission Pushes Debt-Nature Swaps*, 14 INT'L ENV'T REP. CURRENT REP. (BNA) 13, at 377 (July 3, 1991) [hereinafter *U.S. Trade Mission*] (International Green Cross calling Hussein's acts ecological terrorism); Steven Emerson, *When Earth Takes the Hit*, 21 INT'L WILDLIFE 38 (1991) (labeling Iraq's actions environmental terrorism).

As early as September 1990, Iraqi President Saddam Hussein had threatened to destroy Kuwaiti oil wells or "flush" Kuwaiti oil into the sea if the allies attempted to drive him out of Kuwait.⁷ In mid-January 1991, Iraqi forces, for unspecified reasons,⁸ launched their attack on the environment—deliberately unleashing a flood of oil into the Persian Gulf.⁹ Early reports estimated that several million barrels of oil had spilled into the Gulf by late January,¹⁰ forming an unchecked spill at least nine miles long.¹¹ The oil continued to flow into the Gulf at a rate of more than a million barrels a day.¹² Some of the environmental repercussions from the spill were immediate: cormorants and other birds died by the hundreds; shrimp, sea turtles, sea cows, dolphins, and plankton were also threatened.¹³ In addition to the immediate wildlife problems, the entire population of eastern Saudi Arabia, as well as allied forces in the area, was

⁷ See Wicker, *supra* note 5, at 21.

⁸ The most commonly asserted reason for the oil release is that Iraq's President, Saddam Hussein, wanted to prevent an allied invasion of Kuwait. See *Millions of Gallons*, *supra* note 3, at 37; Philip Shenon, *U.S. Bombs Kuwait Oil Stations, Seeking to Cut Flow Into Gulf; More Iraqi Planes Fly to Iran*, N.Y. TIMES, Jan. 28, 1991, at 1; Apple, *supra* note 6, at 1. Other possible motives include destruction of the desalination plants that supplied fresh water to the Saudi people and carrying through on Hussein's threats to set Kuwaiti oil ablaze or "flush it into the water" if the allied forces tried to oust him. See Shenon, *supra*, at 1; Apple, *supra* note 6, at 1.

⁹ The oil flowed from two primary sources: the tankers anchored at Mina al-Ahmadi, south of Kuwait City, and from the Sea Island terminal, an offshore oil loading dock located near there. Apple, *supra* note 6, at 1; cf. *Saddam's War on the Gulf's Environment*, L.A. TIMES, Mar. 5, 1991, at A6 (citing third source of oil spill at Iraqi oil facility in far northwestern corner of the Gulf).

¹⁰ Apple, *supra* note 6, at 1.

¹¹ McFadden, *supra* note 4, at 1. By January 30, 1991, experts reported that the slick contained ten million barrels of oil and covered 350 square miles. *Millions of Gallons*, *supra* note 3, at 37; see also Samia Nakhoul, *Kuwait Opens Seminar on Environmental Damage from Gulf War*, Reuters, Nov. 9, 1991, AM Cycle, available in LEXIS, World Library, Allnws File (noting that crude oil destroyed marine life along Saudi Arabia's Gulf shoreline and part of Iranian coast).

¹² Shenon, *supra* note 8, at 1. The spill was quoted as being thirty times larger than the Exxon Valdez spill in Prince William Sound which occurred in 1989. Bruce Nichols, *Horrors Plague Wartorn Mideast*, NEW ORLEANS TIMES PICAYUNE, Dec. 8, 1991, at A36 (1st edition).

¹³ Shenon, *supra* note 8, at 1; see Louis Peck, *The Spoils of War*, AMICUS J. (Natural Resources Defense Council, New York, N.Y.), Spring 1991, at 6, 7. The Persian Gulf sea cow, or dugong, is an endangered species and a relative of the Florida manatee. *Id.* at 7. According to Mostafa K. Tolba, Executive Director of the United Nations Environment Program, the spill was "inflicting and [would] continue to inflict untold damage on the rich biological diversity of the region." See *Millions of Gallons*, *supra* note 3, at 37.

faced with the possibility of losing their water supply¹⁴ as a result of the spill.¹⁵

In late March, Iraqi troops finished executing Hussein's threat by setting fire to hundreds of Kuwaiti oil wells;¹⁶ approximately six million barrels of oil, almost ten percent of the world's daily oil ration,¹⁷ were ignited by retreating Iraqi forces.¹⁸ The early assessments of the damage from the oil well fires were dire: 50,000 tons of sulfur dioxide (which causes acid rain) as well as 100,000 tons of sooty smoke were being released into the atmosphere daily.¹⁹ As a result of these fires, "daytime temperatures were far below normal, hospitals were jammed with respiratory patients, [and] 'black rain' [was] damaging crops and water supplies."²⁰

The damaged wells also spewed oil into the desert creating oil lakes which were up to four inches deep and more than an acre in size in some places.²¹ These lakes were particularly dangerous to birds migrating from Africa to Europe and Asia²² because, from the sky, the

¹⁴ See Apple, *supra* note 6, at 1. The oil slick was flowing from its source toward the Saudi desalination plants which supplied fresh water to the region. *Id.*

¹⁵ Ironically, however, it has been the Iraqi population which has been most adversely affected since the close of the war; close to a million Iraqi children are malnourished and more than 100,000 are starving. Williams, *supra* note 2, at A10. Moreover, due to power shortages which disabled water purification and sewage plants, most Iraqis are drinking contaminated water. *Id.*

¹⁶ See, e.g., Wicker, *supra* note 5, at 21.

¹⁷ *Id.*

¹⁸ *Id.* Although original estimates placed extinction of all oil well fires at four to five years, Matthew Nimetz & Gidon M. Caine, *Crimes Against Nature*, AMICUS J. (Natural Resources Defense Council, New York, N.Y.), Summer 1991, at 8, the last of the oil well fires was extinguished in early November by an international team of firefighters. See Williams, *supra* note 2, at A10.

¹⁹ Wicker, *supra* note 5, at 21. Other early predictions were that the fires would cause a "nuclear winter" or a global warming. *Id.* Some environmentalists now say that the Kuwaiti oil fires are "unlikely to affect world climate." See *Reports Clash over Extent of Damage Resulting from Oil Fires in Kuwait*, INT'L ENV'T REP. CURRENT REP. (BNA) No. 13, at 369 (July 3, 1991); George Lobsenz, *Environmentalists Dispute U.S. Findings on Oil Fires*, UPI, June 24, 1991, BC Cycle, available in LEXIS, Nexis Library, UPI File. However, they acknowledge that the fires will still have a major environmental effect on the Persian Gulf region. Lobsenz, *supra*; Nimetz & Caine, *supra* note 18, at 8.

²⁰ Wicker, *supra* note 5, at 21; see also *Experts Worried by Kuwait Fires*, N.Y. TIMES, Aug. 14, 1991, at A7 (quoting estimate that 50,000 people "will have their lives shortened in some way" because of smoke from oil fires); Donna Abu-Nasr, *Environmentalists Push for Aid to Restore Kuwait*, PHILADELPHIA INQUIRER, Oct. 30, 1991, at G04 (noting that wind-borne pollution caused health hazards and environmental problems as far away as Pakistan, Turkey, and Bulgaria).

²¹ Williams, *supra* note 2, at 1.

²² *Id.* (estimating at least a million migratory birds would die in oil lakes).

oil resembles water and birds become trapped when they attempt to land on it.²³

Estimates of the cost of the environmental cleanup average in the billions of dollars.²⁴ In addition to the thousands of cleanup offers received by the Saudi government,²⁵ individual nations have made enormous donations to assist the Gulf cleanup.²⁶ The ecological damage to the region is expected to continue for the next twenty years.²⁷

²³ Nichols, *supra* note 12, at A36 (quoting concerns of environmental expert). Although the oil well fires and the oil spills in the Persian Gulf attracted the most public attention, other environmental horrors remain. The most serious of these include the more than a million land mines which were buried in the Kuwaiti desert by Iraqi troops, Williams, *supra* note 2, at 1, the spent anti-tank missiles which contain depleted uranium, and the cancer causing PCBs and other hazardous industrial waste which was "abandoned or strewn by Iraqi vandals and looters." See, e.g., Nichols, *supra* note 12, at A36.

²⁴ *Major Postwar Clean-up Effort Needed to Avoid Long-Term Gulf Damage, Group Says*, 14 INT'L ENV'T REP. CURRENT REP. (BNA) No. 5, at 132 (Mar. 13, 1991) [hereinafter *Major Postwar Clean-up Effort*]; Nichols, *supra* note 12, at A36 (quoting Abdulrahman al-Awadi, chairman of Kuwait's emergency environmental panel, as saying regionwide cleanup would have multibillion-dollar price tag). Cleanup efforts thus far have focused on containing the oil slick, collecting the oil, and putting out the oil well fires. *Major Postwar Clean-up Effort*, *supra*, at 132. Much of the oil collected from the oil lakes is being pumped directly to a refinery for reprocessing. Nichols, *supra* note 12, at A36. Efforts are also underway to remove the mines buried in the Kuwaiti desert. Williams, *supra* note 2, at A10.

Nevertheless, at least one commentator has criticized the cleanup efforts as being too narrowly focused on the industrial intakes and desalination plants to the detriment of "environmentally sensitive" areas. William Arkin & Paul Horseman, *Environmental, Military, and Human Effects of the Persian Gulf War One Year Later, Special News Conference on the Middle-East*, Federal News Service, Jan. 10, 1992, available in LEXIS, World Library, Allwld File.

²⁵ The International Maritime Organization alone spent about \$6 million on various projects to control the oil spill, including cleaning up an island where endangered turtles and sea birds nest. Nichols, *supra* note 12, at A36; see also Arkin & Horseman, *supra* note 24 (noting that contributions came from only twelve out of the 135 countries who are members of the IMO). In addition, the United Nations Environment Program raised \$2.6 million for the cleanup program. Abu-Nasr, *supra* note 20, at G04.

²⁶ *Major Postwar Clean-up Effort*, *supra* note 24, at 132. For example, Germany has donated over three million dollars in equipment, the United Kingdom has contributed over one million pounds, and Japan has donated over one million dollars for the Gulf cleanup. *Id.* Kuwait also spent an estimated \$1.5 billion to \$2 billion to assist in putting out the oil well fires. Nichols, *supra* note 12, at A36. The United States has not made a contribution to the cleanup efforts. Williams, *supra* note 2, at A10 (quoting Greenpeace official).

²⁷ According to the Royal Society for the Prevention of Cruelty to Animals. See, e.g., *Major Postwar Clean-up Effort*, *supra* note 24, at 132. According to Persian Gulf officials, some of the problems affecting the cleanup efforts include the enormous cost, the lack of technical expertise in the region, and Iraq's "failure to pay

II. LEGAL BACKGROUND

International law on the issue of environmental destruction during wartime is derived from two primary sources: international environmental law and international warfare law. These two sources of international law are further divided into conventional law and customary law. Conventional law is comprised of agreements, conventions, and treaties voluntarily entered into by a nation, while customary law is developed through state practice.²⁸ International law addressing environmental destruction during wartime is generally regarded as insufficient to hold nations, such as Iraq, fully accountable.²⁹ However, there is another important source of liability: United Nations Resolution 687.³⁰

A. *United Nations Resolution 687*

On April 3, 1991, the United Nations Security Council passed Resolution 687 holding Iraq liable under international law for "any

for damage that resulted from its invasion of Kuwait." Nichols, *supra* note 12, at A36; see Abu-Nasr, *supra* note 20, at G04 (environmentalists say main reason for delay is lack of funding for cleanup). Nevertheless, even if a full scale environmental cleanup effort was financially feasible, much of the oil would probably have to be left to degrade naturally because of the fear that the "cleanup [would] do more damage to the environment" than would the pollution. Nichols, *supra* note 12, at A36; see Arkin & Horseman, *supra* note 24 (noting that despite cleanup efforts, Gulf will never get "anywhere near" the pre-spill stage).

²⁸ See Richard A. Falk, *Environmental Disruption by Military Means and International Law in ENVIRONMENTAL WARFARE: A TECHNICAL, LEGAL AND POLICY APPRAISAL* 33, 41-42, (Arthur H. Westing ed., 1984); Maj. Bernard K. Schafer, *The Relationship Between the International Laws of Armed Conflict and Environmental Protection: The Need to Reevaluate What Types of Conduct are Permissible During Hostilities*, 19 CAL. W. INT'L L. REV. 287, 289 (1989) (distinguishing between the international law of environmental protection and the international law of armed conflict).

²⁹ Several commentators have noted that international agreements cover only a narrow range of environmental issues and that scholars have made numerous efforts to make environmental laws more meaningful. See Sanford E. Gaines, *International Principles for Transnational Environmental Liability: Can Developments in Municipal Law Help Break the Impasse?* 30 HARV. INT'L L.J. 311, 314 (1989); S. Sumitra, *Bases and Extent of State Responsibility/Liability in International Law for Environmental Pollution*, 27 INDIAN J. INT'L L. 385, 388 (1987) (noting absence of binding rules on state responsibility for environmental pollution); see also Falk, *supra* note 28, at 33-34 (commenting on states' unwillingness to enter agreements governing wartime acts); THOMAS J. SCHOENBAUM & RONALD H. ROSENBERG, *ENVIRONMENTAL POLICY LAW* 1064-65 (1991) (noting that much international environmental law is not binding and lacks effective enforcement mechanisms).

³⁰ SCOR Res. 687, U.N. SCOR, 2981st mtg., at 7, U.N. Doc. S/RES/687 (1991).

direct loss, [or] damage, including environmental damage and the depletion of natural resources . . . as a result of Iraq's unlawful invasion and occupation of Kuwait."³¹ In addition, the Council created a fund to collect approximately a quarter of Iraq's annual oil revenues to pay compensation for claims stemming from Iraq's actions, while addressing the humanitarian problems abounding in Iraq.³²

In order to implement Resolution 687 and alleviate the hunger and suffering of the Iraqi people, the United Nations Security Council engaged in a flurry of legislation making activity. First, Resolution 688, enacted by the Security Council on April 5, 1991, appealed to the Secretary-General of the United Nations to use "all the resources at his disposal" to address humanitarian concerns in Iraq.³³ The Security Council followed that Resolution on May 20, 1991, by approving the establishment of a Compensation Commission³⁴ to process claims³⁵ and determine reparation awards for environmental damages.³⁶ Finally, on August 15, 1991, the Security Council passed Resolution 706 which provided that Iraq would be able to export oil in specified quantities in order to obtain currency to supply food and medicine to the Iraqi people, as long as thirty percent of the proceeds were set aside for war reparations to Kuwait and other Gulf nations.³⁷

³¹ *Id.*

³² *Id.* at para. 18 (setting up fund to pay compensation and commission to administer fund); SCOR Res. 706, U.N. SCOR, 3004th mtg., U.N. Doc. S/RES/706, at para. 4 (1991), reprinted in 30 I.L.M. 1719 (1991); see Preston Brown, *U.N. Fund to Compensate Claims Against Iraq*, INT'L REP. 2 (July 1991) (published by Curtis, Mallet-Prevost, Colt & Mosle, New York, N.Y.); see also *U.S. Trade Mission*, *supra* note 6, at 377 (citing Green Cross's establishment of prosecution fund to pursue legal action against Iraq for its "willful" ecological terrorism). Rules of procedure for the claims process have not yet been created. See *United Nations Establishes Compensation Commission for Iraqi War Damages*, MIDDLE E. EXECUTIVE REP., June 1991, at 8.

³³ SCOR Res. 688, U.N. SCOR, 2982nd mtg. at para. 5, U.N. Doc. S/RES/688 (1991).

³⁴ U.N. SCOR, U.N. Doc. S/22613 (May 20, 1991) (draft).

³⁵ *Report of the Secretary-General Pursuant to Paragraph 10 of Security Council Resolution 687*, U.N. SCOR, U.N. Doc. S/22559 (May 2, 1991) at para. 10 [hereinafter *Secretary-General's Report on Resolution 687*].

³⁶ *Id.* at paras. 25-27.

³⁷ Resolution 706, *supra* note 32, at paras. 3-4. In order to implement Resolution 706, the Secretary-General determined that thirty percent of the oil revenues would be used as provision for the Compensation Fund. *Report by the Secretary-General Pursuant to Paragraph 5 of Security Council Resolution 706 (1991)*, U.N. SCOR, U.N. Doc. S/23006, at para. 36 (1991), reprinted in 30 I.L.M. 1722, 1724 (1991)

However, in the Secretary-General's Report on Resolution 706 several problems were identified which would hinder the implementation of the oil export scheme. First, the Secretary-General noted that "it would appear that Iraq is most unlikely to be in a position to offer significant quantities of petroleum products for sale at present."³⁸ Second, even if the Security Council authorized the maximum amount of \$1.6 billion dollars,³⁹ there would still be a shortfall of \$800 million to meet humanitarian needs after the other requirements of the Resolution, including war reparations, were met.⁴⁰

However, the Compensation Commission is not the sole source of recovery. Injured parties may also submit their claims independently to international or domestic tribunals;⁴¹ in such instances, international environmental and warfare law will become relevant.⁴²

B. International Environmental Law

1. Conventional Law

The International Convention for the Prevention of Pollution of the Sea by Oil, the first significant multilateral treaty for the prevention of pollution, was signed on May 12, 1954.⁴³ The purpose of

[hereinafter *Secretary-General's Report on Resolution 706*]. The Secretary-General also drafted an elaborate oversight provision which clearly delimited the amount of Iraqi oil which could be sold abroad and the manner in which the proceeds could be used. *Id.* at para. 58. However, Iraq has not agreed to the terms of the U.N. Resolution, nor has it sold any oil abroad, so there is no money available in the compensation fund. See John H. Cushman, *Environmental Claims for Damage by Iraq Go Begging for Data*, N.Y. TIMES, Nov. 12, 1991, at C4; see also Nichols, *supra* note 12, at A36 (stating Iraq had not agreed to U.N. Resolution); Williams, *supra* note 2, at A10 (noting Iraq rejected proposal as violation of its sovereignty).

³⁸ *Secretary-General's Report on Resolution 706*, *supra* note 37, at para. 10 (1991).

³⁹ Resolution 706, *supra* note 32, at para. 1.

⁴⁰ *Secretary-General's Report on Resolution 706*, *supra* note 37, at para. 11.

⁴¹ *Secretary-General's Report on Resolution 687*, *supra* note 35, at para. 22.

⁴² One significant problem with trying to obtain compensation through individual claims, according to Richard Golub, publisher of *The Oil Pollution Bulletin* and an advocate of collecting damages from Iraq, is that in order for a claim to be successful, the nation pursuing the claim must have "developed a strategy for assessing the environmental injuries suffered and then determining the monetary value of those damages." See Cushman, *supra* note 37, at C4. Because most nations have contributed their money and resources to the cleanup effort, rather than to damage assessment, the data necessary for a successful claim has become increasingly difficult to obtain due to the passage of time. *Id.*

⁴³ International Convention for the Prevention of Pollution of the Sea by Oil, May 12, 1954, 12 U.S.T. 2989, 327 U.N.T.S. 3. This document was amended in 1962, 1969, and 1971. As of 1987, the agreement had been signed by 73 states; Iraq is still not a party. *Id.*; see *infra* note 44.

the treaty was to prohibit the discharge of oil into the sea.⁴⁴

In 1972, the Convention Concerning the Protection of the World Cultural and Natural Heritage⁴⁵ was adopted to give "international recognition to the need to protect unique aspects of the environment—both man-made and natural."⁴⁶ Article 4 of that Convention stresses that each State Party to the convention will "do all it can" to protect and conserve the transmission to future generations of the natural heritage.⁴⁷ Also in 1972, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter entered into force.⁴⁸ It protects the oceans, prevents marine pollution, and minimizes the likelihood of damage to human life.⁴⁹

In 1978, Iraq signed the Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution⁵⁰ which was designed to prevent marine pollution in the Persian Gulf.⁵¹ Article VI of the Kuwait Convention provides that

⁴⁴ *Id.* Although Iraq was not a signatory to this convention, the Action Plan for the Development of the Marine Environment and the Coastal Areas of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, appealed to Iraq and other parties to the Action Plan to ratify and implement the convention. Action Plan for Development of Marine Environment and Coastal Areas, Apr. 23, 1978, 17 I.L.M. 501 (adopted Apr. 23, 1978) [hereinafter Action Plan].

⁴⁵ Convention for the Protection of the World Cultural and Natural Heritage, Nov. 23, 1972, 27 U.S.T. 37, 1037 U.N.T.S. 151 [hereinafter World Heritage Convention].

⁴⁶ *Id.* at art. 4; see also Schafer, *supra* note 28, at 290.

⁴⁷ World Heritage Convention, *supra* note 45, art. 4, at 41; see Intergovernmental Working Group on Conservation, Sept. 20, 1971, U.N. Doc. A/CONF.48/PC.11/Add.3 (stressing the conservation of natural areas).

⁴⁸ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (MARPOL), Dec. 29, 1972, 26 U.S.T. 2403, 1046 U.N.T.S. 120 (entered into force Aug. 30, 1975) [hereinafter MARPOL]. By 1987, the Convention was in force for 64 states. See RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 601 reporter's notes (Am. Law Inst. 1986) [hereinafter RESTATEMENT].

⁴⁹ *Id.*; see Schafer, *supra* note 28, at 290. Although Iraq was not a State Party to this agreement, the Action Plan called upon parties to the Kuwait Convention, including Iraq, to ratify the Convention on the Prevention of Marine Pollution. Action Plan, *supra* note 44, at 509.

⁵⁰ Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, Apr. 24, 1978, 17 I.L.M. 511 [hereinafter Kuwait Convention].

⁵¹ *Id.* at art. III, 513. Article III of the Convention provides that "Contracting States shall . . . take all appropriate measures . . . to prevent, abate and combat pollution of the marine environment in the Sea Area." *Id.* See generally RESTATEMENT, *supra* note 48, at 134 (citing Kuwait Convention as example of regional convention); Sumitra, *supra* note 29, at 393 (citing Kuwait Convention as convention on marine pollution).

"Contracting States shall take all appropriate measures to prevent . . . pollution caused by discharges from land reaching the Sea Area" ⁵² On April 25, 1978, the parties to the Kuwait Convention signed the Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency. ⁵³ The Protocol provides that "the Contracting States shall co-operate in taking the necessary and effective measures to protect the coastline and related interests of one or more of the States from the threat and effects of pollution due to the presence of oil . . . in the marine environment resulting from marine emergencies." ⁵⁴

2. Customary Law

In customary law, "a state cannot altogether defeat the formation of international law by withholding its consent." ⁵⁵ Many conventions and treaties that were originally conventional law have become customary law through "wide acceptance among the states particularly involved in the relevant activity." ⁵⁶ The principles espoused in such documents as the Stockholm Declaration of 1972 ⁵⁷ and the World Charter for Nature, ⁵⁸ parts of the Law of the Sea Convention of 1982, ⁵⁹ as well as international case law, are probably binding upon

⁵² Kuwait Convention, *supra* note 50, at art. VI, 514.

⁵³ Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency, April 24, 1978, 17 I.L.M. 526 [hereinafter Protocol].

⁵⁴ *Id.* at art. II. The Protocol defines a "marine emergency" as any "incident, occurrence or situation, *however caused*, resulting in substantial pollution or imminent threat of substantial pollution to the marine environment by oil or other harmful substances." *Id.* at art. I, para. 2 (emphasis added). The Protocol also provides that "any Contracting State faced with a marine emergency situation . . . shall (a) take every appropriate measure to combat pollution and/or to rectify the situation" *Id.* at art. X.

⁵⁵ Falk, *supra* note 28, at 42.

⁵⁶ RESTATEMENT, *supra* note 48, § 102. However, a principle of customary law is not binding on a state that declares its opposition to the principle when it is developed. *Id.* Nevertheless, a practice initially followed as a matter of courtesy may become law when the "general and consistent practice of states" causes those states to believe that they are under a legal obligation to comply with it. *Id.*

⁵⁷ Declaration of the United Nations Conference on the Human Environment, U.N. GAOR, U.N. Doc. A/Conf.48/14/Rev.1 (1973), U.N. Pub. No. E.73.IIA.14 (1974), *reprinted in* 11 I.L.M. 1416 (1972) [hereinafter Stockholm Declaration].

⁵⁸ World Charter for Nature, G.A. Res. 37/7, U.N. GAOR, 37th Sess., 48th plen. mtg., Supp. No. 51, U.N. Doc. A/Res/37/7 (1982), *reprinted in* 22 I.L.M. 456 (1983).

⁵⁹ United Nations Convention on the Law of the Sea, *opened for signature* Dec. 10, 1982, U.N. Doc. A/Conf.62/122 (1982), U.N. Pub. No. E.83.V.5 (1983), *re-*

all states as customary international law because of the almost universal acceptance of these principles by the international community.

The Stockholm Declaration includes a number of principles which have the purpose of protecting and enhancing the world's environment.⁶⁰ For example, Principle 6 states that "the discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted"⁶¹ Principle 7 declares that "States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life"⁶² Principle 21 imposes "responsibility [on member States] to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States"⁶³ Finally, Principle 22 provides that "States shall co-operate to develop further the international law

printed in 21 I.L.M. 1261 (1982) [hereinafter Law of the Sea Convention]. Most of the provisions regarding the protection of the marine environment reflect customary international law. RESTATEMENT, *supra* note 48, § 102. However, those provisions dealing with settling disputes are conventional law and are, therefore, binding only on the parties to the agreement. *See generally id.* (noting that substantive provisions of the Law of the Sea Convention are customary; dispute settlement provisions are conventional). Nevertheless, this convention may ultimately become binding on Iraq because some multilateral agreements become customary law for non-parties who do not actively dissent. *Id.* § 102, at 27. The fact that the substantive portions of the Law of the Sea Convention have already become customary law shows the international community's acceptance of the major portions of the agreement; it is not unrealistic to predict that someday this acceptance will encompass the remedial provisions as well. As of yet, Iraq has not actively dissented to any of the Convention's provisions.

⁶⁰ *See generally*, Schafer, *supra* note 28, at 291 (noting declaration's purpose to bolster sea treaties); Sumitra, *supra* note 29, at 388 (citing Conference on Human Environment). Another purpose of the Declaration was to create an affirmative duty on States to avoid causing environmental harm to other States. Schafer, *supra* note 28, at 292. While the Stockholm Declaration itself is not legally binding, the document has "received considerable support from states and has guided state practice." Durwood Zaelke & James Cameron, *Global Warming and Climate Change — An Overview of the International Legal Process*, 5 AM. U.J. INT'L L. & POL'Y 249, 264 (1990).

⁶¹ Stockholm Declaration, *supra* note 57, at princ. 6.

⁶² *Id.* at princ. 7.

⁶³ *Id.* at princ. 21 (emphasis added); *see* Louis B. Sohn, *The Stockholm Declaration on the Human Environment*, 14 HARV. INT'L L. J. 423, 493 (1973) (stating Principle 21 makes clear that "the rule of responsibility applies . . . to any injury inflicted on the environment of 'areas beyond the limits of national jurisdiction' such as the high seas.").

regarding liability and compensation for the victims of pollution and other environmental damage"⁶⁴

On October 28, 1982, the United Nations General Assembly followed up the Stockholm Declaration by passing the World Charter for Nature,⁶⁵ which includes a section on the impact of warfare on the environment.⁶⁶ The Charter provides, in pertinent part, that "natural resources shall not be wasted,"⁶⁷ and that "[m]ilitary activities damaging to nature shall be avoided."⁶⁸ Although the Charter was adopted by a vote of 111 to one, it was originally intended to be a guide for regulating the international environment, not to have legally binding force.⁶⁹

Iraq is also a potential party to the Law of the Sea Convention of 1982⁷⁰ which includes extensive provisions for the protection of the marine environment against pollution.⁷¹ Although Iraq has signed

⁶⁴ Stockholm Declaration, *supra* note 57, at princ. 22; see RESTATEMENT, *supra* note 48, § 601, reporter's note 1 (citing Principle 22 as general principle of state responsibility for environmental injury); see also Gaines, *supra* note 29, at 311 (noting Principles 21 and 22 create legal obligation to provide reparation or compensation to injured parties); compare Sumitra, *supra* note 29, at 388 (noting Principle 22 "recognises [sic] the absence of binding rules of international law with regard to State responsibility for environmental pollution"). Other relevant principles include Principle 2 ("the natural resources of the earth . . . must be safeguarded for the benefit of present and future generations") and Principle 5 ("the non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion"). Stockholm Declaration, *supra* note 57, at princ. 2 and 5.

⁶⁵ World Charter for Nature, *supra* note 58. See generally Schafer, *supra* note 28, at 293.

⁶⁶ Principle 5 of the Charter provides that "[n]ature shall be secured against degradation caused by warfare or other hostile activities." World Charter for Nature, *supra* note 58, at princ. 5.

⁶⁷ *Id.* § II, para. 10.

⁶⁸ *Id.* § III, para. 20.

⁶⁹ SCHOENBAUM & ROSENBERG, *supra* note 29, at 1071. Nevertheless, such broad international acceptance of the Charter's provisions is some evidence that its principles are considered customary law. Moreover, at least one commentator has determined that the Charter is a source of customary law because the "public conscience" acknowledges it as a source of law and policy guidance. Falk, *supra* note 28, at 42.

⁷⁰ Law of the Sea Convention, *supra* note 59.

⁷¹ *Id.* Article 12 of the agreement comprehensively discusses the protection and the preservation of the marine environment. The agreement also includes sections on global and regional cooperation (Section 2); monitoring and environmental assessment (Section 4); international rules and national legislation to prevent, reduce, and control pollution of the marine environment (Section 5), enforcement (Section 6); safeguards (Section 7); and responsibility and liability (Section 9). For specific provisions, see *infra* note 73 and accompanying text.

the Law of the Sea Convention, it is only a potential party. The requisite number of states have not yet signed the agreement to make it legally enforceable. Nevertheless, as a source of customary law, much of the Law of the Sea Convention is binding on non-signatories as well.⁷² One relevant portion of the agreement is Article 194(1) which provides that "[s]tates shall take . . . all measures . . . that are necessary to prevent, reduce and control pollution of the marine environment from any source"⁷³

Various principles of international case law are also relevant.⁷⁴ The most widely cited case establishing state liability for transboundary pollution is the *Trail Smelter* case.⁷⁵ In *Trail Smelter*, an international tribunal held that "no state has the right to use . . . its territory in such a manner as to cause injury . . . to the territory of an-

⁷² *Id.*

⁷³ *Id.* at art. 194. Other relevant portions include Article 194(2) which provides: States 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, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights

Id.

Furthermore, Articles 213-32, which are conventional laws, address the enforcement of the Convention's anti-pollution provisions. Article 230 provides that "[m]onetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards" *Id.* at art. 230 (emphasis added). Article 232 provides that "States shall be liable for damage or loss attributable to them" *Id.* at art. 232. In addition, Article 235(1) holds states "responsible for the fulfillment of their international obligations . . . [and t]hey shall be liable in accordance with international law." *Id.* at art. 235(1). Finally, Article 235(2) "ensure[s] that recourse is available . . . for prompt and adequate compensation or other relief in respect of damage caused by pollution" *Id.* at art. 235(2).

⁷⁴ Although not all international case law has become customary, the holdings of international tribunals are "persuasive evidence of what the law is" and should be "accorded great weight." RESTATEMENT, *supra* note 48, § 103 cmt. b. Moreover, the *Trail Smelter* case and the *Corfu Channel* case are almost universally considered customary law. *Trail Smelter* (Can. v. U.S.), 3 R.I.A.A. 1905 (1949); *Corfu Channel* (U.K. v. Alb.), 1949 I.C.J. 4 (Apr. 9); see Richard E. Levy, *International Law and the Chernobyl Accident: Reflections on an Important but Imperfect System*, 36 KAN. L. REV. 81, 90, 100-01 (1987) (stating holdings of *Trail Smelter* & *Corfu Channel* express general principles of international law); Zaelke & Cameron, *supra* note 60, at 264 (noting principles of *Trail Smelter* accepted as rule of customary international law by large number of states).

⁷⁵ 3 R.I.A.A. 1905 (1949). The *Trail Smelter* decision involved a Canadian smelter plant which emitted large amounts of sulfur dioxide that crossed the border into the State of Washington, causing extensive environmental damage. *Id.*

other"⁷⁶ However, the tribunal withheld judgment on an injunction against causing future damages.⁷⁷ On the other hand, the *Corfu Channel* case considered whether liability could be imposed on the Albanian government where mines were laid in Albanian territorial waters causing the explosion of two British warships.⁷⁸ The International Court, emphasizing the Albanian government's knowledge of the minefield, held that it was "every State's obligation not to knowingly allow its territory to be used for acts contrary to rights of other States."⁷⁹

C. *International Warfare Laws*

The 1977 Environmental Modification Convention,⁸⁰ to which Iraq is a party,⁸¹ makes it unlawful to "engage in military . . . environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party."⁸² A facially similar conventional warfare law is the 1977 Protocol I to the Geneva Convention of 1949.⁸³ Protocol I prohibits "methods or means of warfare which are intended, or may

⁷⁶ *Trail Smelter*, 3 R.I.A.A. at 1965; see also Gaines, *supra* note 29, at 322-23 (noting *Trail Smelter* established State liability for damage of "serious consequence").

⁷⁷ *Trail Smelter*, 3 R.I.A.A. at 1934.

⁷⁸ *Corfu Channel*, 1949 I.C.J. at 25.

⁷⁹ *Corfu Channel*, 1949 I.C.J. at 22 (quoted in M. McDUGAL & W.M. REISMAN, *INTERNATIONAL LAW IN CONTEMPORARY PERSPECTIVE* 524, 525 (1981)); see Levy, *supra* note 74, at 101 (indicating that many scholars extend this principle to the pollution context).

⁸⁰ United Nations Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, May 18, 1977, 31 U.S.T. 333, [hereinafter ENMOD] 1108 U.N.T.S. 152 (entered into force Oct. 5, 1978), *reprinted in* 16 I.L.M. 88.

⁸¹ *Id.*

⁸² *Id.* at art. I.1 (emphasis added). "Environmental modification techniques" are defined by the Convention as "any technique for changing—through the deliberate manipulation of natural processes—the dynamics . . . of the Earth" *Id.* at art. II.

⁸³ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, *opened for signature* Dec. 12, 1977, 1125 U.N.T.S. 3 [hereinafter Protocol I], (entered into force Dec. 7, 1978), *reprinted in* 16 I.L.M. 1391 (1977); see ADAM ROBERTS & RICHARD GUELFF, *DOCUMENTS ON THE LAWS OF WAR* 387 (2d ed. 1989); Schafer, *supra* note 28, at 310 (explaining Protocol I is significant conventional law, but not universally accepted). Iraq is not a State Party to Protocol I and, therefore, is not bound to uphold it. See Protocol I, *supra*. However, the acceptance of Protocol I by the majority of States shows that it may soon be considered a source of customary international law.

be expected, to cause widespread, long-term *and* severe damage to the natural environment."⁸⁴ The Geneva Convention of 1949 also contains a provision prohibiting the destruction of property in the absence of military necessity.⁸⁵

Although the Hague Conventions of 1899⁸⁶ and 1907⁸⁷ were previously sources of conventional law, they were incorporated into customary international law during the Nuremberg Trials.⁸⁸ Although the Hague Convention of 1899 was strictly limited to the prohibition of poison and materials causing unnecessary suffering,⁸⁹ the Hague Convention of 1907, which superseded the earlier agreement, encom-

⁸⁴ Protocol I, *supra* note 83, at Art. 35.3, 1125 U.N.T.S. at 21 (emphasis added). Other than the slight language differences between ENMOD and Protocol I, there are other more significant differences. First, Protocol I addresses any method of warfare that is intended to cause environmental damage, whereas ENMOD is restricted to environmental modification techniques. See Schafer, *supra* note 28, at 312. In addition, Protocol I governs relations between warring nations, while ENMOD controls relations between State Parties to the Convention. *Id.*

⁸⁵ Geneva Convention Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, 6 U.S.T. 3516, 75 U.N.T.S. 287 [hereinafter Geneva Convention of 1949] (entered into force Oct. 21, 1950), *reprinted in* ROBERTS & GUELFF, *supra* note 83, at 272. Article 53 provides: "any destruction by the Occupying Power of real or personal property belonging individually or collectively to private persons, or to the State . . . is prohibited, except where such destruction is rendered absolutely necessary by military operations." *Id.* Iraq is a State Party to the Geneva Convention. *Id.*

⁸⁶ The relevant text of that document provides: "the occupying State shall only be regarded as administrator and usufructuary of the . . . real property, forests and agricultural works belonging to the hostile State . . . It must protect the capital of these properties. . . ." Convention (II) with Respect to the Laws and Customs of War on Land, (HAGUE II), July 29, 1899 [hereinafter Hague Convention of 1899], *reprinted in* DIETRICH SCHINDLER & JIRI TOMAN, *THE LAW OF ARMED CONFLICTS* 63, 91 (1988). A usufructuary is defined in the civil law as "one who has the . . . right of enjoying anything in which he has no property." BLACK'S LAW DICTIONARY 1544 (6th ed. 1990).

⁸⁷ The Hague Convention of 1907 provides that occupying States have the affirmative duty to "safeguard the capital of [the properties enumerated in the Hague Convention of 1899] and administer them in accordance with the rules of usufruct." Convention concerning the Laws and Customs of War on Land (Hague IV), Oct. 18, 1907, 36 Stat. 2277, art. 55 [hereinafter Hague Convention of 1907], *reprinted in* Roberts & Guelff, *supra* note 68, at 43. It also holds that "[t]he right of belligerents to adopt means of injuring the enemy is not unlimited." *Id.* at art. 22.

⁸⁸ In that case, the tribunal held that the Hague Conventions of 1899 and 1907 had the "force of customary law — binding even on non-signatory states." See Schafer, *supra* note 28, at 305 (citing U.N. WAR CRIMES COMM'N, LAW REPORTS OF TRIALS OF WAR CRIMINALS (1949)); see also Falk, *supra* note 28, at 41 (noting Hague Conventions binding beyond "orbit of consent").

⁸⁹ Hague Convention of 1899, *supra* note 86.

passed a wider range of activities and was intended to "humanize" war as much as possible.⁹⁰ Another recent addition to customary law is Protocol II of 1977 on the Protection of Victims of Non-international Armed Conflict.⁹¹ Protocol II prohibits "destroy[ing], remov[ing] or render[ing] useless objects indispensable to the survival of the civilian population, such as . . . drinking water installations and supplies and irrigation works"⁹²

D. Future Sources of Environmental Wartime Law

In response to Iraq's environmental devastation of Kuwait and the Persian Gulf, many experts have called for new laws addressing environmental wartime law.⁹³ However, no law on this matter has yet been implemented.

III. ANALYSIS

The three potential sources for Iraqi liability are United Nations Security Council Resolution 687,⁹⁴ international environmental law, and international warfare law.⁹⁵ Although Resolution 687 is sufficient to impose legal responsibility, the passage of a United Nations' resolution to institute liability is a rare occurrence. More importantly, in this instance, is the fact that the Compensation Fund designated by Resolution 687 as a source of recovery for victims of the environmental damage, has not received any monies from the sale of

⁹⁰ Hague Convention of 1907, *supra* note 87.

⁹¹ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-international Armed Conflicts, Dec. 12, 1977, 1125 U.N.T.S. 609 [hereinafter Protocol II] (entered into force in 1978) *reprinted in* 16 I.L.M. 1442 (1977); *see, e.g.*, Waldemar A. Solf, *Protection of Civilians Against the Effects of Hostilities under Customary International Law under Protocol I*, 1 AM. U.J. INT'L L. & POL'Y 117, 133-34 (1986) (citing Protocol II as source of customary international law).

⁹² Protocol II, *supra* note 91, at art. 14.2, 1125 U.N.T.S. at 615.

⁹³ *See* Sarah Lee, *A Geneva Convention for the Environment*, 135 SOLIC. J. 386 (1991) (calling for Fifth Geneva Convention for Environment); Nimetz & Caine, *supra* note 18, at 8 (stressing need for environmental wartime agreement); William Walker, *Canada Urges 'Eco-terrorism' Law*, TORONTO STAR, July 11, 1991, at 13 (urging law prohibiting damage not necessary to achievement of definite military advantage); *see also* Falk, *supra* note 28, at 45 (promoting a proposed Convention on the Crime of Ecocide); Alan E. Boyle, *Marine Pollution under the Law of the Sea Convention*, 79 AM. U. J. INT'L L. & POL'Y 347 (1985) (calling for more comprehensive marine pollution laws).

⁹⁴ SCOR Res. 687, *supra* note 30, at 7.

⁹⁵ *See* Schafer, *supra* note 28, at 287.

Iraqi oil.⁹⁶ Therefore, Resolution 687 to date has only served as a source of international condemnation and has not fulfilled the original purpose of compensation.

Moreover, the procedures necessary to assess liability for violations of international environmental law are generally either absent⁹⁷ or undeveloped.⁹⁸ In addition, international environmental law imparts upon states civil, rather than criminal, liability.⁹⁹ Furthermore, international warfare law is well developed in some areas,¹⁰⁰ holding states' rulers criminally responsible for their actions.¹⁰¹ However, where international warfare law addresses the environment, the provisions are normally ill-defined¹⁰² or do not define environmental destruction as a "war crime." Thus, international tribunals lack the authority to hold a state or its leader criminally responsible for "war crimes" against the environment and are left with only an ineffectual compensatory remedy. Exactly how ineffectual current international law is on environmental warfare will be discussed below.

On April 3, 1991, the United Nations Security Council passed Resolution 687 which reaffirmed that Iraq is legally responsible for,

⁹⁶ See *supra* note 37 and accompanying text.

⁹⁷ See Protocol, *supra* note 53 (no liability provisions); Stockholm Declaration, *supra* note 57 (same); World Charter for Nature, *supra* note 58 (same).

⁹⁸ See, e.g., Kuwait Convention, *supra* note 50, at art. XIII ("Contracting States undertake to co-operate in formulation and adoption of rules and procedures for the determination of . . . liability and compensation" for environmental damage); MARPOL, *supra* note 48, at art. X, 26 U.S.T. at 2411, 1046 U.N.T.S. at 143 (procedures for assessing liability undeveloped).

⁹⁹ Civil liability, by its nature, only contemplates monetary damages. In this case, the fact that a several billion dollar debt remains for the cost of the Persian Gulf cleanup clearly evidences that civil liability in this area is insufficient. See, e.g., *Major Postwar Clean-Up Effort*, *supra* note 24, at 132. Although it is arguable whether the sale of Iraqi oil could finance the cleanup or compensate the victims of the damage, see *supra* notes 37-39 and accompanying text, Hussein's refusal to comply with U.N. Resolutions authorizing such a sale shows his resistance to accept responsibility for his actions and illustrates the limitations of civil liability when the individual responsible for the acts sought to be compensated remains in power. See *supra* note 37.

¹⁰⁰ See Geneva Protocol II Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts, Dec. 12, 1977, 1125 U.N.T.S. 609; Protocol I, *supra* note 83, at arts. 68-79, 1125 U.N.T.S. at 35-40; Hague Convention of 1907, *supra* note 87, at Annex, art. XXII.

¹⁰¹ See, e.g., Protocol I, *supra* note 83, at pt. V, sec. II, art. 85, 1125 U.N.T.S. at 41 (grave breaches of Protocol I regarded as "war crimes").

¹⁰² See Hague Convention of 1907, *supra* note 87, at annex, art. XXII; Hague Convention 1899, *supra* note 86, at annex, art. XXII.

inter alia, the environmental damage and the depletion of natural resources caused by Iraqi forces.¹⁰³ Because United Nations Security Council resolutions have the force of binding law,¹⁰⁴ Resolution 687 has the authority to hold Iraq liable for violating "international law" in its most general sense.¹⁰⁵ However, the resolution is deficient in two respects: (1) it does not provide for Hussein's personal culpability; and (2) it only provides for compensation for short-term environmental damage to the region.¹⁰⁶ Thus, while United Nations Resolution 687 is a potential legal source for holding Iraq responsible, it will ultimately be insufficient. Without better means of imposing liability under international law, future "eco-terrorists" will surely escape liability.

A. *International Environmental Law*

Current international environmental law is insufficient to compensate the victims of Iraq's environmental attack on the Persian Gulf region primarily because Iraq is insolvent. Victims attempting to acquire compensation under the United Nations' fund will have to wait a long time for Iraq to contribute enough of its oil profits to compensate all of them, provided that Iraq does, in fact, start contributing to the fund through exportation of its oil. Furthermore, current law does not provide for personal culpability. However, Iraq is potentially liable under a number of conventional and customary

¹⁰³ SCOR Res. 687, *supra* note 30, at 7.

¹⁰⁴ U.N. CHARTER art. 25 & art. 48, para. 4. As a member of the United Nations, resolutions, declarations and other statements of principles that are passed by the United Nations Security Council have the effect of law on Iraq. RESTATEMENT, *supra* note 48, § 102, reporter's note 3.

¹⁰⁵ SCOR Res. 687, *supra* note 30, at 7.

¹⁰⁶ Nimetz & Caine, *supra* note 18, at 9. The importance of these two deficiencies can be explained through a pragmatic approach. First, Hussein and individuals like him, who authorize atrocities such as the Persian Gulf environmental damage, have already demonstrated an inability to operate within the parameters of the international legal system, and, it may be assumed, will continue to disregard international law, while immunizing themselves from international accountability. One indication such premise is true is Hussein's failure to comply with the U.N. Resolutions authorizing the sale of Iraqi oil. See *supra* note 37. Had Hussein been held personally liable for his actions, he would not be in the position to ignore demands for Iraqi liability.

Second, numerous commentators have stated that the environmental destruction in the Persian Gulf would last well into the future. See *supra* text accompanying note 27. Resolution 687 and similar measures which allow a State to escape full responsibility for its acts may not constitute a sufficient deterrent to future actors and, more importantly, will certainly fail to fully compensate the individuals and States already harmed by the unlawful conduct.

international environmental law sources: (1) Iraq is a signatory to the Kuwait Convention;¹⁰⁷ (2) Iraq is a State Party to the Protocol Concerning Regional Co-operation in Combating Pollution by Oil;¹⁰⁸ (3) Iraq is a potential party to the Law of the Sea Convention of 1982;¹⁰⁹ (4) Iraq is arguably obligated under customary law to uphold the Stockholm Declaration¹¹⁰ and the World Charter for Nature;¹¹¹ and (5) Iraq is bound by the principles of customary international law reflected in the *Trail Smelter*¹¹² and *Corfu Channel*¹¹³ cases. However, these laws either hold a state responsible for civil damages¹¹⁴ or do not have established procedures to institute liability.¹¹⁵

¹⁰⁷ The Kuwait Convention creates an affirmative duty on all parties to prevent pollution. Kuwait Convention, *supra* note 50, at art. III, para. a. The convention asked Iraq to adopt the Convention for the Prevention of the Pollution of the Sea by Oil, *supra* note 43, and the Convention for the Prevention of Marine Pollution, *supra* note 48. Action Plan, *supra* note 44, at para. 25. However, as of this date, Iraq has yet to become a party to either of those conventions and, therefore, is not bound by them.

¹⁰⁸ The Protocol requires the parties to take "necessary and effective measures" to protect the coastline from oil in the event of a marine emergency. Protocol, *supra* note 53, at art. II, para. 1.

¹⁰⁹ Iraq was committed to become a State Party to the Law of the Sea Convention in 1985. Law of the Sea Convention, *supra* note 59, at art. 305 pt. XVII. However, as of December 10, 1982, the Convention was lacking 36 of the required 60 signatures to enter the law into force. *Id.* Nevertheless, certain portions of the Law of the Sea Convention are considered customary law and, as such, are binding even on non-parties. *Id.*

¹¹⁰ The Stockholm Declaration attempts to impose an obligation on States not to transform detrimentally the environment. See Sumitra, *supra* note 29, at 388. Iraq is specifically guilty of violating Principles 2, 5, 6, 7, 21, and 22 (discussed *supra* notes 61-64, 66 and accompanying text).

¹¹¹ The World Charter for Nature prohibits wasting natural resources and "military activities damaging to nature." World Charter for Nature, *supra* note 58, at Annex, §§ II and III, para. 20.

¹¹² *Trail Smelter* (Can. v. U.S.), 3 R.I.A.A. 1905 at 1923 (1949). *Trail Smelter* held that nations may not use their territory to the injury of neighboring countries. *Id.*

¹¹³ *Corfu Channel* (U.K. v. Alb.), 1949 I.C.J. 4 at 22 (Apr. 9).

¹¹⁴ *Trail Smelter* establishes state liability for environmental damage of "serious consequence" proven with "clear and convincing" evidence. *Id.* at 1934. See also Gaines, *supra* note 29, at 322-23. However, under *Trail Smelter* the only available remedy is monetary compensation for past damages. *Trail Smelter*, 3 R.I.A.A. at 1934. The *Trail Smelter* court expressly denied an injunction against future damages caused by the plant and, therefore, prevented the State of Washington from protecting itself against future injury. *Id.*

¹¹⁵ See Kuwait Convention, *supra* note 50, at art. XIII (liability provisions in development); Protocol, *supra* note 53 (no liability provisions); Law of the Sea Convention, *supra* note 59, at pt. XI, subsec. H (liability provisions not in force); Stockholm Declaration, *supra* note 57 (no liability provisions); World Charter for Nature, *supra* note 58 (no liability provisions).

Applying these laws to the case at hand, it is clear that Iraq has violated provisions in each of them. Under the Kuwait Convention, Iraq's intentional release of millions of gallons of oil into the Persian Gulf would violate Article III¹¹⁶ which creates an affirmative duty on state parties to *prevent* pollution. Moreover, Article II of the Protocol to the Kuwait Convention provides that the Contracting Parties, including Iraq, must take "necessary and effective measures" to protect the coastline from the threat of oil resulting from marine emergencies.¹¹⁷ Because Article I of the Protocol defines a "marine emergency" to include "any situation, *however caused*, [which poses an] imminent threat . . . to the marine environment," the massive oil spill, even though intentionally caused by Iraq, constitutes a marine emergency which requires Iraq's affirmative action to protect the environment. As of this date, Iraq has failed to provide either financial or technical assistance to the Persian Gulf cleanup efforts and, therefore, is in violation of the Protocol.

Iraq has similarly violated the principles of international law reflected in the Law of the Sea Convention. For instance, under Article 194(1), Iraq is required to take all measures that are necessary to prevent and control pollution that would adversely affect the marine environment.¹¹⁸ Again, Iraq intentionally caused the pollution of the Persian Gulf and has failed to take any measures to alleviate the situation. In addition, Article 194(2) contains a sweeping provision which creates an affirmative duty on states to "ensure that activities under . . . their control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents . . . under their . . . control does not spread beyond the areas where they exercise sovereign rights."¹¹⁹ Iraq arguably "controlled" Kuwait while massive quantities of oil were being pumped into the Persian Gulf because United Nations forces had not yet ousted them from Kuwaiti territory.¹²⁰ On the other hand, Iraq

¹¹⁶ See discussion *supra* note 51.

¹¹⁷ See *supra* note 54 and accompanying text.

¹¹⁸ See *supra* text accompanying note 73.

¹¹⁹ See Law of the Sea Convention, *supra* note 73.

¹²⁰ See Wicker, *supra* note 5, at 21; see also *Millions of Gallons*, *supra* note 3, at 37 (noting that Iraq released oil to prevent an allied invasion of Kuwait). Because the Law of the Sea Convention only contemplates damage to the marine environment, Iraq's questionable control over Kuwait while the oil well fires were lit and the oil lakes were being formed is not at issue. See, e.g., Wicker, *supra* note 5, at 21 (noting oil well fires set by Iraqi forces).

clearly did not ensure that "activities under their control" prevented pollution, but, in fact, affirmatively caused the pollution.¹²¹ Moreover, the Persian Gulf pollution has been quoted as destroying marine life along the Saudi Arabian shoreline and part of the Iranian coast. Therefore, pollution caused by an activity under Iraq's control "spread beyond" an area where Iraq exercised "sovereign rights"¹²² in violation of the Convention.

Iraq has also breached its international obligations under the Stockholm Declaration and the World Charter for Nature. For example, under Principle 21 of the Stockholm Declaration, Iraq has breached its duty "to ensure that activities within their . . . control do not cause damage to the environment of other States."¹²³ Because the effects of the oil well fires and oil well spills were felt in Saudi Arabia, Iran,¹²⁴ Pakistan, Turkey, and Bulgaria,¹²⁵ Iraq's actions have clearly caused environmental damage to other States. In addition, Iraq violated sections II and III of the World Charter for Nature by wasting enormous quantities of irreplaceable natural resources¹²⁶ and destroying the environment without military justification,¹²⁷ respectively.

Finally, the *Trail Smelter* holding would be relevant in this case, despite the fact that Kuwait was not legally Iraq's territory.¹²⁸ The inferred policy of the case is to hold states liable for ecological damages in areas that are within their control,¹²⁹ provided that two elements are met: (1) the environmental damage must be of "serious consequence" and (2) the damage must be proven by "clear and convincing evidence."¹³⁰ In this case, it is undisputed that the environmental effects on the Persian Gulf region are disastrous.¹³¹ Moreover, the evidence is "clear and convincing" that the environmental

¹²¹ See, e.g., *Millions of Gallons*, *supra* note 3, at 37.

¹²² See Nakhoul, *supra* note 11.

¹²³ Stockholm Declaration, *supra* note 57, at 4.

¹²⁴ See Nakhoul, *supra* note 11.

¹²⁵ See Abu-Nasr, *supra* note 20, at G04.

¹²⁶ World Charter for Nature, *supra* note 58, § II, para. 10.

¹²⁷ *Id.* § III, para. 20.

¹²⁸ Because Iraq claimed that Kuwait was "its territory," although legally it was not, the holding is probably applicable.

¹²⁹ The *Trail Smelter* case held that "no state has the right to use . . . its territory in such a manner as to cause injury . . . to the territory of another" 3 R.I.A.A. at 1965.

¹³⁰ *Id.*

¹³¹ See, e.g., Nimetz & Caine, *supra* note 18, at 8.

damage inflicted on the region was a direct result of Hussein's actions and that, as a result of those actions, cleanup expenses will eventually total over several billion dollars.¹³²

Although Iraq has breached accepted principles of customary international law and violated provisions in each of these Conventions, it is fiscally unable to assist in the cleanup effort, because now, as before the war, it is in serious financial debt.¹³³ As a result of Iraq's insolvency, the United States and its allies now have a debt of several billion dollars for the clean up of the Gulf region.¹³⁴ Moreover, assuming that Iraq was able to make financial reparations to Kuwait and other Persian Gulf nations for its actions and could be compelled to do so, the potential for future environmental devastation would still exist. Saddam Hussein, the Iraqi leader responsible for ordering the destruction, has not been held personally accountable and remains in power.¹³⁵ Thus, the insufficiency of civil damages as reparation for wartime environmental crimes, particularly in regard to this case, is indisputable.

B. International Warfare Law

Although Iraq is bound by the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD); the Geneva Convention of 1949, Protocol II; and the Hague Conventions of 1899 and 1907, the application of the environmental warfare sections contained in those agreements to Iraq's actions is unclear.

First, in order for state actions to fall under ENMOD, the action in question must meet two criteria. The activity must be designated as an "environmental modification technique"¹³⁶ and must result in "widespread, long-lasting or severe effects."¹³⁷ Beginning with the second element, the environmental devastation in the Persian Gulf is expected to have a serious impact on the region for as long as

¹³² See *supra* note 24 and accompanying text.

¹³³ *Major Postwar Clean-up Effort*, *supra* note 24, at 133. It is highly probable that other nations resorting to ecological warfare will likewise be unable to bear the cost of their actions.

¹³⁴ See *id.* at 132.

¹³⁵ At least two commentators have urged that if the world community believes environmental warfare acts, such as Hussein's, are "truly outrageous" they should be punishable as war crimes. Nimetz & Caine, *supra* note 18, at 10.

¹³⁶ ENMOD, *supra* note 80, at art. I, 31 U.S.T. at 336, 1108 U.N.T.S. at 153.

¹³⁷ *Id.*

twenty years.¹³⁸ Thus, the second element is met. However, in order for an activity to qualify as an "environmental modification technique," the offending nation must have "deliberately" manipulated the Earth's natural processes.¹³⁹ In this case, early predictions of "global warming" or a "nuclear winter" were inaccurate.¹⁴⁰ Moreover, there is no evidence suggesting that Hussein intended to alter the world's temperature by igniting Kuwaiti oil wells. In fact, the threshold for liability under ENMOD appears to be higher than the facts of the present case suggest.¹⁴¹ Thus, the first element of ENMOD is not met. Therefore, since Iraq did not intend to modify the environment, it probably did not violate the ENMOD.

The Geneva Convention of 1949 is another potential source of Iraqi liability¹⁴² for its environmental offenses. The Geneva Convention prohibits the destruction of state property, "except where such destruction is absolutely necessary for military operations."¹⁴³ In this case, Iraq clearly destroyed Kuwaiti property by igniting hundreds of its oil wells.¹⁴⁴ Moreover, the oil wells were torched as Iraq retreated from Kuwait; thus, there was no "absolutely necessary" military justification for that measure.¹⁴⁵ However, the most commonly asserted reason for the oil release is that Hussein wanted to prevent an allied invasion of Kuwait from the Persian Gulf.¹⁴⁶ The Geneva Convention is probably inapplicable to the oil spill since the threshold for its implementation is extremely high.¹⁴⁷ Thus, Iraq could probably

¹³⁸ See *Major Postwar Clean-up Effort*, *supra* note 24, at 134.

¹³⁹ ENMOD, *supra* note 80, at art. II, 31 U.S.T. at 336, 1108 U.N.T.S. at 153.

¹⁴⁰ See, e.g., Lobsenz, *supra* note 19 (saying smoke from Kuwaiti oil fires unlikely to affect world climate).

¹⁴¹ ENMOD was implemented in response to the United States' attempt to direct and manipulate rainfall during the Vietnam War. ROBERTS & GUELF, *supra* note 83, at 377. Although it is readily apparent that Hussein deliberately intended to adversely affect the environment, there is no evidence that he deliberately manipulated the Earth's processes.

¹⁴² Iraq is not bound by Protocol I because it is not a signatory to that convention. Protocol I, *supra* note 83.

¹⁴³ Geneva Convention of 1949, *supra* note 85, at art. 53, 6 U.S.T. at 3552, 75 U.N.T.S. at 322.

¹⁴⁴ See, e.g., Wicker, *supra* note 5, at 21.

¹⁴⁵ *Id.*

¹⁴⁶ See, e.g., *Millions of Gallons*, *supra* note 3, at 37.

¹⁴⁷ Although the Geneva Convention contains provisions prohibiting the "extensive destruction" of the environment and permits individuals ordering such destruction to be put on trial, the threshold at which environmental destruction is prohibited is extremely high. See Lee, *supra* note 93, at 386; see also Falk, *supra* note 28, at 37 (noting that only "wanton destruction" of natural resources creates a basis for legal accountability and that, in the next war, the state could "reaffirm claims of unconstitutional national security interests" as a defense to international culpability).

escape liability under the Geneva Convention either because of a vaguely defined exception to the rule or because Iraq's actions failed to meet the threshold for implementation of the Geneva Convention.

The Hague Convention of 1907 is also ineffective. Its provisions which contemplate wartime environmental issues are extremely broad and fail to define what behavior is prohibited.¹⁴⁸ For this reason, Hussein's actions would likely not be covered by the Convention's language. Thus, holding Iraq liable for its extensive environmental atrocities under the Hague Convention is unrealistic.

Finally, Protocol II probably applies to this case because it prohibits "destroying" or "rendering useless . . . drinking water installations and supplies" during wartime.¹⁴⁹ It is unclear from the language of the treaty, however, whether attempting to destroy water supplies or doing an act which could result in the destruction of water supplies would be sufficient to invoke the application of Protocol II. Iraq was unable to destroy Saudi desalination plants, but the spilling of massive quantities of oil into the Gulf nearly had that effect. Although Protocol II is potentially applicable in this case, the language of the treaty makes it critically insufficient to hold Iraq or other eco-terrorists fully responsible.

IV. CONCLUSION

United Nations Security Council Resolution 687 is the first international effort to hold Iraq liable for its wartime offenses. Iraq should be held responsible for the numerous atrocities it committed during the Persian Gulf War, including its deliberate destruction of the environment. While Resolution 687 may ultimately provide a mechanism for recovery in this case, the other legal weapons which could be used against Iraq for this "environmental terrorism" and future acts of "environmental terrorism" are critically deficient.

Traditional environmental law remedies are deficient because Iraq is financially unable to compensate the enormous number of claims which could arise from individuals affected by its actions. Moreover, Iraq's insolvency guarantees that it will be powerless to financially assist the cleanup of the Persian Gulf region, fully compensate for environmental destruction, or quickly compensate the human victims of the environmental damage. Iraq will probably avoid liability under

¹⁴⁸ Hague Convention of 1907, *supra* note 87, at art. 55.

¹⁴⁹ Protocol II, *supra* note 91, at art. 14, 1125 U.N.T.S. at 615.

international warfare law as well. The few provisions addressing the environment are too broad to be enforceable or are limited to a particular form of environmental warfare activity.

The crisis in the Gulf has pointed out serious deficiencies in the current legal mechanisms for combatting international environmental terrorism. Ironically, the most promising development to emerge from this crisis is the realization that international law is insufficient to prevent incidents like this from occurring or to adequately compensate victims. A new Geneva Convention on environmental warfare should be implemented so that environmental provisions encompass a wide variety of military activities, eliminate the "exceptions" or else define them narrowly, and hold the individuals who ordered the destruction personally responsible as war criminals.

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