NEUTRAL NATIONS AND NUCLEAR WEAPONS: WHAT RIGHTS DO NEUTRAL NATIONS RETAIN IN THE FACE OF A NUCLEAR THREAT?

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Introduction

The law of neutrality has existed in some form for centuries.¹ Its original purpose was to protect the rights of nations not involved in an international conflict and to prevent them from experiencing the adverse effects of war.² The law of neutrality has evolved over time and it persists today, despite the assertion by some scholars that it has lost its relevance with the formation of the United Nations (“UN”).³ These assertions are made because when it was formed, the UN promoted a new model of international cooperation, which was heavily based on the idea of collective security that encouraged states to comply with Security Council Resolutions aimed at deescalating conflict instead of remaining neutral. A modern-day interpretation of the law of neutrality must grapple with many factors that were not an issue when the UN was formed, such as the proliferation of cyber warfare.

The concept of state neutrality is intimately intertwined with the idea of sovereignty. The Westphalian version of state sovereignty asserted that the sovereign state has the irrefutable right to do as it pleases within its borders and that its interactions on the international level are guided by these rights.⁴ With this idea of sovereignty came not only the right to wage war, but also the

² Id. at 10 – 13.
³ Id. at 191.
right to not be affected by the wars of others. The concept of neutrality evolved along with state sovereignty and it allowed neutral nations to preserve their peacetime status quo during international armed conflict.

Some scholars argue that state neutrality has been fading into oblivion for decades, especially since the formation of the UN in 1945. The concept of collective security is one of the goals that was advanced by the UN and it was hailed as an effective mechanism for the prevention of armed conflict. The UN Charter provides guidance on how the Security Council can enlist the help of UN members to execute its Resolutions. It lists the steps that the Security Council may take in the event that it decides that an armed response to an escalating conflict is necessary. Article 43 of the Charter notes that members of the UN “undertake to make available to the Security Council (…) armed forces, assistance and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.” A member state may provide military assistance pursuant to a special agreement in which it consents to providing such help. A state that wishes to remain neutral does not have to agree to provide military assistance that is requested in a Security Council Resolution.

The desire to remain neutral in the event of a nuclear war does not guarantee that a state will be free of the adverse effects of such a conflict, such as contamination by lethal radiation or environmental devastation. These effects can have a wide ranging impact on countries that are far away from the source of the conflict and studies have shown that radiation from nuclear

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5 Neff, supra note 1, at 8, 9.


7 U.N. Charter art. 41, art. 43 and art. 44.

8 U.N. Charter art. 43, ¶ 1.
fallout can travel hundreds of miles from its origin. Environmental degradation from nuclear fallout is also possible – a recent example is the controversy that was raised by Japan’s desire to release hundreds of thousands of gallons of water that was contaminated by the fallout from the Fukushima disaster into international waters. Multiple countries have raised alarm at this plan and expressed concern that the contaminated water will result in adverse environmental effects within their borders. Nuclear weapons can cause irreversible, devastating harm to countries well beyond their target area. When used on a large scale, nuclear weapons can end humanity as we know it, with millions of innocent people slowly starving to death due to a nuclear winter. When faced with such weapons, any rights that neutral nations retain will take on greater importance. Their very survival may be at stake.

I

A. The Law of Neutrality

The right of states to remain neutral in the face of international conflict has been a part of state practice for centuries. While it wasn’t codified until the Hague Conventions of 1907, neutrality was openly practiced since at least the sixteenth century and it was a consideration in


11 Id.

12 Alan Robock & Owen Brian Toon, Local Nuclear War, Global Suffering, SCIENTIFIC AMERICAN, January 2010, at 74.

13 NEFF, supra note 1, at 8.

international relations since the Middle Ages.\textsuperscript{15} Over time, state practice of neutrality has slowly developed into customary international law ("CIL")\textsuperscript{16}, establishing practices and customs that continue to this day. CIL requires consistent state practice for a prolonged period of time and opinio juris.\textsuperscript{17} Like the formation of CIL, its modification is a prolonged process, which requires a new state practice that takes place over a long period of time and that states feel compelled to follow. The lack of new rules does not void the existing, albeit outdated, system of neutrality.

The Hague Conventions of 1907 codified the CIL of neutrality that existed at the time.\textsuperscript{18} Two of the Conventions dealt specifically with neutrality, Hague Convention V, which described the rights and obligations of neutral countries during war on land, and Hague Convention XIII, which dealt with the rights and obligations of neutral countries during war on water.\textsuperscript{19} This was the first time that the law of neutrality described not only the passive rights of neutral states, but also the duties and obligations that came with being a neutral state.\textsuperscript{20} The passive rights of neutral states are rights that these states retain in times of peace; put simply, these are rights that allow a state to exist without outside interference. The duties that came with being a neutral state included the obligation to challenge a belligerent who violated a neutral state’s territory. Hague Convention V placed responsibility on neutral states to not allow belligerents to carry out certain acts on its territory, such as move troops and convoys over neutral territory or allow recruiting

\textsuperscript{15} Neff, supra note 1, at 1 – 3.


\textsuperscript{17} Restatement (Third) of Foreign Relations Law § 102 (Am. Law. Inst. 1987).

\textsuperscript{18} Hilpold, supra note 6, at 251-252.

\textsuperscript{19} Alexander Spring, The International Law Concept Of Neutrality in the 21st Century 201 (2014).

\textsuperscript{20} Hilpold, supra note 6, at 251.
agencies to operate on neutral land with the purpose of assisting belligerents. Most importantly, Hague Convention V highlighted the fundamental right of neutral states in Article I: “The territory of neutral powers is inviolable.” This means that the territory of neutral states was not to be violated in any way and it was to be left in the same state as it would be during times of peace. The territory of neutral states was not at the disposal of belligerents.

Some scholars argue that the law of neutrality was weakened with the establishment of the UN in 1945. This is because the UN Security Council was given the power to make certain decisions that effectively diminished the rights of neutral states in the event of an armed conflict between two other states. In Articles 41 and 42 of the UN Charter, the decision whether to initiate sanctions, sever diplomatic relations and, if needed, use armed force against belligerents was given to the Security Council. Thus, in theory, the Security Council could compel member states of the UN to participate in some of its decisions regarding an armed conflict. These are decisions that, in times of peace, UN members would be free to make themselves. For example, Article 41 of the UN Charter allows the UN Security Council to direct member states to partially or fully cease to engage in trade and communications with a belligerent. In addition, the Security Council can direct its members to sever diplomatic relations with the belligerent.

While the UN Security Council can ask member states to sever economic relations and communications with a belligerent, any further action, such as armed force, can only be

\[21\] Hague Convention V art. 2 & art. 3.
\[22\] Hague Convention V art. 1.
\[23\] Hilpold, supra note 6, at 277.
\[24\] UN Charter art. 41 & art. 42.
\[25\] UN Charter art 41.
compelled pursuant to a special agreement. Thus, neutral member nations cannot be forced by the Security Council to provide armed forces without their consent. The UN can, using a budgetary mechanism, require neutral states to make financial contributions to a military operation, but this is the extent of their power. Neutral states that are UN members and wish to retain their neutrality can do so in the event of an international conflict to the extent that they cannot be forced to engage with belligerents without their consent. They may, however, be compelled to sever economic relations with the belligerents or to provide some financial assistance to the military operations, pursuant to a Security Council Resolution.

In the event that the Security Council does not issue a Resolution pertaining to an armed conflict, member states are free to decide how they want to proceed, including whether they want to remain neutral. In addition, Security Council decision-making during armed conflicts is frequently deadlocked, leading it to provide no guidance pertaining to situations that it is trying to address. Lastly, a neutral nation can be exempt from measures implemented by the Security Council in the event of an armed conflict by evoking Article 48 of the UN Charter, which allows the Security Council to exclude certain members from participating in carrying out its decision. It appears that concerns that the law of neutrality would be incompatible with UN membership


27 Id.


30 Hilpold, *supra* note 6, at 266; UN Charter, *supra* note 7, art. 8.

31 Hilpold, *supra* note 6, at 264.
were largely unfounded. As Sweden and Switzerland have shown, it is possible to maintain state neutrality as a member of the UN.32

Modern interpretations of the law of neutrality must analyze the law and its application in a twenty-first century setting. The rights and duties of neutrals enumerated in the Hague Conventions of 1907 remain in effect, but since they have not been changed or updated in over a century, some of their provisions are outdated.33 For example, there is no reference to air warfare in the Hague Conventions and no discussion about whether flying over neutral territory would be a violation of territorial inviolability. Air warfare did not exist when the original Hague Conventions were written and attempts to update them in 1923 were unsuccessful.34 The Hague Conventions list violations of neutral territory that were prohibited at the time of writing: these include movement of troops or convoys over neutral land and erection of wireless telegraphy stations on neutral land.35 But they do not discuss possible territorial violations that can occur today, because these were inconceivable in 1907. For example, the drafters of the Hague Conventions could not have predicted cyberwarfare. Despite changes in the way that war is fought, the law of neutrality has retained its basic principles and it continues to apply today.36 Neutrality remains an important concept in international law because armed conflicts still occur and the collective security solution that the UN promotes has not always been successful.37

33 Hilpold, supra note 6, at 252; NEFF, supra note 1, at 198.
34 Hilpold, supra note 6 at 252 n.8.
35 Hague Convention V art. 2 & art. 3.
36 Wani, supra note 16.
37 Chadwick, supra note 29, at 41.
B. Territorial Invulnerability and Environmental Damage

One of the most important provisions of the Hague Conventions is documented in Article I of the V Hague Convention: the territory of neutral powers is inviolable.\textsuperscript{38} The importance of this right is evident in the fact that the Convention describes how neutral territory is inviolable – by forbidding belligerents from moving people or supplies through neutral territory and by forbidding the erection of wireless telegraphy stations or other installations on neutral land for the purpose of communicating with belligerent forces on land or sea.\textsuperscript{39} It is important to keep in mind that the Hague Conventions were drafted in 1907, when combat by air was still unheard of and the threat of nuclear weapons and cyber warfare was inconceivable.\textsuperscript{40} Nevertheless, the word ‘inviolable’ remains sufficiently broad to allow modern day scholars to interpret it as applying to violations of territory that were unheard of a century ago. Territorial inviolability does not pertain merely to physical violations by people or supplies but can also apply to intangible violations by cyber weapons or contamination by radiation from nuclear weapons.\textsuperscript{41}

The fact that territorial inviolability encompasses more than just a physical violation by people or supplies is evident when one looks at international case law from the twentieth century. For example, in 1975, New Zealand and Australia brought a case in the International Court of Justice regarding a dispute with France pertaining to the fact that France was conducting nuclear

\textsuperscript{38} Hague Convention V art. 1.

\textsuperscript{39} \textit{Id.}

\textsuperscript{40} ERIK KOPPE, THE USE OF NUCLEAR WEAPONS AND THE PROTECTION OF THE ENVIRONMENT DURING INTERNATIONAL ARMED CONFLICT, 300 (2008).

\textsuperscript{41} \textit{Id.} at 301 – 302.
tests on atolls located thousands of miles away from either country. Australia and New Zealand feared that the nuclear radiation from France’s tests would adversely affect their territories. The Court dismissed the dispute in 1975 on procedural grounds and refused to reopen it pursuant to new complaints in 1995.

However, some judges filed dissenting opinions in the 1995 case, arguing that it should be reopened. For example, Judge Weeramantry rendered his opinion on the introduction of radioactive waste into the marine environment and asserted that since the marine environment belongs to all, introducing radioactive waste to it requires proof that the waste will not have an adverse effect on marine life. Judge Weeramantry also discussed the principle that no nation is entitled by its own activities to cause damage to the environment of any other nation, which was described in Principle 2 of the Rio Declaration on the Environment, 1992: “States have (…) the sovereign right to exploit their own resources pursuant to their own environmental and developmental 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.” In his dissent, Judge Weeramantry wrote that he believed that New Zealand had a prima facie case before the Court and he regretted the fact that the court refused to address the potential effects of French nuclear testing on the territories of New Zealand and Australia. Judge Weeramantry believed that the territory of Australia and New Zealand was

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43 Id.


45 Id. at 347.

46 Id. at 359.
violated by nuclear tests conducted thousands miles away, because nuclear radiation from these
tests had the potential to adversely affect these countries. In a separate dissent pertaining to the
Threat or Use of Nuclear Weapons, Judge Weeramantry asserted that “Once a nuclear explosion
takes place, the fallout from even a single local detonation cannot be confined within national
boundaries.”47 Thus, he firmly believed that nuclear radiation could transcend national borders
and that countries who use nuclear weapons should be responsible for their effects.

Another case that is relevant to this discussion is the Trail Smelter Arbitration. It
“remains the only decision of an international court or tribunal that deals specifically, and on the
merits, with transfrontier pollution.”48 The Trail Smelter case pertained to a smelter in British
Columbia that was releasing toxic fumes into the air and causing residents of Washington State
to suffer adverse effects from the toxic smoke wafting over the border onto American territory.
The tribunal in the Trail Smelter Case decided that “no State has the right to use or permit the use
of its territory in such a manner as to cause injury by fumes in or to the territory of another or the
properties or persons therein, when the case is of serious consequence and the injury is
established by clear and convincing evidence.”49 The holding of the Tribunal determined that
even though the territory was breached by something that is not a traditional physical object, the
territory of the state is still violated and the state can bring a claim against the aggressor. In this
case, the territory of the United States was violated by toxic smoke wafting in from Canada.

47 DISSENTING OPINION OF JUDGE WEEAMANTRY, 463 https://www.icj-cij.org/public/files/case-related/
95/095-19960708-ADV-01-12-EN.pdf.

48 Auster L. Parrish, Trail Smelter Déjà Vu: Extraterritoriality, International Environmental Law, and the Search for

These two seminal cases point to the fact that there is precedent in international environmental law that addresses whether territory can be invaded by something other than people or supplies. Nuclear radiation and toxic smoke were considered by some judges to violate territorial sovereignty to the point where legal action needed to be taken. While these cases pertained to disputes that were not war related, environmental damage to neutral sovereign territory during wartime can be treated the same way as environmental damage to natural sovereign territory during peacetime. Neutral nations seek to maintain their peacetime status quo and if they suffer significant environmental damage from the actions of two belligerents, then they should be entitled to seek compensation for such damage in the court of law.

C.

Territorial Inviolability, Invisible Weapons and Collateral Damage

Hague Convention V pertains to the rights and duties of neutral powers during war on land. The inviolability of neutral territory is asserted in Article I. Articles II and III describe the conduct that belligerents are prohibited from engaging in. Article II prohibits belligerents from moving “troops or convoys of either munitions or supplies across the territory of a neutral power”.\(^\text{50}\) Article III prohibits belligerents from erecting apparatus on neutral territory for the purpose of communicating with belligerent forces or from using already existing infrastructure for purely military purposes. Article II and Article III provide guidance for applying Article I. Article II pertains to a prohibition against physical breaches of territorial inviolability, warning a belligerent to refrain from transporting weapons or supplies through neutral territory. Troops and convoys are methods by which weapons and supplies can be transported. Thus, this article

\(^{50}\) Hague Convention V art. 2.
prohibits the transportation of weapons and war supplies through neutral territory. The motivation for this prohibition can be inferred from Article I: the territory of a neutral nation is not to be violated in any way related to the war effort, even if it just involves belligerent forces passing through neutral territory in order to reach a foreign destination. The fact that Article I is open-ended allows for the law of neutrality to be analyzed in the context of modern day warfare.

The application of cyberwarfare to the law of neutrality is perhaps the best approach to discuss the impact of invisible weapons on territorial inviolability. Cyberweapons are invisible because we do not see them since they travel through internet nodes in the cybersphere. The cybersphere “is not a physical place – it defies measurement in any physical dimension or time space continuum.” However, cyberweapons travel through infrastructure that is located in sovereign territories. Through their usage of infrastructure that is located in various countries, cyberweapons can travel from one country to another through a third country. Thus, the third country may have its infrastructure and electric grid used to deploy cyberweapons from one belligerent to another. Cyberweapons can inflict serious damage by targeting important infrastructure. Cyberattacks can result in massive human casualties, because computers control much of modern life, including power systems, sewage regulation and healthcare.

Scholars have compared an attack that uses a neutral nation’s network or its satellites and computers to inflict damage on belligerents to “an overflight by a squadron of bombers or an

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52 Id.

53 Id.
incursion by armed troops.” An overflight by a squadron of bombers in neutral airspace or an incursion of armed troops on neutral territory is a violation of territorial inviolability in the same way that transmittal of cyberweapons through neutral networks is a violation of territorial inviolability. Both examples involve the transportation of weapons from one location to another using neutral territory as a route. The fact that one example involves a physical intrusion on neutral territory and the other example involves intangible intrusion on neutral territory does not matter. The end result in these cases is the delivery of weapons or troops to belligerent territory via neutral territory, resulting in a violation of territorial inviolability of the neutral nation. The mode of transporting the weapons is not of most importance here – it is the fact that a belligerent infringed on neutral territory.

A competing argument can be made for the assertion that cyberweapons do not violate the law of neutrality by referencing Article 8 of the V Hague Convention, which explicitly states that a neutral power is not expected to restrict the usage of “telegraph or telephone cables or of wireless telegraphy apparatus belonging to it or to companies or private individuals” by belligerents. However, Article 8 pertained specifically to the transmission of information and it did not consider the fact that an entity transmitted through this route could be a weapon itself. In a modern interpretation of Hague Convention V, one could argue that during a cyberattack, it is a weapon that is transmitted through virtual channels, not merely information. This would violate the Hague Convention V prohibition against transporting weapons through neutral territories by belligerents. Weapons have been defined by the Air Force as “devices designed to kill, injure or


55 Hague Convention V art. 8.
disable people, or to damage or destroy property.” Cyberweapons certainly fit into this definition, because of their potential to destroy both humans and property.

In Judge Shahabuddeen’s dissenting opinion in the 1996 Advisory Opinion on the Legality or the Threat or Use of Nuclear Weapons, he asserts that Article I of the V Hague Convention of 1907 is not understood to guarantee neutral states absolute immunity from the effects of armed conflict. However, he notes that the Convention also “does not define inviolability; nor does it say that the territory of a neutral State is violated only by belligerent incursion or bombardment.” Judge Shahabuddeen also raises the prospect of collateral damage afflicting neutral states; he questions whether a “Trail Smelter type of situation was likely to be a significant consequence of the acts of war.” He also notes that the 1907 Hague Conventions pertaining to inviolability of neutral territory would lose much of their meaning if damage from foreign wars that affected neutral territory would not be considered a breach.

Territorial inviolability is a term that remains open to interpretation in the context of neutrality and does not encompass only physical and intentional violations. International environmental cases have broached the topic of territorial sovereignty in the context of environmental damage during peacetime and judicial opinions in many of these cases hewed towards the idea that nuclear radiation and toxic smoke do breach territorial sovereignty. Because of the open-ended meaning of the term used in the Hague Conventions and the limited

56 Kelsey, supra note 51, at 1443.


58 Id.

59 Id.

60 Id.
description of what territorial inviolability entails, some scholars argue that it is possible that the principle of territorial inviolability includes prohibition of inadvertent, collateral damage and damage that is caused to the neutral state by distant warfare between other countries.  

Further credibility to this notion is lent by the fact that, in past armed conflicts, belligerent countries have occasionally paid restitution to neutral nations for damage caused in these countries by wartime activities of belligerent states. Examples of this include instances where neutral Switzerland was bombed by the Allies during World War II. The Allies had paid restitution to Switzerland for these inadvertent bombings in an acknowledgment that neutral nations should not be attacked. Another example are the damages paid to Switzerland in the aftermath of World War II by the Allies, after property located in Switzerland was destroyed by shock waves from bombs that were dropped by the Allies in neighboring Germany. This resulted in negotiations between Switzerland and the ex-belligerent nations, during which Switzerland requested that damages be paid for the consequences of the foreign bombing. The countries responsible did not contest the Swiss claims that damages were in order and they agreed to pay. What is unique about this example, is that Switzerland was compensated for damage that occurred to its territory from the effects of foreign warfare – in this instance, Switzerland wasn’t actually bombed; the damage came from the shockwaves of a bombing that occurred across the border.

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61 Koppe, supra note 40, at 302.
62 Neff, supra note 1, at 303.
Maurice Jaccard was a Swiss lawyer who participated in negotiations pertaining to the damages that were to be awarded to Switzerland as a result of the collateral damage it suffered from World War II. Jaccard asserted that “the locus acti is irrelevant to the question of international responsibility for damage resulting from the act” and that belligerent nations must be held responsible for any inadvertent damage that was sustained by neutral nations during war, even if that inadvertent damage did not originate as a physical intrusion on neutral territory. Jaccard added that “Those who drop bombs close to neutral territory must take into account that not only the belligerent attacked, but also the neutral state will suffer damages.” Pursuant to negotiations between Switzerland and the United States about this matter, the rule regarding compensation for collateral damage seems to be that collateral damage qualifies for compensation, “provided an adequate causal link could be shown.”

The willingness of the United States to engage in negotiations with Switzerland about collateral damage sustained by the latter indicate that there is some credibility behind the notion that belligerent nations should be held responsible for damage that they inflict on neutral nations. The same principle applies to damage sustained by nations that were exposed to nuclear radiation due to the actions of other nations. While the Nuclear Weapons Case was dismissed on procedural grounds, similar incidents involving nuclear weapons resulted in compensation being paid to nations. For example, the famous Marshall Islands case involving the testing of hydrogen weapons by the United States resulted in injuries to inhabitants of the islands and Japanese crew.

64 Id.
65 Id.
66 Id.
members on a nearby vessel. The United States agreed to pay compensation to the Marshall Island victims and to Japan. Similarly, in 1966 an American plane carrying nuclear bombs collided with a refueling tanker and crashed near Palomares, Spain, causing plutonium dust to spread over a large territory. The United States paid compensation for the accident and conducted the cleanup.

Unsurprisingly, some nuclear nations strongly object to the idea of collateral damage being interpreted as a violation of territorial inviolability. In this context, collateral damage refers to the adverse and unintended consequences of war that affect neutral nations. Collateral damage encompasses both damage caused by physical intrusions on neutral territory and damage caused by invisible intrusions, such as toxic radiation and shockwaves caused by bombings. In its Written Comments on the Submissions of Other States pertaining to the Advisory Opinion of the ICJ on the Legality of Nuclear Weapons, the United States asserted that “the principle of neutrality is not a broad guarantee to neutral States of immunity from the effects of war, whether economic or environmental.” The opinion further noted that the assumption that nuclear weapons would “inevitably cause severe damage in the territory of neutral states” is incorrect and highly speculative. By this, the U.S. seems to be asserting that damage potentially sustained by neutral nations from nuclear war cannot be accurately assessed. Thus, nations

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68 Id. at 26.
69 Id.
71 Id.
cannot speculate about the effects of nuclear war and use these speculations to ban nuclear weapons. In addition, the U.S. argues that just because a nation is neutral, does not mean that it can expect to be completely free of the effects of war. Some adverse consequences of nuclear war are to be expected, but they cannot be accurately assessed and thus they should not be used as a basis for banning nuclear weapons.

As weapons used in war have gotten more sophisticated and powerful, it is necessary to interpret territorial inviolability as encompassing the damage inflicted by these weapons on the territory of neutral nations. There are many reasons for why nations choose neutrality: sympathy for one or more belligerents involved in the conflict, consciousness of their own weakness and inability to defend themselves, the desire to continue beneficial relations with one or more the belligerents (especially relating to trade and economic relations), or just the desire to remain outside of the conflict and not participate in war.\textsuperscript{72} Regardless of the reason, one of the principles of sovereignty is the right to choose to be neutral\textsuperscript{73} and a nation’s desire to remain neutral should not be violated by inflicting severe damage to their territory during a war that they are not part of.

II

A. \textit{Nuclear War and Its Effects}

Our discussion focuses on relatively small-scale regional nuclear conflicts because a large-scale nuclear war would have such a devastating effect on life on the planet that any

\textsuperscript{72} Hilpold, \textit{supra} note 6, at 249.

\textsuperscript{73} \textit{Id}. 

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discourse about international law would no longer matter.\textsuperscript{74} A regional nuclear conflict between countries that maintain a relatively small cache of nuclear weapons or by nations that have a large cache of nuclear weapons but use only a small part it during the conflict could still lead to tragic consequences for neutral nations. While the U.S. and Russia maintain the largest stockpiles of nuclear weapons\textsuperscript{75} other nuclear nations, such as France, China, India, and Pakistan maintain enough nuclear weapons to greatly affect countries around the world in the event of a regional nuclear conflict between them.\textsuperscript{76} For example, the results of a study based on a hypothetical regional nuclear conflict between India and Pakistan postulated that human fatalities of such a conflict would range from hundreds of thousands to well over two million.\textsuperscript{77} A war in which about 50 KT of nuclear weapons would be deployed potentially threatens about 1 billion people with starvation because of the anticipated climatic consequences.\textsuperscript{78} The direct effects on the people and environment involved in a regional nuclear conflict would be devastating.\textsuperscript{79} It is important to also note the effects that these “small” conflicts would have on distant, neutral nations.

It is impossible to predict the specific effects that deploying nuclear weapons on other countries will have because they are dependent on a variety of factors, such as the direction of the wind and the amount of rainfall.\textsuperscript{80} However, scientists have noted that a regional nuclear war

\begin{itemize}
    \item Id.
    \item Id.
    \item Id.
    \item Id.
    \item Id.
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could cause widespread loss of life even in countries that are far away from the conflict.\(^{81}\) The Chernobyl nuclear disaster, which was a 1986 explosion of a nuclear power plant in Ukraine,\(^ {82}\) provides an excellent example of the effect of nuclear fallout in other countries. A 2002 report by the Nuclear Energy Agency Organization for Economic Cooperation and Development noted that during the first ten days after the accident occurred “meteorological conditions changed frequently, causing significant variations in release direction and dispersion parameters.”\(^ {83}\) The report went on to describe levels of radioactive contamination in areas far removed from Chernobyl; some of the highest levels of contamination were in Bryansk-Belarus (approx. 124 miles from the center of the explosion) and Kaluga-Tuga-Orel in Russia (approx. 310 miles from the center of the explosion).\(^ {84}\) Workers in a Swedish power station were also contaminated and further studies showed that most countries in Europe had some deposition of radioactive elements from the explosion.\(^ {85}\)

The effects of the Chernobyl nuclear disaster on countries outside of Ukraine are varied. Most of the Northern hemisphere was affected, but only countries in the former Soviet Union and a part of Europe experienced significant contamination.\(^ {86}\) The significant contamination included contamination of soil, berries, mushrooms, and forest products.\(^ {87}\) In addition, thousands of people have died because of exposure to radiation after Chernobyl. While there is no

\(^{81}\) Robock, *supra* note 12, at 78.


\(^{84}\) *Id.* at 39.

\(^{85}\) *Id.* at 44.

\(^{86}\) *Id.*

\(^{87}\) *Id.*
consensus pertaining to the actual number of people in Europe and the former Soviet Union who have perished because of exposure to radiation from the explosion, estimates range from 4,000 deaths in Ukraine, Russia, and Belarus\textsuperscript{88} to 16,000 deaths in all of Europe.\textsuperscript{89} There are even some studies that theorized that up to 60,000 deaths were the result of exposure to radiation from Chernobyl.\textsuperscript{90} Regardless of which estimate is correct, it is undisputable that radiation from Chernobyl affected more than its immediate environment. The whole European continent was impacted, with countries as far away as Portugal reporting some contamination.\textsuperscript{91}

The Soviet Union refused to pay any compensation to foreign victims of the Chernobyl disaster, despite the fact that the radiation spread across the European continent.\textsuperscript{92} This resulted in the initiation of a revision process for the Vienna Convention because it was noted that the Convention could serve as an effective mechanism for settling claims of foreign victims in similar cases. In 1997, two additional treaties were adopted: the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage and Convention on Supplementary Compensation for Nuclear Damage. The protocols upheld the civil liability regime of the Vienna Convention and provided an option for victims of nuclear incidents to obtain compensation from public funds if need be.\textsuperscript{93} The convention also provided a detailed definition of what “nuclear damage” actually entails and it broadened its conventional understanding to entail concepts such

\begin{footnotesize}
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\item IAEA, \textit{supra} note 82.
\item Elisabeth Cardis et al., \textit{Cancer Consequences of the Chernobyl Accident: 20 Years On}, \textit{26 J. RADIOLOGICAL PROTECTION} 127, 129 (2006).
\item Ian Fairlie & David Sumner, \textit{The Other Report on Chernobyl} http://www.chernobylreport.org/torch.pdf.
\item OECD, \textit{supra} note 83, at 43.
\item \textit{Id.}
\end{enumerate}
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as economic loss and cost of preventive measures in addition to more traditional concepts of
damage such as loss of life, destruction of property, and personal injury.94 The fact that the Soviet
Union’s resistance to compensating victims of the nuclear fallout from the Chernobyl disaster
resulted in amendments to the Vienna Convention is testament to the prevailing opinion that
countries should be responsible for nuclear contamination that affects other nations. While
nuclear weapons and nuclear power are not banned, their potential to cause widespread damage
to countries thousands of miles away results in increased civil liabilities of nations that choose to
use nuclear energy.

The Chernobyl disaster and its more recent equivalent, the Fukushima nuclear accident,
released as much radioactive material as several hundred nuclear bombs the size of the ones used
in the attacks on Hiroshima and Nagasaki.95 The resultant low-dose radiation that was
experienced in countries hundreds of miles away from Chernobyl caused environmental damage
and deaths of hundreds (officially confirmed) of people. A regional nuclear conflict using a
similar number of nuclear weapons can thus have unintended consequences on neutral countries,
even those located hundreds of miles away, because the dispersion of radioactive material is
dependent on fluctuating factors, such as the direction of the wind and the amount of rainfall.
Neutral nations can be impacted by regional nuclear conflicts that are taking place thousands of
miles away. These impacts can adversely affect their environment, the health of their citizens and
their agriculture.96 It should be noted that several countries possess enough nuclear weapons to

94 Id. at 174.

95 Anders Pape Moller & Timothy A. Mousseau, Investigating the Effects of Low Dose Radiation From Chernobyl to

96 Robock, supra note 74, at 2007.
not only destroy their adversaries in a regional conflict, but also to damage the rest of the world with global climate changes.97

III

A. The Rights of Neutral Nations During Nuclear War

The rights of neutral nations in the face of nuclear war include individual self-defense and assertion of neutrality, seeking compensation based on civil liability, and participating in collective self-defense.

State sovereignty is a foundational principle of international law and its importance cannot be underestimated. The UN Charter itself is based on the principle of sovereign equality.98 With the principle of state sovereignty come certain rights: the right to wage war and to remain neutral, the right to control the sovereign’s territory and the people that live in it, and the freedom to determine the state’s participation in international relations, such as when to sign or revoke treaties.99 Modern understanding of state sovereignty places an emphasis on protecting human rights of citizens, which can be controversial when sovereign states are mistreating their inhabitants and the international community feels compelled to intervene.100

One of the most important sovereign rights is the right to self-defense. The UN Charter includes this right, but it clarifies that members retain the right to reprisal only in response to an

97 Id. at 2010.
99 Schrivjer, supra note 4, at 71.
100 Luban, supra note 98, at 187 – 191.
unlawful attack by another state, pending a Security Council decision.\textsuperscript{101} Article 51 of the UN Charter says “nothing in the present Charter shall impair the inherent right of individual or collective self-defense 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.”\textsuperscript{102} One of the rights that neutral nations retain in the face of a nuclear conflict is the right to self-defense. If a nuclear conflict between two belligerents is violating the territorial inviolability of a neutral nation, that nation can defend its neutrality. Thus, if during a nuclear conflict heavy radiation is poisoning the land and inhabitants of a neutral nation, that nation can attack the belligerent nations to compel them to stop violating its neutrality. This attack would not be considered unlawful under the UN Charter.

The rights of sovereign belligerents can sometimes be at odds with the rights of sovereign neutrals. However, in a nuclear conflict, these rights must be analyzed in a different light. When faced with a possibility of massive destruction that far exceeds the collateral damage permitted under the necessity principle, a neutral sovereign should be allowed to assert that their rights to remain neutral supersede a belligerent sovereign’s right to wage nuclear war. A belligerent sovereign retains the right to wage conventional war under the customary laws of war, but in the case of a nuclear conflict, the laws of neutrality must take on a greater importance. If the right to self-defense remains a sovereign privilege, it must pertain only to self-defense using conventional weapons, even in response to a nuclear attack. Reprisal with nuclear weapons will eliminate any rights that neutral states retain, thus placing the rights of one sovereign over the

\textsuperscript{101} UN Charter art. 51.
\textsuperscript{102} Id.
rights of another. If all sovereigns are rendered equal in the international arena, then the use of nuclear weapons during conflict would effectively eliminate this equality.

 Participating in the collective security option is another right that neutral nations have in the face of a nuclear conflict. In the event that the Security Council issues a resolution pertaining to a nuclear conflict, member states are asked to help in the execution of said resolution pursuant to a special agreement. This is the basic idea behind the collective security principle that was developed after World War II. Collective security was supposed to ensure the safety and cooperation of member states against one or multiple belligerents who were involved in an armed confrontation. In theory, this collective adherence to the goal of preventing an international conflict from escalating would allow nations to maintain peace and offer protection to the states involved, regardless of their size and other geopolitical factors.

 The principle of collective security involves multiple factors that must be present in order for it to be successful. For example, the UN Security Council must reach a resolution that will then be implemented by member states. If the Security Council does not reach a resolution, then member states are not compelled to take any specific action. The Security Council does not always reach a decision pertaining to a specific situation; there is plenty of disagreement among the five permanent members, who retain the right to veto all resolutions, and the ten temporary members. In a potential conflict involving nuclear weapons, the situation is further complicated by the fact that the five permanent members of the UN Security Council all possess nuclear weapons.103

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103 Norris, supra note 75.
It has become increasingly obvious that the UN Charter was drafted without a clear understanding of the danger presented by nuclear weapons.\textsuperscript{104} Because of this, the right of self-defense, which is enshrined in the Charter, remains an open concept, without any restrictions pertaining to what weapons can be used to retaliate against an armed attack. The status of neutral nations remains at odds with some of the provisions of the UN Charter, which on the one hand encourages collective security and on the other allows neutral nations to petition to be exempted from implementing Security Council resolutions.\textsuperscript{105} However, predictions that the formation of the UN will render neutrality obsolete did not prove to be true.\textsuperscript{106} Neutrality still exists under the UN Charter, even though it is now present in a different form than during the nineteenth and twentieth centuries.\textsuperscript{107} Neutrality remains a malleable concept that changes with the development of new weapons, new wars, and new laws.\textsuperscript{108}

Another right that neutral nations can exercise in the face of a nuclear conflict is the right to sue a belligerent nations for any damages sustained by the neutral nation from a nuclear conflict that it was not involved in. International environmental law has set a precedent for allowing countries to sue those who subject their territories to menaces such as toxic smoke and nuclear radiation. Based on the decisions in many of these cases and the amendments made to the Vienna Convention after the Chernobyl disaster, there is some international support for the idea that countries that subject innocent nations to serious environmental should be held

\footnotesize{\begin{itemize}
  
  \item \textsuperscript{105} Id.
  
  \item \textsuperscript{106} Id.
  
  \item \textsuperscript{107} Pertochilos, supra note 28, at 581 – 582.
  
  \item \textsuperscript{108} Pertochilos, supra 28, at 604.
\end{itemize}
responsible. Thus, belligerents who use nuclear weapons may face lawsuits from neutral nations that were adversely affected by the collateral damage from their warfare.

In the face of an existential threat such as a nuclear war, the rights of neutral nations take on more importance. Historically, neutral nations chose to remain so for a variety of reasons, ranging from the desire to maintain economic relations with belligerents to the fact that they were conscious of their own military weakness and did not want to engage in a conflict that they would almost certainly lose. By remaining neutral, a sovereign state retains the benefits of this neutrality, such as territorial inviolability. While it may expect to suffer some collateral damage from a conflict, which ideally would adhere to the principles of necessity and proportionality, the damage would not rise to the level of damage that would be inflicted on it if it was a belligerent. A neutral state has the right to expect to be left alone during times of war and a duty to strike back against belligerents that are violating its territorial inviolability.