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The Non-Proliferation of Nuclear Weapons as *Jus Cogens*

Gaela Normile*

ABSTRACT

As a result of the Manhattan Project, a secret nuclear weapons program in 1946, the United States became the first nation in the world to secure a nuclear weapon. Although the United States' nuclear weapon resulted in an international desire to attain similar capabilities, the leading scientists of the Manhattan Project released a somber statement that first reflected the destructive nature of nuclear weapons. The Manhattan Project scientists warned that a "grave danger lies ahead" if the issues associated with the weapon were not "carefully analyzed and discussed with competent authorities."

The statement released by the Manhattan Project scientists was the first express statement made about the dangers that accompany nuclear weapons and, incidentally, nuclear proliferation. The scientists' grave prediction came to fruition one month later, when two nuclear bombs killed over 250,000 Japanese civilians in Hiroshima and Nagasaki during World War II.

After the World War II nuclear bombings, the Soviet Union secured a nuclear weapon followed by the United Kingdom, France, and China. Fearing further proliferation and possible catastrophic results if the nuclear bomb fell into the wrong hands, the international community began to heed to the Manhattan Project scientists' warnings by carefully analyzing and discussing nuclear non-proliferation. International discussions led to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1970. Currently, the NPT is the largest binding arms and limitation agreement as 191 out of 193 States are party to the treaty.

This Comment will argue that nuclear non-proliferation has attained *jus cogens* status because of both its shared fundamental importance in the international community as well as its universal acceptance and adherence. Ultimately, this Comment will analyze the *opinio juris* that surrounds the

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norm, relevant treaties and resolutions, and *ad hoc* investigations that contribute to the *jus cogens* status of the norm.

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I. INTRODUCTION

When the name “Albert Einstein” comes to mind, the most common association is Einstein’s theory of relativity and the infamous “ $E=mc^2$.”¹ What some people may not realize is that Einstein played a critical role in the development of the first nuclear weapon.² In 1939, Hungarian-American physicist, Leo Szilard, and German physicist, Albert Einstein, wrote a letter to President Franklin D. Roosevelt encouraging the United States to research and develop a nuclear bomb.³ Although it is unlikely the atomic bomb would have been created without the contributions made by Einstein, Szilard, and other physicists, these early scientists were also paradoxically the most adamant against the proliferation and use of nuclear weapons.⁴

1. See Tony Rothman, *Was Einstein the First to Invent $E=mc^2$?*, SCI. AM. (Aug. 24, 2015), <https://bit.ly/2J7ulsW>.

2. See *The Einstein-Szilard Letter-1939*, ATOMIC HERITAGE FOUND. (July 18, 2017), <https://bit.ly/2MilVPu>.

3. See *Leo Szilard’s Fight to Stop the Bomb*, ATOMIC HERITAGE FOUND. (July 15, 2016), <https://bit.ly/2ZEMyET> [hereinafter *Leo Szilard’s Fight*].

4. See *id.*

Prior to the first and only use of a nuclear weapon by one State against another State,⁵ Szilard vocalized his opposition and concerns about the “disastrous geopolitical consequences” of an atomic bomb to James F. Byrnes, then United States Secretary of State.⁶ Ultimately, Szilard was unsuccessful in preventing the use of the atomic bomb against Japan.⁷ Similarly, other prominent scientists, like J. Robert Oppenheimer,⁸ were vehemently opposed to the proliferation and military use of nuclear weapons.⁹

Although the scientific community was unable to dissuade States from nuclear use and proliferation at the time the atomic bomb was created, the international community began to heed such warnings in 1974, after India successfully tested a nuclear weapon.¹⁰ In response to India’s successful nuclear test, nuclear non-proliferation initiatives gained greater international attention due to increasing pressures placed on nuclear weapons States.¹¹ Currently, 191 States are members to either one or more treaties that restrict nuclear proliferation.¹² Due to the fundamental importance and increased universal adherence to the norm of nuclear non-proliferation, nuclear non-proliferation has attained the status of a *jus cogens* norm.¹³

Although the doctrine of *jus cogens* is intentionally vague to allow for further development of the concept,¹⁴ Part II of this Comment will attempt to concretely define *jus cogens*.¹⁵ *Jus cogens* will be defined

5. The United Nations uses the word “State” when referring to its members and therefore this Comment will also use the term “State.” See *Member States*, UNITED NATIONS, <https://bit.ly/2mxlQw2> (last visited Aug. 6, 2019). In addition, the United States is the only State that has used an atomic weapon against another State. See *Leo Szilard’s Fight*, *supra* note 3. The United States dropped two atomic bombs on Japan during WWII. *Id.*

6. *Id.*

7. *See id.*

8. J. Robert Oppenheimer, also known as “the father of the atomic bomb,” was an American physicist that contributed to the creation of the first atomic bomb through the Manhattan Project. See *J. Robert Oppenheimer*, ATOMIC HERITAGE FOUND., <https://bit.ly/2EnJwiq> (last visited Jan. 28, 2019).

9. *See id.*

10. *See infra* Section II.B.

11. Nuclear weapons States are nations that are nuclear-armed. Kelsey Davenport & Kingston Reif, *Nuclear Weapons: Who Has What at a Glance*, ARMS CONTROL ASS’N (June 2018), <https://bit.ly/1P4O892>. These States include the United States, United Kingdom, France, Israel, Pakistan, India, Russia, China, and North Korea. *Id.* In total, there are about 15,000 nuclear warheads in the world, with over 90% of those belonging to Russia and the United States. *Id.* Out of the 15,000 nuclear warheads, 9,600 are in military service and the rest are awaiting dismantlement. *Id.*

12. *See infra* Section II.C.1.

13. *See infra* Section II.A.

14. See Kamrul Hossain, *The Concept of Jus Cogens and the Obligation Under the U.N. Charter*, 3 SANTA CLARA J. INT’L L. 72, 73 (2005).

15. *See infra* Section II.A.

through the examination of the Vienna Convention on the Law of Treaties¹⁶ (“Vienna Convention”), commonly shared factors of *jus cogens* norms, and caselaw.¹⁷ After examining and expanding upon the concept of *jus cogens*, Part II will then begin to delve into a brief history of nuclear weapons.¹⁸ The history of nuclear weapons will naturally begin with an examination of the Manhattan Project, and end with a discussion about the implications of India’s first successful nuclear weapons test.¹⁹ Part II will then conclude by defining nuclear non-proliferation through relevant international treaties and statements made by intergovernmental and international organizations.²⁰

Next, Part III will analyze the relations between nuclear non-proliferation and other well-accepted *jus cogens* norms.²¹ More specifically, Part III will argue that nuclear non-proliferation has attained the status of *jus cogens* in international law because of the *opinio juris*²² of States, the large number of treaties that utilize “heightened language”²³ to signify the importance of the norm, and the significant number of States that are parties to such relevant nuclear non-proliferation treaties.²⁴ Additionally, this Comment will argue that while enforcement of the norm against violators is minimal, such minimal enforcement is a common feature of *jus cogens* norms.²⁵ Finally, Part IV concludes by stressing the importance of recognizing nuclear non-proliferation as *jus cogens* in the international community.

16. The Vienna Convention, adopted in 1969, is a multilateral treaty. *See* Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter *Vienna Convention*]. The Convention has 116 State Parties and 45 signatory states, meaning these states have not yet ratified the treaty. *Id.* The Convention promotes the peaceful settlement of disputes by establishing the conditions necessary to maintain obligations between States that are party to an international treaty. *Id.*

17. *See infra* Section II.A.

18. *See infra* Section II.B.

19. *See infra* Section II.B.

20. *See infra* Section II.C.

21. *See infra* Section II.A.1.

22. *Opinio juris*, short for *opinio juris sive necessitates*, is best defined as a “sense of legal obligation” amongst States. In order for a State practice to rise to the level of binding customary international law, *opinio juris* must accompany a general and consistent practice by States. *See* Garcia v. Chapman, 911 F. Supp. 2d 1222, 1233 (S.D. Fla. 2012) (citing United States v. Bellaizac-Hurtado, 700 F.3d 1245, 1251–52 (11th Cir. 2012)); *see also* RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 102(2) (AM. LAW. INST. 1987).

23. This analysis was influenced by the arguments written by a number of commentators on *jus cogens* norms. In particular, the author relied heavily on a Comment written by M. Cherif Bassiouni, former Emeritus Professor of Law at DePaul University. *See* M. Cherif Bassiouni, Comment, *Accountability for International Crime and Serious Violations of Fundamental Human Rights: International Crimes: Jus Cogens and Obligation Erga Omnes*, 59 L. & CONTEMP. PROBS. 63, 68 (1996). Uncited statements are the author’s original analysis or elaboration on the arguments made by commentators.

24. *Id.*

25. *See id.* at 66.

II. BACKGROUND

The doctrine of *jus cogens* is derived from international law and literally translates to “compelling law,”²⁶ which is ironic given that the doctrine lacks a clear definition of what norms are considered compelling.²⁷ Although the doctrine of *jus cogens* does not precisely define criteria for norms to attain the status of compelling law, a general consensus suggests that certain factors are shared amongst norms that qualify as *jus cogens*.²⁸ The following section will discuss commonly identified factors of *jus cogens*,²⁹ provide a brief history of the development of nuclear weapons,³⁰ and define nuclear non-proliferation before arguing that nuclear non-proliferation is a *jus cogens* norm.³¹

A. Jus Cogens

Jus cogens, otherwise known as peremptory norms, prevail over both customary international law and treaties and, therefore, enjoy the “highest status” of recognized international law.³² Simply put, *jus cogens* norms are most typically understood as standards prohibiting crimes that affect the global community because such crimes “threaten the peace and security of humankind” and “shock the conscience of humanity.”³³ Examples of *jus cogens* norms include the prohibition of genocide, torture, and slavery.³⁴ *Jus cogens* norms are codified by the Vienna Convention.³⁵ Specifically, the Vienna Convention states that “a treaty is void if . . . it conflicts with a peremptory norm of international law.”³⁶ Due to the peremptory nature and universal adherence of *jus cogens* norms, derogation from a *jus cogens* norm is not permitted.³⁷ In other words, *jus cogens* are highly valued,

26. Hossain, *supra* note 14, at 73.

27. Rep. of the Int’l Law Comm’n, 66th Sess., May. 5–June 6, July 7–Aug 2014, U.N. Doc. A/69/10; U.N. GAOR, 69th Sess., Supp. No. 10 (2014) [hereinafter *Int’l Law Comm’n*].

28. See Bassiouni, *supra* note 23, at 68.

29. See *infra* Section II.A.

30. See *infra* Section II.B.

31. See *infra* Section II.C.

32. Comm. United States Citizens Living in Nicaragua v. Reagan, 859 F.2d 929, 935 (D.C. Cir. 1988).

33. Other norms that meet the criteria of *jus cogens* include principles of the United Nations Charter prohibiting the use of force, the prohibition of piracy, and other fundamental human rights laws prohibiting genocide and slavery. See *id.* at 935.

34. . See *Draft Articles on the Responsibility of States for Internationally Wrongful Acts*, [2001] 2 Y.B. Int’l L. Comm’n 31, U.N. Doc. A/5/10 [hereinafter *Draft Articles*].

35. See *Vienna Convention*, *supra* note 16, at art. 66.

36. See *id.*

37. See *id.*

fundamental norms that are universally recognized and adhered to by the international community.³⁸

Although *jus cogens* norms share similar qualities with customary international law, the two concepts are distinguishable. In the hierarchical structure of the types of binding international law, customary law is below *jus cogens* norms, as universal adherence is not an element of customary law.³⁹ Due to a lack of universal adherence, customary law does not share the same level of heightened importance as *jus cogens* norms in international law.⁴⁰

While these two forms of law are distinct from one another, customary law and norms of *jus cogens* are nonetheless intertwined.⁴¹ For example, while not all customary international laws are *jus cogens*, all *jus cogens* norms are accepted as customary international law.⁴² To understand the requisites necessary for customary international law to attain the status of *jus cogens*, the concept of customary international law must first be defined and analyzed.

Customary international law is defined as the “general and consistent practice of [S]tates” that forms a sense of international legal obligation, otherwise known as *opinio juris*.⁴³ In other words, customary international law forms a psychological obligation among States to adhere to a norm because States have practiced the norm consistently for an extended period of time.⁴⁴ Additionally, according to the International Court of Justice (“ICJ”),⁴⁵ State practice of the norm must be both “extensive and virtually uniform . . . in such a way as to show a general recognition that a rule of law or legal obligation is involved.”⁴⁶ An example of customary international law is the law of diplomatic immunities because the norm “rested almost entirely on custom” between States before the law was

38. Bassiouni, *supra* note 23, at 67.

39. See Hossain, *supra* note 14, at 78–79.

40. See *id.*

41. See *id.*

42. See *id.*

43. See *Garcia v. Chapman*, 911 F. Supp. 2d 1222, 1233 (S.D. Fla. 2012) (citing *United States v. Bellaizac-Hurtado*, 700 F.3d 1245, 1251–52 (11th Cir. 2012)); see also RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 102(2) (AM. LAW. INST. 1987).

44. Jun-shik Hwang, *A Sense and Sensibility of Legal Obligation: Customary International Law and Game Theory*, 20 TEMP. INT'L & COMP. L.J. 111, 118 (2006).

45. The ICJ is the “principal judicial organ” of the United Nations and is composed of a body of fifteen independently elected judges. See Statute of the International Court of Justice, 1940 I.C.J. Acts & Docs. 13. The ICJ may only hear cases between and by the consent of States. *Id.* Therefore, the ICJ does not have jurisdiction over non-state actors nor States that do not consent to the jurisdiction of the ICJ. *Id.*

46. *North Sea Continental Shelf* (Fed. Rep. of Ger./Den. v. Fed. Rep. of Ger./Neth.), 1969 I.C.J. Rep. 12, 43 (Feb. 20); see also ANTONIO CASSESE, *REALIZING UTOPIA: THE FUTURE OF INTERNATIONAL LAW* 139 (2012).

codified in the Vienna Convention on Diplomatic Relations.⁴⁷ In order for a norm of customary international law to rise to the level of *jus cogens*, the international community as a whole must collectively recognize that the norm “enshrines values so fundamental” that deviation is not permitted.⁴⁸

Additionally, *jus cogens* norms are unlike customary international law because, whereas a persistent objector⁴⁹ can refrain from being bound by customary international law, *jus cogens* norms are binding on all nations regardless of a State’s consent to be bound.⁵⁰ Unlike customary international law, *jus cogens* norms do not “depend solely on the consent of [S]tates” because such norms are derived from fundamental values “deeply rooted in the international community.”⁵¹ By contrast, customary international law is derived from the “fortuitous or self-interested choices of nations.”⁵² In short, States consent to be bound to customary international law by choice because such norms are not as fundamentally valued by the international community as *jus cogens* norms.⁵³

Although *jus cogens* norms possess a higher status in international law, the “contours and legal effects . . . remain ill-defined and contentious” because little case law exists.⁵⁴ Similarly, although the concept of *jus cogens* is universally accepted, the precise nature of *jus cogens* norms and the possible consequences of violating such norms remain undefined and unclear.⁵⁵ Commentators have argued that *jus cogens* purposely remains unclear to allow for further development of the legal concept.⁵⁶ The paradox between the fundamental importance of *jus cogens* norms and its undefined nature and scope is nonetheless essential because the paradox allows for the development of *jus cogens* norms as States begin to hold other norms as fundamental.

1. *Jus Cogens* Factors

The starting point for analyzing and understanding *jus cogens* is the Vienna Convention,⁵⁷ which discusses the “basic elements of the nature,

47. See Daniel M. Bodansky, *The Concept of Customary International Law*, 16 MICH. J. INT’L L. 667, 668 (1995).

48. See *Vienna Convention*, *supra* note 16, at art. 53.

49. A persistent objector is a state that is not bound to a rule of customary international law because during the rule’s emergence, the state continuously and openly opposed the rule. See Ted L. Stein, *The Approach of the Different Drummer: The Principle of the Persistent Objector in International Law*, 26 HARV. INT’L L.J. 457, 457 (1985).

50. See *Siderman de Blake v. Rep. of Arg.*, 965 F.2d 699, 715 (9th Cir. 1992).

51. *Id.* at 715; see also Hossain, *supra* note 14, at 73.

52. *Siderman de Blake*, 965 F.2d at 715.

53. See *id.*; see also Hossain, *supra* note 14, at 73.

54. See *Int’l Law Comm’n*, *supra* note 27.

55. See *id.*

56. See *id.*

57. See *Vienna Convention*, *supra* note 16.

requirements, and consequences of *jus cogens*.⁵⁸ The universal nature of *jus cogens* is supported by Article 53 of the Vienna Convention, which requires States “as a whole” accept and adhere to *jus cogens* norms.⁵⁹ In addition, the Vienna Convention explains that a “consequence of a norm acquiring the status of *jus cogens* is that treaties conflicting with [the norm] are void.”⁶⁰ Summarily, States cannot disregard or dispose of adherence to a *jus cogens* norm by treaty because *jus cogens* norms are higher than treaty law on the hierarchical ladder of international law.⁶¹

Frequently identified and shared factors among norms deemed *jus cogens* in international law include: (1) *opinio juris* that recognition of these norms are part of customary law; (2) language within relevant treaties that reflect the higher status of these norms in international law; (3) the large number of States that have signed and ratified treaties in relation to these norms; and (4) the “*ad hoc* international investigations and prosecutions of perpetrators of these crimes.”⁶² Although these factors are sufficient to define a norm as *jus cogens*, the list is not exhaustive.⁶³

A widely accepted example of a *jus cogens* norm is the prohibition of genocide.⁶⁴ The universal and fundamental nature of the prohibition of genocide is reflected in the ICJ’s⁶⁵ opinion in *Armed Activities on the Territory of the Congo* (“*DRC v. Rwanda*”).⁶⁶ In *DRC v. Rwanda*, the ICJ reaffirmed the prohibition of genocide as binding on all States, regardless of any “conventional obligation” because of the universality and *erga omnes*⁶⁷ nature of the norm.⁶⁸ Additionally, *the jus cogens* status of the prohibition of genocide is exemplified by the ICJ’s belief that cooperation amongst all States is “required in order to liberate mankind from such an odious scourge.”⁶⁹ The ICJ’s use of this language confirms that the prohibition of genocide is *jus cogens* because it reaffirms the notion that *jus cogens* norms are international crimes that “threaten the peace and security of humankind” and “shock the conscience of humanity.”⁷⁰

58. *Id.*

59. *Id.* at art 53.

60. *Id.*

61. See Hossain, *supra* note 14, at 78.

62. Bassiouni, *supra* note 23, at 68.

63. See CASSESE, *supra* note 46, at 139.

64. See *Int'l Law Comm'n*, *supra* note 27.

65. See *supra* note 45 and accompanying text.

66. See *Armed Activities on the Territory of Congo (Democratic Republic of Congo v. Rwanda)*, 1999 I.C.J. 129 (June 23) [hereinafter *DRC v. Rwanda*].

67. *Erga omnes* means “flowing to all” and usually accompanies the concept of *jus cogens* because it is presumed that universal obligations imposed by *jus cogens* norms “flow[] to all” nations. See Bassiouni, *supra* note 23, at 72.

68. See *DRC v. Rwanda*, 1999 I.C.J. at 129.

69. *Id.*

70. Bassiouni, *supra* note 23, at 69.

Now that *jus cogens* has been defined and illustrated by a *jus cogens* norm, the prohibition of genocide, the next section will discuss the history and development of nuclear weapons.⁷¹ Examining the history and development of nuclear weapons is essential to understand the nature of such weapons and establish a basis of why the international community universally promotes nuclear non-proliferation.

B. *The History of Nuclear Weapons*

Prior to World War II, the United States received intelligence that scientists working for Adolf Hitler were developing a nuclear weapon.⁷² In response to this intelligence, President Franklin D. Roosevelt

created a committee of scientists to study the uses of uranium as a potential weapon.⁷³ Shortly thereafter, in 1942, President Roosevelt authorized the goal of weaponizing nuclear energy in what later became known as the “Manhattan Project.”⁷⁴

Three years after President Roosevelt authorized the Manhattan Project and following heavy German losses in World War II, the United States, the Soviet Union, and the United Kingdom—otherwise known as the “Big Three”⁷⁵ heads of state—held the Potsdam Conference in Potsdam, Germany.⁷⁶ During the Conference, the United States directed Japan to either surrender under the terms of the Potsdam Declaration or face “prompt and utter destruction.”⁷⁷ Due to Japan’s unwillingness to accept the terms of the declaration, the United States deployed the “Little

71. See *infra* Section I.B.

72. Germany’s secret nuclear weapons program, called *Uranverein* or “uranium club,” began after two German scientists, Otto Hahn and Fritz Strassmann, accidentally discovered fission, a type of nuclear reaction, with uranium. *German Atomic Bomb Project*, ATOMIC HERITAGE FOUND. (Oct. 18, 2016), <https://bit.ly/2xXKawJ>.

73. See *Manhattan Project*, HISTORY (Jul. 26, 2017), <https://bit.ly/2SICDAD>.

74. The Manhattan Project was initiated and motivated by fear: “fear that the enemy had the bomb, or would have it before [the United States] could develop it.” See *German Atomic Bomb Project*, *supra* note 72 (quoting Manhattan Project physicist, Leona Marshall Libby).

75. The “Big Three,” also known as the “Grand Alliance,” was the collective name given to the three leaders of the Allied powers of Great Britain, the United States, and the Soviet Union. *The Big Three*, THE NAT’L WWII MUSEUM, <https://bit.ly/2xbzPgU> (last visited Dec. 30, 2018). The “Big Three” included the Soviet Premier, Joseph Stalin; the United States President, Franklin Delano Roosevelt; and the British Prime Minister, Winston Churchill. *Id.*

76. During the Potsdam Conference, the Allied governments discussed both the administration of post-World War II Germany and called for the unconditional surrender of Japan in the “Potsdam Declaration.” *Potsdam Declaration*, ATOMIC HERITAGE FOUND., <https://bit.ly/2WVE3DD> (last visited Jan. 1, 2019).

77. *Id.*

Boy”⁷⁸ atomic bomb on Hiroshima.⁷⁹ Three days after Little Boy was detonated, the United States dropped the “Fat Man”⁸⁰ atomic bomb on Nagasaki after Japan had not yet surrendered.⁸¹ Not only did the two nuclear bombs result in Japan’s ultimate surrender, but the bombs also resulted in unprecedented damage, destruction, and over 100,000 Japanese civilian deaths.⁸²

The detrimental physical, psychological, and environmental effects of the nuclear explosions of World War II halted the use of a nuclear weapon by one nation against another nation. However, the development of nuclear weapons also led to an international desire to attain nuclear capabilities as an “international status symbol.”⁸³ Due to the dual-use nature⁸⁴ of nuclear energy and technology, States began to acquire nuclear weapons capabilities under the guise of “peaceful purposes.”⁸⁵

In 1974, after India successfully tested a nuclear bomb and described the detonation as a “peaceful nuclear explosion,” the international community began to advocate for more stringent limitations on nuclear proliferation.⁸⁶ States began to collectively work toward the promoting nuclear non-proliferation fearing that countries, like India, would begin to illegally use civilian nuclear facilities for nuclear weapons purposes.⁸⁷

78. The “Little Boy” was a “gun-type device” that achieved critical mass—the minimum amount of material necessary to start an explosive chain reaction—when a sub-critical uranium projectile fired through a gun barrel at another subcritical uranium target. *Little Boy and Fat Man*, ATOMIC HERITAGE FOUND. (July 23, 2014), <https://bit.ly/2zkeNjp>. The “Little Boy” was the first nuclear weapon used in a war. *Id.*

79. *Bombings of Hiroshima and Nagasaki*, ATOMIC HERITAGE FOUND. (June 5, 2014), <https://bit.ly/2zcNM0i>.

80. “Fat Man” was an “implosion-type bomb” and was the second of its kind. *See Little Boy and Fat Man*, *supra* note 78. The first was the “Gadget” which was the first successful nuclear device tested in the world and was created as a result of the Manhattan Project. *Trinity Test-1945*, ATOMIC HERITAGE FOUND. (June 18, 2014), <https://bit.ly/2mlikoR>.

81. *See Bombings of Hiroshima and Nagasaki*, *supra* note 79.

82. *See id.*

83. *Natural Res. Def. Council v. Nuclear Regulatory Comm’n*, 647 F.2d 1345, 1371 (D.C. Cir. 1981).

84. Dual-use technology is technology that can be used for both legitimate purposes, like generating nuclear power, as well as illegitimate purposes, like the creation of nuclear weapons. Charles Ferguson, *Proliferation Risks of Nuclear Power Programs*, NUCLEAR THREAT INITIATIVE (Dec. 1, 2007), <https://bit.ly/2RsaRmP>.

85. While there is no specific definition of the conditions necessary to constitute “peaceful purposes” of nuclear energy, the IAEA has implemented and monitored national programs that utilize “nuclear techniques” in medicine, agriculture, stock breeding, food, hydrology, and the study of renewable energy sources. Hans Blix, Int’l Atomic Energy Agency [IAEA], *The Peaceful and Safe Uses of Nuclear Energy*, IAEA (Apr. 25, 1996), <https://bit.ly/2Y6BRKZ>.

86. *NTI India Nuclear*, NUCLEAR THREAT INITIATIVE, <https://bit.ly/2PbiRXv> (last visited Oct. 2, 2018).

87. *See Leonard Weiss, U.S.-India Nuclear Cooperation*, 14 NONPROLIFERATION REV. 429 (2007).

Additionally, while India was testing nuclear weapons, Pakistan was also developing and testing a nuclear weapon.⁸⁸ In response to a/the growing fear that nuclear proliferation would lead to an environmental and humanitarian disaster if not controlled and prohibited, States began “nonproliferation initiatives of considerable breadth and vigor.”⁸⁹

C. Nuclear Non-Proliferation

Nuclear non-proliferation prohibits the transfer and reception of nuclear weapons capabilities between nuclear weapons States⁹⁰ and non-nuclear weapons States.⁹¹ States are still legally allowed to provide “special fissionable material”⁹² and equipment necessary for the production or use of fissionable material to another State, as long as the material and equipment are transferred or received for “peaceful purposes.”⁹³ Similarly, States that seek to transfer and receive such nuclear capabilities for peaceful purposes are subject to specific safeguards.⁹⁴

The 1970 Treaty on the Non-Proliferation of Nuclear Weapons (“NPT”) aimed to prevent wider dissemination of nuclear weapons and promote the peaceful uses of nuclear energy through international cooperation.⁹⁵ The NPT is considered a “landmark international treaty”

88. *See id.*

89. *Natural Res. Def. Council v. Nuclear Regulatory Comm’n*, 647 F.2d 1345, 1372 (D.C. Cir. 1981) (citing H.R. REP. NO. 587, at 2–3 (1977)).

90. *See supra* note 11 and accompanying text.

91. In other words, nuclear non-proliferation is the concept of preventing the spread of nuclear weapons between States that possess nuclear weapons, nuclear weapons States, and States that do not possess nuclear weapons, non-nuclear weapon States. *See Treaty on the Non-Proliferation of Nuclear Weapons, opened for signature July 1, 1968*, 21 U.S.T. 483, 729 U.N.T.S. 161 [hereinafter *NPT*].

92. Special fissionable material is a nuclide that is capable of undergoing a chain of nuclear reactions after capturing either high-energy neutrons or low-energy thermal neutrons. *See Nuclide*, U.S. NUCLEAR REG. COMM’N, <https://bit.ly/2x83p73> (last updated July 6, 2018); *see also Fissionable Material*, U.S. NUCLEAR REG. COMM’N, <https://bit.ly/2xbk5dE> (last updated July 6, 2018). In other words, fissionable materials are the isotopes of chemical elements that are able to create a nuclear explosion through a chain of reactions caused by fission. *See Fissionable Material*, U.S. NUCLEAR REG. COMM’N, <https://bit.ly/2xbk5dE> (last updated July 6, 2018).

93. *See NPT, supra* note 91.

94. Specific safeguards are set forth by the International Atomic Energy Agency (“IAEA”) and are used to “verify a State’s compliance” to “accept safeguards on all nuclear material” used for peaceful activities and to “verify that such material is not diverted to nuclear weapons.” Int’l Atomic Energy Agency [IAEA], *IAEA Safeguards Glossary 2001 Edition*, at 13, 16, IAEA/NVS/3 (2002), <https://bit.ly/2N99QS2>. Safeguards are determined by agreements between the State and the IAEA and may include not only nuclear material, but also non-nuclear material, services, equipment, facilities, and information. *See IAEA Safeguards Agreements*, INT’L ATOMIC ENERGY AGENCY, <https://bit.ly/2LF5zjM> (last visited Sept. 30, 2018) (stating that the IAEA has “concluded comprehensive safeguards agreements with 174 States”).

95. *See NPT, supra* note 91.

because of its focus on preventing the spread of nuclear weapons, promoting “peaceful uses of nuclear energy,” and its ultimate goal of achieving nuclear disarmament.⁹⁶ Further, as evidence of the treaty’s landmark importance, the NPT is the “only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States.”⁹⁷

Although the NPT may be the largest legally binding commitment of nuclear non-proliferation, the evolution of nuclear non-proliferation to its current state is best analyzed by discussing international and regional treaties that address nuclear testing and nuclear non-proliferation.

1. International and Regional Treaties

Treaties are a source of binding international law between States that “create rights and obligations for the parties to them” and stipulate specific arrangements relating to the interests of the parties.⁹⁸ Additionally, treaties may act as “general legislation” because they “establish[] broad rules . . . [that] govern state conduct.”⁹⁹

Two of the earliest treaties that discuss nuclear weapons, the Antarctic Treaty¹⁰⁰ and the Treaty Banning Nuclear Weapon Tests in the Atmosphere, Outer Space, and Under Water (“Partial Test Ban Treaty”),¹⁰¹ focus almost exclusively on the testing of nuclear weapons.¹⁰² Although the Partial Test Ban Treaty specifically focuses on preventing and prohibiting nuclear weapons testing in the atmosphere, outer space, and underwater, the underlying objective of the treaty is an “agreement on general and complete disarmament [of nuclear weapons] under strict

96. *Id.*

97. *Treaty on the Non-Proliferation of Nuclear Weapons (NPT)*, U.N. OFF. FOR DISARMAMENT AFFS., <https://bit.ly/2gxxd2j> (last visited Jan. 6, 2019).

98. JEFFREY L. DUNOFF ET AL., *INT’L LAW, NORMS, ACTORS, PROCESS* 35 (Erwin Chemerinsky et al. eds., 4th ed. 2015).

99. *Id.* at 36.

100. The Antarctic Treaty was signed in December 1959 by the twelve countries who were active in and around Antarctica. *See* Antarctic Treaty art. 5, Dec. 1, 1961, 12 U.S.T. 794, 402 U.N.T.S. 71. The Antarctic Treaty provided that Antarctica be used for peaceful purposes, like scientific research, and specifically prohibited nuclear explosions. *See id.* at art. 1.

101. The Partial Test Ban Treaty, which is of unlimited duration, entered into force between the United States, the Soviet Union, and the United Kingdom in October 1963. *See Treaty Banning Nuclear Tests in the Atmosphere, in Outer Space, and Under Water*, NUCLEAR THREAT INITIATIVE (Oct. 26, 2011), <https://bit.ly/2QvTEuI>. The Partial Test Ban Treaty prohibits nuclear testing in the atmosphere, outer space, and under water to protect those environments. *See id.*

102. *See* Antarctic Treaty, *supra* note 100, at art. 5; *see also* Treaty Banning Nuclear Weapon Test in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 14 U.S.T. 1313, 480 U.N.T.S. 43 [hereinafter *Partial Test Ban Treaty*].

international control.”¹⁰³ Further, the Partial Test Ban Treaty signifies the beginning of an international desire for nuclear disarmament, an important objective, and result of non-proliferation.¹⁰⁴

Similarly, Nuclear-Weapon-Free Zone (“NWFZ”)¹⁰⁵ treaties encourage “regional approach[es] to strengthen global nuclear non-proliferation and disarmament norms.”¹⁰⁶ Ultimately, according to the United Nations General Assembly, NWFZ treaties enhance the security of States and contribute “to the prevention of the proliferation of nuclear weapons and to the goals of complete and general disarmament.”¹⁰⁷ A significant proportion of the world is covered by NWFZ regional treaties, as reflected by the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (“Treaty of Tlatelolco”),¹⁰⁸ the South Pacific Nuclear-Weapon-Free-Zone Treaty (“Treaty of Rarotonga”),¹⁰⁹ the Treaty on the Southeast Asia Nuclear-Weapon-Free Zone (“Bangkok Treaty”),¹¹⁰ the African Nuclear-Weapon-Free Zone Treaty (“Pelindaba Treaty”),¹¹¹

103. *Partial Test Ban Treaty*, *supra* note 102.

104. The United Nations believes that disarmament and non-proliferation must go “hand-in-hand” in order to achieve the goal of eliminating nuclear proliferation and, eventually, nuclear weapons. *See Need to Preserve Global Non-Proliferation Regime Stressed in Security Council*, UNITED NATIONS (Sept. 26, 2018), <https://bit.ly/2DvdQHy> [hereinafter *Need to Preserve*].

105. Nuclear-weapon-free zone regional treaties are important to analyze because they “contribute to the security of members of such zones [and] to the prevention of proliferation of nuclear weapons.” *See* G.A. Res. 3472 B (XXX), U.N. GAOR, 30th Sess., Supp. No. 27A, U.N. Doc. A/10027/Add.1, at 23 (Dec. 11, 1975).

106. *See Nuclear-Weapon-Free Zones*, U.N. OFF. FOR DISARMAMENT AFFS., <https://bit.ly/2z82y7z> (last visited Oct. 10, 2018).

107. G.A. Res. 3472 B (XXX), *supra* note 105, at 23.

108. Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, *opened for signature* Feb. 14, 1967, 634 U.N.T.S. 326 [hereinafter *Treaty of Tlatelolco*].

109. The Treaty of Rarotonga entered into force in 1986 and thirteen out of the sixteen regional members have ratified the treaty. *See* South Pacific Nuclear Free Zone Treaty, *opened for signature* Aug. 6, 1985, 1445 U.N.T.S. 177, 24 I.L.M. 1440 [hereinafter *Treaty of Rarotonga*]. These members include Australia, Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. *See* *South Pacific Nuclear Free Zone Treaty*, U.N. OFF. FOR DISARMAMENT AFFS., <https://bit.ly/2x7JoNM> (last visited on Jan. 13, 2019).

110. The Bangkok Treaty entered into force in 1997 and all ten regional States have ratified the treaty. *See* Southeast Asia Nuclear-Weapon-Free-Zone Treaty, *opened for signature* Dec. 15, 1995, 35 I.L.M. 635 [hereinafter *Bangkok Treaty*]. These members include Brunei Darussalam, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. *See* *Treaty on the Southeast Asia Nuclear Weapon-Free Zone*, U.N. OFF. FOR DISARMAMENT AFFS., <https://bit.ly/2nbgblD> (last visited Jan. 13, 2019); *Southeast Asia Nuclear-Weapon-Free-Zone Treaty*, NUCLEAR THREAT INITIATIVE (Apr. 30, 2018), <https://bit.ly/2WU8IRW>.

111. The Treaty of Pelindaba entered into force in 2009 and 51 States, out of the continent’s 53 States, are signatories. *See* African Nuclear-Weapon-Free Zone Treaty, *opened for signature* Apr. 11, 1996, 35 I.L.M. 698 [hereinafter *Treaty of Pelindaba*]. Additionally, 40 States out of the 51 signatory States have ratified the Treaty of Pelindaba.

and the Treaty on a Nuclear-Weapon-Free Zone in Central Asia (“CANWFZ”).¹¹²

Although examining relevant international and regional treaties is crucial to defining and understanding the concept of nuclear non-proliferation, relevant international and intergovernmental organizations must also be analyzed to understand the enforcement and implementation of the norm.

2. Intergovernmental and International Organizations

In 1996, the United Nations’ ICJ¹¹³ became the first intergovernmental organization to discuss the legality of nuclear weapons.¹¹⁴ In an advisory opinion, *On the Legality of the Threat or Use of Nuclear Weapons*, the ICJ determined that nuclear weapons are illegal and concluded that the threat or use of nuclear weapons is “contrary to the rules of international law.”¹¹⁵ Although the ICJ judges split on the ultimate issue of the legality of the threat or use of nuclear weapons, the judges unanimously agreed that an international obligation to pursue nuclear disarmament exists.¹¹⁶

Since the ICJ’s 1996 advisory opinion, the United Nations General Assembly (“UNGA”) has adopted five resolutions relating to nuclear disarmament and nuclear non-proliferation.¹¹⁷ The UNGA adopted the first resolution, Resolution 67/56, in 2012, and adopted the remaining four resolutions annually thereafter.¹¹⁸ Each resolution has the same general objective: to encourage “nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons.”¹¹⁹ Although the resolutions have the same general goals, the desire for

See African Nuclear-Weapon-Free-Zone Treaty, NUCLEAR THREAT INITIATIVE (Apr. 20, 2018), <https://bit.ly/2J5h3NC>.

112. *See Treaty on a Nuclear-Weapon-Free-Zone in Central Asia*, Sept. 8, 2006, U.N. Secretariat No. 51633, <https://bit.ly/2NgDp4m> [hereinafter *Treaty of Semipalantinsk*].

113. *See Statute of the International Court of Justice*, 1940 I.C.J. Acts & Docs. 13; *see also* text accompanying *supra* note 45.

114. *See On the Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996 I.C.J. 226 (July 8).

115. *Id.* at 266.

116. *See id.* at 267.

117. Unless explicitly stated otherwise, United Nations General Assembly resolutions are “formal expressions of the opinion or will of UN organs” and, therefore, not binding on States. *Are UN Resolutions Binding?*, DAG HAMMARSKJÖLD LIBRARY (Apr. 26, 2018), <https://bit.ly/2ZE1QK8>.

118. G.A. Res. 67/56, U.N. Doc. A/RES/67/56 (Dec. 3, 2012); *see also* G.A. Res. 68/46, U.N. Doc. A/RES/68/46 (Dec. 5, 2013); G.A. Res. 69/41, U.N. Doc. A/RES/69/41 (Dec. 2, 2014); G.A. Res. 70/33, U.N. Doc. A/RES/70/33 (Dec. 7, 2015); G.A. Res. 71/258, U.N. Doc. A/RES/71/258 (Dec. 23, 2016).

119. *Id.*

universal nuclear disarmament and non-proliferation is most apparent in the latest resolution, Resolution 71/258.¹²⁰

For example, in Resolution 71/258 the General Assembly added provisions reflecting the universality of the norm by stating that the international community is “deeply concerned about the catastrophic humanitarian consequences” of nuclear weapons.¹²¹ Use of such language supports the notion that nuclear non-proliferation is a universally fundamental norm because of the potentially catastrophic consequences of a nuclear weapon are indiscriminate and a direct result of nuclear proliferation. Additionally, universal promotion and enforcement of the norm is suggested by Resolution 71/258’s provision that directs States to “make every effort to avert the danger” of nuclear war by recalling obligations under the NPT.¹²² Further, the fundamental nature of nuclear non-proliferation is supported in Resolution 71/258 because the resolution repetitively stresses the “urgency of securing substantive progress” on non-proliferation initiatives.¹²³

In addition to the ICJ and the UNGA, the International Atomic Energy Agency (“IAEA”) is a particularly important international organization within the United Nations because it specifically promotes nuclear non-proliferation.¹²⁴ In response to President Eisenhower’s riveting “Atoms for Peace”¹²⁵ speech given to the UNGA in 1957, the international community established the IAEA under the IAEA Statute.¹²⁶ The IAEA Statute,¹²⁷ which 81 United Nations Members unanimously approved in 1956,¹²⁸ promotes and ensures the peaceful uses of nuclear energy by “establish[ing] and administer[ing] safeguards designed to

120. *See id.*

121. *Id.*

122. *Id.*

123. *Id.*

124. *See About Us*, INT’L ATOMIC ENERGY AGENCY, <https://bit.ly/2Fr7hEE> (last visited Jan. 3, 2019).

125. In “Atoms for Peace,” President Eisenhower called for the repurpose of nuclear technology from one of weaponry to one of peaceful, beneficial purposes. *See* Dwight D. Eisenhower, U.S. President, Address to the U.N.G.A: Atoms for Peace (Dec. 8, 1953), available at <https://bit.ly/2rkvhTZ>. One of the most influential lines from the speech that led to the repurposing of nuclear technology was that the world should “devote its entire heart and mind to finding the way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life.” *Id.*

126. *See History*, IAEA, <https://bit.ly/2X3wtfl> (last visited Jan. 3, 2019).

127. The IAEA Statute is the instrument that provides the agency with the power to monitor the peaceful use of nuclear energy and implement safeguards with UN Member States. *See id.* The IAEA Statute defines the objectives of the agency’s mission, which is to promote and control nuclear energy. *Id.*

128. Although there are currently 193 members of the United Nations, there were only 81 members of the United Nations when the IAEA Statute was presented to the United Nations General Assembly in October of 1956. *See id.*; *see also Growth in United Nations Membership*, UNITED NATIONS, <https://bit.ly/2Jrqp9G> (last visited Jan. 31, 2019).

ensure that special fissionable and other materials . . . are not used . . . to further any military purpose,” including nuclear weapons.¹²⁹ The IAEA plays a vital role in the nuclear non-proliferation regime because the agency conducts verification measures, inspections, and creates comprehensive safeguards.¹³⁰ In addition, the IAEA is included in nearly all international and regional non-proliferation treaties, which signals its success in promoting and enforcing nuclear non-proliferation as a norm.¹³¹ Although the IAEA’s role in the international community increased through the NPT,¹³² the IAEA’s membership is unlike the NPT because the IAEA implements safeguards in three States that are not party to the NPT—India, Pakistan, and Israel.¹³³

Now that the concepts of *jus cogens* and nuclear non-proliferation have been defined and exemplified through treaties, international organizations, and case law, the following section will analyze the two concepts in tandem to support the argument that the norm of non-proliferation has attained *jus cogens* status. Ultimately, the argument will highlight that nuclear non-proliferation has attained *jus cogens* status by analyzing the norm in relation to four frequently shared and identified factors of *jus cogens* norms.¹³⁴

III. ANALYSIS

Although *jus cogens* norms lack scholarly consensus on the characteristics or qualities necessary to define a norm as *jus cogens*,¹³⁵ sufficient legal basis exists to identify certain international crimes, like nuclear proliferation, as *jus cogens*.¹³⁶ Nuclear non-proliferation has attained the status as a peremptory *jus cogens* norm because of (1) State practice and express statements that reflect *opinio juris*, (2) the heightened language in relevant treaties and resolutions¹³⁷ that reinforce nuclear non-proliferation’s higher status in international law, (3) the vast number of States that have signed and ratified treaties related to nuclear non-proliferation, and (4) the *ad hoc* international investigations of perpetrators of nuclear proliferation.¹³⁸

129. Statute of the International Atomic Energy Agency, Jul. 29, 1957, 276 U.N.T.S. 3.

130. See *IAEA Safeguards Overview*, INT’L ATOMIC ENERGY AGENCY, <https://bit.ly/1Ku9Eku> (last visited Sept. 30, 2018).

131. See *id.*

132. See *NPT*, *supra* note 91.

133. See *About Us*, *supra* note 124.

134. See *infra* Part III.

135. See *supra* Section II.A.

136. See Bassiouni, *supra* note 23, at 68.

137. See *supra* Section II.C.2.

138. See Bassiouni, *supra* note 23, at 68.

A. *Opinio Juris on Nuclear Proliferation*

Opinio juris is a sense of legal obligation amongst States that contributes to the formation of a norm as customary international law.¹³⁹ The *opinio juris* of States in relation to nuclear non-proliferation reflects an international sense of legal obligation to undertake measures to prohibit the proliferation of nuclear weapons among States.¹⁴⁰ This sense of legal obligation is manifested through the action and express statements of the States.¹⁴¹

1. State Action

As an example of *opinio juris* in relation to nuclear non-proliferation, over 140 States hold voluntary agreements with the IAEA.¹⁴² Agreements between the IAEA and States are seen as a “fundamental component of the nuclear non-proliferation” regime because such agreements promote confidence and create assurances that States are complying with obligations that support nuclear non-proliferation.¹⁴³ Such agreements with the IAEA demonstrate non-proliferation’s universal, fundamental importance in the international community. Indeed, the Democratic People’s Republic of Korea’s (“North Korea”) is the only nuclear weapons State, out of a total of nine nuclear weapons States, that does not hold an agreement with the IAEA.¹⁴⁴

Although North Korea does not yet hold an agreement with the IAEA and is not currently a member of the NPT, recent North Korean action has begun to reflect a sense of *opinio juris*¹⁴⁵ supporting non-proliferation. The diplomatic discussions of denuclearization between United States President, Donald J. Trump, and North Korean Chairman, Kim Jong Un, was welcomed and hailed by the international community as a “milestone” for enhancing non-proliferation steps in North Korea.¹⁴⁶ Similarly, China

139. See *supra* Section II.A.; see also Jo Lynn Slama, *Opinio Juris in Customary International Law*, 15 OKLA. CITY U. L. REV. 603, 605 (1990).

140. *Supra* Section II.A.

141. See Slama, *supra* note 139, at 656.

142. See Statute of the International Atomic Energy Agency, Jul. 29, 1957, 276 U.N.T.S. 3

143. For example, Mark Rutte, Prime Minister of the Netherlands, expressed that the IAEA and the international community can work “hand-in-hand” on non-proliferation. See *Need to Preserve*, *supra* note 104.

144. See *IAEA Safeguards Overview*, *supra* note 130.

145. See *supra* Section II.A.I.

146. Martin Vazvarra Cornejo, president of Peru; Daniel Kablan Duncan, vice president of Côte d’Ivoire; Mark Rutte, prime minister of the Netherlands; Kairat Abdrakhmanov, Kazakhstan’s minister of foreign affairs; Margot Wallström, Sweden’s minister of foreign affairs; and Andrzej Duda, president of Poland were among the representatives that vocally praised the diplomatic talks between the United States and North Korea. *Id.*

has undertaken initiatives toward North Korean denuclearization by facilitating dialogue on the Korean Peninsula.¹⁴⁷

Additionally, Iran, a State that has been vocal about its desire to attain a nuclear weapon, entered into a multilateral agreement, the Joint Comprehensive Plan of Action (“JCPOA”), that aims to prevent nuclear weapons proliferation in Iran.¹⁴⁸ The JCPOA, otherwise known as the “Iran Nuclear Deal,” is an agreement between Iran and the permanent five (“P5”) members¹⁴⁹ of the UN Security Council.¹⁵⁰ The JCPOA is intended to promote nuclear non-proliferation by guaranteeing that Iran’s nuclear programs are strictly used for peaceful purposes.¹⁵¹

To ensure that Iran complies with its obligations of non-proliferation, the JCPOA lays a comprehensive framework that sets specific prohibitions on activities that could contribute to the development of a nuclear weapon.¹⁵² In addition, the stringent verification and compliance measures of the JCPOA are implemented and monitored by the IAEA.¹⁵³ Although the United States’ recent withdrawal from the JCPOA¹⁵⁴ may appear to undermine the universality and fundamental importance of nuclear non-proliferation, the United States “still retain[s] the same objectives” with the rest of the world, which is to prevent the proliferation of nuclear weapons to Iran.¹⁵⁵

2. Express Statements of States

Additionally, the collective *opinio juris* in support of nuclear non-proliferation in the international community is best demonstrated by the various statements made by heads of States and representatives to the UN Security Council in its 8,362nd meeting on September 26, 2018.¹⁵⁶ The focus of the meeting was on the preservation of the global non-

147. As expressed by Wang Yi, China’s minister foreign affairs, during the 8,362 meeting of the United Nations Security Council. *Id.*

148. See Kelsey Davenport, *The Joint Comprehensive Plan of Action (JCPOA) at a Glance*, ARMS CONTROL ASS’N (May 2018), <https://bit.ly/2rrNekO>.

149. The P5 members of the UN Security Council include China, the Russian Federation, the United States, the United Kingdom, and France. *Id.*

150. *Id.*

151. *See id.*

152. *See id.*

153. *See Davenport, supra* note 148.

154. The United States withdrew from the JCPOA in May of 2018 because of the belief that the agreement was “one-sided” and that the agreement did not do enough to enforce non-proliferation. *See Need to Preserve, supra* note 104.

155. As expressed by Emmanuel Macron, president of France, during the 8,362nd meeting of the United Nations Security Council. *See id.*

156. China, the Russian Federation, Bolivia, Peru, Côte d’Ivoire, the Netherlands, Kuwait, Ethiopia, Kazakhstan, Sweden, France, Poland, the United Kingdom, and the United States were all represented at the 8362nd meeting of the UN Security Council. *See id.*

proliferation regime in light of various activities that occurred in 2018.¹⁵⁷ Although the representatives at the UN Security Council were unable to come to a consensus on the most effective method of encouraging non-proliferation of nuclear weapons,¹⁵⁸ all nations expressed unanimity in preserving and enforcing non-proliferation.¹⁵⁹ Non-proliferation's fundamental importance is "abundantly clear"¹⁶⁰ and the "collective effort"¹⁶¹ necessary to prevent nuclear proliferation demonstrates the universality of the norm.

Express statements by State leaders reflecting the importance of nuclear non-proliferation is not a recent phenomenon. The fundamental importance of the norm was conveyed by the White House Press Secretary in 1996, Mike McCurry ("McCurry").¹⁶² McCurry stated in a press release that the United States' signing of both the Treaty of Rarotonga¹⁶³ and Treaty of Pelindaba¹⁶⁴ clearly established the United States' "commitment to nuclear nonproliferation" and regional NWFZ¹⁶⁵ treaties.¹⁶⁶ Similarly, Kang Yong ("Yong"), the Counsellor for China at the Preparatory Committee for the 2010 NPT Review Conference,¹⁶⁷ reinforced the importance of regional non-proliferation treaties.¹⁶⁸ Yong stated that

157. These activities include Syria's chemical weapon use against its own citizens; the chemical weapon attack in Salisbury, England; the United States' withdrawal from the Joint Comprehensive Plan of Action (JCPOA); and the diplomatic discussions between the Democratic People's Republic of Korea ("North Korea") and the United States. *See id.*

158. The various methods of eliminating nuclear proliferation include complete destruction of all nuclear weapons, as expressed by Peru; nuclear-based sanctions, as expressed by the United States and France; diplomacy and confidence-building measures, as expressed by Kazakhstan and Ethiopia; and rules-based, treaty enforcement, as expressed by the Netherlands, Equatorial Guinea, and Kuwait. *Id.*

159. *See id.*

160. *Id.* (quoting Mark Rutte, Prime Minister of the Netherlands).

161. *See Need to Preserve, supra* note 104 (quoting Andrzej Duda, President of Poland).

162. *See* Press Release, Office of the Press Secretary, Joint Statement on South Pacific Nuclear Free Zone (Mar. 23, 1996), 1996 WL 128061; Press Release, Office of the Press Secretary, Africa Nuclear Weapon Free Zone Treaty and Fact Sheet (Apr. 11, 1996), 1996 WL 169211.

163. *See Treaty of Rarotonga, supra* note 109.

164. *See Treaty of Pelindaba, supra* note 111.

165. *See Supra* Section II.C.I.

166. Press Release, Office of the Press Secretary, Joint Statement on South Pacific Nuclear Free Zone (Mar. 23, 1996), 1996 WL 128061; *see also* Press Release, Office of the Press Secretary, Africa Nuclear Weapon Free Zone Treaty and Fact Sheet (Apr. 11, 1996), 1996 WL 169211.

167. The Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons ("NPT Review Conference") was established in 1975 and meets every five years to review the implementation of the NPT. *See NPT Review Conferences*, INT'L ATOMIC ENERGY AGENCY, <https://bit.ly/2LcqI7F> (last visited Jan. 4, 2019).

168. *See* Kang Yong, Counsellor, China, Statement at the Preparatory Committee for the 2010 NPT Review Conference: On the Issue of Nuclear-Weapon-Free Zone (May 7, 2009), <https://bit.ly/2ICgAnj>.

“nuclear-weapon-free zones [are] an important step toward the goal of a world free of nuclear weapons.”¹⁶⁹ State actions and statements contribute to nuclear non-proliferation’s *jus cogens* status because they reflect *opinio juris* amongst the international community that nuclear non-proliferation is of fundamental importance.

B. Treaty Analysis

Currently, close to half¹⁷⁰ of all multilateral treaties that relate to arms regulation and disarmament agreements have provisions that relate to nuclear proliferation and nuclear weapons.¹⁷¹ No other weapon or method of weaponization is as heavily regulated or addressed in multilateral treaties as nuclear weapons and nuclear energy.¹⁷² Although a significant number of regulations and disarmament treaties address the weaponization of nuclear energy and nuclear proliferation, this number is not sufficient on its own to justify the argument that nuclear non-proliferation has attained the status of *jus cogens*.¹⁷³ However, the heightened language¹⁷⁴ and volume of States that have ratified non-proliferation treaties demonstrate the *jus cogens* status of the norm.¹⁷⁵

The most significant treaty in the nuclear non-proliferation regime is the NPT,¹⁷⁶ which entered into force in 1970 and was extended indefinitely in 1995.¹⁷⁷ Out of the 193 States recognized by the United Nations, a total of 191 States have joined the NPT, making it the most ratified arms regulation and disarmament agreement of any treaty.¹⁷⁸ Statements and provisions in the NPT, requiring the “cooperation of all States” and “strengthening of trust between States,” reflects the universality of the norm against nuclear proliferation.¹⁷⁹ Additionally, the provision,

169. *Id.*

170. Thirteen out of the twenty-seven multilateral Arms Regulation and Disarmament Agreements have provisions that pertain to nuclear weapons and, or nuclear proliferation. *Disarmament Treaties Database*, U.N. OFF. FOR DISARMAMENT AFFS., <https://bit.ly/2igYMxj> (last visited Jan. 13, 2019). These treaties include the Antarctic Treaty, Bangkok Treaty, Comprehensive Nuclear-Test-Ban Treaty, International Convention for the Suppression of Acts of Nuclear Terrorism, Moon Treaty (Celestial Bodies), Outer Space Treaty, Partial Test Ban Treaty, Pelindaba Treaty, Sea-Bed Treaty, South Pacific Nuclear Free Zone Treaty, Treaty of Tlatelolco, Treaty on a Nuclear-Weapon-Free Zone in Central Asia (CANWFZ), Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and the Treaty on the Prohibition of Nuclear Weapons. *Id.*

171. *See id.*

172. *See id.*

173. *See supra* Section II.A.

174. *See supra* Section II.C.2.

175. *See supra* Section II.C.2.

176. *See supra* Section II.C.2.

177. *See NPT*, *supra* note 91.

178. *See Disarmament Treaties Database*, *supra* note 170.

179. *See NPT*, *supra* note 91.

“[c]onsidering the devastation that would be visited upon all mankind by a nuclear war,” reflects an understanding of the threat nuclear proliferation poses to the peace and security of mankind, a common characteristic of *jus cogens* norms.¹⁸⁰ The NPT has been credited with keeping the number of States that possess nuclear weapons low for the last fifty years.¹⁸¹ As expressed by the Prime Minister of the Netherlands, Mark Rutte, the world “can only imagine how much conflict, instability and violence [the NPT] has prevented” by encouraging and enforcing non-proliferation measures.¹⁸²

In addition to the NPT, the Treaty of Tlatelolco demonstrates the contribution of NWFZ regional treaties¹⁸³ to nuclear non-proliferation’s attainment of *jus cogens* status. Currently, all 33 states in Latin America and the Caribbean are members of the Treaty of Tlatelolco, which “is of a permanent nature and shall remain in force indefinitely.”¹⁸⁴ The unanimous support for the Treaty of Tlatelolco evinces that Latin American and Caribbean States share a deeply rooted belief that nuclear non-proliferation is *jus cogens*.¹⁸⁵

The Treaty of Tlatelolco also requires Latin American and Caribbean signatory States to “keep their territories forever free from nuclear weapons” because of the “incalculable destructive power” nuclear weapons possess.¹⁸⁶ The Treaty of Tlatelolco stresses that in order to keep regional territories free from nuclear weapons and decrease the danger of a “nuclear conflagration,” States must impose upon themselves prohibitions on the proliferation of nuclear weapons.¹⁸⁷ Language like “forever free,” “destructive power,” and “nuclear conflagration” are just a few examples of the heightened language used throughout the treaty to describe the threatening and shocking nature of nuclear proliferation.¹⁸⁸ Additionally, the Treaty of Tlatelolco acknowledges that prohibiting and preventing the “testing, use, manufacture, production or acquisition” of

180. *See id.*; *see also supra* Section II.A.

181. *See Need to Preserve, supra* note 104.

182. *Id.*

183. *See supra* Section II.C.1.

184. *Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean*, NUCLEAR THREAT INITIATIVE (Apr. 30, 2018), <https://bit.ly/2ZEP3XN>; *see also* Press Release, Office of the Press Secretary, Comment on Latin America Nuclear-Free Zone Treaty (Jan. 21, 1994), 1994 WL 14667 (stating that the Treaty of Tlatelolco would “strengthen the security of countries” and “reinforce the worldwide nonproliferation regime”).

185. *See supra* Section II.A.

186. Treaty of Tlatelolco, *supra* note 108.

187. *Id.*

188. *See supra* Section II.A.

nuclear weapons would contribute significantly toward the ultimate prevention of international nuclear proliferation.¹⁸⁹

Further, although not yet in force, the Treaty on the Prohibition of Nuclear Weapons is the most recent multilateral treaty that addresses nuclear non-proliferation.¹⁹⁰ The Treaty on the Prohibition of Nuclear Weapons uses unprecedented provisions in arms limitation and disarmament agreements, thus contributing to the fundamental nature and higher status of non-proliferation as a *jus cogens* norm.

For example, under Article I of the Treaty on the Prohibition of Nuclear Weapons, a State Party undertakes to “never under any circumstances” develop, test, transfer, receive, use, or threaten to use a nuclear weapon.¹⁹¹ The Treaty on the Prohibition of Nuclear Weapons is unprecedented because it requires each “State Party [to] encourage States not party to this Treaty to sign, ratify, accept, approve[,] or accede to the Treaty, with the goal of universal adherence” and is not subject to reservations.¹⁹² Unlike other non-proliferation treaties, the Treaty on the Prohibition of Nuclear Weapons sets strict standards on a State Party to eliminate nuclear weapons capabilities and stockpiles.¹⁹³ The strict standards imposed by the Treaty, as well as the prohibition of reservations to the Treaty,¹⁹⁴ demonstrates nuclear non-proliferation’s significant status in the international community.

The NPT, Treaty of Tlatelolco, and the Treaty on the Prohibition of Nuclear Weapons exemplify the *jus cogens* status of nuclear non-proliferation. The shocking nature and international threat¹⁹⁵ nuclear proliferation poses to the world is reflected in the heightened language

189. The Treaty of Tlatelolco’s potential to significantly contribute to the ultimate prevention of the proliferation of nuclear weapons was strengthened by Additional Protocols I and II, enacted after the NPT, which sought to strengthen the Latin American and Caribbean commitment of non-proliferation as a “means of achieving general and complete disarmament.” See *Treaty of Tlatelolco*, *supra* note 108.

190. The Treaty on the Prohibition of Nuclear Weapons was adopted by a vote of 112 States by the United Nations on July 7, 2017. See *Treaty on the Prohibition of Nuclear Weapons*, U.N. OFF. FOR DISARMAMENT AFFS., <https://bit.ly/2meEU2E> (last visited Oct. 30, 2018). However, the treaty will not enter into force until after the fiftieth instrument of ratification, acceptance, approval, or accession has been deposited. See *id.* As of 2018, there are 69 Signatory States, with only nineteen of those 69 States actually party to the treaty. *Id.*

191. *Id.*

192. *Id.*

193. See *id.*

194. . Reservations are “unilateral statement[s]” that allow a State to “exclude or to modify the legal effect of certain provisions” of a treaty’s application to that State. *Vienna Convention*, *supra* note 16, at art. 2 (1)(d). By prohibiting reservations, the Treaty on the Prohibition of Nuclear Weapons seeks to strictly and universally enforce all of its provisions.

195. See *supra* Section II.A.

utilized in each treaty.¹⁹⁶ In addition, the fundamental importance of promoting and enforcing the norm of non-proliferation is reinforced by the considerable number of arms regulation and disarmament agreements that address the norm. Further, the universality of nuclear non-proliferation is reflected by the 191 States that are members of relevant treaties and agreements.¹⁹⁷

C. *Ad Hoc Investigations of Perpetrators*

One method of determining what actions constitute international crimes that violate norms of *jus cogens* is identifying crimes that “affect the interests of the world community as a whole.”¹⁹⁸ Crimes that affect the world community are crimes undertaken by a State that (1) “threaten the peace and security of humankind” because they (2) “shock the conscience of humanity.”¹⁹⁹ Additionally, *jus cogens* norms impose duties on States, not optional rights, which imply a “duty to prosecute” violators of international crimes that rise to the level of *jus cogens*.²⁰⁰ In practice, States frequently grant impunity for *jus cogens* crimes, thus creating a “gap between legal expectations and legal reality.”²⁰¹ This gap between expectation and reality may be attributed to the intentionally undefined nature of *jus cogens* to allow for other norms to rise to the level of *jus cogens* as States begin to hold other norms as fundamentally peremptory.²⁰²

Analyzing international investigations and prosecutions of perpetrators of nuclear proliferation is difficult because, like other *jus cogens* norms, little case law exists.²⁰³ Examining the international community’s investigations of the A.Q. Khan Network suggests that nuclear proliferation is a *jus cogens* crime that affects the world community as a whole.

The A.Q. Khan Network was the name given to a Pakistani nuclear scientist, Abdul Qadeer (“A.Q.”) Khan, and his associates that engaged in nuclear proliferation activities during the 1970s.²⁰⁴ The A.Q. Khan Network is infamous for developing a successful nuclear weapon in

196. See *supra* Section III.B.

197. See *Disarmament Treaties Database*, *supra* note 165.

198. Bassiouni, *supra* note 23, at 69.

199. *Id.* at 69.

200. *Id.* at 65–66.

201. *Id.* at 66.

202. See *Supra* Part II.A.

203. See *Int’l Law Comm’n*, *supra* note 27.

204. See *Chronology: A.Q. Khan*, N.Y. TIMES (Apr. 16, 2006), <https://nyti.ms/2X1BJLH>.

Pakistan and proliferating nuclear weapons technology and designs to Iran and North Korea.²⁰⁵

In 1972, A.Q. Khan worked at the Physical Dynamic Research Laboratory (“FDO”), a Dutch research facility and subcontractor of the Ultra Centrifuge Nederland (“UCN”), a Dutch nuclear facility.²⁰⁶ While Khan worked at the FDO, Dutch intelligence began to monitor his activities after he began inquiring into nuclear technical information unrelated to his own projects.²⁰⁷ After three years of working at the Dutch FDO, and soon after he asked a series of “suspicious questions” at a nuclear trade show in Switzerland, A.Q. Khan fled to Pakistan with centrifuge blueprints and began working with the Pakistan Atomic Energy Commission (“PAEC”).²⁰⁸

In 1983, eight years after fleeing the Netherlands with centrifuge blueprints, A.Q. Khan was convicted in a Dutch court, in absentia, for “conducting nuclear espionage.”²⁰⁹ A.Q. Khan’s conviction was overturned on appeal because the Dutch court determined that A.Q. Khan was not properly summoned.²¹⁰ After nearly two decades of receiving and transferring nuclear weapons technology, information, and training to other countries,²¹¹ A.Q. Khan was forced to publicly confess to his nuclear proliferation crimes in 2004.²¹² Ultimately, A.Q. Khan served only five years of house arrest and was pardoned of his proliferation crimes by Pakistani President, Pervez Musharraf.²¹³

The rest of the world, however, heavily criticized the leniency Khan received.²¹⁴ For example, upon A.Q. Khan’s release from house arrest, the Obama administration asked Pakistan for assurances that Khan would be prohibited from returning to nuclear-related work and activity.²¹⁵ Although

205. See Catherine Collins & Douglas Frantz, *The Long Shadow of A.Q. Khan*, FOREIGN AFFAIRS (Jan. 31, 2018), <https://fam.ag/2X3gDMY>.

206. See *Chronology: A.Q. Khan*, *supra* note 204.

207. See Collins & Frantz, *supra* note 205.

208. See *id.*

209. Craig S. Smith, *Roots of Pakistan Atomic Scandal Traced to Europe*, N.Y. TIMES (Feb. 19, 2004), <https://nyti.ms/2Y6ReDp>.

210. See Collins & Frantz, *supra* note 205.

211. Countries that are believed to have benefitted from the A.Q. Khan Network, other than Pakistan, include North Korea, Iran, and Libya. See *id.* However, Libya never successfully tested nor attained a nuclear weapon and renounced its nuclear weapons program in December 2003. *Id.* Additionally, an Iraqi memo found in 1995 indicates that A.Q. Khan may have offered nuclear assistance to Iraq. *Id.* However, Khan was ultimately unable to assist Iraq because Iraq rejected the offer. *Id.*

212. See *id.*

213. See Leonard S. Spector, *Punishing A.Q. Khan*, FOREIGN POLICY (Sept. 10, 2009), <https://bit.ly/2ICbfMC>.

214. Joby Warrick, *Nuclear Scientist A.Q. Khan Is Freed From House Arrest*, WASH. POST (Feb. 7, 2009), <https://wapo.st/2ZEFnN1>.

215. See *id.*

Pakistan has promised that it will take “all necessary measures to promote the goals of nonproliferation,”²¹⁶ Pakistan’s minimal punishment of A.Q. Khan demonstrates the gap between the legal expectation and legal reality²¹⁷ for violators of *jus cogens* norms.

D. Recommendation

Ultimately, the international community should begin to recognize nuclear non-proliferation as a *jus cogens* norm because, like other *jus cogens* norms, nuclear proliferation poses a significant threat to the peace and security of humankind because of the highly destructive, shocking nature of nuclear weapons.²¹⁸ A major consequence of the undefined nature of *jus cogens* norms is the absence of criteria necessary to recognize a norm as *jus cogens*.²¹⁹

The lack of criteria necessary to recognize a norm as *jus cogens* can be used to the advantage of the nuclear non-proliferation regime. For example, like the ICJ noted when it addressed genocide, there need not be any “conventional obligation” to formally recognize that nuclear non-proliferation is *jus cogens*.²²⁰ In the case of nuclear non-proliferation, there is not only a conventional obligation to promote nuclear non-proliferation under the NPT, but also a psychological obligation to adhere to the norm, as demonstrated by the *opinio juris* of States.²²¹

In addition, nuclear non-proliferation’s *jus cogens* status is supported by the significant number of international and regional treaties that address the norm as well as the 191 States that are members to either one or more of those treaties.²²² The international community should explicitly define and declare nuclear non-proliferation as *jus cogens* because such declarations would likely diminish the threat posed by nuclear proliferation, as exemplified by the *jus cogens* status of the prohibition of genocide, torture, and slavery.²²³

IV. CONCLUSION

Although the concept of *jus cogens* encompasses the most fundamental, peremptory norms in international law, the concept also lacks precise boundaries to elevate a norm to *jus cogens* status.²²⁴

216. *Id.*

217. Bassiouni, *supra* note 23, at 66.

218. *See supra* Sections II.A, II.B., II.C.

219. *See supra* Section II.A.

220. *See supra* Section II.A.1.

221. *See supra* Section III.A.

222. *See supra* Section III.B.

223. Despite the *jus cogens* status of genocide, torture, and slavery, these crimes still persist today. *See supra* Section II.A.

224. *See Int’l Law Comm’n, supra* note 27.

However, a non-exhaustive list of *jus cogens* norms does exist.²²⁵ For example, this list includes the prohibition of aggression, genocide, slavery, racial discrimination, crimes against humanity and torture, and the right to self-determination.²²⁶

Common factors shared by *jus cogens* norms include: *opinio juris* reflected by the express statements and actions of States; the number of relevant treaties and State parties to such treaties; and *ad hoc* international investigations and prosecutions of perpetrators.²²⁷ In addition, *jus cogens* norms are collectively defined as crimes that “affect the interests of the world community as a whole because they threaten the peace and security of humankind and . . . shock the conscience of humanity.”²²⁸

Nuclear non-proliferation has attained the status of a *jus cogens* norm. Nuclear non-proliferation is *jus cogens* because of the *opinio juris* reflected by States, the significant number of treaties in force that address and promote nuclear non-proliferation, and the large number of States that are party to such treaties.²²⁹ While there are few examples of illegal nuclear proliferation, the example of the A.Q. Khan Network exemplifies the gap between the legal expectation and legal reality of prosecuting violators of *jus cogens* norms.²³⁰

Further, and perhaps most significantly, nuclear non-proliferation is a *jus cogens* norm because the proliferation of nuclear weapons is a crime that threatens international peace and security.²³¹ The catastrophic humanitarian and environmental consequences posed by nuclear weapons was exhibited by the dropping of atomic bombs on Japan in World War II.²³² The resulting destruction of Japan not only shocked the conscience of humanity,²³³ but it also led to non-proliferation initiatives that elevated nuclear non-proliferation to *jus cogens* status. The international community should explicitly define and declare nuclear non-proliferation as *jus cogens* because its binding nature on all States has the potential to diminish the threat posed by nuclear proliferation, as exemplified by the *jus cogens* status of the prohibition of genocide, torture, and slavery.²³⁴

225. See *Draft Articles*, *supra* note 34, at 83, para. 5.

226. See *id.*

227. See *supra* Section II.A.1.

228. See *supra* Section II.A.1.

229. See *supra* Sections III.A, III.B.

230. See *supra* Section III.C.

231. See *supra* Section II.A.

232. See *supra* Section II.B.

233. See *supra* Section II.A.

234. See *supra* Section II.A.