University of Reading

Assessing the Theoretical and Practical Impact of the Treaty on the Prohibition of Nuclear Weapons as a Disarmament Law Instrument

A thesis submitted to the
School of Law, University of Reading
in fulfilment of the requirements
for the degree of Doctor of Philosophy

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Declaration

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Christopher P Evans

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ABSTRACT

The negotiation and subsequent entry into force of the Treaty on the Prohibition of Nuclear Weapons (TPNW) marked a momentous, though controversial, legal development in the pursuit of a nuclear weapon-free world. The TPNW establishes legally binding prohibitions on the use, possession, and development of nuclear weapons applicable globally on a non-discriminatory basis, alongside disarmament 'pathways' through which nuclear disarmament can proceed. However, each of the nuclear weapon possessing states (NWPS) has vigorously opposed the TPNW, raising questions as to what contribution the treaty can have in facilitating progress towards nuclear disarmament in the absence of the NWPS within a positivist, consent-based international legal system.

Facing these concerns, this thesis aims to determine precisely what impact and influence the TPNW can bring as a legal instrument to the pursuit of a nuclear weapons-free-world. This is pursued in two ways. First, the discussion examines the 'theoretical' potential and contribution of the TPNW on the wider pre-existing international nuclear non-proliferation and disarmament legal regime by assessing the content of the treaty's nuclear disarmament-related provisions, particularly the prohibitions and disarmament 'pathways' under Articles 1 and 4 respectively. Second, the thesis explores the 'practical' influence of the TPNW in reinvigorating nuclear disarmament-related discourse and progress within multilateral disarmament forums since 2017. This also examines the possible emergence of customary international law prohibitions on the use of nuclear weapons stemming from the adoption of the TPNW.

Overall, this thesis offers an original, holistic account that explores the TPNW's ability to advance the objective of nuclear disarmament. Ultimately, however, the conclusions reached suggest that while the TPNW has the potential to significantly contribute to nuclear disarmament law, its impact in practice remains limited so far. *Time* may therefore be needed for the TPNW to mature normatively and instituionally before its real value can be determined.

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LIST OF ABBREVIATIONS

APMBC	Anti-Personnel Mine Ban Convention 1997
BWC	Biological Weapons Convention 1972
CCM	Convention on Cluster Munitions 2008
CEND	Creating an Environment for Nuclear Disarmament Initiative
CSA	Comprehensive Safeguards Agreement INFCIRC/153 (Corrected)
CTBT	Comprehensive Nuclear Weapons Test-Ban Treaty 1996
CWC	Chemical Weapons Convention 1993
DARSIWA	Draft Articles on Responsibility of States for Internationally Wrongful Acts
IAEA	International Atomic Energy Agency
ICAN	International Campaign to Abolish Nuclear Weapons
ICBM	Inter-Continental Ballistic Missile
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
ILC	International Law Commission
INF Treaty	Intermediate Range Nuclear Forces Treaty 1987
IPNDV	International Partnership for Nuclear Disarmament Verification
NATO	North Atlantic Treaty Organisation
NGO	Non-Governmental Organisation
NNWS	Non-Nuclear Weapon States
NPT	Treaty on the Non-Proliferation of Nuclear Weapons 1968
NWC	Nuclear Weapons Convention
NWFZ	Nuclear Weapon-Free Zone
NWS	Nuclear Weapon States recognised by Article IX(3) of the Treaty on the Non-Proliferation of Nuclear Weapons 1968 (United States, Russia, China, France, United Kingdom)
NWPS	Nuclear Weapons Possessing States, i.e. all nine states that currently possess nuclear weapons (that is, the five *de jure* NWS under Article IX(3) of the NPT, along with the *de facto* NWPS – India, Pakistan, the Democratic People's Republic of Korea, and Israel)
OEWG	Open-Ended Working Group
PTBT	Partial Nuclear Test-Ban Treaty 1963 (also known as the Limited Test-Ban Treaty)
TPNW	Treaty on the Prohibition of Nuclear Weapons 2017

UN	United Nations
UNGA	United Nations General Assembly
UNIDIR	United Nations Institute for Disarmament Research
UNSC	United Nations Security Council
VCLT	Vienna Convention on the Law of Treaties 1968
VERTIC	Verification Research, Training and Information Centre
WMD	Weapons of Mass Destruction

Chapter 1: Introduction[*]

1. A Road to Nuclear Disarmament (or Nowhere?)

Facing the aftermath of the use of nuclear weapons by the United States (US) against Japan over the coastal cities of Hiroshima and Nagasaki towards the end of World War II, resulting in the death of between 110,000-210,000 lives,[1] the international community of states began to recognise the necessity of establishing legally binding obligations to limit both the horizontal[2] and vertical[3] proliferation of nuclear weapons.[4] Indeed, the very first Resolution adopted by the newly formed United Nations General Assembly (UNGA) in 24 January 1946 called for 'the *elimination* from national armaments of atomic weapons and of all other weapons adaptable for mass destruction'.[5] Initiatives such as the US-proposed 1946 Baruch Plan for the control and elimination of atomic weapons, along with President Eisenhower's 'Atoms for Peace' proposal in 1953 which created the foundations of what would become the International Atomic Energy Agency (IAEA) in 1958 and non-proliferation regime followed thereafter, and began to impose limitations on the acquisition and spread of nuclear materials and technology by states.[6]

Undoubtedly the most significant legal development towards this aspiration negotiated during the 20th century was the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1968.[7] This 'cornerstone' agreement essentially created a 'Grand Bargain' of obligations, whereby the non-nuclear weapon states (NNWS) parties to the treaty relinquished the opportunity to

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[*] All websites last accessed on 30 September 2021.

[1] See Gro Nystuen and Stuart Casey-Maslen, 'Introduction', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 4-7; 'The Manhattan Project: The Atomic Bombing of Hiroshima, August 6, 1945' (*US Department of Energy*) <https://www.osti.gov/opennet/manhattan-project-history/Events/1945/hiroshima.htm>; and 'Fact file: Hiroshima and Nagasaki, 6 and 9 August 1945' (*BBC*, updated March 2012) <https://www.bbc.co.uk/history/ww2peopleswar/timeline/factfiles/nonflash/a6652262.shtml>

[2] Horizontal proliferation refers to the spread of nuclear weapons to further states.

[3] Vertical proliferation refers to the continued growth of nuclear weapons stockpiles of those states that already possess nuclear weapons.

[4] Karen Gilligan, 'The Non-Proliferation Regime and the NPT', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014) 90-91.

[5] UNGA Res 1(I) (24 January 1946) UN Doc A/RES/1(I), [5(c)] (emphasis added).

[6] For a useful summary of early efforts to regulate the use and spread of nuclear weapons and control exports of nuclear materials and technology, see Daniel H Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011) 6-20; Edwin B Firmage, 'The Treaty on the Non-Proliferation of Nuclear Weapons' (1969) 63(4) *American Journal of International Law* 711, 713-16; and William C Potter, *Nuclear Power and Nonproliferation* (Gunn and Hain 1982) 35-40. A more elaborate discussion of early limitations on nuclear technology is offered by William Epstein, *The Last Chance: Nuclear Proliferation and Arms Control* (Macmillan 1976) 1-86. The primary international law-based obligations concerning nuclear non-proliferation and disarmament will be examined in Part I: Chapter 2: Existing Nuclear Weapons-related Instruments.

[7] Treaty on the Non-Proliferation of Nuclear Weapons (adopted 1 July 1968, entered into force 5 March 1970) 729 UNTS 161.

develop or acquire nuclear weapons, while the five NPT-recognised nuclear weapon-states (NWS)[8] agreed, in exchange, to refrain from transferring nuclear weapons to 'any recipient whatsoever'.[9] Most significantly,[10] under Article VI:

> 'Each of the Parties to the Treaty *undertakes to pursue negotiations in good faith on effective measures relating* to cessation of the nuclear arms race at an early date *and to nuclear disarmament*, and on a treaty on general and complete disarmament under strict and effective international control'.[11]

Article VI has since become an extremely controversial and disputed provision of the NPT amongst NWS and NNWS alike.[12] While the NWS view the nuclear disarmament commitment under the NPT as an obligation merely to try to reduce the number of nuclear arms and only *pursue* negotiations without requiring a result to be reached, the NNWS generally view Article VI as an obligation of conduct to negotiate and ultimately *achieve* nuclear disarmament.[13]

What is clear, however, is that more than 50 years after the negotiation of the NPT, progress towards nuclear disarmament has stagnated to the point of non-existence. Although nuclear weapon stockpile numbers have fallen drastically from Cold War peaks of around 70,300 warheads in 1986, it is estimated today that roughly 13,100 nuclear weapons remain under the possession of the now *nine* nuclear weapons possessing states (NWPS),[14] each of which are 'modernising', improving and extending the lifespan of their existing nuclear weapons.[15] Moreover,

[8] The term nuclear weapon states (NWS) refers to the five states recognised as nuclear weapon states under Article IX(3), NPT ('a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January, 1967'). This definition encompasses the US, the Soviet Union (and now Russia), the UK, France, and China as the five *de jure* nuclear weapon states recognised by the NPT (hereafter the NWS). India, Pakistan, Israel, and North Korea (the DPRK) are considered '*de facto*' nuclear weapon states. When referring to all nine nuclear weapon possessing states collectively, the acronym NWPS shall be used, whereas NWS refers to the five *de jure* NPT-recognised nuclear weapon states.
[9] See for further detail Part I: Chapter 2: Existing Nuclear Weapons-related Instruments.
[10] At least for present purposes.
[11] Article VI, NPT (emphasis added).
[12] Daniel H Joyner, 'The Legal Meaning and Implications of Article VI of the Non-Proliferation Treaty', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 397; and Daniel Rietiker, 'The Meaning of Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons: Analysis Under the Rules of Treaty Interpretation', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014) 48.
[13] As summarised by Joyner (2014) 404. The nature of the obligation assumed under Article VI, NPT will be discussed at greater length in Part I: Chapter 2: Existing Nuclear Weapons-related Instruments
[14] Hans M Kristensen and Matt Korda, 'Status of World Nuclear Forces' (*Federation of American Scientists*, updated August 2021) <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/>. Alongside the US, Russia, China, France and the UK, India, Pakistan, Israel, and the Democratic People's Republic of Korea have since acquired nuclear weapons following the conclusion of the NPT in 1968.
[15] For a collective overview of current modernisation efforts, see 'Assuring Destruction Forever: 2020' (*Reaching Critical Will, Women's International League for Peace and Freedom*, June 2020) <https://www.reachingcriticalwill.org/images/documents/Publications/modernization/assuring-destruction-forever-2020v2.pdf>

it has been widely suggested that the NPT-recognised NWS have made insufficient progress towards implementing identified nuclear disarmament measures and steps adopted within the 'Final Documents' agreed upon by consensus amongst participating states during the 2000 and 2010 NPT Review Conferences.[16] The proposed 'fissile material cut-off treaty', for example, has languished within the Conference on Disarmament for over two decades,[17] while the 'model Nuclear Weapons Convention' – circulated in the UNGA since 1997 – has equally failed to attract any meaningful political support amongst the NWPS.[18] Indeed, the 1996 Comprehensive Nuclear Test-Ban Treaty (CTBT) remains the last multilateral nuclear disarmament agreement to be negotiated by the Conference.[19]

Furthermore, existing nuclear arms control agreements are also being abandoned. On 2 August 2019, the US – upon the impetus of the now former Trump Administration – withdrew from the Intermediate-Range Nuclear Forces (INF) Treaty of 1987,[20] an agreement that eliminated all nuclear and conventional-capable ground-launched ballistic missiles and cruise missiles with flight ranges of between 500-5,500 kilometres.[21] This followed the prior decision by President Trump to abandon the Joint Comprehensive Plan of Action (JCPOA) in May 2018,[22] an agreement endorsed by the UN Security Council (UNSC) that imposed heavy restrictions on, and wide-reaching IAEA monitoring of Iran's civilian nuclear weapon programme in exchange for sanctions relief.[23] In a welcome reprieve, the New Strategic Arms Reduction Treaty (New START) 2010 – the last remaining bilateral nuclear arms control agreement in force between the US and Russia[24]

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[16] See for support for this position, Rietiker (2014) 64-65; Joyner (2014) 417; and Marco Roscini, 'On Certain Legal Issues Arising from Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons', in Ida Caraccioli, Marco Pedrazzi, and Talitha Vassalli di Dachenhausen (eds), *Nuclear Weapons: Strengthening the International Legal Regime* (Eleven International Publishing 2015) 17. This assertion will be elaborated upon in Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 1.

[17] For a discussion of the fissile material cut-off treaty proposal, see usefully David S Jonas, 'The New U.S. Approach to the Fissile Material Cut-Off Treaty: Will Deletion of a Verification Regime Provide a way out of the Wilderness?' (2006) 18(2) *Florida Journal of International Law* 597.

[18] Permanent Representatives of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General (18 January 2008) UN Doc A/62/650, Annex, Model Nuclear Weapons Convention.

[19] The Comprehensive Nuclear-Test-Ban Treaty, UNGA Res 50/245 (10 September 1996) UN Doc A/RES/50/245, adopted by 158 votes to 3.

[20] Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of their Intermediate-Range and Shorter-Range Missiles (adopted 8 December 1987, entered into force 1 June 1988) text available at <https://2009-2017.state.gov/t/avc/trty/102360.htm#text>

[21] Daryl G Kimball, 'The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance' (*Arms Control Association: Fact Sheet and Briefs*, updated August 2019) <https://www.armscontrol.org/factsheets/INFtreaty>. The INF Treaty effectively eliminated an entire category of existing nuclear weapons by eliminating these missile delivery systems.

[22] Daniel H Joyner, 'The United States' "Withdrawal" from the Iran Nuclear Deal' (*E-International Relations*, 21 August 2018) <https://www.e-ir.info/2018/08/21/the-united-states-withdrawal-from-the-iran-nuclear-deal/>

[23] See UNSC Res 2231 (20 July 2015) UN Doc S/RES/2231. For an excellent in-depth discussion of the JCPOA and Iran's suspected nuclear weapons programme under international law, see Daniel H Joyner, *Iran's Nuclear Programme and International Law: From Confrontation to Accord* (Oxford University Press 2016) particularly chapter 7.

[24] Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (adopted 8 April 2010, entered into force 5 February 2011). For a useful

– was extended for an additional five-years in February 2021 by the incoming Biden Administration and President Putin.[25] The future direction of nuclear arms control, including the JCPOA, remains uncertain however.

Yet perhaps most frustratingly, unlike other weapons of mass destructions (WMD), specifically chemical and biological weapons,[26] nuclear weapons had not formerly been subject to a comprehensive and globally-reaching legal prohibition concerning their use, possession, and development applicable to all states without discrimination. This conclusion was similarly shared by the International Court of Justice (ICJ or 'the Court') in the infamous 1996 *Legality of the Threat or Use of Nuclear Weapons Advisory Opinion*, where the ICJ determined that 'there is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons'.[27] Consequently, in spite of the obvious devastating, destructive capacity and dangers posed by nuclear weapons to humanity as a whole,[28] they are paradoxically regarded by the NWPS and their military allies as the most 'legitimate' type of WMD based upon the deterrent and 'stabilising' effect that they supposedly provided during the Cold War.[29]

2. The Treaty on the Prohibition of Nuclear Weapons Emerges

However, in the midst of this debilitating trend of stagnation, and near deterioration of nuclear disarmament and arms control efforts generally, has been a rare glimmer of hope. On 7 July 2017, the Treaty on the Prohibition of Nuclear Weapons (TPNW)[30] was adopted at the *United Nations* (UN) *Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading towards Their Total Elimination* held in New York, with 122 states voting in favour, 1 abstention (Singapore), and 1 vote against (the Netherlands).[31]

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summary of New START, see Kingston Reif, 'New START at a Glance' (*Arms Control Association: Fact Sheet and Briefs*, updated February 2021) <https://www.armscontrol.org/factsheets/NewSTART>

[25] Secretary of State Antony J Blinken, 'On the Extension of the New START Treaty with the Russia Federation' (*US Department of State*, 3 February 2021) <https://www.state.gov/on-the-extension-of-the-new-start-treaty-with-the-russian-federation/>

[26] For a discussion of the legal prohibitions and obligations relating to both chemical and biological weapons under international law, see Jozef Goldblat, *Arms Control: The New Guide to Negotiations and Agreements* (2nd edn, Sage Publishing 2002) 135-58; and Jean Pascal Zanders, 'International Norms Against Chemical and Biological Warfare: An Ambiguous Legacy' (2003) 8(2) *Journal of Conflict and Security* Law 391.

[27] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, [102 (2)B] (hereafter *Nuclear Weapons Advisory Opinion*).

[28] Indeed, research suggests that even a limited nuclear exchange between India and Pakistan could potentially cause up to 2 billion fatalities globally, see Ira Helfand, 'Nuclear Famine: Two Billion People at Risk?' (*International Physicians for the Prevention of Nuclear War and the Physicians for Social Responsibility*, November 2013) <https://www.psr.org/wp-content/uploads/2018/04/two-billion-at-risk.pdf>

[29] Daniel H Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press 2009) 69-70.

[30] Treaty on the Prohibition of Nuclear Weapons (7 July 2017) UN Doc A/CONF.229/2017/8.

[31] 'Voting Results on L.3/Rev.1' (7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/A.Conf_.229.2017.L.3.Rev_.1.pdf>

The TPNW constitutes the first multilateral, globally-reaching instrument to establish comprehensive legal prohibitions on a range of nuclear weapons-related activities including the use, development, possession, acquisition, transfer and stationing of nuclear weapons and other nuclear explosive devices for its state parties.[32] In addition, the TPNW establishes nuclear disarmament 'pathways' for the NWPS and current 'hosting' states that permit the stationing of nuclear weapons within their territory[33] to accede to the treaty in the future.[34] In this sense, the TPNW represents an attempt by a significant majority of the world's states to close the 'legal gap' left open by the existing nuclear non-proliferation and disarmament international legal framework by creating a comprehensive prohibition on all aspects of nuclear weapons possession,[35] while envisaging potential paths towards the underlying goal of a nuclear weapons-free world. Despite attempts by the US to persuade current ratified states to withdraw from the TPNW in October 2020,[36] in accordance with the provisions of Article 15(1),[37] the treaty entered into force on 22 January 2021, 90-days after Honduras deposited the 50th instrument ratification to the UN Secretary-General.[38]

The negotiation and now entry into force of the TPNW symbolises the end of the 20-year period of inactivity in multilateral nuclear non-proliferation and disarmament negotiations that has plagued the Conference on Disarmament and NPT Review Process discussed above.[39] Indeed, as Joyner notes:

> 'It is difficult to overstate the significance of the TPNW within the framework of treaties on nuclear nonproliferation. It is the first multilateral nuclear weapons disarmament treaty to be adopted since the Treaty on the Non-proliferation of

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[32] Amongst other activities. See generally Article 1, TPNW, which will be discussed further in Part II: Chapter 3: Scope of the Article 1 Prohibitions.

[33] These host states are presently Belgium, Germany, Italy, the Netherlands, and Turkey, each of which permit the stationing of US nuclear weapons within their territory. See usefully, William Alberque, 'The NPT and the Origins of NATO's Nuclear Sharing Arrangements' (*Études de l'Ifri: Proliferation Papers No 57*, February 2017) <https://www.ifri.org/sites/default/files/atoms/files/alberque_npt_origins_nato_nuclear_2017.pdf>

[34] See Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions.

[35] Gro Nystuen and Kjølv Egeland, 'A "Legal Gap?" Nuclear Weapons Under International Law' (2016) 46(2) *Arms Control Today* 8. See Part I which explores some of the gaps and weaknesses of the existing nuclear non-proliferation and disarmament international legal framework.

[36] Edith M Lederer, 'US urges countries to withdraw from UN nuke ban treaty' (*Associated Press*, 22 October 2020) <https://apnews.com/article/nuclear-weapons-disarmament-latin-america-united-nations-gun-politics-4f109626a1cdd6db10560550aa1bb491>

[37] Article 15(1), TPNW.

[38] 'UN treaty banning nuclear weapons set to enter into force in January' (*UN News*, 25 October 2020) <https://news.un.org/en/story/2020/10/1076082>

[39] Daniel Rietiker, 'The Treaty on the Prohibition of Nuclear Weapons: A Further Confirmation of the Human and Victim-Centred Trend in Arms Control Law', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019) 326.

> Nuclear Weapons (NPT) in 1968. So we are witnessing a *generational event of significance*'.[40]

Similarly, a spokesperson for UN Secretary-General António Guterres suggested that the TPNW 'represents an important step and contribution towards the common aspirations of a world without nuclear weapons'.[41] In acknowledgement of the significance of this achievement, the *International Campaign to Abolish Nuclear Weapons* (ICAN) – the leading civil society organisation that coordinated support for the negotiation of the TPNW amongst like-minded non-aligned NNWS – was awarded the 2017 Nobel Peace Prize in recognition of its role in instigating the adoption of the TPNW.[42] And as of 30 September 2021, the TPNW has been signed by 86 states, 56 of which have proceeded to ratify the treaty too.[43]

Yet despite harnessing the support of the majority of the world's states, the TPNW – and its human-centred approach to nuclear disarmament[44] – remains a controversial initiative, one that has resulted in a negative response and stance from those states and commentators that continue to value the perceived benefits associated with nuclear weapons and deterrence structures.[45] The NPT-recognised NWS each voted against UNGA Resolution 71/258, which established the mandate for the 2017 negotiation conference.[46] Moreover, none of the nine NWPS participated in the negotiations, while only one North Atlantic Treaty Organization (NATO) member or other military allied state of the NWPS – the Netherlands – attended the 2017 negotiation conference.[47] On the day of the TPNW's adoption in July 2017, the UK, US and France stood defiantly outside the UN Conference and issued a joint statement in which they declared:

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[40] Daniel H Joyner, 'The Treaty on the Prohibition of Nuclear Weapons' (*EJIL: Talk!*, 26 July 2017) <https://www.ejiltalk.org/the-treaty-on-the-prohibition-of-nuclear-weapons/> (emphasis added).

[41] 'UN Conference Adopts Treaty Banning Nuclear Weapons' (*UN News*, 7 July 2017) <https://news.un.org/en/story/2017/07/561122-un-conference-adopts-treaty-banning-nuclear-weapons>

[42] 'The Nobel Peace Prize for 2017: Press Release' (*The Nobel Prize*, 6 October 2017) <https://www.nobelprize.org/prizes/peace/2017/press-release/>

[43] See 'Status of the Treaty on the Prohibition of Nuclear Weapons' (*United Nations Treaty Collection*) <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26>

[44] Discussed in section 6 below.

[45] These concerns will be examined in Part II: Chapter 5: Addressing Criticisms of the TPNW.

[46] UNGA Res 71/258 (11 January 2017) UN Doc A/RES/71/258. For the voting record, see UN Doc A/71/PV.68 (23 December 2016) 17.

[47] For reasons explaining the Netherlands' participation in the 2017 negotiations, see Ekaterina Shirobokova, 'The Netherlands and the Prohibition of Nuclear Weapons' (2018) 25(1) *The Nonproliferation Review* 37, 40-43. Japan did attend the first day of the 2017 negotiations, but only to formally denounce the proposed adoption of a nuclear ban treaty in the absence of the NWPS, see statement by Nobushige Takamizawa, Ambassador of Japan to the Conference on Disarmament (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons*, *Leading Towards Their Total Elimination*, 27 March 2017) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/27March_Japan.pdf>

'*We do not intend to sign, ratify or ever become party to it.* Therefore, there will be *no change in the legal obligations on our countries with respect to nuclear weapons*… Importantly, other states possessing nuclear weapons and almost all other states relying on nuclear deterrence have also not taken part in the negotiations'.[48]

This unequivocal stance was essentially repeated in October 2018 with Russia and China aligning with the statement.[49] Moreover, the *de facto* NWPS India and Pakistan have similarly expressed opposition to the treaty shortly after its adoption by vote,[50] as did Israel during the 2017 UNGA First Committee.[51] Furthermore, NATO members – which presently accept protection under the extended 'nuclear umbrella' of the US and thus regard themselves to be a self-declared 'nuclear alliance'[52] – have also collectively expressed opposition to the TPNW both at the point of the treaty's adoption in September 2017,[53] in response to Honduras' ratification in October 2020,[54] and during the organisation's June 2021 'Brussels Summit'.[55] This opposition has similarly found expression in negative votes cast by the majority of NWPS and umbrella allied states on UNGA

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[48] 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/> (emphasis added).

[49] 'Russia, UK, China, US, France won't sign Treaty on the Prohibition of Nuclear Weapons' (*TASS*, 29 October 2018) <https://tass.com/world/1028334>. Russia has unilaterally stated that the TPNW 'is at variance with Russia's *national interests* and our vision of movement towards a nuclear free world', see Director of the Foreign Ministry Department for Non-Proliferation and Arms Control Mikhail Ulyanov's interview with the newspaper Kommersant (*The Ministry of Foreign Affairs of the Russian Federation*, 13 September 2017) <http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/2862117> (emphasis added). See also, 'Senior Russian Diplomat calls nuclear arms prohibition treaty a "mistake"' (*TASS*, 26 September 2017) <https://tass.com/world/967659>. This reflects the rhetoric of US Assistant Secretary, Bureau of International Security and Nonproliferation Christopher A Ford, 'The Treaty on the Prohibition of Nuclear Weapons: A Well-Intentioned Mistake' (*University of Iceland*, 30 October 2018) <https://2017-2021.state.gov/remarks-and-releases-bureau-of-international-security-and-nonproliferation/the-treaty-on-the-prohibition-of-nuclear-weapons-a-well-intentioned-mistake/index.html>

[50] See Ministry of Foreign Affairs, 'Response by the Official Spokesperson to a media question regarding India's view on the Treaty to Ban Nuclear Weapons' (*Government of India*, 18 July 2017) <https://www.mea.gov.in/media-briefings.htm?dtl/28628/Response_by_the_Official_Spokesperson_to_a_media_query_regarding_Indias_view_on_the_Treaty_to_ban_nuclear_weapons>; and 'Pakistan says Not Bound by Treaty on Prohibition of Nuclear Weapons' (*The Economic Times*, 7 August 2017) <https://economictimes.indiatimes.com/news/defence/pakistan-says-not-bound-by-treaty-on-prohibition-of-nuclear-weapons/articleshow/59955068.cms?from=mdr>

[51] Statement by Mr Eran Yuvan, Israel Ministry of Foreign Affairs, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 6-7.

[52] 'Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization: Active Engagement, Modern Defence' (*NATO*, 19 November 2010) <https://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf> 14 (hereafter Strategic Concept 2010).

[53] 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/ua/natohq/news_146954.htm>

[54] 'North Atlantic Council Statement as the Treaty on the Prohibition of Nuclear Weapons Enters into Force' (*NATO*, 15 December 2020) <https://www.nato.int/cps/en/natohq/news_180087>

[55] Brussels Summit Communiqué (*NATO*, 14 June 2021) <https://www.nato.int/cps/en/natohq/news_185000.htm> [47].

resolutions welcoming the adoption of the TPNW.[56] Indeed, it is quite telling that while the NWPS consistently disagree on the next steps and route towards nuclear disarmament, they have managed to reach clear agreement on their collective stance *vis-à-vis* the TPNW.

3. Research Objectives

In light of this express opposition from virtually all of the NWPS, and the evident polarisation of responses from the international community of states towards the TPNW, it remains to be seen precisely what legal consequences, influence, and impact the treaty is presently having – or may in the future have – on the absent NWPS, alongside its possible contribution towards nuclear disarmament efforts more generally.[57] On the one hand, TPNW supporters concede that the treaty *will not* result in the elimination of nuclear weapons in the near-term, but instead assert that the TPNW aims to build upon, stigmatise, and reinforce the norm against the use and possession of nuclear weapons.[58] Consequently, the TPNW should be perceived as a direct challenge to the current 'status quo' and existing nuclear weapons 'hegemony' maintained by a handful of states, one which seeks to generate renewed attention towards the necessity and urgency of nuclear disarmament by raising awareness of the catastrophic harms that would occur from any future use of nuclear weapons.[59] From this perspective, the TPNW is merely an initial, though significant, step towards achieving a nuclear weapons-free world.[60]

Other commentators, however, are considerably more sceptical of the TPNW's impact and possible contribution to the international nuclear weapons-related legal framework and

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[56] UNGA Res 75/40 (16 December 2020) UN Doc A/RES/75/40. For the voting record, see UN Doc A/75/PV.37 (7 December 2020) 17.

[57] Daniel Rietiker, 'New Hope for Nuclear Disarmament or "Much Ado About Nothing?": Legal Assessment of the New "Treaty on the Prohibition of Nuclear Weapons" and the Joint Statement by the USA, UK, and France Following its Adoption' (2017) 59(Online) *Harvard International Law Journal* 22, 22 has also noted the uncertain impact of the TPNW (hereafter Rietiker (2017, Online)). See also Jonathan L Black-Branch, *The Treaty on the Prohibition of Nuclear Weapons: Legal Challenges for Military Doctrines and Deterrence Policies* (Cambridge University Press 2021) 1-2.

[58] See e.g. Beatrice Fihn, 'The Logic of Banning Nuclear Weapons' (2017) 59(1) *Survival: Global Politics and Strategy* 43, 45; Daryl G Kimball, 'New Nuclear Weapons Prohibition Treaty Marks a Turning Point' (*Arms Control Association Press Release*, 7 July 2017) <https://www.armscontrol.org/pressroom/2017-07/new-nuclear-weapons-prohibition-treaty-marks-turning-point>; Kjølv Egeland, 'Nuclear Weapons and Adversarial Politics: Bursting the Abolitionist "Consensus"' (2021) 4(1) *Journal for Peace and Nuclear Disarmament* 107, 107; and Laura Considine, 'Contests of Legitimacy and Value: The Treaty on the Prohibition of Nuclear Weapons and the Logic of Prohibition' (2019) 95(5) *International Affairs* 1075, 1075, noting that the TPNW's future 'success will follow from the development of a norm of unacceptability of nuclear weapons possession that will become stronger as more states sign and ratify the treaty'. See also more generally, Tom Sauer and Mathias Reveraert, 'The Potential Stigmatizing Effect of the Treaty on the Prohibition of Nuclear Weapons' (2018) 25(5) *The Nonproliferation Review* 437; and Clea Strydom, 'Stigmatisation as a Road to Denuclearisation – The Stigmatising Effect of the TPNW', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021).

[59] See generally Nick Ritchie, 'A Hegemonic Nuclear Order: Understanding the Ban Treaty and the Power Politics of Nuclear Weapons' (2019) 40(4) *Contemporary Security Policy* 409; and Nick Ritchie and Kjølv Egeland, 'The Diplomacy of Resistance: Power, Hegemony and Nuclear Disarmament' (2018) 30(2) *Global Change, Peace and Security* 121.

[60] Rietiker (2017, Online) 28.

nuclear disarmament efforts, particularly given the firm stance of opposition towards the treaty expressed by the NWPS and their military allies.[61] Indeed, one must recall that a fundamental principle of international law, enshrined within Article 34 of the *Vienna Convention of the Law of Treaties* (VCLT), is that 'a treaty does not create either obligations or rights for a third State without its consent'.[62] The ICJ has confirmed the underlying premise of the *pacta tertiis nec nocent nec prosunt* rule,[63] and its existence in customary international law is beyond doubt.[64] Consequently, because the TPNW only constitutes binding international law for those states that decide to ratify the treaty, it does not *prima facie* create legally binding obligations applicable to any of the NWPS for so long as they remain non-parties. Because of this, various commentators have ultimately questioned the significance of the TPNW and its contribution to nuclear disarmament altogether.[65] Pedrazzi, for instance, asserts that the treaty 'will not produce any consequences for nuclear disarmament' given the absence of NWPS support.[66]

With these predicaments and concerns raised by both states and commentators in mind, this thesis intends to assess the 'theoretical', potential contribution of the TPNW to the existing nuclear non-proliferation and disarmament international legal framework, alongside the current 'practical' impact and influence of the treaty in reviving and initiating progress towards nuclear disarmament pursuant to Article VI of the NPT since its adoption in 2017. The discussion that follows aims to build upon pre-existing analyses and commentaries of the TPNW's negotiation

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[61] As highlighted above.

[62] Article 34, Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331.

[63] See e.g. *Military and Paramilitary Activities in and against Nicaragua* (*Nicaragua v United States of America*) (Merits) [1986] ICJ Rep 14, [135].

[64] See e.g. Louis Henkin, *International Law: Politics and Values* (Kluwer Law 1995) 28 ('No treaty, old or new, whatever its character or subject, is binding on a state unless it has consented to it'); Robert Jennings and Arthur Watts (eds), *Oppenheim's International Law* (9th edn, Longman Publishing 1992) 1260, who state 'The general rule is so well established that there is no need to cite extensive authority for it'; and Duncan B Hollis, 'Why Consent Still Matters – Non-State Actors, Treaties, and the Changing Sources of International Law' (2005) 23(1) *Berkeley Journal of International Law* 137, 142. Although see Andrew Guzman, 'The Consent Problem in International Law' (2011) *UC Berkeley: Berkeley Program in Law and Economics*. See for the principle in greater depth, Malgosia Fitzmaurice, 'Third Parties and the Law of Treaties', in Jochen A Frowein and Rüdiger Wolfrum (eds), *Max Planck Yearbook of United Nations Law, Volume 6* (Kluwer Law International 2002) 37-137; and Christine Chinkin, *Third Parties in International Law* (Oxford University Press 1993) 89-119.

[65] See e.g. Newell Highsmith and Mallory Stewart, 'The Nuclear Ban Treaty: A Legal Analysis' (2018) 60(1) *Survival: Global Politics and Strategy* 129; Stefan Kadelbach, 'Possible Means to Overcome Tendencies of the Nuclear Weapons Ban Treaty to Erode the NPT', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020); Michael Onderco, 'Why Nuclear Ban Treaty is Unlikely to Fulfil its Promise' (2017) 3(4-5) *Global Affairs* 391; Jean-Baptiste Jeangene Vilmer, 'The Forever-Emerging Norm of Banning Nuclear Weapons' (2020) *Journal of Strategic Studies*, DOI: https://doi.org/10.1080/01402390.2020.1770732; and Durward Johnson and Heather Tregle, 'The Treaty on the Prohibition of Nuclear Weapons and its Limited Impact on the Illegality of their Use' (*Just Security*, 7 December 2020) <https://www.justsecurity.org/73711/the-treaty-on-the-prohibition-of-nuclear-weapons-and-its-limited-impact-on-the-legality-of-their-use/>

[66] Marco Pedrazzi, 'The Treaty on the Prohibition of Nuclear Weapons: A Promise, a Threat or a Flop?' (2017) 27(1) *Italian Yearbook of International Law* 215, 233.

and operative provisions in order to provide a comprehensive assessment of the TPNW's contribution to, and possible consequences for the existing international nuclear disarmament legal framework. This is pursued through two distinct, though interconnected and mutually reinforcing perspectives that together, offer a rounded analysis of the TPNW's broader impact in realising the objective of a world free from nuclear weapons as envisaged by the UNGA since 1946.

The first objective is to consider the TPNW's '*theoretical*' impact and possible benefits on nuclear non-proliferation and disarmament law. This analysis forms the basis of Part II, and essentially seeks to determine whether, and, if so how, the TPNW either strengthens (or perhaps even weakens) existing nuclear weapons-related regulations and obligations established by prior nuclear non-proliferation and disarmament international legal treaties.[67] In addition, this will consider whether the TPNW's operative provisions create a viable, workable framework through which nuclear disarmament could theoretically be achieved should a NWPS ever decide to accede to the treaty. This will involve a detailed examination of the TPNW's nuclear disarmament-related provisions, particularly the prohibitions incorporated under Article 1 and the nuclear disarmament accession 'pathways' of Article 4, alongside other related obligations established by the TPNW text where appropriate.

The second objective to be pursued in Part III subsequently turns to explore the current impact and influence of the TPNW within international nuclear disarmament discourse on a more 'practical' or observable level. This latter aim seeks to bridge the gap between the more theoretical, or abstract account of the TPNW's nuclear disarmament-related provisions in Part II, by offering a preliminary assessment of what impact or influence the TPNW can be seen as having on nuclear disarmament discourse, initiatives, and negotiations within multilateral disarmament forums since 2017.[68] Quite simply, through the combined conclusions of the discussion which follows on both the 'theoretical' and 'practical' levels outlined above, this thesis intends to provide one of the first comprehensive analyses of the TPNW's current impact, influence, and contribution to international nuclear disarmament law and nuclear disarmament efforts generally over the past few years. This, in turn, will allow this author to address the underlying question informing this project: *Does the TPNW establish a viable framework that is capable of revitalising future nuclear disarmament efforts*?

Naturally, given the constrained length of any PhD project, this thesis has certain self-imposed limitations in terms of both its central objectives and its coverage of the TPNW provisions more generally. To begin, it is worth noting what this thesis is *not* intended to be. The present author's intention has never been to offer an elaborate 'article-by-article' analysis and

[67] Which will be explored in Part I: Chapter 2: Existing Nuclear Weapons-related Instruments.
[68] The year of the TPNW's adoption.

commentary of the entire TPNW and its *travaux préparatoires*. For this, the present author would encourage any reader to explore Stuart Casey-Maslen's excellent commentary on the treaty published by Oxford University Press in 2019.[69] Rather, the fundamental objective here is to determine whether the TPNW strengthens and positively contributes to existing nuclear disarmament efforts as a stand-alone instrument.[70] Although this will naturally require the below analysis to situate the TPNW within the broader international nuclear non-proliferation and disarmament legal framework,[71] the discussion of the treaty throughout this thesis focuses *almost exclusively* on the TPNW's nuclear disarmament-related provisions and connected verification issues – alongside the treaty's potential impact on existing nuclear weapons-related practices such as deterrence and so forth.

With the above in mind, and rather naturally for any PhD project, certain aspects of the TPNW will also not be considered here. For example, this thesis does not intend to provide a particularly lengthy, descriptive account of the TPNW's historical emergence and negotiation, or an elaborate exploration of the underlying humanitarian-inspired motivations approach that drove the negotiation of the treaty beyond the contextual summary at the end of this introduction.[72] Nor does this thesis explore the highly significant (in terms of their potential practical effect and impact) positive obligations concerning the provision of victim assistance, environmental remediation and international cooperation in the fulfilment of obligations assumed under the TPNW under Articles 6 and 7 respectively.[73] Although these are all unquestionably important provisions and aspects of

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[69] Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019).

[70] This idea of the TPNW constituting a stand-alone instrument reflects the fact that accession to the TPNW is not in any way, dependent upon prior accession to the NPT, CTBT, or existing NWFZ. A similar standard has been employed by Edward M Ifft and David A Koplow, 'Legal and Political Myths of the Treaty on the Prohibition of Nuclear Weapons' (2021) 77(3) *Bulletin of the Atomic Scientists* 134, 134.

[71] For a discussion of the TPNW's place within the existing nuclear non-proliferation and disarmament legal regime more broadly, see generally Black-Branch (2021).

[72] See section 6 below and accompanying footnotes. This author has, however, examined the 'humanitarian' nature of the TPNW at length elsewhere, see Christopher P Evans, 'Questioning the Status of the Treaty on the Prohibition of Nuclear Weapons as a 'Humanitarian Disarmament' Agreement' (2021) 36(1) *Utrecht Journal of International and European Law* 52. Naturally, of course, both the negotiation history and humanitarian-inspired motivations of the treaty will be frequently referred to at different stages of this thesis for evidentiary purposes. For example, the negotiation history will be referred to in Part II when analysing the TPNW's operative provisions, while the humanitarian-inspired motivations of the TPNW will be explored at various stages, including Part III when assessing whether NWPS have engaged with these human-centred concerns.

[73] These provisions will, however, be researched by the present author as part of a post-doctoral position with the University of Auckland commencing in November 2021. However, for an insightful assessment of these provisions, see Bonnie Docherty, 'From Obligation to Action: Advancing Victim Assistance and Environment Remediation at the First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons' (2020) 3(2) *Journal for Peace and Nuclear Disarmament* 253; Nidhi Singh, 'Victim Assistance under the Treaty on the Prohibition of Nuclear Weapons: An Analysis' (2020) 3(2) *Journal for Peace and Nuclear Disarmament* 265; and Elizabeth Minor, 'The Prohibition of Nuclear Weapons: Assisting Victims and Remediating the Environment' (*ICRC: Humanitarian Law and Policy*, 10 October 2017) <https://blogs.icrc.org/law-and-policy/2017/10/10/the-nuclear-weapons-ban-assisting-victims-and-remediating-the-environment/>

the TPNW worthy of detailed study and elaboration, they nonetheless fall beyond the current scope of analysis in a word limit-constrained PhD thesis.

4. Methodology

Before proceeding to outline the structure of this thesis, the following section intends to briefly take stock of the methodological approach employed here. It is evident that the appropriate methodology to adopt for a particular research project depends to some extent upon the nature and formulation of the underlying questions that are being addressed.[74] This, in turn, unsurprisingly means that there are certain methodological approaches that, in this author's view, are less suited to address the underlying research objectives of this thesis.[75] This observation does not negate the importance or relevance of these alternative approaches that undoubtedly offer valuable insights and perspectives of the TPNW. Rather, it simply acknowledges that alternative methodological approaches are more suited to different objectives to those pursued here.

Having said this, it is evident that different methodologies and approaches to research regularly overlap and in turn can reinforce one another.[76] Indeed, trying to distinguish or separate methodological perspectives through what Koskenniemi describes as a 'shopping-mall' approach to methodology, where 'styles of legal writing are like brands of detergent that can be put alongside one another',[77] may prove restrictive and counterproductive in generating insightful legal analysis. Put simply, attempting to rigidly employ one specific methodological approach or theoretical position in isolation from other perspectives could ultimately 'limit creativity in research by imposing a standard way of investigating law and legal institutions'.[78]

Nevertheless, while retaining a conscious effort to avoid isolating and 'boxing' in the research methods and analytical tools employed, this project adopts a predominantly doctrinal analysis of the TPNW as the latest addition to the nuclear non-proliferation and disarmament

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[74] For useful summaries of methodological and theoretical approaches to international legal scholarship, see Anne-Marie Slaughter and Steven R Ratner, 'Symposium on Method in International Law – Appraising Methods of International Law: A Prospectus for Readers' (1999) 93(2) *American Journal of International Law* 291; Andrea Bianchi, *International Law Theories: An Enquiry Into Different Ways of Thinking* (Oxford University Press 2016); Anne Orford and Florian Hoffman (eds), *The Oxford Handbook of the Theory of International Law* (Oxford University Press 2016); and Robert Cryer, Tamara Harvey, and Bal Sohki-Bulley, with Alexandra Bohm, *Research Methodologies in EU and International Law* (Hart Publishing 2011).

[75] See for example, constitutionalist methodologies, Bardo Fassbender, 'The UN Charter as the Constitution of the International Community' (1998) 36(3) *Columbia Journal of Transnational Law* 529; or law and literature approaches, see e.g. Janet Halley, 'Rape in Berlin: Reconsidering the Criminalisation of Rape in the International Law of Armed Conflict' (2008) 9(1) *Melbourne Journal of International Law* 78.

[76] Slaughter and Ratner (1999) 295.

[77] Martti Koskenniemi, 'Letter to the Editors of the Symposium' (1999) 93(2) *American Journal of International Law* 351, 352.

[78] As suggested by Reza Banakar and Max Travers, 'Introduction', in Reza Banakar and Max Travers (eds), *Theory and Method in Social-Legal Research* (Hart Publishing 2005) x.

international law regime. Despite the prevalence[79] of doctrinal methodologies that are so often intuitively incorporated within legal research,[80] its precise boundaries remain both undertheorised and undefined.[81] In simple terms, the Australian-based 'Pearce Committee' defined doctrinal research in 1987 as:

> 'Research which provides a systematic exposition of the rules governing a particular legal category, analyses the relationship between rules, explains areas of difficulty and, perhaps, predicts future developments'.[82]

From this definition, it is possible to identify three common elements or characteristics inherent to doctrinal research. First, doctrinal research tends to adopt an 'internal' perspective, whereby the researcher places themselves inside the legal system which they seek to describe, explain, and evaluate. Second, doctrinal methods are somewhat descriptive and involve a rigorous analysis and organisation of the sources of legal doctrine within a particular legal system. Finally, doctrinal scholarship aims to systematise legal rules as they exist in the *present*, while leaving room to accommodate new developments within existing legal frameworks.[83]

These characteristics neatly conform to the underlying research agenda of this PhD thesis, which primarily seeks to reveal, describe, explain, and analyse the function and role of the TPNW within the broader context of international nuclear non-proliferation and disarmament law in a systematic fashion. Indeed, the research undertaken throughout aims to extrapolate arguments and

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[79] Paul Chynoweth, 'Legal Research', in Andrew Knight and Les Ruddock (eds), *Advanced Research Methods in the Built Environment* (Wiley-Blackwell 2008) 31 and 37, who describes doctrinal research as a 'defining characteristic of most legal scholarship'. See also Wing Hong Chui, 'Qualitative Legal Research', in Mike McConville and Wing Hong Chui (eds), *Research Methods in Law* (Edinburgh University Press 2007) 47; and Terry Hutchinson and Nigel Duncan, 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17(1) *Deakin Law Review* 83, 85.

[80] Terry Hutchinson, 'Doctrinal Research: Research the Jury', in Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (2nd edn, Routledge 2017) 9 ('For lawyers, therefore, the doctrinal method is an intuitive aspect of legal work').

[81] See generally Hutchinson and Duncan (2012) specifically making this point at 99. Jan M Smits, 'What is Legal Doctrine? On the Aims and Methods of Legal-Dogmatic Research', in Rob van Gestel, Hans-W Micklitz, and Edward L Rubin (eds), *Rethinking Legal Scholarship: A Transatlantic Dialogue* (Cambridge University Press 2017) 208 and 209 ('It is surprising that, while the nature of comparative, economic and empirical research in law is widely discussed, this is not the case for doctrinal work').

[82] Dennis Pearce, Enid Campbell, and Don Harding ('Pearce Committee'), *Australian Law Schools: A Discipline Assessment for the Commonwealth Tertiary Education Commission* (Australian Government Publishing Service 1987) cited in Terry Hutchinson, *Researching and Writing in Law* (3rd edn, Reuters Thomson 2010) 7. A comparable definition is provided by Smits (2017) 210. See also Terry Hutchinson, 'Valé Bunny Watson? Law Librarians, Law Libraries and Legal Research in the Post-Internet Era' (2014) 106(4) *Law Library Journal* 579, 584; and Matyas Bódig, 'Legal Doctrinal Scholarship and Interdisciplinary Engagement' (2015) No 2 *Erasmus Law Review* 43, 45.

[83] See generally Smits (2017) 210-13; and Eliav Lieblich, 'How to do Research in International Law? A Basic Guide for Beginners' (2021) 62(Online) *Harvard International Law Journal* 42, 44-45. A similar three element test is noted by Rob van Gestel and Hans-W Micklitz, 'Revitalizing Doctrinal Legal Research in Europe: What About Methodology?' (*EUI Working Papers*, 2011/05) <https://cadmus.eui.eu/bitstream/handle/1814/16825/LAW_2011_05.pdf?sequence=1&isAllowed=y> 26.

conclusions based upon a detailed analysis of primary legal sources – including the TPNW, other nuclear weapons-related and disarmament treaties, evidence of state practice and *opinio juris* and so forth. But the analysis also concurrently draws from secondary accounts and scholarly commentary to provide an elaborate, comprehensive assessment of the TPNW's nuclear disarmament-related provisions and current impact on nuclear disarmament negotiations.

However, given that doctrinal analysis can either be the central method employed *or* a 'foundational stage in a project that incorporates other methodological tools approaches as well',[84] the present author intends to go beyond an 'extreme',[85] purely doctrinal analysis of the TPNW provisions in a largely abstract manner. This takes place by exploring the impact and influence of the treaty on an observable or practical level, so to speak, in order to determine whether, and if so, how the TPNW has positively contributed to, and revitalised progress towards nuclear disarmament within multilateral international disarmament forums.

Consequently, one might therefore consider it beneficial to employ an alternative theoretical perspective alongside the doctrinal foundation in order to examine how legal rules (in this case the TPNW) are able to influence, shape and alter the behaviour of actors – specifically states – on an international level.[86] This may, for example, employ economic approaches to international law,[87] particularly rational choice accounts that examine how international law influences the decision-making and cost-benefit calculus of states and facilitates cooperation in the pursuit of state-centred self-interests.[88] Alternatively, constructivist schools of thought that seek to explain how norms and legal rules evolve over time and become 'internalised' by states and in turn change the preferences and 'set of choices states see', could prove insightful in discussing the normative influence of the TPNW.[89] Socio-legal perspectives may also provide an appropriate

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[84] Cryer, Harvey, and Sohki-Bulley, with Bohm (2011) 38.
[85] Bruno Simma and Andreas L Paulus, 'The Responsibility of Individuals for Human Rights Abuses in Internal Conflicts: A Positivist View' (1999) 93(2) *American Journal of International Law* 302, 306.
[86] See e.g. David Sloss, 'Do International Norms Influence State Behaviour?' (2006) 38(1) *George Washington International Law Review* 159; Oona A Hathaway, 'Between Power and Principle: An Integrated Theory of International Law' (2005) 72(2) *University of Chicago Law Review* 469, 477-83, distinguishing interest-based and norm-based approaches to compliance; and Mary Ellen O'Connell, 'New International Legal Process' (1999) 93(2) *American Journal of International Law* 334, who describes International Legal Process theory, and the idea that while international law does not always force decision makers' actions, it serves a constraining and organising effect in many cases.
[87] See Eric A Posner and Alan O Sykes, *Economic Foundations of International Law* (Harvard University Press 2013).
[88] Jack L Goldsmith and Eric A Posner, *The Limits of International Law* (Oxford University Press 2005); and Andrew Guzman, *How International Law Works: A Rational Choice Theory* (Oxford University Press 2008). Conversely, see behavioural accounts of international law which challenges assumptions of rationality and notes the influence of endogenous human preferences on state decision-making, see Tomer Broude, 'Behavioural International Law' (2015) 163(4) *University of Pennsylvania Law Review* 1099.
[89] For leading examples of constructivist approaches to international law, see Jutta Brunnée and Stephen J Toope, 'Constructivism and International Law', in Jeffrey L Dunoff and Mark A Pollack (eds), *Interdisciplinary Perspectives on International Law and International Relations* (Cambridge University Press 2013); Martha Finnemore, *National Interests in International Society* (Cornell University Press 1996); and Friedrich Kratochwil and John G Ruggie, 'International Organization: A State of the Art on an Art of the State' (1986) 40(4) *International Organization* 753. For a useful discussion of norm internalisation, see Mark A Pollack, 'Who Supports International Law, and Why? The United

means of determining how the TPNW may operate 'in action', thereby examining the practical impact of legal rules and norms within a particular social, political or economic context.[90] These alternative perspectives certainly offer interesting and useful analytical tools to assess how the TPNW may alter state behaviour over time and could, in some cases, offer a predictive function to identify future developments connected to the TPNW's potential contribution to nuclear disarmament law.

However, in truth, this thesis is somewhat less ambitious and 'theory-heavy' in terms of its methodological foundations. While Part III will, to some degree, examine the TPNW 'in action',[91] the analysis undertaken is less concerned with how the treaty's provisions operate and function within a social reality. Rather, the underlying purpose of Part III remains both descriptive and analytical in order to highlight and ultimately examine the current practical operation and influence of the TPNW on the 'international plane' so far. It therefore enquires as to how states have engaged with the treaty, whether it has encouraged further discourse on nuclear disarmament, and examines other developments alluding to the TPNW's broader influence on state actions in a more general sense.[92] One could perhaps describe this objective as socio-legal 'light' scholarship by considering and assessing the TPNW's role within the wider international nuclear disarmament societal framework. But fundamentally, the discussion throughout this thesis, including within Part III, retains an underlying systematising objective of gathering and organising information connected to the TPNW's provisions and influence so far – a process integral to doctrinal research.

5. Thesis Structure

Following this introductory Chapter, which ends by providing some contextual background and a brief exploration of the TPNW's historical development,[93] this thesis is comprised of three substantive Parts.

Part I is comprised of a single Chapter (Chapter 2), which offers an overview of the pre-existing international nuclear non-proliferation and disarmament treaty-based legal framework before exploring the TPNW's addition to the existing legal regime. To begin, Chapter 2 discusses

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States, the European Union, and the International Legal Order' (2015) 13(4) *International Journal of Constitutional Law* 873, 881-83; and for internalisation theories generally, see Harold H Koh, 'Why Do Nations Obey International Law?' (1996-97) 106(8) *Yale Law Journal* 2599, specifically 2645-46; Martha Finnemore and Katheryn Sikkink, 'International Norm Dynamics and Political Change' (1998) 52(4) *International Organization* 887, 904-05; and Harlan Cohen, 'Can International Law Work? A Constructivist Expansion' (2009) 27(2) *Berkeley Journal of International Law* 636, 667-70.

[90] A comprehensive account of social-legal theory and its methodological tools is offered by Naomi Creutzfeldt, Marc Mason, and Kirsten McConnachie (eds), *Routledge Handbook of Socio-Legal Theory and Methods* (Routledge 2019). See also Ryan Goodman and Derek Jinks, 'How to Influence States: Socialization and International Human Rights Law' (2004) 54(3) *Duke Law Journal* 621, 630-55 in particular.

[91] Thereby implying to some extent, a socio-legal dimension.

[92] See section 5 below outlining the purpose of Part III in greater depth.

[93] See section 6 below.

the NPT as the 'cornerstone' agreement of the nuclear non-proliferation and disarmament law regime, and identifies various weaknesses and criticisms of this treaty: specifically in relation to the scope of the obligation to pursue nuclear disarmament pursuant to Article VI, alongside certain deficiencies and loopholes within the non-proliferation commitments under Articles I and II. This Chapter will then consider the extent of nuclear weapons testing prohibitions under international law, noting in particular certain challenges posed by the failure of the CTBT to enter into force. This Chapter will also briefly examine regional nuclear weapon-free zones (NWFZ) covering inhabited areas, which provide a precursory template of sorts to the goal of a nuclear weapon-free world that informed the TPNW negotiations. Because this thesis focuses primarily upon multilateral nuclear disarmament instruments, only passing discussion of bilateral nuclear arms control agreements such as New START and the INF Treaty will take place insofar as this may constitute evidence of progress towards nuclear disarmament.[94]

Following this contextual scene-setting, Part II proceeds to undertake an extensive analysis of the TPNW's nuclear disarmament-related provisions across three Chapters. Again, it must be stressed that the purpose of Part II – and this thesis more broadly – is not to provide an article-by-article commentary of every provision of the TPNW in its entirety. Rather the intention behind Part II is to determine whether the nuclear disarmament-related prohibitions and obligations of the TPNW reinforce and even strengthen existing restrictions under international law, as well as considering whether the treaty's provisions offer a theoretically sound foundation to facilitate nuclear disarmament in practice.

First, Chapter 3 discusses the scope of the prohibitions established under Article 1 of the TPNW, and specifically whether the various highlighted gaps or loopholes inherent to the existing nuclear disarmament legal regime identified in Chapter 2 have either been closed or remain left open by the language of Article 1. Naturally, this assessment will draw from interpretative conclusions reached by both states and commentators in connection with existing disarmament treaties – including the Biological Weapons Convention (BWC),[95] the Chemical Weapons Convention (CWC),[96] the Anti-Personnel Mine Ban Convention (APMBC) 1997,[97] and the

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[94] As Chapter 2 will elaborate, nuclear arms control and disarmament agreements differ in both scope and purpose. The former generally focus on limitations on further vertical proliferation or strategically acceptable short-term reductions, whereas disarmament instruments by contrast are part of a wider policy programme with a long-term intention of eliminating a specific category of weapon altogether. For a useful overview of this distinction, see Joyner (2011) 102-04.

[95] Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (adopted on 10 April 1972, entered into force 26 March 1975) 1015 UNTS 163.

[96] Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (adopted 13 January 1993, entered into force 29 April 1997) 1974 UNTS 45.

[97] Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction (adopted 18 September 1997, entered into force 1 March 1999) 2056 UNTS 211.

Convention on Cluster Munitions (CCM) 2008[98] – in order to help determine the precise content, breadth, and scope of the various Article 1 prohibitions.

Next, Chapter 4 turns to assess the nuclear disarmament 'pathways' established by Article 4. These 'pathways' essentially set out the means through which NWPS are able to accede to the TPNW, either through a 'disarm then join' or 'join then disarm' accession pathways elaborated upon by Articles 4(1) and (2) respectively.[99] This analysis of the disarmament 'pathways' will in turn help determine whether the TPNW constitutes a 'simple ban' treaty, or whether the TPNW instead goes further by incorporating the elements and characteristics inherent to either a more comprehensive nuclear weapons convention or 'framework' agreements.[100] Moreover, this Chapter will explore various features of the accession pathways, ranging from the nature and extent of reporting obligations under the TPNW under Article 2, to a discussion of which actor or organisation should assume the role of the 'competent international authority' left unidentified within Article 4 to verify and monitor the dismantlement of nuclear weapons. Through this assessment, the discussion aims to determine whether the 'pathways' established by Article 4 present a feasible framework through which nuclear disarmament could proceed should any NWPS or hosting state accede to the treaty in the future.

Finally, Chapter 5 will identify and assess the validity of the arguments and criticisms raised against the TPNW by both the NWPS (and military allies), and academic commentators. This argumentative discussion aims to engage extensively with, counter, and bring important clarification to common concerns, myths and criticisms surrounding the TPNW. In particular, the following concerns are frequently raised and will be considered:[101] the TPNW undermines, contradicts and risks disrupting disarmament efforts within the existing nuclear weapons-related legal framework, specifically the NPT;[102] the treaty weakens nuclear safeguard standards developed and maintained by the NPT in conjunction with the IAEA and lacks the necessary means to verify nuclear disarmament under its provisions;[103] the TPNW obligations and prohibitions are incompatible with collective security arrangements relying on nuclear deterrence, particularly those

[98] Convention on Cluster Munitions (adopted 20 May 2008, entered into force 1 August 2010) 2688 UNTS 39.

[99] In addition, Article 4(4) provides an additional pathway through which 'hosting' states can accede to the TPNW also. This will also be discussed in Chapter 4.

[100] This three-fold classification of approaches was noted alongside the traditional 'step-by-step' approach to disarmament by John Borrie, Tim Caughley, Torbørn Graff Hugo, Magnus Løvold, Gro Nystuen, and Camilla Waszink, *A Prohibition on Nuclear Weapons: A Guide to the* Issues (UNIDIR 2016) 18-24.

[101] An additional concern relates to the nature of the Article 17 withdrawal provision which will also be explored.

[102] See generally the arguments listed in 'Russia, UK, China, US, France won't sign Treaty on the Prohibition of Nuclear Weapons' (*TASS*, 29 October 2018) <https://tass.com/world/1028334>

[103] See e.g. Assistant Secretary, Bureau of International Security and Nonproliferation Christopher Ford, 'Briefing on the Nuclear Ban Treaty' (*Carnegie Endowment for International Peace*, 22 August 2017) <https://carnegieendowment.org/2017/08/22/briefing-on-nuclear-ban-treaty-by-nsc-senior-director-christopher-ford-event-5675>, particularly the section headed 'Disarmament and Nonproliferation would be Unverifiable'.

of NATO;[104] and finally, the TPNW and its supporters 'disregard the realities of the international security environment', and ignore the underlying rationale for maintaining a reliance upon nuclear deterrence policies.[105] Although each of these criticisms raise important legal questions regarding the practical operation of the TPNW, as will become apparent, many of the criticisms noted are overexaggerated to differing degrees.

Following this discussion of the TPNW's disarmament provisions on a more abstract, 'theoretical' level, Part III proceeds to assess whether the TPNW has had an observable influence on state actions, positions and perceptions of nuclear weapons, nuclear disarmament negotiations, and the TPNW generally in practice. First, Chapter 6 will determine what impact (if any) the TPNW is having on nuclear disarmament negotiations and discussions on an international level, particularly within existing multilateral disarmament forums.[106] This seeks to examine whether the NWPS have changed their rhetoric and behaviour *vis-à-vis* the TPNW and its humanitarian-orientated approach to nuclear disarmament, and assess if the NWPS have begun to re-engage with nuclear disarmament efforts more generally since the treaty's negotiation and adoption in 2017. This will additionally explore the TPNW's practical impact and possible disruptive influence on the NPT Review Process – thereby reinforcing the analysis undertaken in Chapter 5. Finally, Chapter 6 ends by discussing recent trends towards 'divestment' from nuclear weapons producing-related practices by financial institutions in response to the TPNW's negotiation and underlying normative, humanitarian-driven agenda that effectively aims to categorise and stigmatise nuclear weapons as 'controversial weapons'.[107]

Lastly, Chapter 7 will end by providing a detailed examination of whether the adoption of the TPNW, alongside subsequent state practice and reactions to the treaty, can facilitate the development and emergence of a parallel customary international law-based prohibition on the use of nuclear weapons reflective of Article 1(1)(d) of the TPNW. This will revisit the conclusions reached within the ICJ's infamous *Nuclear Weapons Advisory Opinion* regarding the possible existence of a customary prohibition on nuclear weapon use in 1996,[108] before turning to assess whether the

[104] The Netherlands, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons*, *Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Netherlands-EoV-Nuclear-Ban-Treaty.pdf>

[105] 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[106] With a specific focus on the UNGA First Committee and NPT Review Process.

[107] Generally understood to mean weapons prohibited under international law, see Dora Cristian and Anne Schoemaker, 'Controversial Weapons: Regulatory Landscape and Best Practices' (*Sustainalytics*, 5 June 2019) <https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/controversial-weapons-regulatory-landscape-and-best-practices>

[108] See in particular the discussion and analysis of the Court in the *Nuclear Weapons Advisory Opinion*, [52]-[73].

adoption of the TPNW, its broad support from over 120 states, and equally the negative reaction of the NWPS, could influence the possible crystallisation of any customary rules stemming from the prohibitions under Article 1 – principally the prohibition on use under Article 1(1)(d). Quite simply, these two Chapters comprising Part III intend to determine, reveal, and evaluate the current forms of impact and influence that the TPNW is presently having on an 'observable' level of state-to-state interaction, thus complementing the theoretical discussion within Part II.

Chapter 8 ends by offering a brief summary of the findings reached in this thesis and provides some concluding, prospective thoughts on the future role and potential of the TPNW as it develops both normatively and institutionally over the coming months and years.

6. A Brief History of the TPNW

Before proceeding, the following section offers a brief historical and contextual overview of the TPNW's evolution and development. This account is not intended to constitute a comprehensive overview of the TPNW's negotiation history;[109] rather, this section aims to create a useful, contextual reference point throughout the discussion and assessment of the TPNW that follows in this thesis. Principally, the overview below intends to provide some foundational understanding of the underlying motivations amongst the engaged non-aligned NNWS and civil society activists that ultimately resulted in the adoption of the TPNW.

The TPNW represents the outcome of two coinciding trends in nuclear disarmament law. First, the treaty emerged in part as a consequence and response to the long-standing frustrations and impatience shared by the non-aligned NNWS with the slow pace of progress towards nuclear disarmament by the NPT-recognised NWS pursuant to their obligations under Article VI of the NPT.[110] From this perspective, the creation of the TPNW constitutes an attempt by the non-aligned NNWS to take nuclear disarmament negotiations and progress into 'their own hands' regardless of the views of the NWPS more generally.[111]

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[109] For a selection of excellent accounts of the TPNW's negotiation history, see Alexander Kmentt, *The Treaty on the Prohibition of Nuclear Weapons: How it Was Achieved and Why it Matters* (Routledge 2021); Rebecca Davis Gibbons, 'The Humanitarian Turn in Nuclear Disarmament and the Treaty on the Prohibition of Nuclear Weapons' (2018) 25(1) *The Nonproliferation Review* 11; Bonnie Docherty, 'A 'Light for all Humanity': The Treaty on the Prohibition of Nuclear Weapons and the Progress of Humanitarian Disarmament' (2018) 30(2) *Global Change, Peace and Security* 163; William C Potter, 'Disarmament Diplomacy and the Nuclear Ban Treaty' (2017) 59(1) *Survival: Global Politics and Strategy* 75; Black-Branch (2021) 11-73; Usman I Jadoon, 'The Security Impact of the Treaty on the Prohibition of Nuclear Weapons', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 369-76; and John Borrie, Michael Spies, and Wilfred Wan, 'Obstacles to Understanding the Emergence and Significance of the Treaty on the Prohibition of Nuclear Weapons' (2018) 30(1) *Global Change, Peace and Security* 95.

[110] Black-Branch (2021) 12-15. See also Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, sections 1.c and 1.d which notes and analyses this conclusion at greater length.

[111] Daniel H Joyner, 'The Treaty on the Prohibition of Nuclear Weapons' (*EJIL: Talk!*, 26 July 2017) <https://www.ejiltalk.org/the-treaty-on-the-prohibition-of-nuclear-weapons/>; and Shanelle Van, 'Revisiting the

Second, and connectedly, the TPNW also embodies the final outcome and end product of what has been commonly referred to as the 'Humanitarian Initiative', a group of civil society and like-minded NNWS that came together in order to negotiate a binding nuclear prohibition treaty.[112] Through the Humanitarian Initiative, both civil society actors (under the leadership of ICAN) and engaged non-aligned NNWS sought to achieve both the legal prohibition and future elimination of nuclear weapons by viewing these weapons through a 'human-centred' lens,[113] whereby the survival and wellbeing of humankind takes precedence over any individualistically determined state-based security considerations.[114]

Based on this heavy influence of humanitarian principles and ideals, the TPNW is frequently considered the most recent example of 'humanitarian disarmament',[115] which 'focuses on preventing and remediating human suffering and environmental harm' caused by problematic weapons.[116] Rietiker, for example, has commented that the TPNW 'is *deeply inspired by principles of humanity* and the conviction that nuclear weapons are illegal under international law, in particular under international humanitarian law and human rights law'.[117] Indeed, those who endorsed the humanitarian reframing of nuclear weapons ultimately sought to determine whether the approach taken in connection with the anti-personnel mines and cluster munitions, resulting in the adoption of the APMBC and CCM respectively, was 'transferable to the nuclear disarmament field',[118] and if 'viewing nuclear weapons through a humanitarian lens' would lead to comparable results by

Treaty on the Prohibition of Nuclear Weapons' (*Lawfare*, 27 November 2018) <https://www.lawfareblog.com/revisiting-treaty-prohibition-nuclear-weapons>

[112] See generally Gibbons (2018); and Black-Branch (2021) 46-73.

[113] Elizabeth Minor, 'Changing the Discourse on Nuclear Weapons: The Humanitarian Initiative' (2015) 97(899) *International Review of the Red Cross* 711, 727. For a discussion generally of the idea of adopting a 'humanitarian lens' towards nuclear weapons see Magnus Løvold, Beatrice Fihn, and Thomas Nash, 'Humanitarian Perspectives and the Campaign for an International Ban on Nuclear Weapons', in John Borrie and Tim Caughley (eds), *Viewing Nuclear Weapons Through a Humanitarian* Lens (UNIDIR 2013).

[114] For an extensive list of accounts that emphasise the significance of this 'humanitarian', or 'human-centred' approach, see generally Gibbons (2018); Docherty (2018); Kmentt (2021); Jadoon (2021); Borrie, Spies, and Wan (2018); Kjølv Egeland, 'Banning the Bomb: Inconsequential Posturing or Meaningful Stigmatization?' (2018) 24(1) *Global Governance* 11; Sauer and Reveraert (2018); Marianne Hanson, 'Normalizing Zero Nuclear Weapons: The Humanitarian Road to the Prohibition Treaty' (2018) 39(3) *Contemporary Security Policy* 464; and Rietiker (2019).

[115] See generally, Ibid.

[116] 'Home' (*Humanitarian Disarmament: Seeking to Prevent and Remediate Arms-Inflicted Human Suffering and Environmental Harm*) <https://humanitariandisarmament.org/>. For an excellent history of the notion of humanitarian disarmament, see Treasa Dunworth, *Humanitarian Disarmament: An Historical Enquiry* (Cambridge University Press 2020); and Bonnie Docherty, 'Ending Civilian Suffering; The Purpose, Provisions and Promise of Humanitarian Disarmament Law' (2010) 15(1) *Austrian Review of International and European Law* 7.

[117] Rietiker (2019) 327 (emphasis added).

[118] See 'Learn, Adapt, Succeed: Potential Lessons from the Ottawa and Oslo Processes for Other Disarmament and Arms Control Challenges: Summary of an Informal Symposium Held in Glion' (*UNIDIR*, 19-20 November 2008) <http://www.unidir.org/files/medias/pdfs/summary-of-an-informal-symposium-held-in-glion-switzerland-19-20-november-2008-eng-0-66.pdf>. This follow-on approach has been noted by various scholars, see e.g. Sauer and Reveraert (2018) 443; Docherty (2018) 174; and Minor (2015) 721-22.

closing the 'legal gap' and prohibiting nuclear weapons.[119] This influx of humanitarian ideals constituted a 'fundamental departure from present-day affairs regarding nuclear arms control and armament maters',[120] which were predominantly shaped by state-driven security considerations.[121]

It is difficult, however, to pinpoint precisely when the Humanitarian Initiative 'begun' – although certain developments in the years between 2006-10, including the negotiation of the CCM, could be seen as important catalytic points. Gibbons, for example, observes that following the disappointing outcome of the 2005 NPT Review Conference,[122] the *International Physicians for the Prevention of Nuclear War* created an affiliate organisation ICAN, inspired by the success of the *International Campaign to Ban Landmines* that won the 1997 Nobel Peace Prize.[123] In addition, nuclear disarmament began to receive greater political attention, with respected US Statesmen Sam Nunn, William Perry, Henry Kissinger and George Schultz co-authoring two op-eds in 2007 and 2008, calling on the US to begin the 'groundwork' for a nuclear weapons free-world, referring to nuclear deterrence as 'increasingly hazardous and decreasingly effective'.[124]

However, it was perhaps US President Barack Obama's 2009 Prague speech, which advocated for a renewed commitment to achieve a 'world without nuclear weapons',[125] that had the greatest impact in 're-energeize[ing] those working on nuclear disarmament at a diplomatic level'.[126] Approximately a year later, the President of the *International Committee of the Red Cross* (ICRC) Jacob Kellenberger delivered a powerful speech describing the devastating humanitarian consequences resulting from the use of nuclear weapons in Hiroshima.[127] The combined effect of these statements and developments formed the catalyst for the inclusion of a reference to the

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[119] See generally John Borrie and Tim Caughley (eds), *Viewing Nuclear Weapons Through a Humanitarian* Lens (UNIDIR 2013). The ICJ noted the absence of a comparable prohibition of nuclear weapons to that of chemical and biological weapons, and thus implicitly at least recognised the existence of such a gap, see *Nuclear Weapons Advisory Opinion*, [105(2)C].
[120] Black-Branch (2021) 2.
[121] See generally, Ritchie and Egeland (2018), who describe the humanitarian approach to nuclear weapons as 'radical' and an 'uprising'. Although, as discussed elsewhere, this does not mean that state-centred security considerations were not entirely absent during the TPNW negotiations, see generally Evans (2021).
[122] Disappointing in the sense that a consensus Final Document was not achieved, see Jonathan Granoff, 'The Nuclear Nonproliferation Treaty and its 2005 Review Conference: A Legal and Political Analysis' (2007) 39(4) *New York University Journal of International Law and Politics* 995.
[123] Gibbons (2018) 13-14.
[124] See generally, George P Schultz, William J Perry, Henry A Kissinger and Sam Nunn, 'A World Free of Nuclear Weapons', *The Wall Street Journal*, 4 January 2007; and George P Schultz, William J Perry, Henry A Kissinger and Sam Nunn, 'Towards a Nuclear-Free World', *The Wall Street Journal*, 15 January 2008.
[125] Remarks by President Barack Obama in Prague as Delivered (*Prague*, 5 April 2009) <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered>
[126] Minor (2015) 714, citing Rebecca Johnson, 'The NPT in 2010-2012: A Control Regime Trapped in Time', in Rebecca Johnson, Tim Caughley and John Borrie (eds), *Decline or Transform: Nuclear Disarmament and Security Beyond the NPT Review Process* (Acronym Institute 2012) 16.
[127] International Committee of the Red Cross President Jakob Kellenberger, 'Bringing the Era of Nuclear Weapons to an End' (*Geneva Diplomatic Corps*, 20 April 2010) <https://www.icrc.org/en/doc/resources/documents/statement/nuclear-weapons-statement-200410.htm>

'humanitarian impact' of nuclear weapons in the Final Document of the 2010 NPT Review Conference,[128] which stated:

> 'The Conference expresses its *deep concern at the catastrophic humanitarian consequences* of any use of nuclear weapons and reaffirms the need for all States at all times to comply with applicable international law, including *international humanitarian law*'.[129]

According to Kmentt, this singular reference effectively created a '*de facto* mandate for States to pursue the Humanitarian Initiative as a means to implement the NPT itself'.[130]

What is clear, however, is that the subsequent growth of efforts leading to the adoption of the TPNW proceeded at a rapid pace over the next seven-years. In December 2012, the UNGA adopted Resolution 67/56 establishing an Open-Ended Working Group (OEWG) to 'develop proposals to take forward multilateral nuclear disarmament negotiations'.[131] Although participating nuclear 'umbrella' states[132] continued to promote an incremental 'building-block', or 'step-by step' approach towards nuclear disarmament,[133] the non-aligned NNWS and members of civil society raised the possibility of negotiating a treaty banning nuclear weapons as a potential path out of the present stagnation.[134] The OEWG final report published in October 2013 repeated concerns regarding the 'catastrophic humanitarian consequences of nuclear weapons',[135] and observed that

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[128] As suggested by numerous authors, such as Gibbons (2018) 17; Potter (2017) 77; and Borrie, Spies, and Wan (2018) 101.

[129] Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (2010) NPT/CONF.2010/50, Vol I, [80] and 19 (emphasis added).

[130] Alexander Kmentt, 'The Development of the International Inititative on the Humanitarian Impact of Nuclear Weapons and its Effect on the Nuclear Weapons Debate' (2015) 97(899) *International Review of the Red Cross* 681, 684. See also Pedrazzi (2017) 218 who notes that this reference became the 'driving force behind the move towards the Humanitarian Initiative'.

[131] UNGA Res 67/56 (4 January 2013) UN Doc A/RES/67/56, [1].

[132] The term nuclear umbrella state refers to those states that do not possess nuclear weapons themselves, but remain under the protection of a NWPS's extended nuclear deterrent. This will be discussed further in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 4.

[133] See e.g. working paper submitted by Australia, Belgium, Canada, Finland, Germany, Italy, Japan, Netherlands, Poland, Portugal, Slovakia and Sweden, 'Building Blocks for a World without Nuclear Weapons' (27 June 2013) UN Doc A/AC.281/WP.4. The step-by-step approach essentially endorses the adoption of incremental measures towards nuclear disarmament, including for example the entry into force of the CTBT, the negotiation of a fissile-material cut-off treaty, amongst other steps, though little progress towards implementing such measures has occurred.

[134] See e.g. working paper submitted by Austria, 'An Exploration of some Contributions that also Non-Nuclear Weapon States Could Engage in to take Multilateral Nuclear Disarmament Forward' (28 June 2013) UN Doc A/AC.281/WP.5; working paper submitted by the New Agenda Coalition, 'Taking Forward Multilateral Nuclear Disarmament Negotiations' (20 August 2013) UN Doc A/AC.281/WP.10; working paper submitted by Cuba, 'Proposals for Practical Actions to Achieve Nuclear Disarmament' (19 June 2013) UN Doc A/AC.281/WP.2; and working paper submitted by Maya Brehm, Richard Moyes, and Thomas Nash, 'Banning Nuclear Weapons' (*Article 36*, February 2013) <https://article36.org/wp-content/uploads/2013/02/Report_web_23.02.13.pdf>

[135] Note by the Secretary-General, 'Report of the Open-Ended Working Group to Develop Proposals to Take Forward Multilateral Nuclear Disarmament Negotiations for the Achievement and Maintenance of a World Without Nuclear Weapons' (9 October 2013) UN Doc A/68/514.

the 'option of a treaty banning nuclear weapons was discussed' as one possible way of filling the legal gap.[136]

This growing humanitarian impetus also resulted in the parallel convening of a series of three 'Humanitarian Conferences'[137] held in Oslo, Nayarit and Vienna between March 2013 and December 2014 outside of the regular UN disarmament machinery.[138] These conferences represented the first major inter-governmental meetings specifically dedicated to discussing the humanitarian and environmental dangers, harms, and impacts resulting from any use or detonation of nuclear weapons.[139] According to Rietiker, these conferences had the effect of both increasing the awareness of, and demonstrating 'the devastating consequences of the use of nuclear weapons for the human being, as well as to assess the risk of nuclear war or of the accidental explosion of a nuclear weapon' for both states, and the wider public.[140] Insights from academia, scientific experts, and *hibakusha* – victims of nuclear weapon use and testing[141] – proved highly informative and often emotionally charged, as did reports highlighting the risks of intentional or accidental nuclear detonation through human or technical error.[142]

At the final Vienna conference, alongside the Chair's balanced summary,[143] Austria delivered a 'pledge' reflecting the perspectives of the participating non-aligned NNWS and civil society actors who sought to pursue greater measures towards nuclear disarmament with greater

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[136] Ibid, [35].

[137] For an excellent overview of these conferences, see Minor (2015); and Kmentt (2015).

[138] Referred to here as the 'multilateral processes, procedures and practice, and relevant international bodies whose purposes are to deal with issues of disarmament, non-proliferation and arms control', see 'Disarmament Machinery: A Fresh Approach' (*UNIDIR*, September 2010) <https://www.unidir.org/files/publications/pdfs/disarmament-machinery-a-fresh-approach-362.pdf>

[139] Ira Helfand, Andy Haines, Tilman Ruff, Hans Kristensen, Patricia Lewis, and Zia Mian, 'The Growing Threat of Nuclear War and the Role of the Health Community' (2016) 62(3) *World Medical Journal* 86, 91.

[140] Daniel Rietiker, *The Humanization of Arms Control: Paving the Way for a World Free From Nuclear Weapons* (Routledge 2017) 151. See also statement by Norway (*First Preparatory Committee of the 2015 NPT Review Conference*, 30 April 2012) <https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/WMD/Nuclear/NPT2015/PrepCom2012/statements/20120430/PM/Norway.pdf>

[141] See e.g. statement of Tanaka Terumi, 'What did the A-Bomb do to Humans?' (*Japan Confederation of A- and H-Bomb Sufferers Organisation*, *Nayarit Conference on the Humanitarian Impact of Nuclear Weapons*, 13-14 February 2014) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nayarit-2014/statements/Hibakusha-Tanaka.pdf>; and statement of Setsuko Thurlow (*Nayarit Conference on the Humanitarian Impact of Nuclear Weapons*, 13-14 February 2014) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nayarit-2014/statements/Hibakusha-Thurlow.pdf>

[142] See notably Patricia Lewis, Heather Williams, Benoît Pelopidas, and Sasan Aghlani, 'Too Close for Comfort: Cases of Near Nuclear Use and Options for Policy' (*Chatham House: Royal Institute of International Affairs*, April 2014) <https://www.chathamhouse.org/sites/default/files/field/field_document/20140428TooCloseforComfortNuclearUseLewisWilliamsPelopidasAghlani.pdf>. 'Reaching Critical Will', a civil society group and key actor during the negotiation process of the TPNW provides a useful collection of the statements and working papers submitted to each of the Humanitarian Conferences, see <http://www.reachingcriticalwill.org/disarmament-fora/hinw>

[143] Report and Summary of Findings of the Conference presented under the sole responsibility of Austria (*Vienna Conference on the Humanitarian Impact of Nuclear Weapons*, 8-9 December 2014) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/vienna-2014/ChairSummary.pdf>

urgency.[144] This pledge encouraged cooperation amongst like-minded states and actors to '*identify, and pursue* effective measures *to fill the legal gap* for the *prohibition and elimination* of nuclear weapons… *in light of their unacceptable humanitarian consequences* and associated risks'.[145] In time, this statement was renamed the 'Humanitarian Pledge' and gathered 127 co-sponsoring states by April 2016.[146]

In addition, the non-aligned NNWS took concurrent steps within both the UNGA and NPT Review Process taking the form of 'joint statements on the humanitarian consequences of nuclear weapons', first delivered by Switzerland on behalf of 16 states during the NPT Preparatory Committee in 2012.[147] This statement welcomed the conclusion of the NPT Review Conference 2010 and reaffirmed the 'unavoidable' humanitarian consequences that would result from any future use of nuclear weapons.[148] Three years later at the NPT Review Conference 2015, the final joint statement was delivered by Austria on behalf of an impressive 159 co-sponsoring states, and emphasised that 'the humanitarian focus is now well established on the global agenda'.[149]

However, attending state parties at the NPT Review Conference 2015 ultimately failed to reach a consensus on a Final Document, thus fulfilling the rather modest expectations of some states and commentators beforehand.[150] Although this was primarily due to the breakdown in discussions concerning the proposed Middle-Eastern NWFZ,[151] the inability to secure stronger language and legal measures to address the humanitarian consequences of nuclear weapons proved an equally disappointing result.[152] Consequently, faced with the backdrop of the failed 2015 NPT

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[144] Michael Linhart Deputy Foreign Minister of Austria, 'Pledge' (*Vienna Conference on the Humanitarian Impact of Nuclear Weapons*, 8-9 December 2014) <http://cms.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/HINW14_Austrian_Pledge.pdf>

[145] Ibid.

[146] Gibbons (2018) 22.

[147] Joint Statement on the Humanitarian Dimension of Nuclear Disarmament, delivered by Ambassador Laggner of Switzerland on behalf of 16 states (*First Preparatory Committee of the 2015 NPT Review Conference*, 2 May 2012) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom12/statements/2May_IHL.pdf>

[148] Ibid. Interestingly, Australia decided to issue an 'alternative' humanitarian statement at the UNGA First Committee in 2013, which offered a voice for generally NATO and nuclear umbrella states who felt the New Zealand statement was too radical, see Joint Statement on the Humanitarian Consequences of Nuclear Weapons, delivered by Australian Ambassador Woolcott of Australia on behalf of 17 states, UNGA First Committee (68th Session, 21 October 2013) UN Doc A/C.1/68/PV.13, 24-25. The co-sponsoring states were all NATO or military allies of the US, including Australia, Belgium, Canada, Finland, Germany, Italy, Japan, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovakia, Spain, Sweden, and Turkey.

[149] Joint Statement on the Humanitarian Consequences of Nuclear Weapons, delivered by Sebastian Kurz, Federal Minister for Europe, Integration and Foreign Affairs Austria (*NPT Review Conference 2015*, 28 April 2015) <https://www.un.org/en/conf/npt/2015/statements/pdf/humanitarian_en.pdf> 2.

[150] Potter (2017) 84.

[151] See usefully William C Potter, 'The Unfulfilled Promise of the 2015 NPT Review Conference' (2016) 58(1) *Survival: Global Politics and Strategy* 151.

[152] Ibid, 155.

Review Conference,[153] attention returned to the UNGA where Resolution 70/48 was adopted in December 2015 with the support of 139 states voting in favour of formally endorsing the 'Humanitarian Pledge'.[154] In addition, the non-aligned NNWS, steered by Mexico, adopted UNGA Resolution 70/33 establishing a second OEWG to take place in 2016 with a more precise[155] mandate 'to *substantively address concrete effective legal measures, legal provisions and norms* that will need to be concluded to attain and maintain a world without nuclear weapons'.[156] While various approaches to nuclear disarmament were advanced in a similar manner to the 2013 OEWG, the 2016 OEWG constituted a vital step in building consensus towards a prohibition-style treaty and securing the support and participation of key middle-power states such as Brazil.[157] Indeed, the final report of the 2016 OEWG noted that there was:

> 'widespread support, the convening, by the General Assembly, of a conference in 2017, open to all States, with the participation and contribution of international organizations and civil society, to *negotiate a legally binding instrument to prohibit nuclear weapons*, leading towards their total elimination'.[158]

Following the adoption of the second OEWG final report, Resolution 71/258 was subsequently adopted by the UNGA in December 2016.[159] After recalling its previous resolutions convening the two OEWGs, and expressing concern 'about the catastrophic humanitarian consequences of any use of nuclear weapons', the UNGA decided 'to convene in 2017 a United Nations conference

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[153] Maya Brehm, 'Whose Security is it Anyway? Towards a Treaty Prohibition of Nuclear Weapons' (*EJIL: Talk!*, 31 May 2016) <https://www.ejiltalk.org/whose-security-is-it-anyway-towards-a-treaty-prohibition-of-nuclear-weapons/>

[154] UNGA Res 70/48 (11 December 2015) UN Doc A/RES/70/48. For the voting record, see UN Doc A/70/PV.67 (7 December 2015) 21-22.

[155] In contrast to the 2013 OEWG noted above.

[156] UNGA Res 70/33 (11 December 2015) UN Doc A/RES/70/33, [2] (emphasis added).

[157] As Gibbons notes based on anonymous interviews with nuclear ban advocates, Gibbons (2018) 26; and Potter (2017) 90. See for some examples of explicit support for a prohibition-style treaty during the OWEG, working paper submitted by the Community of Latin American and Caribbean States, 'Proposal by the Community of Latin American and Caribbean States (CELAC) on Effective Legal Measures to Attain and Maintain a World Without Nuclear Weapons' (12 April 2016) UN Doc A/AC.286/WP.15; working paper submitted by Mexico, 'A Legally-Binding Instrument That Will Need to be Concluded to Attain and Maintain a World Without Nuclear Weapons: a Prohibition on Nuclear Weapons' (12 April 2016) UN Doc A/AC.286/WP.17; and working paper submitted by Argentina, Brazil, Costa Rica, Ecuador, Guatemala, Indonesia, Malaysia, Mexico, Philippines and Zambia, 'Addressing Nuclear Disarmament: Recommendations from the Perspective of Nuclear-Weapon-Free Zones' (11 May 2016) UN Doc A/AC.286/WP.34/Rev.1, 4 in particular. From civil society, see working paper submitted by Article 36 and the Women's International Legal for Peace and Freedom, 'A Treaty Banning Nuclear Weapons' (24 February 2016) UN Doc A/AC.286/NGO/3.

[158] Note by the Secretary-General, 'Report of the Open-Ended Working Group taking Forward Multilateral Nuclear Disarmament Negotiations' (1 September 2016) UN Doc A/71/371, [67] and see [34] where this approach is suggested (emphasis added).

[159] UNGA Res 71/258 (11 January 2017) UN Doc A/RES/71/258.

to *negotiate a legally binding instrument to prohibit nuclear weapons*, leading towards their total elimination', thereby establishing the mandate for the subsequent 2017 negotiation conference.[160]

The negotiations of the TPNW took place in New York across two substantive sessions held between 27-31 March, and 15 June-7 July 2017.[161] Approximately 130 states participated in the conference, alongside various engaged international organisations and civil society actors including the *Agency for the Prohibition of Nuclear Weapons in Latin American and the Caribbean*, the *United Nations Institute for Disarmament Research* (UNIDIR), the ICRC and ICAN.[162] The negotiations of the TPNW were not preceded by any preparatory meetings amongst participating states,[163] and therefore the agenda for the March session was 'devoted to a general exchange of views, enabling the States participating in the Conference to hold a robust and constructive discussion on all matters pertaining to the legally binding instrument'.[164] As such, the statements and working papers submitted by participants sought to advance their respective views regarding the content of obligations to be included in the proposed treaty in an open, inclusive manner.[165]

Following the March negotiating session, President Elayne Whyte Gómez of Costa Rica[166] circulated a first 'draft text' amongst participating states on 22 May 2017, based upon, and consolidating areas of common ground expressed by states during the March session.[167] The initial response to the first draft was positive, with the majority of participants encouraged by the starting point created.[168] By the time states reconvened on 15 June, the President suggested an article-by-

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[160] Ibid, [8]-[11] (emphasis added).

[161] Ibid, [10]. For more information and resources, see the official conference website, United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination, <https://www.un.org/disarmament/tpnw/index.html>. Notably, each of the NWPS voted against this resolution, as did most of their military allies – with the exception of the DPRK which abstained.

[162] The UN officially listed 125 states participants, see 'United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination: List of Participants' (25 July 2017) UN Doc A/CONF.229/2017/INF/4/Rev.1. Yet interestingly, other sources cite as many as 132 participants, see e.g. Gibbons (2018) 27. Casey-Maslen (2019) 51, suggests that 129 states were registered participants.

[163] As noted by Gaukhar Mukhatzhanova, 'The Nuclear Weapons Prohibtion Treaty: Negotiations and Beyond' (2017) 47(7) *Arms Control Today* 12, 13.

[164] 'Outcome of the First Substantive Session of the United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination' (31 March 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/03/ptnw-post-conference-press-release.pdf>; and as noted also by Gibbons (2018) 27; Casey-Maslen (2019) 49; and Potter (2017) 95-96.

[165] For a collation of the issued statements and working papers submitted to the 2017 negotiation conference, see the excellent resources provided by Reaching Critical Will, <https://www.reachingcriticalwill.org/disarmament-fora/nuclear-weapon-ban/negotiation>

[166] Elected at the February 2017 organisational meeting, 'United Nations Conference to Negotiate a Ban on Nuclear Weapons Holds First Organizational Meeting, Adopts Agenda for 2017 Substantive Session' (16 February 2017) UN Doc DC/3658.

[167] Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1.

[168] See e.g. Potter (2017) 97-98; and the positive reaction of commentators such as Daniel H Joyner, 'Amicus Memorandum to the Chair of the United Nations Negotiating Conference for a Convention on the Prohibition of Nuclear Weapons' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf>, although Joyner's Memorandum did identify certain areas of improvement.

article review by dividing the draft text into six 'clusters'.[169] After intensive behind 'closed-doors' negotiations during the June-July session, and the submissions of numerous amendments and recommendations from participating states and subsequently updated drafts by President Whyte Gómez,[170] the final treaty text was put to a vote before the Conference on 7 July 2017, and was adopted with 122 states voting in favour, one abstention (Singapore), and one vote against (the Netherlands).[171]

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[169] Borrie, Spies, and Wan (2018) 109; Casey-Maslen (2019) 50; and as planned by President Whyte Gómez, see Briefing by the President (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 12 June 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/06/Briefing-by-President-12-June-2017.pdf> 10.

[170] Second revised Draft Treaty on the Prohibition of Nuclear Weapons (3 July 2017) UN Doc A/CONF.229/2017/L.3; Final revised Draft Treaty on the Prohibition of Nuclear Weapons, UN Doc A/CONF.229/2017/L.X, undated, yet Casey-Maslen cites this as 5 July 2017, see Casey-Maslen (2019) 51; and Final revised Draft Treaty on the Prohibition of Nuclear Weapons (6 July 2017) UN Doc A/CONF.229/2017/L.3/Rev.1.

[171] Voting record on Draft Treaty on the Prohibition of Nuclear Weapons is available at <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/A.Conf_.229.2017.L.3.Rev_.1.pdf>

Part I – Overview of the Existing International Nuclear Non-Proliferation and Disarmament Law Framework

Before analysing the TPNW, it is first appropriate to consider the obligations established by the existing multilateral nuclear non-proliferation and disarmament international legal framework. The intention here is not to provide a comprehensive account of the existing nuclear weapons-related regulatory framework under international law in its entirety,[1] nor a detailed review of historical efforts to regulate nuclear technology since the dawn of the UN Charter era.[2] Nor will this Chapter examine initiatives previously created to regulate trade in dual-use nuclear technologies such as the 2003 Proliferation Security Initiative,[3] or the role played by other fields of international law in regulating the circumstances under which nuclear weapons can be used, particularly international humanitarian law.[4]

Rather this Chapter has a more precise two-fold purpose; firstly, to summarise the existing legal framework relating specifically to nuclear *disarmament* established by Article VI of the NPT 1968; and secondly, to identify any significant flaws, loopholes, and weaknesses inherent to these existing restrictions and regulations on nuclear weapons-related activities within this international nuclear non-proliferation and disarmament legal framework. This context will, in turn, enable the remainder of this thesis to determine if the identified limitations of the existing international legal regime have been addressed by the TPNW provisions itself, and assess whether the TPNW builds upon and strengthens existing nuclear weapons regulations.

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[1] For an overview of the widespread nature of nuclear weapons regulation under international law, see generally Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014).

[2] See usefully Daniel H Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011) 6-20; and William Epstein, *The Last Chance: Nuclear Proliferation and Arms Control* (Macmillan 1976) 1-86.

[3] Daniel H Joyner, 'The Proliferation Security Initiative: Nonproliferation, Counterproliferation, and International Law' (2005) 30(2) *Yale Journal of International Law* 507.

[4] See e.g. Charles J Moxley, John Burroughs, and Jonathan Granoff, 'Nuclear Weapons and Compliance with International Humanitarian Law and the Nuclear Non-Proliferation Treaty' (2011) 34(4) *Fordham Journal of International Law* 595; Stuart Casey-Maslen, 'Nuclear Weapons and Rules on Conduct of Hostilities in Warfare', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014); Simon O'Connor, 'Nuclear Weapons and the Unnecessary Suffering Rule', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014); and Susan Breau, 'Low-Yield Tactical Nuclear Weapons and the Rule of Distinction' (2013) 15(2) *Flinders Law Journal* 219.

Chapter 2: Existing Nuclear Weapons-related Instruments

1. The Treaty on the Non-Proliferation of Nuclear Weapons 1968 (NPT)[1]

a. Overview

The NPT is considered the 'cornerstone' instrument of the nuclear non-proliferation and disarmament framework under international law,[2] and is widely regarded as one of the most successful arms limitation agreements of all time.[3] However, despite achieving near universal membership,[4] four *de facto* nuclear weapon possessing states (NWPS) remain outside the NPT regime;[5] Israel,[6] India, and Pakistan, alongside the DPRK following its controversial withdrawal in 2003.[7] Having initially been concluded for a period of 25 years, the treaty was extended indefinitely at the 1995 NPT Review and Extension Conference.[8]

The NPT creates two categories of states, the five nuclear-weapon states (NWS) identified by the terms of Article IX(3),[9] and all other non-nuclear weapon states (NNWS). In simple terms, the NPT encapsulates a 'Grand Bargain' struck between the NWS and NNWS,[10] which seeks to reflect an 'acceptable balance of mutual responsibilities and obligations' amongst member states

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[1] Treaty on the Non-Proliferation of Nuclear Weapons (adopted 1 July 1968, entered into force 5 March 1970) 729 UNTS 161.

[2] See e.g. Daniel H Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press 2009) 8; and Masahiko Asada, 'The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol' (2011) 16(1) *Journal of Conflict and Security Law* 3, 3.

[3] For a selection of excellent analyses of the NPT, see Joyner (2009) 3-76; Daniel H Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011); and Mohamed I Shaker, *The Nuclear Nonproliferation Treaty: Origin and Implementation, 1959-1979*, *Volumes I-III* (Oceana Publications 1980). A useful summary is also provided by Gro Nystuen and Torbjørn Graff Hugo, 'The Nuclear Non-Proliferation Treaty', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014).

[4] As of 14 June 2021, there are 191 state parties to the NPT, see United Nations Office for Disarmament Affairs, Treaty on the Non-Proliferation of Nuclear Weapons, <https://www.un.org/disarmament/wmd/nuclear/npt/>

[5] The acronym NWPS will also be used to collectively refer to all nine states which possess nuclear weapons.

[6] Israel maintains a policy of 'deliberate ambiguity' regarding its nuclear weapons programme, refusing to confirm or deny whether it has nuclear weapons, although it is widely accepted that it possesses a credible nuclear force see e.g. 'Arms Control and Proliferation Profile: Israel' (*Arms Control Association: Fact Sheets and Briefs*, updated July 2018) <https://www.armscontrol.org/factsheets/israelprofile>; and Hans M Kristensen and Matt Korda, 'Status of World Nuclear Forces' (*Federation of American Scientists*, updated August 2021) <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/>

[7] For a helpful discussion of the status of the DPRK in relation to the NPT, see Masahiko Asada, 'Arms Control Law in Crisis – A Study of the North Korean Nuclear Issue' (2004) 9(3) *Journal of Conflict and Security Law* 331.

[8] Article X(2), NPT. See Review and Extension Conference of the Parties to the Treaty on the Prohibition of Nuclear Weapons, Final Document, Part I (1995) NPT/CONF.1995/32, Annex, Decision 3: Extension of the Treaty on the Non-Proliferation of Nuclear Weapons.

[9] Article IX(3), NPT. A NWS is defined as a state 'which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967'. This includes the United States, the Soviet Union (and now its successor state, Russia), the United Kingdom, France, and China.

[10] Joyner (2009) 9; Nystuen and Graff Hugo (2014) 374; and James A Green, 'India's Status as a Nuclear Weapons Power under Customary International Law' (2012) 24(1) *National Law School of India Review* 125, 130.

relating to the 'three pillars' of the NPT; non-proliferation, peaceful uses of nuclear energy and technology, and nuclear disarmament.[11]

Under Article II, each of the NNWS commit never to receive the transfer of, 'manufacture or otherwise acquire' nuclear weapons.[12] In exchange for relinquishing the right to acquire nuclear weapons, Article IV reaffirms the 'inalienable right' of all state parties to develop peaceful uses of nuclear energy 'in conformity with Articles I and II'.[13] Additionally, each NNWS is required by Article III(4) to conclude a safeguards agreements with the IAEA applied to 'all source or special fissionable material' in all peaceful nuclear activities located within the territory, jurisdiction or control of the state.[14] Such safeguards are established 'for the *exclusive purpose* of verification of the fulfilment of its [the states party's] obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons'.[15] In return, the NWS agree under Article I to reciprocal non-proliferation obligations not to transfer 'to any recipient whatsoever, nuclear weapons or other nuclear explosive devices', and not to assist or encourage the manufacture of nuclear weapons.[16] Moreover, NPT parties – including the NWS – agree to participate in the 'fullest possible exchange' of materials, information and technology for the development of peaceful uses of nuclear energy.[17]

One issue of controversy involving these nuclear non-proliferation provisions concerns the legality of nuclear sharing arrangements, whereby a NNWS hosts the nuclear weapons owned by an NPT-recognised NWS within its territory.[18] The US has repeatedly argued that the combined effect of Articles I and II does not prohibit such nuclear sharing arrangements with NATO allies[19] because the transfer of control of the weapons 'is not contemplated to occur until the outbreak of an armed conflict'.[20] In its view, once an armed conflict begins, 'the NPT would no longer be the

[11] UNGA Res 2028 (19 November 1965) UN Doc A/RES/2028, principle (b).
[12] Article II, NPT.
[13] Article IV, NPT.
[14] See generally Article III, NPT. Whereas paragraph 4 establishes the obligation to conclude the safeguard agreement with the IAEA specifically, paragraphs 1-3 details the activities covered by such an agreement.
[15] Article III(1), NPT (emphasis added, bracketed text added). For a comprehensive analysis of Article III and safeguards agreements with the IAEA, see Pierre-Emmanuel Dupont, 'Compliance with Treaties in the Context of Nuclear Non-Proliferation: Assessing Claims in the Case of Iran' (2014) 19(2) *Journal of Conflict and Security Law* 161, 172–78; Joyner (2009) 18-27; Michael Spies, 'Iran and the Limits of the Nuclear Non-Proliferation Regime' (2007) 22(3) *American University International Law Review* 401, 410-424; and Laura Rockwood, 'The IAEA's Strengthened Safeguards System' (2002) 7(1) *Journal of Conflict and Security Law* 123.
[16] Article I, NPT.
[17] Article IV(2), NPT.
[18] For a detailed analysis of the history behind the 'stationing loophole', see Shaker (1980) Vol I, 191-245; and see Joyner (2009) 13-15, who summarises and critiques the US position.
[19] The Netherlands, Germany, Italy, Belgium, and Turkey.
[20] Daniel H Joyner, 'Amicus Memorandum to the Chair of the United Nations Negotiating Conference for a Convention on the Prohibition of Nuclear Weapons' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf> 4-5; and generally Mika Hayashi, 'NATO's Nuclear Sharing Arrangements Revisited in Light of the NPT and the TPNW' (2021) *Journal of Conflict and Security Law* (advance access). For a useful overview of nuclear sharing agreements, see William Alberque,

controlling legal framework', thereby permitting the US President to authorise the *physical* transfer of control over nuclear weapons to either host states, or the NATO Supreme Allied Commander.[21] Finally, both NATO[22] and the US point to the *travaux préparatoires* of the NPT which arguably indicates that the Soviet Union ultimately accepted the permissibility of existing nuclear sharing arrangements in Europe.[23] Despite this, nuclear stationing arrangements have been opposed by certain NNWS as a violation of Articles I and II,[24] or at the very least, contrary to the spirit of the NPT's underlying non-proliferation objectives.[25]

A further area of disagreement concerns the meaning of the term 'manufacture' under Article II, specifically what activities are captured by this provision.[26] Despite some arguments to the contrary,[27] there seems to be fairly broad agreement that the term 'manufacture' should be interpreted narrowly, covering only the 'physical manufacture' of a completed nuclear weapon or explosive device,[28] or 'at its broadest' the construction or assembly of key component parts of a nuclear weapon.[29] This interpretation focuses exclusively on the *actus reus*, thereby avoiding any need to infer the 'intent' of the NNWS claimed to be engaged in suspected manufacturing activities.[30] Furthermore, this limited interpretation is supported through reference to the *travaux*

'The NPT and the Origins of NATO's Nuclear Sharing Arrangements' (*Études de lIfri: Proliferation Papers No 57*, February 2017) <https://www.ifri.org/sites/default/files/atoms/files/alberque_npt_origins_nato_nuclear_2017.pdf>

21 Joyner (2009) 14. See also Brian Donnelly, 'The Nuclear Weapons Non-Proliferation Treaty Articles I, II and VI of the Treaty on the Non-Proliferation of Nuclear Weapons' (*OPANAL*, 5 January 2009) <https://web.archive.org/web/20090105200406/http://www.opanal.org/Articles/cancun/can-Donnelly.htm>

22 See 'NATO and the Non-Proliferation Treaty' (*NATO: Fact Sheet*, March 2017) <https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2017_03/20170323_170323-npt-factsheet.pdf> 2.

23 For an in-depth overview of these discussions see Shaker (1980) Vol I, 191-245.

24 See for example, statement of the Non-Aligned Movement (*2015 NPT Review Conference*, 27 April 2015) <http://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/revcon2015/statements/27April_NAM.pdf> 4. Hayashi (2021) 8-9 also observes that many NPT parties have increasingly challenged nuclear sharing arrangements in recent years.

25 Otfried Nassauer, 'Nuclear Sharing in NATO: Is It Legal?' (*Berlin Information-Center for Transatlantic Security*, April 2001) <https://www.bits.de/public/articles/sda-05-01.htm>; and Joyner (2009) 15. Conversely, however, see Hayashi (2021) 7 in particular, after the author examines the NPT's negotiation history.

26 For a useful overview of contrasting positions on this, see David S Jonas, 'Ambiguity Defines the NPT: What Does 'Manufacture' Mean?' (2014) 36(2) *Loyola Los Angeles International and Comparative Law Review* 263.

27 Andreas Persbo, 'A Reflection on the Current State of Nuclear Non-proliferation and Safeguards', *EU Non-Proliferation Consortium: Non-Proliferation Papers 8,* February 2012, 4-5. Daniel Joyner also details how the US has supported this expansive view in 2005, despite rejecting the initial inclusion of an obligation requiring NNWS to not engage in preparations to manufacture nuclear weapons during the NPT negotiations, see Daniel H Joyner, *Iran's Nuclear Programme and International Law: From Confrontation to Accord* (Oxford University Press 2016) 79-81.

28 Jonas (2014) 266-67, who notes that a broader approach would entail the need to construct or determine a state's 'intention' behind certain dual-purpose activities; and Spies (2007) 407.

29 Joyner (2016) 79-86. See also Christopher P Evans, 'Going, Going, Gone? Assessing Iran's Possible Grounds for Withdrawal from the Treaty on the Non-Proliferation of Nuclear Weapons' (2021) 26(2) *Journal of Conflict and Security Law* 309, 313-16; and Matthew Liles, 'Did Kim Jong-Il Break the Law? A Case Study on How North Korea Highlights the Flaws of the Non-Proliferation Regime' (2007) 33(1) *North Carolina Journal of International Law and Commercial Regulation* 103, 114.

30 An approach which would be riddled with biases and evidentiary challenges. See Daniel H Joyner, 'Iran's Nuclear Program and the Legal Mandate of the IAEA' (*JURIST*, 9 November 2011) <https://www.jurist.org/commentary/2011/11/dan-joyner-iaea-report/> who notes this very same concern with

préparatoires of the NPT,[31] where an additional prohibition on states' ability to 'prepare for the manufacture' of nuclear weapons was proposed by the Soviet Union but rejected by the US delegation.[32] Finally, the term manufacture is conceptually distinct from the undertaking never to 'develop' a prohibited weapon incorporated in other disarmament instruments,[33] which alludes to an 'earlier stage' in the development, research and construction process of a nuclear weapon.[34]

Based on this interpretation, NNWS can engage in a wide range of activities involving nuclear energy and materials which may have both a peaceful and nuclear weapons application, although any activities that could *only* have a nuclear weapons-manufacturing purpose would be prohibited by Article II.[35] This has resulted in a common criticism that the NPT essentially permits a state party, while remaining in 'technical compliance with the Treaty's provisions, to acquire nuclear material, equipment, and technology from other NPT parties to master the nuclear fuel cycle, and then, later, legally withdraw from the Treaty'.[36] Whether the TPNW has remedied this particular weakness will be discussed in Part II.[37]

Finally, and most significantly for the purposes of this thesis, under Article VI, each of the NPT state parties undertakes:

> 'to *pursue negotiations in good faith on effective measures relating to* cessation of the nuclear arms race at an early date and to *nuclear disarmament*, and on a treaty on general and complete disarmament under strict and effective international control'.[38]

As this provision makes clear, this obligation is directed towards 'each of the Parties' of the NPT and entails three distinct, yet interrelated, objectives; 1) cessation of the nuclear arms race at an

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trying to identify whether a state's engagement in a certain nuclear material-related activity would be for peaceful purposes permitted under Article IV, or for prohibited manufacture of nuclear weapons under Article II; and Evans (2021) 315.

[31] Art 32, VCLT.

[32] Discussed in greater depth by Jonas (2014) 268-73.

[33] See e.g. Article I(1)(a), CCW; Article 1(1)(b), APMBC; and Article 1(1)(b), CCM.

[34] Evans (2021) 316 (footnotes omitted).

[35] See Joyner (2009) 16-17.

[36] This concern is noted by David S Jonas, 'Significant Ambiguity in the NPT: A Continuing Issue' (2012) 40(1) *Georgia Journal of International and Comparative Law* 37, 38-39; Gary J Meise, 'Securing the Strength of the Renewed NPT: China, the Linchpin Middle Kingdom' (1997) 30(3) *Vanderbilt Journal of Transnational Law* 539, 552; and Jack I Garvey, 'New Architecture for the Non-Proliferation of Nuclear Weapons' (2007) 12(3) *Journal of Conflict and Security Law* 339, 342-43 ('As nuclear technology has become cheaper and more accessible, it becomes more troubling and problematic that the Nuclear Non-Proliferation Treaty promises non-nuclear weapons states acquisition of nuclear-related materials and technology that can bring them well along the path to nuclear weapons production. The distinction between nuclear technology for weapons purposes and peaceful uses has always been problematic, and the distinction has become increasingly complex and intractable as nuclear weapons technology evolves. This has only increased the risk of crossover from peaceful to weapons uses').

[37] See Part II: Chapter 3: Scope of the Article 1 Prohibitions.

[38] Article VI, NPT (emphasis added).

early date; 2) nuclear disarmament; and 3) a treaty on general and complete disarmament under strict and international control.[39] However, there remains ongoing interpretative debates among both states and academic commentators concerning the exact nature and scope of the 'second' nuclear disarmament obligation established by Article VI.[40]

b. Prioritisation of Non-Proliferation over Disarmament?

A first point of disagreement concerns the relationship of the three 'pillars' established by the NPT. Certain commentators have advanced the view that the primary object and purpose of the NPT was originally – and remains – to prevent further proliferation of nuclear weapons.[41] This approach has been endorsed by US officials, who often marginalise the disarmament obligations under Article VI,[42] claiming for instance, during the 2018 NPT Preparatory Committee[43] that 'an effective nonproliferation regime is a key element in building security conditions conducive to progress on nuclear disarmament'.[44] Former US Assistant Secretary of State for International Security and Non-Proliferation Christopher Ford has similarly argued that the non-proliferation 'pillar' represents the '*foundation* upon which rest the two supported 'structures' of nuclear disarmament and peaceful uses'.[45] Ford proceeded to claim that the supporting 'pillars' are not equal with non-proliferation; '[i]n truth, they *depend* upon nonproliferation'.[46] Moreover, certain

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[39] As recognised widely, see e.g. Daniel H Joyner, 'The Legal Meaning and Implications of Article VI of the Non-Proliferation Treaty', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 406; Daniel Rietiker, 'The Meaning of Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons: Analysis Under the Rules of Treaty Interpretation', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014) 52; and Monique Cormier and Anna Hood, 'Australia's Reliance on US Extended Nuclear Deterrence and International Law' (2017) 13(1) *Journal of International Law and International Relations* 3, 26.

[40] As noted by Rietiker (2014) 47.

[41] Nystuen and Graff Hugo (2014) 376; and Morton A Kaplan, 'The Nuclear Non-Proliferation Treaty: Its Rationale, Prospects and Possible Impact on International Law' (1969) 18(1) *Journal of Public Law* 1, 3.

[42] As noted by Joyner (2014) 400. See, for example, in a non-official capacity, Christopher A Ford, 'Debating Disarmament: Interpreting Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons' (2007) 14(3) *Non-Proliferation Review* 401.

[43] (hereafter NPT PrepCom).

[44] Statement by Christopher Ford, Representative of the United States (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_US.pdf> 3. See also working paper submitted by the US, 'Creating the Conditions for Nuclear Disarmament' (18 April 2018) NPT/CONF.2020/PC.II/WP.30, which essentially reflects this position; and statement by Fu Cong, Head of Chinese Delegation and Ambassador for Disarmament Affairs of China (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_China.pdf> 2.

[45] Statement of Christopher Ford, 'The Structure and Future of Nuclear Nonproliferation Treaty' (*House of Lords International Relations Committee: Nuclear Non-Proliferation Treaty and Nuclear Disarmament Inquiry*, 12 December 2018) <https://old.parliament.uk/documents/lords-committees/International-Relations-Committee/foreign-policy-in-a-changing-world/Dr-Christopher-Ford-Assistant-Secretary-Bureau-International-Security-Nonproliferation-US-StateDept.pdf> (emphasis added).

[46] Ibid (emphasis added). See also the 'Nuclear Posture Review' (*US Department of Defense*, February 2018) <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> 69-74 in particular, which also discussed non-proliferation at much greater length compared

NWS have argued that the pursuit of effective measures relating to nuclear disarmament is conditional upon achieving concurrent progress on negotiations towards general and complete disarmament.[47]

However, when undertaking a textual interpretative analysis of Article VI, there is no evidence of any prioritising, or chronological sequencing of the three obligations under Article VI based upon the ordinary meaning of the text.[48] In fact, the sequential ordering of the three delineated results under Article VI is rather logical; nuclear disarmament can only occur once nuclear arms races have ceased,[49] while nuclear disarmament is also a single component of general and complete disarmament.[50]

Furthermore, Joyner argues that when applying the general rules of treaty interpretation codified in Articles 31 and 32 of the VCLT,[51] the object and purpose of the NPT 'is to be found in all three of its principled pillars', and thus all three pillars should be 'equal in legal weight'.[52] This interpretation is further supported given the recognition of all three pillars in the preamble and the respective articles individually addressing each pillar.[53] Additionally, as Joyner considers the NPT to constitute a *traite-contrat* given its 'Grand Bargain' structure,[54] he concludes that 'it is only reasonable to assume that the balance among the principled pillars of a contract treaty is an equal

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to the limited mentioning of disarmament. Even more audaciously, Russia has argued that there has been an over-prioritisation of Article VI 'while issues of non-proliferation and peaceful uses are being pushed aside', see statement of Russian Ambassador Mikhail I Ulyanov (*First Preparatory Committee of the 2020 NPT Review Conference*, 2 May 2017) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom17/statements/2May_Russia.pdf> 3.

[47] See e.g. statement by Mikhail I Ulyanov, Ministry of Foreign Affairs for the Russian Federation (*Second Preparatory Committee of the 2015 NPT Review Conference*, 22 April 2013) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom13/statements/22April_Russia.pdf> 6; and Ford (2007) 403-04.

[48] Joyner (2014) 406-07; and Marco Roscini, 'On Certain Legal Issues Arising from Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons', in Ida Caraccioli, Marco Pedrazzi, and Talitha Vassalli di Dachenhausen (eds), *Nuclear Weapons: Strengthening the International Legal Regime* (Eleven International Publishing 2015) 16.

[49] Which must, as specified in the text of Article VI, cease 'at an early date', thus logically occurring more urgently and prior to both nuclear disarmament and general and complete disarmament, see Joyner (2014) 406.

[50] See also a mirrored sequential approach taken by the Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (2000) NPT/CONF.2000/28, 14-15, as noted by Joyner (2011) 101.

[51] Article 31, VCLT.

[52] Joyner (2011) 32; Joyner (2014) 406-07; and Roscini (2015) 16. For an opposite view see, Hiroaki Nakanishi, 'Towards a Nuclear-Weapon-Free World: How Can the World Resolve the Disharmony between the UNSC and UNGA' (2012) 43(4) *Victoria University of Wellington Law* Review 617, 628-29, who notes that this view is not supported by NWS and their allies.

[53] Joyner (2011) 32.

[54] Ibid. See also Kimberley Gilligan, 'The Non-Proliferation Regime and the NPT', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014) 91. Conversely, see James A Green, 'Book Review: Interpreting the Nuclear Non-Proliferation Treaty' (2012) 109(2) *American Journal of International Law* 426. A useful summary of the distinction between law making and contract treaties is provided by Catherine Brölmann, 'Law-Making Treaties: Form and Function in International Law' (2005) 74(3-4) *Nordic Journal of International Law* 383, 383-84.

one', unless stated otherwise.[55] Paulus and Muller reach a similar conclusion on the basis of reciprocity.[56]

Finally, even if the text and intentions of the NPT negotiators can be seen as indicating an initial primacy of the non-proliferation objectives in the 1960s, when one considers the subsequent practice of states,[57] the majority of NPT parties envisage all three pillars as having equal weight,[58] including the UK, which views the three pillars to be 'mutually reinforcing, and must be pursued together'.[59] As such, attempts to prioritise any particular 'pillar' over another seem unfounded.

c. Interpreting the Scope of Article VI

Despite NNWS efforts to include precise obligations under Article VI that would require the NWS to achieve specific steps towards disarmament,[60] the NWS were unwilling to accept any pre-determined disarmament obligations for fear that this would distract from the non-proliferation objectives of the NPT.[61] In the end, a 'watered down',[62] limited obligation to '*pursue negotiations in good faith on effective measures*… relating to nuclear disarmament' was included. Consequently, the final formulation of Article VI contains no specific timeframe by which nuclear disarmament should be achieved, nor any identification of what steps should be considered as 'effective measures' towards nuclear disarmament either.[63] This ambiguity has resulted in conflicting interpretations regarding the scope of the obligation imposed by Article VI, and disagreement as to what constitutes 'good faith', 'effective measures' towards nuclear disarmament.[64]

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[55] Joyner (2011) 32.

[56] Andreas L Paulus and Jörn Müller, 'Survival through Law: Is There a Law Against Nuclear Proliferation' (2007) 18(1) *Finnish Yearbook of International Law* 83, 109 ('a large part of the international community does not regard the NPT as a pure horizontal non-proliferation agreement *but rather accredits great importance to all of the regime's pillars*') (emphasis added).

[57] An important aspect of treaty interpretation under Articles 31(3)(b), VCLT. See also Stefan Kadelbach, 'The International Law Commission and Role of Subsequent Practice as a Means of Interpretation under Articles 31 and 32 VCLT' (2018) 46(1) *Questions of International Law* 5.

[58] Nigel D White, 'Interpretation of Non-Proliferation Treaties', in Daniel H Joyner and Marco Roscini (eds), *Non-Proliferation Law as a Special Regime: A Contribution to Fragmentation Theory in International Law* (Cambridge University Press 2012) 112-13.

[59] Statement by the United Kingdom (*Second Preparatory Committee of the 2020 NPT Review Conference*, 24 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/24April_UK.pdf> 2.

[60] Edwin B Firmage, 'The Treaty on the Non-Proliferation of Nuclear Weapons' (1969) 63(4) *American Journal of International Law* 711, 734.

[61] As noted by E L M Burns, 'The Non-Proliferation Treaty: Its Negotiation and Prospects' (1969) 23(4) *International Organizations* 788, 802. See also statement by the UK to the same effect, United Kingdom, Eighteen Nation Disarmament Committee (21 March 1967) ENDC/PV.295, 4; and Shaker (1980) Vol II, 566.

[62] Nystuen and Graff Hugo (2014) 384.

[63] The preamble does, however, refer to need 'to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end', preambular paragraph 11, NPT.

[64] For the variety of diverging opinions regarding the interpretation Article VI, see Ford (2007); Paul M Kiernan, '"Disarmament" Under the NPT: Article VI in the 21st Century' (2012) 20(2) *Michigan State International Law Review* 381; Joyner (2014); and Rietiker (2014).

i. Obligation of Conduct, Result, or Somewhere in Between?

Firstly, a significant debate persists regarding whether Article VI establishes an obligation either to 'pursue' or 'conclude' negotiations toward nuclear disarmament, or whether the obligation instead falls somewhere in between these two extremes.[65] In other words, does Article VI impose an obligation of 'conduct', or one of 'result', or something else?[66]

The NWS interpretation of Article VI has generally been limited by avoiding any elaborative discussion of the precise nature of the obligations established.[67] Statements issued by the US, for example, often view nuclear disarmament to be an aspirational 'objective' of the NPT, whereas the non-proliferation objectives incorporated within Articles I and II are considered the primary obligations assumed by state parties.[68] This has resulted in a minimalistic interpretation advanced notably by Ford who, in a non-official capacity, has argued that Article VI only requires states to '*pursue* good faith negotiations towards the article's stated goals, but they are not legally required – and could not reasonably be legally required – to conclude such negotiations'.[69] In other words, rather than an obligation to negotiate, and in turn achieve nuclear disarmament, Ford suggests that Article VI imposes an incredibly limited obligation to merely *try to pursue* negotiations, thereby acknowledging that such negotiations may never take place to begin with.[70] This extremely narrow interpretation has been criticised by other commentators in manipulating the meaning of 'good faith' both in the implementation of treaty obligations generally,[71] and as explicitly included in Article VI.[72]

On the other hand, the ICJ in the *Legality of the Threat or Use of Nuclear Weapons Advisory Opinion* adopted an 'expansive',[73] or 'two-fold' interpretation of Article VI.[74] In the view of the Court, Article VI goes beyond a 'mere obligation of conduct; the obligation involved here is an

[65] Cormier and Hood (2017) 28-35 also allude to a similar three-pronged categorisation of the interpretative approaches that exist in relation to Article VI.
[66] See for this distinction generally, Rüdiger Wolfrum, 'Obligation of Result Versus Obligation of Conduct: Some Thoughts About the Implementation of International Obligations', in Mahnoush H Arsanjani, Jacob Cogan, Robert Sloane, and Siegfried Wiessner (eds), *Looking to the Future: Essays on International Law in Honor of W Michael Weisman* (Brill Publishing 2010).
[67] Joyner (2011) 69-70.
[68] See e.g. statement by Christopher Ford, Representative of the United States (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_US.pdf> 3.
[69] Ford (2007) 408.
[70] Ibid, 411; and as noted by Joyner (2011) 72.
[71] The principle of *pacta sunt servanda* is reflected in Article 26, VCLT. For a useful discussion of this fundamental principle, see Anthony Aust, 'Pacta Sunt Servanda' (2007) *Max Planck Encyclopaedia of International Law*; and I I Lukashuk, 'The Principle Pacta Sunt Servanda and the Nature of Obligation Under International Law' (1989) 83(3) *American Journal of International Law* 513.
[72] See Cormier and Hood (2017) 35; and Joyner (2011) 96-100.
[73] Joyner (2014) 404.
[74] As defined by Cormier and Hood (2017) 29.

obligation to *achieve a precise* result – nuclear disarmament in all its aspects'.[75] The Court thus determined that 'there exists an obligation to pursue in good faith *and bring to a conclusion* negotiations leading to nuclear disarmament in all its aspects under strict and effective international control'.[76] Although ICJ advisory opinions are not binding upon states in comparison to judgments reached by the Court during inter-state proceedings, they nonetheless carry significant judicial authority.[77] Similarly, Wright asserts that because this interpretation of Article VI was supported unanimously by the 15 judges of the Court, it should be afforded 'high legal value'.[78] Indeed, many non-aligned NNWS,[79] and scholars have expressed support for this interpretation of Article VI.[80]

However, the Court's interpretation 'almost certainly' stretches the ordinary meaning of Article VI, particularly given the absence of a timeframe for nuclear disarmament or identification of specific disarmament measures to be pursued.[81] Nor does the provision explicitly require state parties to achieve nuclear disarmament. Moreover, Roscini persuasively argues that when one compares the language of Article VI to the express obligation to conclude safeguard agreements with the IAEA under Article III, there is a clear difference between the precision, clarity and scope of the respective obligations.[82] In addition, this aspect of the Court's judgement has been criticised as methodologically unsound,[83] akin to an 'afterthought' due to its comparatively limited discussion within the Advisory Opinion.[84] Consequently, Ford argues that the Court's conclusions on this point are merely *obiter dictum*, and perhaps even *ultra vires* given that the UNGA did not request that the Court give advice on the nature of Article VI.[85]

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[75] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, [99] (hereafter *Nuclear Weapons Advisory Opinion*) (emphasis added).
[76] *Nuclear Weapons Advisory Opinion*, [105(2)(F)] (emphasis added).
[77] See generally Anthony Aust, 'Advisory Opinions' (2010) 1(1) *Journal of International Dispute Settlement* 123.
[78] Tim Wright, 'Negotiations for a Nuclear Weapons Convention: Distant Dream or Present Possibility' (2009) 10(1) *Melbourne Journal of International Law* 217, 229.
[79] See e.g. statement by Don MacKay, Permanent Representative of New Zealand, on Behalf of the New Agenda Coalition (*Second Preparatory Committee of the 2010 NPT Review Conference*, 28 April 2008) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom08/statements/NAMApril28.pdf>. The Marshall Islands also relied upon this interpretation in its applications against the NWPS at the ICJ, see *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v United Kingdom*) (Preliminary Objections) [2016] ICJ Rep 833; *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v India*) (Jurisdiction and Admissibility) [2016] ICJ Rep 255; and *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v Pakistan*) (Jurisdiction and Admissibility) [2016] ICJ Rep 552.
[80] See e.g. Alessandra Pietrobon, 'Nuclear Power's Disarmament Obligation under the Treaty on the Non-Proliferation and the Comprehensive Nuclear Test-Ban Treaty: Interactions Between Soft and Hard Law' (2014) 27(1) *Leiden Journal of International Law* 169, 179-80; and Wright (2009) 227-31.
[81] See Joyner (2011) 97; Roscini (2015) 17-18; and Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019) 36.
[82] Roscini (2015) 18.
[83] Joyner (2011) 96.
[84] Cormier and Hood (2017) 30-31.
[85] Ford (2007) 402.

This, however, does not mean Article VI is of little substantive value. On the contrary, when taking a 'plain meaning' interpretation, the inclusion of the 'good faith' element requires NPT parties to do more than pay mere lip-service to the nuclear disarmament obligation.[86] In the *North Sea Continental Shelf Case*, the ICJ held that the requirement of good faith means that:

> 'the parties are under an obligation to enter into negotiations with a *view to arriving at an agreement*, and not merely to go through a formal process of negotiations… they are under an obligation so to conduct themselves that the negotiations are *meaningful*'.[87]

This was reaffirmed in *Gabčíkovo-Nagymaros*, where the ICJ noted that 'the principle of good faith obliges the Parties to apply it [a treaty] in a reasonable way in such a manner that its purpose can be realized'.[88] Moreover, in the *Lake Lanoux* arbitration, the arbitral panel suggested that the requirement of good faith may be violated if negotiations are 'unreasonably delayed'.[89] Logically, this would seem to suggest that NPT parties should not engage in a particular course of action that would hinder progress towards nuclear disarmament too.[90]

As a result, while the achievement of nuclear disarmament is not expressly required by the terms of Article VI *per se*,[91] NPT parties must implement and perform the obligations and measures adopted pursuant to Article VI 'to the best of their abilities to observe the treaty stipulations in their spirit and according to their letter'.[92] Consequently, one can conclude that a more pragmatic, 'plain meaning' obligation is encapsulated by Article VI 'to proactively, diligently, sincerely and consistently pursue good faith negotiations',[93] with the intention and aim of reaching agreement on measures towards nuclear disarmament.[94] NPT parties, particularly the NWS, must therefore do more than simply 'go through the motions' in order to be compliant with their obligations under Article VI.[95] This plain meaning approach is also reconcilable with the *travaux préparatoires*

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[86] Joyner (2014) 407.
[87] As noted in *North Sea Continental Shelf Cases* (*Federal Republic of Germany v Denmark; Federal Republic of Germany v Netherlands*) [1969] ICJ Rep 39, [85(a)] (emphasis added) (hereafter *North Sea Continental Shelf*).
[88] *Gabčíkovo-Nagymaros Dam Project* (*Hungary v Slovakia*) [1997] ICJ Rep 7, [142] (bracketed text added).
[89] *Lake Lanoux Arbitration* (*France v Spain*), Award of 16 November 1957, 24 ILR 101, 128.
[90] Christine Chinkin and Louise Arimatsu, 'Legality under International Law of the United Kingdom's Nuclear Policy as set out in the 2021 Integrated Review: Joint Opinion' (*commissioned by the Campaign for Nuclear Disarmament*, April 2021) <https://cnduk.org/wp-content/uploads/2021/05/CND-legal-opinion-1.pdf> 11 ('Taking no action that would make a successful outcome impossible, or unlikely, would constitute a breach of the obligation to negotiate in good faith').
[91] Contrary to the position of the ICJ in the *Nuclear Weapons Advisory Opinion* discussed above.
[92] Rietiker (2014) 58.
[93] Joyner (2011) 99.
[94] As noted in *North Sea Continental Shelf*, [85(a)].
[95] Joyner (2014) 407.

of Article VI, where a vague obligation to 'pursue' rather than 'conclude' negotiations as 'the only solution acceptable to the two super-Powers'.[96]

This interpretation therefore falls somewhere in between the extreme positions offered by Ford and the ICJ, and more accurately reflects the ordinary meaning of the NPT text itself.[97] In theory, however, this plain meaning interpretation of Article VI will have little difference from the ICJ's 'twofold obligation' noted above on a practical level. Indeed, as Cormier and Hood argue:

> 'If states parties are in compliance with the obligation "to pursue negotiations in good faith on effective measures relating to […] nuclear disarmament", there will be a clear trajectory of negotiated disarmament steps that will, if maintained, result in total nuclear disarmament at some point. *If complete disarmament is not a foreseeable result at some stage, then it is likely that the negotiations on effective measures are not being undertaken in good faith.* In other words, it is not necessary to read an obligation to achieve a result into Article VI, because *that good faith component means that a result should actually be achieved within a reasonable timeframe* if parties are undertaking negotiations on effective measures towards nuclear disarmament'.[98]

ii. 'Effective Measures'

There also remains an extensive debate as to what constitutes 'effective measures' for the purposes of nuclear disarmament under Article VI.[99] The NPT text is of little help as Article VI remains silent on this point, chiefly because the NWS strongly opposed the inclusion of specifically identified steps during the negotiations within the Eighteen Nation Disarmament Commission.[100] Rather the only indication of a possible 'effective measure' towards nuclear disarmament within the NPT text is a preambular reference 'to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end'.[101]

Given this lack of reference to any specific steps or measures to be negotiated pursuant towards nuclear disarmament, it can be argued *prima facie* that Article VI seemingly grants 'relatively broader flexibility to determine how to meet this obligation'.[102] Indeed, Ford has previously argued that an NPT party:

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[96] Shaker (1980) Vol II, 572.
[97] Roscini (2015) 19 and 22.
[98] Cormier and Hood (2017) 33 (emphasis added).
[99] Ibid, 35.
[100] Shaker (1980) Vol II, 572; and Burns (1969) 802.
[101] Preambular para 11, NPT. The subsequent adoption of the Comprehensive Nuclear Test-Ban Treaty 1996 will be discussed further below.
[102] Joyner (2014) 411.

> 'might show itself to be satisfying the requirement to "pursue negotiations in good faith on effect measures" in innumerable ways: unilateral measures that might catalyse reciprocity or a greater willingness to engage in negotiations among negotiating partners; bilateral or multilateral measures; steps to ease international tensions that produce arms races and make it hard to reduce nuclear arsenals, and so forth'.[103]

Consequently, the NWS – particularly the US – have pointed to bilateral nuclear arms control agreements including the INF Treaty[104] and New START as evidence of compliance with Article VI.[105] Similarly, Joyner has observed that the NWS have generally advanced the position that any reductions in nuclear arsenals, 'however small, fulfils the requirements of Article VI'.[106] This broad conception of which actions and disarmament steps would constitute 'effective measures' has received some academic support from Rietiker and Kiernan, who each suggest that nuclear arms control measures constitute a 'partial' step toward complete nuclear disarmament.[107]

By contrast, certain NNWS – specifically members of the Non-Aligned Movement[108] – have stressed that minimal 'reductions in deployment and operational status cannot substitute for irreversible cuts in, and the total elimination of, nuclear weapons'.[109] Moreover, various NNWS have criticised the nuclear weapons modernisation programmes currently implemented by the NWS[110] alongside research into so-called 'usable', low-yield nuclear weapons, which instead

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[103] Ford (2007) 411.

[104] Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (adopted 8 December 1987, entered into force 1 June 1988) (hereafter INF Treaty).

[105] Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (adopted 8 April 2010, entered into force 5 February 2011) Treaty Doc 111-5 (hereafter New START).

[106] Joyner (2014) 400.

[107] Rietiker (2014) 65; and Kiernan (2012) 385. See also Dimitrios Bourantonis, 'The Negotiation of the Non-Proliferation Treaty, 1965-1968: A Note' (1997) 19(2) *International History Review* 347, 357 who concludes that nuclear arms control agreement may be seen as 'keeping with the spirit and letter of Article VI'.

[108] The Non-Aligned Movement is a group of approximately 125 states from geographically, economically, and politically diverse backgrounds formed by the intention to not be aligned with a particular bloc of states during the Cold War. It has since taken on a prominent role as the largest group of states with similar interests in nuclear non-proliferation and disarmament issues, see generally William C Potter and Gaukhar Mukhatzhanova, *Nuclear Politics and the Non-Aligned Movement: Principles vs Pragmatism* (Routledge 2012).

[109] Statement by Venezuelan Ambassador Jorge Valero on behalf of the Non-Aligned Movement (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_NAM.pdf> [7].

[110] For discussion of each NWS modernisation efforts see for Russia, Hans M Kristensen and Matt Korda, 'Russian Nuclear Forces, 2019' (2019) 75(2) *Bulletin of the Atomic Scientists* 73; the US, Hans M Kristensen and Robert S Norris, 'United States Nuclear Forces, 2018' (2018) 74(2) *Bulletin of the Atomic Scientists* 120; France, Hans M Kristensen and Matt Korda, 'French Nuclear Forces, 2019' (2019) 75(1) *Bulletin of the Atomic Scientists* 51; China, Hans M Kristensen

represents a 'trend that is in fact a new nuclear arms race' contrary to the 'spirit' of nuclear disarmament under Article VI.[111]

Joyner additionally claims that the evidence of compliance provided by the NWS is in fact 'erroneous and obfuscatory' and indicative instead of more limited 'arms control' policies which impose short-term, strategically tolerable reductions, without an intention of achieving the complete elimination of the nuclear weapons.[112] Instead, Joyner argues that nuclear disarmament measures – which Article VI explicitly calls for – should form 'part of such a policy program whose stated object is the complete elimination of their subject weapons from national arsenals'.[113] Although the short-term objectives of both concepts are certainly similar, and the benefits of arms control for international strategic stability are certainly significant, only measures that contribute to the longer-term objective of the complete elimination of nuclear weapons will satisfy the obligation under Article VI from Joyner's perspective.[114]

In this author's view, however, a pragmatic middle-ground is offered by Roscini, who remains willing to accept partial arms control efforts as evidence of compliance with Article VI 'provided that they are *the first step of a good faith process towards the ultimate goal of nuclear disarmament*'.[115] Although this seems to align with the view shared by Rietiker and Kiernan noted above,[116] what matters most for Roscini is whether the measure in question has been adopted in 'good faith' as part of a 'process' – or in a Joyner's terms a 'policy program' – which advances the objective of achieving nuclear disarmament,[117] rather than merely amounting to strategically acceptable limits

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and Robert S Norris, 'Chinese Nuclear Forces, 2018' (2018) 74(4) *Bulletin of the Atomic Scientists* 289; and the UK, Claire Mills, 'Replacing the UK's Strategic Nuclear Deterrent: Progress of the Dreadnought Class', HC Briefing Paper 8010, 15 January 2019. For a collective overview of current modernisation efforts, see 'Assuring Destruction Forever: 2020' (*Reaching Critical Will, Women's International League for Peace and Freedom*, June 2020) <https://www.reachingcriticalwill.org/images/documents/Publications/modernization/assuring-destruction-forever-2020v2.pdf>

[111] Statement by Venezuelan Ambassador Jorge Valero on behalf of the Non-Aligned Movement (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_NAM.pdf> [9]. This is a point noted by Joyner (2014) 414.

[112] Joyner (2011) 102-04. Pietrobon (2014) 183 also supports this conclusion.

[113] Joyner (2011) 102.

[114] Joyner (2014) 413 ('Therefore, the ordinary meaning of the term 'nuclear disarmament' indicates that negotiations on nuclear arms control reductions undertaken absent a policy goal of nuclear disarmament do not meet the obligation set out in Article VI'). A similar conclusion is reached by Ronald J Sievert, 'Working Towards A Legally Enforceable Nuclear Non-Proliferation Regime' (2010) 34(1) *Fordham International Law Journal* 93, 95, who argues that despite the benefits of arms control agreements, such measures do not 'represent a practical commitment by the leaders of either the United States or Russia to actually abolish nuclear weapons'.

[115] Roscini (2015) 17 (emphasis added).

[116] Discussed above.

[117] Joyner (2011) 102-03; and Roscini (2015) 16-17.

on nuclear weapons stockpiles and delivery systems with no long-term intention to completely, and irreversibly disarm.[118]

Finally, it has been suggested that the 'Thirteen Practical Steps Towards Disarmament' adopted during the 2000 NPT Review Conference[119] can be considered evidence of subsequent agreement 'between the parties regarding the interpretation of the treaty or the application of its provisions' under Article 31(3)(a) of the VCLT,[120] thereby further clarifying the meaning of 'effective measures' under Article VI.[121] Pietrobon, for instance, argues that the Final Document can be seen as representing the 'common understanding of all the parties to a treaty, as to the proper interpretation of it'.[122] This view is particularly persuasive when one recalls that the Final Document in 2000 was adopted by consensus amongst the 157 attending NPT parties.[123] By the same logic, the 64-point 'Action Plan' adopted at the 2010 Review Conference[124] – again agreed by consensus[125] – may equally constitute a subsequent agreement by NPT parties regarding the types of effective measures seen as evidencing progress towards Article VI.[126]

Having said this, Ford is also correct in noting that the '13 Steps' cannot, and should not, be considered an exhaustive representation of all the possible steps that may amount to 'effective measures', and argues that other unidentified actions and steps may fulfil the nuclear disarmament obligation under Article VI. [127] Nevertheless, while Ford's assertion is entirely reasonable, the '13

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118 Christopher P Evans, 'Creating an Environment for Nuclear Disarmament (CEND): a Good Faith Effective Measure Pursuant to Article VI NPT or Empty Gesturing?' (2020) 9(2) *Cambridge International Law Journal* 201, 211 (hereafter Evans (2020a)).

119 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (2000) NPT/CONF.2000/28, 14-15 (hereafter Final Document, 2000 NPT Review Conference and '13 Steps').

120 Art 31(3)(a), VCLT. Although the VCLT does not apply to treaties concluded before to its entry into force, its rules on interpretation are considered to constitute customary international law, see e.g. *LaGrand Case* (*Germany v United States of America*) [2001] ICJ Rep 466, [99].

121 This has been noted by Joyner (2011) 59-61; and reaffirmed again Joyner (2014) 412; Rietiker (2014) 63-68; Pietrobon (2014) 178-99; and Roscini (2015) 17. Hayashi has, however, challenged this view and argues that because the Final Documents were not drafted by all NPT parties, with some states being absent from the Conferences, this cannot amount to subsequent agreement for the purposes of Article 31(3)(a), VCLT, see Mika Hayashi, 'Non-Proliferation Treaty and Nuclear Disarmament: Article VI of the NPT in Light of the ILC Draft Conclusions on Subsequent Agreements and Practice' (2020) 22(1) *International Community Law Review* 84.

122 Pietrobon (2014) 179.

123 Joyner (2014) 412. The additional legitimacy brought by the adoption of Final Documents by consensus has been noted by Burrus M Carnahan, 'Treaty Review Conferences' (1987) 81(1) *American Journal of International* Law 226, 229. See Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (2000) NPT/CONF.2000/28, Part IV 'List of Participants'.

124 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (2010) NPT/CONF.2010/50, Vol I: Conclusions and Recommendations, 19-29, particularly Actions 3-22 concerning nuclear disarmament (hereafter Final Document, 2010 NPT Review Conference and 'Action Plan').

125 See List of Participants (25 May 2010) NPT/CONF.2010/INF/12.

126 As I have argued elsewhere, Evans (2020a) 211.

127 Ford (2007) 412. Moreover, the US has since withdrawn its support for the '13 steps', see e.g. statement by J Sherwood McGinnis, Deputy US Representative to the Conference on Disarmament, Second Preparatory Committee of the 2005 NPT Review Conference, 1 May 2003.

Steps' and 'Action Plan' can be used as a 'yardstick' or benchmark for the purposes of measuring compliance with Article VI by the NWS based upon the current implementation of steps.[128]

And more importantly when one utilises this yardstick, it becomes clear that insufficient progress has been made by the NWS towards implementing these identified steps and measures.[129] For example, based upon a 2015 report by *Reaching Critical Will* which analysed the implementation of the 2010 'Action Plan', of the 22 nuclear disarmament-related actions, eleven saw no progress whatsoever, six saw limited progress, while only five actions were viewed as progressing forward.[130] Furthermore, the continued reliance upon the doctrine of nuclear deterrence by NWS,[131] coupled with extensive financial investment into the modernisation of existing and new nuclear weapons capabilities certainly seems incompatible with step 6 of the '13 Steps'.[132] Even the repeated reference to nuclear arms control arrangements as evidence of compliance with Article VI by the US is losing credibility, particularly following the US withdrawal from the INF Treaty in August 2019,[133] leaving New START as the only remaining bilateral nuclear arms control measure in force between the US and Russia as of 30 September 2021.[134]

This lack of progress towards nuclear disarmament was brought to the attention of the ICJ in 2016 after the Marshall Islands instituted proceedings against each of the nine NWPS for alleged violations of Article VI of the NPT, and its customary international law equivalent obligation.[135]

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[128] Joyner (2011) 59-61 and 105; Joyner (2014) 412; and Andrew J Grotto, 'Non-Proliferation Treaty (1968)' (2009) *Max Planck Encyclopedia of International Law*, [59].

[129] It is widely suggested academically that the NWS have not done enough to fulfil their obligations under Article VI, see e.g. Rietiker (2014) 64-65; Joyner (2014) 417; Nystuen and Graff Hugo (2014) 396; and Roscini (2015) 17. Indeed, Sievert (2010) 95-96 suggests that both the US and Russia would be in material breach of the nuclear disarmament obligation under Article VI.

[130] 'The NPT Action Plan Monitoring Report' (*Reaching Critical Will*, March 2015) <http://www.reachingcriticalwill.org/images/documents/Publications/2010-Action-Plan/NPT_Action_Plan_2015.pdf>

[131] For a useful summary of the deterrence postures of the *de jure* NWS, see Jonathan L Black-Branch, 'Precarious Peace Nuclear Deterrence and Defence Doctrines of Nuclear-Weapon States in the Post-Cold War Era', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020) 329-40.

[132] Step 6 requires 'An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all State parties are committed under article VI', '13 Steps'. See also 'Action 5' of the 2010 Action Plan which also seems to be unfiled in this regard.

[133] See Secretary of State Michael Pompeo, 'U.S. Withdrawal from the INF Treaty on August 2, 2019' (*US Department of State*, 2 August 2019) <https://fi.usembassy.gov/u-s-withdrawal-from-the-inf-treaty-on-august-2-2019/>

[134] For a summary of previously operational arms control agreements, and those still in force, see 'US – Russian Nuclear Arms Control Agreements at a Glance' (*Arms Control Association*, updated April 2020) <https://www.armscontrol.org/factsheets/USRussiaNuclearAgreements>

[135] The question of whether Article VI also reflects customary international law is subject to some dispute. See for an excellent exchange of blog posts at *Arms Control Law*, Daniel H Joyner, 'Is the NPT Customary International Law?: A Question Central to the Marshall Islands ICJ Case' (*Arms Control Law*, 7 May 2014) <https://armscontrollaw.com/2014/05/07/is-the-npt-customary-international-law-a-question-central-to-the-marshall-islands-icj-case/#:~:text=I%20would%20conclude%20that%20there,to%20establish%20the%20Article%20VI>; Marco Roscini, 'My thoughts on the Customary Status of Article VI of the NPT' (*Arms Control Law*, 27 May 2014) <https://armscontrollaw.com/2014/05/27/my-thoughts-on-the-customary-status-of-article-vi-of-the-npt/>; Daniel Joyner, 'Can Five Treaty Violators and Two Non-Parties keep a Treaty Rule from Becoming Custom?: A Reply

Only the cases against the UK, India and Pakistan proceeded as each of these states recognised the compulsory jurisdiction of the ICJ under Article 36(2) of the Statute of the International Court of Justice.[136] Although the Court ultimately refused to exercise jurisdiction on the basis that the respondents lacked awareness as to the existence of a legal dispute between the parties,[137] the dispute itself reaffirmed the shared belief amongst the NNWS that substantive progress towards the goal of nuclear disarmament has been insufficient in recent years.

d. Analysing the NPT's Disarmament Contribution

Overall, although the non-proliferation pillar of the NPT has been relatively successful, with President Kennedy's fear during the 1960s that '15 or 20 or 25' states may acquire nuclear weapons never being fully realised,[138] it is indisputable that progress towards nuclear disarmament has not lived up to expectations.[139] Indeed, while the plain meaning interpretation of Article VI endorsed above does not require states to 'conclude' any of the identified nuclear disarmament measures *per se*,[140] it seems difficult to conclude that the *de jure* NWS are acting in good faith when implementing Article VI, with nuclear disarmament itself seemingly being placed on the backburner in favour of non-proliferation objectives. And what is perhaps most alarming is that current NWS efforts to pursue good faith negotiations towards nuclear disarmament are not forthcoming. Nevertheless, for better or for worse, Article VI remains the 'only treaty provision in which NWS have undertaken a legal obligation to negotiate nuclear disarmament agreements'.[141]

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to Roscini' (*Arms Control Law*, 27 May 2014) <https://armscontrollaw.com/2014/05/27/can-five-treaty-violators-and-two-non-parties-keep-a-treaty-rule-from-becoming-custom-a-reply-to-roscini/>; Marco Roscini, 'On the Alleged Customary Nature of Article VI of the NPT – A Rejoinder to Joyner and Zanders' (*Arms Control Law*, 5 June 2014) <https://armscontrollaw.com/2014/06/05/on-the-alleged-customary-nature-of-article-vi-of-the-npt-a-rejoinder-to-joyner-and-zanders/>; Daniel Rietiker, 'Some Thoughts on Article VI NPT and its Customary Nature' (*Arms Control Law*, 10 June 2014) <https://armscontrollaw.com/2014/06/10/some-thoughts-on-article-vi-npt-and-its-customary-nature/>. See also Green (2012) 130; and Yuan-Bing Mock, 'The Legality of North Korea's Nuclear Position: Lessons Regarding the State of Nuclear Disarmament in International Law' (2018) 50(3) *New York University Journal of International Law and Politics* 1093, 1100-09.

[136] *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v United Kingdom*) (Preliminary Objections) [2016] ICJ Rep 833; *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v India*) (Jurisdiction and Admissibility) [2016] ICJ Rep 255; and *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v Pakistan*) (Jurisdiction and Admissibility) [2016] ICJ Rep 552.

[137] See for a useful analysis of these cases and the Court's decision of jurisdictional issues, Jonathan L Black-Branch, 'International Obligations Concerning Disarmament and the Cessation of the Nuclear Arms Race: Justiciability over Justice in the Marshall Islands Cases at the International Court of Justice' (2019) 24(3) *Journal of Conflict and Security Law* 449; and Devesh Awmee, 'Nuclear Weapons Before the International Court of Justice: A Critique of the Marshall Islands v United Kingdom Decision' (2018) 49(1) *Victoria University of Wellington Law Review* 53.

[138] Text of President Kennedy's News Conference on Foreign and Domestic Affairs, 22 March 1963.

[139] Waheguru Pal Singh Sidhu, 'The Nuclear Disarmament and Non-Proliferation Regime', in Paul D Williams (ed), *Security Studies: An Introduction* (2nd edn, Routledge 2012) 410; and Nystuen and Graff Hugo (2014) 396.

[140] See section 1.c.i. above.

[141] Miguel Marin Bosch, 'The Non-Proliferation Treaty and its Future', in Laurence Boisson de Chazournes and Philippe Sands (eds), *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge University Press 1999) 388.

2. Prohibiting Nuclear Testing

While much attention is dedicated to the fact that nuclear weapons have only been 'used' twice in warfare by the US against Japan in August 1945, the extent of nuclear weapons testing is often overlooked. Following the first 'Trinity' test explosion by the US on 16 July 1945, there have been an estimated 2,056 nuclear test explosions conducted by eight NWPS[142] either underwater, underground, in the atmosphere, or in outer space – the last of which was conducted by the DPRK in September 2017 at the Punggye-ri testing site.[143] Many of these nuclear weapons tests were of a considerably greater explosive yield than the detonations over both Hiroshima and Nagasaki.[144]

The adoption of a verifiable comprehensive test-ban treaty remains immensely significant in combatting horizontal proliferation, but also vertical proliferation by impeding the qualitative improvement of existing nuclear weapons, thereby contributing to the reduction of stockpiles over time.[145] Although a comprehensive test-ban will not achieve nuclear disarmament on its own, prohibiting nuclear weapons testing would constitute a progressive and meaningful commitment by the NWS towards nuclear disarmament under Article VI NPT.[146] Indeed, this contribution is explicitly recognised within the NPT preamble.[147] With this in mind, the following section discusses what forms of nuclear testing are prohibited under international law, and highlights certain limitations of the current nuclear test-ban regime under both conventional and customary international law before subsequently assessing if the TPNW remedies these inadequacies.

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[142] The only NWPS which has not verifiably tested a nuclear weapon is Israel, although there has been some suggestion that either a Israeli or South African test took place in 1979 in the Indian Ocean, colloquially known as the 'Vela' Incident, see William Burr, Avner Cohen, Lars-Erik De Geer, Victor Gilinsky, Sasha Polakow-Suransky, Henry Sokolski, Leonard Weiss, and Christopher Wright, 'Blast from the Past' (*Foreign Policy*, 22 September 2019) <https://foreignpolicy.com/2019/09/22/blast-from-the-past-vela-satellite-israel-nuclear-double-flash-1979-ptbt-south-atlantic-south-africa/>

[143] A useful summary of the number of nuclear weapon test explosions is provided by Daryl G Kimball, 'The Nuclear Testing Tally' (*Arms Control Association: Fact Sheets and Briefs*, updated July 2020) <https://www.armscontrol.org/factsheets/nucleartesttally>. For a useful discussion of the risks associated with nuclear weapon testing, see generally Beyza Unal, Patricia Lewis, and Sasan Aghlani, 'The Humanitarian Impact of Nuclear Testing: Regional Responses and Mitigation Measures' (*Chatham House: Royal Institute of International Affairs*, May 2017) <https://www.chathamhouse.org/sites/default/files/publications/research/2017-05-08-HINT.pdf>

[144] For instance, the US 'Castle Bravo' test of 1954 in Bikini Atoll had a yield of 15 megatons – 1,000 times as powerful as the bombs dropped over Japan, see Ariana Rowberry, 'Castle Bravo: The Largest US Nuclear Explosion' (*Brookings*, 27 February 2014) <https://www.brookings.edu/blog/up-front/2014/02/27/castle-bravo-the-largest-u-s-nuclear-explosion/>

[145] David A Koplow, 'Sherlock Holmes Meets Rube Goldberg: Fixing the Entry-into-Force Provisions of the Comprehensive Nuclear Test Ban Treaty' (2017) 58(1) *Duke Journal of Comparative and International Law* 1, 6.

[146] Don MacKay, 'Testing Nuclear Weapons Under International Law', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 293.

[147] Preambular paragraph 11, NPT.

a. Early Developments[148]

Facing growing concerns of the environmental damage caused by radioactive fallout and contamination associated with extensive atmospheric nuclear testing by the US, UK and the Soviet Union in the 1950s,[149] alongside growing fears of further horizontal proliferation of nuclear weapons heading into the early 1960s, it became increasingly clear that limiting and ultimately prohibiting nuclear weapons testing was of vital importance for the international community of states.[150] Llewellyn, for instance, notes that Indian Prime Minister Jawaharlal Nehru first called for the negotiation of a comprehensive prohibition on nuclear testing activities in 1954 following US testing in the Pacific Proving Grounds.[151]

Despite this, however, early efforts to negotiate a fully comprehensive test-ban during the 1950s were abandoned in place of less ambitious, but more achievable restrictions, partly due to the political tensions between the superpowers during the Cold War.[152] But at the same time, these very same escalating tensions between the US and Soviet Union – culminating with the Cuban Missile Crisis in October 1962 – re-emphasised the importance of restricting nuclear proliferation and brought the superpowers to the negotiating table.[153]

Accordingly, the Partial Test-Ban Treaty was negotiated in 1963[154] and prohibited nuclear explosions in the atmosphere, outer space, underwater, and in any 'other environment if such explosion causes radioactive debris to be present outside the territorial limits of the State'.[155] However, while the PTBT prohibitions covered so-called 'peaceful' nuclear explosions, underground nuclear explosive tests remained excluded from Article I(1) provided the radioactive

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[148] For a history of nuclear testing regulation under international law, see David A Koplow, *Testing a Nuclear Test Ban* (Dartmouth Publishing Company 1996); and Rebecca Johnson, *Unfinished Business: The Negotiation of the CTBT and the End of Nuclear Testing* (UNIDIR 2009).

[149] Wittner has observed that 'public protesting' over the environmental harms caused by nuclear testing was another key factor behind President Kennedy and Premier Khrushchev's decision to commence talks on a test ban towards negotiations, see Lawrence S Wittner, 'Peace Activism and Nuclear Disarmament' (2020) 27(1) *Brown Journal of World Affairs* 7, 12-13.

[150] Christopher P Evans, 'Remedying the Limitations of the CTBT? Testing under the Treaty on the Prohibition of Nuclear Weapons' (2020) 21(1) *Melbourne Journal of International Law* 46, 49-50 (hereafter Evans (2020b)); Gabriella Venturini, 'Test-Bans and the Comprehensive Test Ban Treaty Organisation', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014) 134-38; and David S Jonas, 'The Comprehensive Nuclear Test Ban Treaty: Current Legal Status in the United States and the Implications of a Nuclear Test Explosion' (2007) 39(4) *New York University Journal of International Law and Politics* 1007, 1010-11.

[151] Huw Llewellyn, 'The Comprehensive Nuclear Test Ban Treaty' (1997) 10(2) *Leiden Journal of International Law* 269, 269.

[152] Venturini (2014) 135 ('[Nuclear test explosions] mark the fluctuations in relations between the US and the USSR during the Cold War in the 1950s. Their troubled relationship was obviously a serious hinderance to the good faith collaboration, which is necessary to successfully carry on with the demanding task of negotiating an international agreement, especially in politically sensitive matters').

[153] Johnson (2009) 14-15.

[154] Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Underwater (5 August 1963, entered into force 10 October 1963) 480 UNTS 43 (hereafter PTBT). Also commonly known as the Limited Test-Ban Treaty.

[155] Article I(1), PTBT.

debris resulting from the test could be contained within the testing state's territory or jurisdiction.[156] Moreover, the PTBT did not establish any verification mechanisms beyond national technical means,[157] and neither France nor China has ratified the treaty – each of which continued atmospheric testing into the late 1960s and early 1970s. Consequently, Koplow concludes that the PTBT did 'not appreciably retard[ed] the pace of explosions – it has simply driven them underground – or slowed the rate of weapons developments'.[158]

It is worth noting that various other restrictions on nuclear testing also emerged during the 20th century.[159] The adoption of the NPT, for example, created an implicit prohibition on nuclear weapons testing for NNWS parties (though not for the NPT-recognised NWS) through the operative effect of Article II.[160] Further restrictions on nuclear testing in both inhabited and uninhabited regions also materialised. The Antarctic Treaty of 1959, for instance, prohibits 'any nuclear explosion' within its defined zone,[161] while five regional 'nuclear weapon-free zones' (NWFZ) within inhabited areas have been established,[162] prohibiting their state parties from testing nuclear weapons.[163] The NWFZ also include 'Protocols' that the NWS are able to ratify, and therefore commit to respect the status of the zones and refrain from conducting nuclear testing within the particular region.[164] Finally, bilateral agreements including the Threshold Test-Ban of 1974 have imposed additional limitations on the maximum yield of nuclear testing permitted,[165] though admittedly with little effect on slowing the nuclear arms race during the Cold War.[166]

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[156] Jozef Goldblat, *Arms Control: The New Guide to Negotiations and Agreements* (2nd edn, Sage Publishing 2002) 49.
[157] Venturini (2014) 139, who notes that this is one of the most disappointing aspects of the treaty.
[158] Koplow (1996) 8.
[159] See usefully Lisa Tabassi, 'The Nuclear Test Ban: *Lex Lata* or *de Lege Ferenda*?' (2009) 14(2) *Journal of Conflict and Security Law* 309, 310-13; and Evans (2020b) 49-52.
[160] Indeed, Tabassi has persuasively argued that it would 'be difficult to imagine circumstances in which a non-nuclear weapon State could test and still be in compliance with Article II', Tabassi (2009) 312-13.
[161] Article V, the Antarctic Treaty (adopted 1 December 1959, entered into force 23 June 1961) 402 UNTS 71. See also Article IV(2), the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (adopted 27 January 1967, entered into force 10 October 1967) 610 UNTS 205.
[162] See section 3 for further discussion of these zones. These are, Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (adopted 14 February 1967, entered into force 22 April 1968) 634 UNTS 326 (hereafter Treaty of Tlatelolco); South Pacific Nuclear Free Zone Treaty (adopted 6 August 1985, entered into force 11 December 1986) 1445 UNTS 177 (hereafter Treaty of Rarotonga); and Treaty on the Southeast Asia Nuclear Weapon Free Zone (adopted 15 December 1995, entered into force 28 March 1997) 1981 UNTS 129 (hereafter Treaty of Bangkok). Two other NWFZs were negotiated after the adoption of the CTBT, see Treaty on the Nuclear-Weapon-Free Zone in Africa (adopted 11 April 1996, entered into force 15 July 2009) 35 ILM 698 (hereafter Treaty of Pelindaba); and Treaty on a Nuclear-Weapon-Free Zone in Central Asia (adopted 8 September 2006, entered into force 21 March 2009) 2970 UNTS (hereafter Treaty of Semipalatinsk).
[163] Article 1(1)(a), Treaty of Tlatelolco; Article 6, Treaty of Rarotonga; Article 3(1)(c), Treaty of Bangkok; Article 5, Treaty of Pelindaba; and Article 5, Treaty of Semipalatinsk.
[164] See e.g. Protocols 1-3, Treaty of Bangkok.
[165] Treaty on the Limitation of Underground Nuclear Tests (adopted 3 July 1974, entered into force 11 December 1990) 13 ILM 906.
[166] Goldblat (2002) 52-53.

b. The Comprehensive Nuclear-Test-Ban Treaty[167]

Overall, the nuclear testing prohibitory regime in place prior to 1996 was fragmented,[168] 'inchoate and incomplete',[169] but nonetheless ensured that the majority of states were obligated not to test nuclear weapons either by virtue of their NNWS status under the NPT, PTBT obligations, or membership of regional NWFZs.[170] However, it was not until the end of the Cold War that the Conference on Disarmament began negotiations towards a multilateral comprehensive test-ban treaty 'which would contribute effectively to the prevention of the proliferation of nuclear weapons in all its aspects, and to the process of nuclear disarmament'.[171] Because the Conference was 'plagued by gridlock' due to its consensus-based decision-making and India's opposition to the proposed text,[172] the draft treaty was forwarded by Australia to the UNGA, and was adopted by vote and annexed to Resolution 50/245 in September 1996.[173]

The preamble expresses the object and purpose of the CTBT by recognising that 'the cessation of all nuclear weapon test explosions and all other nuclear explosions, by constraining the development and qualitative improvement of nuclear weapons and ending the development of advanced new types of nuclear weapons, *constitutes an effective measure of nuclear disarmament and non-proliferation in all its aspects*'.[174] This clearly reflects the divergent views of the NNWS and NWS respectively as to the primary purpose of the treaty in contributing to both nuclear disarmament and non-proliferation.[175]

Article I(1) of the CTBT prohibits each state party from carrying out 'any nuclear weapon test *explosion* or any *other nuclear explosion*, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control'.[176] Relatedly, Article I(2) obligates CTBT parties to refrain from causing, encouraging or participating in the carrying out of any nuclear test explosion.[177] Article I(1) therefore goes further than the PTBT by fully prohibiting *all* nuclear test explosions – including those conducted for so-called 'peaceful purposes'[178] – in *any* environment.

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[167] (Hereafter CTBT).
[168] Tabassi (2009) 310.
[169] Koplow (2017) 10.
[170] As noted by MacKay (2014) 301.
[171] Conference of Disarmament, 'Mandate for an *ad hoc* Committee under agenda item 1, 'Nuclear Test Ban'' (25 January 1994) CD Doc CD/1238.
[172] For a useful summary of India's concerns during the negotiations, see Arundhati Ghose, 'Negotiating the CTBT: India's Security Concerns and Nuclear Disarmament' (1997) 51(1) *Journal of International Affairs* 239.
[173] The Comprehensive Nuclear-Test-Ban Treaty, UNGA Res 50/245 (10 September 1996) UN Doc A/RES/50/245, adopted by 158 votes to 3.
[174] See preambular paragraph 5, CTBT (emphasis added). This also reflects the object and purpose of the NPT.
[175] Guido den Dekker, 'Forbearance is no Acquittance: The Legal Status of the Comprehensive Nuclear Test Ban Treaty' (2000) 13(3) *Leiden Journal of International Law* 669, 673.
[176] Article I(1), CTBT (emphasis added).
[177] Article I(2), CTBT.
[178] Thus overruling Article V, NPT which left open this possibility on China's recommendation. Article VIII(1), CTBT does however, maintain an extremely limited exception which may permit 'peaceful' nuclear explosions, provided that

In other words, the CTBT establishes a 'zero-yield' standard that captures any nuclear test which results in an explosive event.[179]

Significantly, however, the CTBT does not prohibit testing activities that do not result in a *nuclear explosion*.[180] Consequently, many commentators and NWS accept that both sub-critical[181] and computer simulated testing remains permitted under the terms of the CTBT.[182] Indeed, both the US and Russia have argued that sub-critical experiments are vital to 'ensure the safety and reliability' of existing nuclear weapons.[183] Yet at the same time, by permitting sub-critical and computer simulated testing and experiments, NWPS can take steps to improve the reliability of existing nuclear weapons,[184] thereby prolonging the lifespan and qualitatively improving existing stockpiles, while also undermining the CTBT's overall contribution to nuclear disarmament.[185] Consequently, due to this loophole, certain commentators have questioned whether the CTBT is truly 'comprehensive'.[186]

The CTBT also includes a detailed institutional, verification and monitoring framework inspired by and modelled upon the CWC.[187] Article II establishes a Comprehensive Nuclear Test-Ban Treaty Organisation (CTBTO), an independent international organisation designed to ensure the implementation of the CTBT and to conduct verification-related activities.[188] To support the CTBTO's mandate, Article IV and its associated annexes provides for an elaborate range of

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a review conference of the CTBT permits this by consensus, followed by an amendment to the CTBT text, again approved by consensus which demonstrates that there is no military benefit resulting from such an explosion. Naturally these obstacles make it extremely unlikely that peaceful nuclear explosions would be permitted under the CTBT.

[179] Mackby notes that this zero-yield standard was accepted by the NPT-recognised NWS, see Jennifer Mackby, 'Nonproliferation Verification and the Nuclear Test Ban Treaty' (2011) 34(4) *Fordham Journal of International Law* 697, 719-23. Even hydro-nuclear tests, that is nuclear explosions of an extremely low yield of just a few kilograms, are prohibited by Article I(1) of the CTBT, see Andreas Persbo, 'Will the Trump Administration's Accusations Doom the Nuclear Test Ban Treaty?' (*Bulletin of the Atomic Scientists*, 18 May 2020) <https://thebulletin.org/2020/05/will-the-trump-administrations-accusations-doom-the-nuclear-test-ban-treaty/>

[180] For a discussion of the scope of the Article I(1) prohibition, see Evans (2020b) 53-58.

[181] In brief, sub-critical testing involves experiments where fissile material used in nuclear weapons is exposed to chemical explosive under high pressures to simulate the response of the fissile material. This does not result in a yield sustained nuclear explosion, however. See for greater detail Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 5. For more information, see Frank von Hippel, 'Subcritical Experiments' (*Bulletin of the Atomic Scientists*, 14 December 2012) <https://thebulletin.org/2012/12/subcritical-experiments/>

[182] Evans (2020b) 53-58; Venturini (2014) 145; Goldblat (2002) 60-62; and Masahiko Asada, 'CTBT: Legal Questions Arising from its Non-Entry into Force' (2002) 7(1) *Journal of Conflict and Security Law* 85, 87. See also '1994-96: Debating the Basic Issues' (*CTBTO Preparatory Commission*) <https://www.ctbto.org/the-treaty/1993-1996-treaty-negotiations/1994-96-debating-the-basic-issues/>

[183] Asada (2002) 87-88. See for a discussion of the role of sub-critical testing after the CTBT, Richard L Garwin, 'The Future of Nuclear Weapons Without Nuclear Testing' (1997) 27(8) *Arms Control Today* 3.

[184] As noted by Mackby (2011) 717.

[185] Although it has been argued that extensive 'explosive' tests would be required to ensure confidence in new weapons to perform as design, see e.g. Gregory van der Vink, Jeffrey Park, Richard Allen, Terry Wallace, and Christel Hennet, 'False Accusations, Undetected Tests and Implications for the CTBT' (1998) 28(4) *Arms Control Today* 8; and Asada (2002) 88.

[186] See e.g. Goldblat (2002) 59-60; and den Dekker (2000) 673.

[187] Noted also by Johnson (2009) 158-63.

[188] Article II, CTBT.

verification mechanisms, creating an International Monitoring System comprised of 337 data collection and laboratory stations, a system of on-site inspections to verify suspected breaches of the treaty (to become operational once the CTBT enters into force), and a range of consultation and clarification measures.[189]

This verification and monitoring framework of the CTBT has been described by Venturini as 'the most outstanding features of the Treaty',[190] and helps to ensure confidence amongst state parties that other states are complying with the Article I prohibition. And importantly, a large section of the verification framework – with the exception of the on-site verification arm – is provisionally operational under the auspices of the CTBTO Preparatory Commission,[191] which functions as a 'surrogate' institutional body tasked with establishing and implementing the verification regime under Article IV prior to the treaty's entry into force.[192] Indeed, the CTBTO Preparatory Commission has already provided data in relation to the DPRK's nuclear tests in September 2017, including information on location, depth and magnitude of explosions.[193]

c. Entry into Force Obstacles and the 'Interim Obligation'

The entry into force requirements under Article XIV(1) represents the most self-defeating feature of the CTBT.[194] This provision requires the 44 states listed under Annex II, which the IAEA in 1996 confirmed as having either nuclear power and/or research reactors, to ratify the CTBT before it can enter into force.[195] Despite calls to adopt a simple numerical requirement by the US, the UK, China and Russia 'did not want to accept restrictions on their nuclear programmes unless all 'threshold' or aspirant nuclear-weapon programmes were likewise curbed'.[196] However, while the

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[189] Article IV and Annex I, CTBT. For a more detailed discussion of verification in the CTBT, see International Group on Global Security, Anthony Aust, Masahiko Asada, Edward Ifft, Nicholas Kyriakopoulos, Jennifer Mackby, Bernard Massinon, Arend Meerburg, and Bernard Sitt, *A New Look at the Comprehensive Nuclear-Test-Ban Treaty* (Netherlands Institute for International Relations 2008) 15-35 (hereafter International Group on Global Security (2008)); Johnson (2009) 145-73; and Mackby (2011) 707-16.

[190] Venturini (2014) 146; and International Group on Global Security (2008) 50.

[191] Resolution Establishing the Preparatory Commission for the Comprehensive Nuclear Test-Ban Treaty Organization CTBT/MSS/RES/1 (19 November 1996) <https://www.ctbto.org/fileadmin/user_upload/public_information/2009/prepcom_resolution.pdf>

[192] Koplow (2017) 18-19.

[193] 'CTBTO Executive Secretary Lassina Zerbo on the Unusual Seismic Event Detected in the Democratic People's Republic of Korea' (*CTBTO Preparatory Commission*, 3 September 2017) <https://www.ctbto.org/press-centre/press-releases/2017/ctbto-executive-secretary-lassina-zerbo-on-the-unusual-seismic-event-detected-in-the-democratic-peoples-republic-of-korea/>

[194] The challenging entry into force requirements of the CTBT are well documented in most material written on the treaty. See e.g. David Lenefsky, 'The Entry-Into-Force Provision of the Comprehensive Test-Ban Treaty: An Example of Bad International Lawyering' (1999) 19(2) *New York Law School Journal of International and Comparative Law* 255; Venturini (2014) 147-48; Asada (2002) 86; Tabassi (2009) 314 specifically; and Jonas (2007) 1008-10 and 1015-16.

[195] Article XIV(1), and Annex II pursuant to Article XIV, CTBT.

[196] As discussed by Rebecca Johnson, 'Is it Time to Consider Provisional Application of the CTBT?' (2006) 2 *Disarmament Forum* 29, 29-31. See also Masahiko Asada, 'Article 18 of the Vienna Convention on the Law of Treaties Obligations and the Comprehensive Nuclear-Test-Ban Treaty', in Treasa Dunworth and Anna Hood (eds),

intention here was to ensure an equality or reciprocity of obligation with the aim of achieving universal adherence and implementation,[197] Article XIV has effectively become a 'veto power in the hands of some states' to delay entry into force whether for strategic or political purposes.[198]

This adoption of strict entry into force requirements becomes more perplexing given the objection of India to the discriminatory nature of the CTBT in maintaining a distinction between nuclear 'haves' and 'have nots',[199] and specifically in relation to Article XIV 'to which we [India] have the strongest objection'.[200] This, in turn, has resulted in ratification hesitancy from Pakistan which has stated that it will only ratify the CTBT (and NPT for that matter) when India does so.[201] Other 'hold-out' states are unlikely to ratify the CTBT in the near future. The US Nuclear Posture Review 2018 confirmed that the Trump Administration would not seek ratification of the CTBT from the Senate,[202] and it is unclear what policy position the new Biden Administration will take towards CTBT ratification[203] – although President Biden has previously endorsed ratification of the CTBT while vice-President during the Obama Administration.[204] Although China's current position on ratification is similarly unclear, it has continued to cooperate with the CTBTO Preparatory Commission in implementing the IMS verification mechanisms.[205]

However, although the CTBT is not legally binding pending entry into force, both state signatories and ratifiers remain under an 'interim obligation' to 'refrain from acts which would *defeat the object and purpose* of a treaty' pursuant to Article 18 of the VCLT.[206] This is unless signatories

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Disarmament Law: Reviving the Field (Routledge 2020) 133-34; Jonas (2007) 1015; and Dinshaw Mistry, 'Domestic-International Linkages: India and the Comprehensive Test Ban Treaty' (1998) 6(1) *The Nonproliferation Review* 25, 30.

197 Goldblat (2002) 62-64.

198 Venturini (2014) 147. Jonas by contrast refers to Article XIV as a 'terrible strategic error' of the negotiators, Jonas (2007) 1009.

199 See Ghose (1997); and Mistry (1998) regarding India's opposition to the CTBT.

200 Statement of Ambassador Arundhati Ghose, Permanent Representative of India to the UN, to the Conference on Disarmament, 8 August 1996 (bracketed text added). For a summary of state positions on the CTBT, see Mary Beth D Nikitin, 'Comprehensive Nuclear Test-Ban Treaty: Background and Current Developments' (*Congressional Research Service*, September 2016) <https://fas.org/sgp/crs/nuke/RL33548.pdf> 2-15.

201 This state of affairs was noted by Llewellyn (1997) 273-74.

202 US Nuclear Posture Review 2018, 63.

203 See Marc Finaud, 'Nuclear Weapons: What is Biden Expecting and What Can Be Expected from Him?' (*Geneva Centre for Security Policy*, 12 November 2020) <https://www.gcsp.ch/global-insights/nuclear-weapons-what-biden-expecting-and-what-can-be-expected-him>

204 'Biden to Call for Senate Ratification of CTBT' (*Nuclear Threat Initiative*, 18 February 2010) <https://www.nti.org/gsn/article/biden-to-call-for-senate-ratification-of-ctbt/>

205 'Remarkable Progress: China and the CTBT' (*CTBTO Preparatory Commission*, 31 January 2018) <https://www.ctbto.org/press-centre/highlights/2018/remarkable-progress-china-and-the-ctbt/>

206 Article 18, VCLT (emphasis added). Importantly, it has been argued that Article 18 is reflected under customary international law, thereby binding non-parties to the VCLT, particularly the US. See e.g. Asada (2002) 98-101; Paul V McDade, 'The Interim Obligation Between Signature and Ratification of a Treaty' (1985) 32(1) *Netherlands International Law Review* 5, 25; Jan Klabbers, 'Strange Bedfellows: The "Interim Obligation" and the 1993 Chemical Weapons Convention', in Eric P J Myjer (ed), *Issues of Arms Control Law and the Chemical Weapons Convention* (Martinus Nijhoff 2001) 12; and Joni S Charme, 'The Interim Obligation of Article 18 of the Vienna Convention on the Law of Treaties: Making Sense of an Enigma' (1991-92) 25(1) *George Washington Journal of International Law and Economics* 71, 71 and 77-78. Others have suggested the customary status of Article 18 VCLT is more uncertain, see Peter Malanczuk, *Akehurst's Modern Introduction to International Law* (7th edn, Routledge 1997) 135.

'make clear their intention not to become parties' to the treaty in question,[207] or for ratified states, provided that entry into force is not 'unduly delayed'.[208] To begin with, it has been convincingly suggested that any nuclear weapons explosive tests conducted prior to entry into force would violate the object and purpose of the CTBT in furthering non-proliferation and disarmament[209] by creating an unfair advantage for the testing state which would unbalance the 'status quo' at the time of signature, and perhaps even leading to a resumption of testing by other NWPS.[210] Even Article V(3) expressly indicates that damage to the object and purpose may occur through non-compliance with the 'basic obligations' of the CTBT[211]– essentially those contained in Article I(1).[212]

Furthermore, given the ever-increasing number of state signatories and parties,[213] UNGA resolutions calling for entry into force,[214] and even the adoption of the TPNW,[215] means that one can reasonably claim that entry into force of the CTBT is not *currently* 'unduly' delayed.[216] This position is further persuasive when one considers that this delay was 'entirely foreseeable' due to the unprecedented, onerous requirements imposed by Article XIV.[217]

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207 Venturini (2014) 148. Article 18(a), VCLT.

208 Article 18(b), VCLT.

209 This dual object and purpose was noted above. See also den Dekker (2000) 677-78 ('It follows that, whether the CTBT is primarily seen as an instrument against vertical or against horizontal proliferation, the object and purpose of the CTBT comprises at least the prevention of the carrying out of nuclear test explosions anywhere'); Asada (2002) 95-97; and Patricia Hewitson, 'Non-Proliferation and Reduction of Nuclear Weapons: Risks of Weakening the Multilateral Nuclear Non-Proliferation Norm' (2003) 21(3) *Berkeley Journal of International Law* 405, 464.

210 Tabassi (2009) 313-21; Jonas (2007) 1029-40; Asada (2020) 135-39; and MacKay (2014) 302-05, quoting a statement by UN Secretary-General Kofi Annan, 'Welcomes Launch of Ministerial Statement Supporting Nuclear Test Ban Treaty; Urges Ratification by Key States' (20 September 2006) UN Doc SG/SM/10648. This has been suggested also in UNSC Res 2310 (23 September 2016) UN Doc S/RES/2310, [4]. Although an argument by Aust would imply that prior testing before entry into force would not impede the ability of states to fulfil obligations after its entry into force, and thus would not defeat the object and purpose of the CTBT, see Andrew Aust, *Modern Treaty Law and Practice* (1st edn, Cambridge University Press 2000) 94-95, as quoted by Tabassi (2009) 317.

211 As noted by den Dekker (2000) 677.

212 Which itself is titled 'Basic Obligations'.

213 Cuba and Comoros each deposited their instruments of ratification in February 2021 for example, see 'Status of Signature and Ratification' (*CTBTO Preparatory Commission*) <https://www.ctbto.org/the-treaty/status-of-signature-and-ratification/>

214 See for recent examples, UNGA Res 75/87 (18 December 2020) UN Doc A/RES/75/87; UNGA Res 74/78 (23 December 2019) UN Doc A/RES/74/78; UNGA Res 73/86 (14 December 2018) UN Doc A/RES/73/86; and UNGA Res 72/70 (13 December 2017) UN Doc A/RES/72/70.

215 Which recognises the vital importance of the CTBT as 'a core element of the nuclear disarmament and non-proliferation regime, see preambular paragraph 19, TPNW.

216 See for a progressive confirmation of this, den Dekker (2000) 677-78; Tabassi (2009) 316-18; Andrew Michie, 'Provisional Application of Non-Proliferation Treaties', in Daniel H Joyner and Marco Roscini (eds), *Non-Proliferation Law as a Special Regime: A Contribution to Fragmentation Theory in International Law* (Cambridge University Press 2012) 79; Venturini (2014) 148; MacKay (2014) 303-04; and most recently Asada (2020) 141-44 who argues the subsequent CTBT conferences have continued to reaffirm the application of the Article 18 interim obligation. Although see Daniel Rietiker, 'The (Il?)legality of Nuclear Weapons Tests Under International Law – Filling the Possible Legal Gap by Ensuring the Comprehensive Test Ban Treaty's Entry into Force' (*ASIL Insights vol 21(4)*, 16 March 2017) <https://www.asil.org/insights/volume/21/issue/4/illegality-nuclear-weapons-tests-under-international-law—filling-possible> who suggests that the now extended passage of time is more likely to be considered unduly delayed in the present day.

217 MacKay (2014) 304.

Nevertheless, there remains a fundamental weakness in relying upon Article 18, as a signatory state can simply demonstrate its intention not to be bound by the terms of the treaty.[218] In the CTBT context, such withdrawal of signature and intention to be bound by a NWPS in particular could be 'fatal' for the treaty,[219] and could even lead to the resumption of nuclear testing by other NWPS too.[220] Consequently, various proposals to resolve the CTBT's present state of limbo have been put forward, ranging from the provisional application of the entire treaty,[221] to the adoption of a UNSC Resolution issued under Chapter VII that would 'determine' that any nuclear weapons testing would constitute a threat to international peace and security.[222] However, none of these have received serious attention amongst states.

d. Is there a Customary Comprehensive Test-Ban?

Given the above, the question of whether a comprehensive nuclear testing prohibition exists under customary international law becomes very significant,[223] particularly as three NWPS – India, Pakistan, and the DPRK – remain non-signatories to the CTBT.[224] Consequently, should a customary international law comprehensive nuclear testing prohibition exist, this may serve to counteract, at least partially, the failure of the CTBT to enter into force.[225] Before proceeding, an overview of the constituent elements of customary international law will be provided.[226]

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[218] Tabassi (2009) 320; and Asada (2020) generally. See also Kathleen Bailey and Robert Barker, 'Why the United States Should Unsign the Comprehensive Test Ban Treaty and Resume Nuclear Testing' (2003) 22(1) *Comparative Strategy* 131.

[219] MacKay (2014) 305.

[220] Ibid; and Evans (2020b) 62.

[221] Pursuant to Article 25, VCLT, see Anguel Anastassov, 'Can the Comprehensive Nuclear-Test-Ban Treaty Be Implemented Before Entry Into Force?' (2008) 55(1) *Netherlands International Law Review* 73; and more extensively David A Koplow, 'Nuclear Arms Control by a Pen and a Phone: Effectuating the Comprehensive Test Ban Treaty Without Ratification' (2015) 46(2) *Georgetown Journal of International Law* 475.

[222] Venturini (2014) 151.

[223] For an extensive analysis of the possible existence of a customary international law comprehensive test-ban see the arguments of Tabassi (2009) generally; and James A Green, 'India and a Customary Comprehensive Nuclear Test-Ban: Persistent Objection, Peremptory Norms and the 123 Agreement' (2011) 51(1) *Indian Journal of International Law* 3, 9-18. For a contrary opinion, see Christopher Le Mon, 'Did North Korea's Nuclear Test Violate International Law?' (*Opinio Juris*, 9 October 2006) <http://opiniojuris.org/2006/10/09/did-north-koreas-nuclear-test-violate-international-law/>; and Asada (2002) 92-94.

[224] And are therefore not obligated by Article 18, VCLT.

[225] Michie (2012) 79. Although the existence of a customary international law prohibition would not facilitate the full implementation of the CTBT's verification framework which would still require ratification by the Annex II.

[226] This will prove a useful reference point for the discussion in Part III: Chapter 7: The TPNW and Customary International Law.

i. Customary International Law: An Overview

Customary international law is famously described by Article 38(1)(b) of the Statute of the International Court of Justice as 'evidence of a general practice accepted as law'.[227] This reflects the traditional view that customary international law consists of two separate, though connected elements; first, general practice of states; and second, the 'belief' or requirement that the practice is permitted, required or prohibited out of a sense of legal right or obligation, often phrased as *opinio juris* or the subjective/psychological element.[228] As described by the ICJ in the *North Sea Continental Shelf Cases*:

> 'Not only must the acts concerned be a settled practice, but they must also be such, or be carried out in such a way, as to be evidence of a belief that this practice is rendered obligatory by the existence of a rule requiring it. The need for such belief, i.e., the existence of a subjective element, is implicit in the very notion of the *opinio juris sive necessitates*. The States concerned must feel that they are conforming to what amounts to a legal obligation'.[229]

The International Law Commission (ILC) has endorsed this two-element test in its *Draft Conclusions on the Identification of Customary International Law*, adopted without a vote by the UNGA in 2018.[230]

The orthodox two-element approach has been described as 'deceptively simple',[231] and has given rise to various controversies,[232] notably in identifying the point of crystallisation of a new

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[227] Article 38(1)(b), Statute of the International Court of Justice (adopted 24 October 1945, entered into force 18 April 1946) 33 UNTS 993. See also, the International Law Commission's 'Conclusions on Identification of Customary International Law and Commentaries thereto', *Report of the International Law Commission on the Work of its Seventieth Session* (2018) UN Doc A/73/10, 117, 126 (hereafter *ILC Draft Conclusions*).
[228] These elements are usefully described in length by Michael P Scharf, 'Accelerated Formation of Customary International Law' (2014) 20(2) *ISLA Journal of International and Comparative Law* 305, 308-24. For a discussion of customary international law generally, see *ILC Draft Conclusions*; Anthony A D'Amato, *The Concept of Custom in International Law* (Cornell University Press 1971); Michael Byers, *Custom, Power and the Power of Rules* (Cambridge University Press 1999); and *Committee on the Formation of Customary International Law*, International Law Association, Final Report (London 2000).
[229] *North Sea Continental Shelf*, [77].
[230] *ILC Draft Conclusions*, Conclusion 2 '[t]o determine the existence and content of a rule of customary international law, it is necessary to ascertain whether there is a general practice that is accepted as law (*opinio juris*)'.
[231] Daniel H Joyner, 'Why I Stopped Believing in Customary International Law' (2019) 9(1) *Asian Journal of International Law* 31, 33.
[232] See e.g. Jörg Kammerhofer, 'Uncertainty in the Formal Sources of International Law: Customary International Law and Some of Its Problems' (2004) 15(3) *European Journal of International Law* 523; Roozbeh (Rudy) B Baker, 'Customary International Law in the 21st Century: Old Challenges and New Debates' (2010) 21(1) *European Journal of International Law* 173; Anthea Roberts and Sandesh Sivakumaran, 'The Theory and Reality of the Sources of International Law', in Malcolm D Evans (ed), *International Law* (5th edn, Oxford University Press 2018) 105-06; and Andrew T Guzman, 'Saving Customary International Law' (2005) 27(1) *Michigan Journal of International Law* 115, 124-31. Others have challenged the orthodoxy of the two-element approach altogether, see notably Monica Hakimi, 'Making Sense of Customary International Law' (2020) 118(8) *Michigan Law Review* 1487.

customary rule,[233] alongside disagreement over the relative importance of each constituent element amongst theorists.[234] Furthermore, practical difficulties can arise in the application of the two-element test, notably the challenge of surveying the practice and *opinio juris* of almost 200 states.[235] Nevertheless, the two-element formula constitutes the broadly accepted methodological approach used to identify customary international law rules.[236] A brief perusal of each constituent element will therefore be provided below.

The first element of general practice refers 'primarily to the practice of States that contributes to the formation, or expression, of rules of customary international law'.[237] This logically involves assessing the actions (or inaction)[238] of states and its organs including the executive branch of state government, the legislature, and domestic judiciary and national courts to identify the actual practice of states.[239] Although the ICJ has suggested that state practice must be 'extensive and virtually uniform',[240] thus amounting to a 'settled practice',[241] in the *Nicaragua* case, the Court held that it:

> 'does not consider that, *for a rule to be established as customary, the corresponding practice must be in absolutely rigorous conformity with the rule.* In order to deduce the existence of

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233 Maurice H Mendelson, 'The Formation of Customary International Law' (1998) 272 *Recueil de Cours* 155, 175-76, who likens this process to determining the point during the construction of a house in which one can determine that a house now exists, or determining the precise point in which a piece of fruit has ripened. Scharf (2014) describes this as a 'Groatian Moment'. See also Jean D'Aspremont, 'The Custom-Making Moment in Customary International Law' (*SSRN*, 15 July 2020) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3633416>

234 See e.g. *Committee on the Formation of Customary International Law*, International Law Association, Final Report (London 2000) 13 which gives greater emphasis to state practice, and conversely Anthea Roberts, 'Traditional and Modern Approaches to Customary International Law: A Reconciliation' (2001) 95(4) *American Journal of International Law* 757, who outlines a shift in emphasises from state practice in favour of *opinio juris* in her understanding of modern custom.

235 Joyner (2019) 38 ('The first group of reasons is grounded in the practicalities of this exercise. There are currently 195 independent sovereign states in the world. Let's say you wanted to know whether there is currently a rule of customary law allowing an exception from UN Charter Article 2(4) for humanitarian intervention. Does that mean you actually have to look back over several decades of diplomatic practice and evidence of the conduct and statements of all 195 states to see what they have done and said about the idea of such a principle? If you approach the two-element test for CIL as an inductive process, through which one collects a comprehensive data set and draws conclusions about whether the evidence satisfies each of the elements from that data set, then the orthodox theory of CIL determination would seem to require just that. That is a tall order, whether you are talking about a court, the ILC, or an academic').

236 *ILC Draft Conclusions*, 125 ('This methodology, the "two-element approach", underlies the draft conclusions and is widely supported by States, in case law, and in scholarly writings'). See also B S Chimni, 'Customary International Law: A Third World Perspective' (2018) 112(1) *American Journal of International Law* 1, 2, who notes the broadly accepted nature of this test.

237 *ILC Draft Conclusions*, Conclusion 4(1). This does not however exclude entirely a role for international organisations, see e.g. Kristina Daugirdas, 'International Organizations and the Creation of Customary International Law' (2020) 31(1) *European Journal of International Law* 201.

238 *ILC Draft Conclusions*, Conclusion 6(1).

239 *ILC Draft Conclusions*, Conclusion 5.

240 *North Sea Continental Shelf*, [74].

241 Ibid, [77].

customary rules, *the Court deems it sufficient that the conduct of States should, in general, be consistent with such rules*'.[242]

Similarly, both commentators[243] and the ILC have suggested that state practice should be 'sufficiently widespread and representative' and must be performed on a consistent basis to create an identifiable pattern of practice.[244] Provided that these conditions are met, no particular duration of the practice is required.[245]

In addition, the identified practice must be 'carried out in such a way, as to be evidence of a belief that this practice is *rendered obligatory by the existence of a rule of law requiring it*'.[246] This requires one to determine whether a state has 'acted in a certain way *because they felt or believed themselves legally compelled or entitled to do* so by reason of a rule or of customary international law: they must have pursued the practice as a matter of right, or submitted to it as a matter of obligation'.[247] In effect, one must ask whether states engage or abstain from a particular practice because they 'accept it as law'. This element has given rise to numerous criticisms,[248] notably the challenge of identifying the 'belief' of states which are otherwise abstract entities,[249] and the chronological 'paradox' inherent to the formation of customary international law.[250] Nevertheless, the importance of identifying the existence of *opinio juris* should not be understated, and distinguishes practice arising out of comity or extralegal factors from practice undertaken[251] out of a sense of legal right or obligation.[252]

Moreover, the reaction of third states to another state's practice remains important in determining whether the broader international community considers the practice to be accepted

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242 *Case Concerning Military and Paramilitary Activities in and Against Nicaragua* (*Nicaragua v United States of America*) [1986] ICJ Rep 14, [186] (emphasis added) (hereafter *Nicaragua*).
243 See e.g. Roberts and Sivakumaran (2018) 93.
244 *ILC Draft Conclusions*, Conclusion 8(1), though complete consistency is not required, see *Nicaragua*, [186].
245 James Crawford, *Brownlie's Principles of Public International Law* (9th edn, Oxford University Press 2019) 22.
246 *North Sea Continental Shelf*, [74] (emphasis added).
247 *ILC Draft Conclusions*, 138 (emphasis added).
248 As acknowledged by Special Rapporteur Sir Michael Wood, 'Second Report on Identification of Customary International Law', *International Law Commission* (22 May 2014) UN Doc A/CN.4/672, 59; and Kammerhofer (2004) 532, who describes the subjective element as the more disputed aspect of customary international law.
249 Anthony D'Amato, 'Custom and Treaty: A Response to Professor Weisburd' (1988) 21(3) *Vanderbilt Journal of Transnational Law* 459, 471; and Roberts and Sivakumaran (2018) 95-96.
250 See for a useful summary of the tautological problem of *opinio juris*, David Lefkowitz, '(Dis)solving the Chronological Paradox in Customary International Law: A Hartian Approach' (2008) 21(1) *Canadian Journal of Law and Jurisprudence* 129, 129 ('As traditionally conceived, the creation of customary international law gives rise to the following chronological paradox. In order to create a new rule of customary international law, states must act from the belief that the law already requires the conduct specified in the rule. Yet until they have successfully created the new rule of customary law, the conduct in question is not legally required. Thus the development of a new rule of customary international law appears to be impossible').
251 Or abstained from undertaking.
252 *Asylum Case* (*Columbia v Peru*) [1950] ICJ Rep 266, 277; and *ILC Draft Conclusions*, 126 ('Practice without acceptance as law (*opinio juris*), even if widespread and consistent, can be no more than a non-binding usage, while a belief that something is (or ought to be) the law unsupported by practice is mere aspiration; it is the two together that establish the existence of a rule of customary international law').

as customary international law.[253] Indeed, the ILC has confirmed that evidence of *opinio juris* must be ascertained 'with respect to *both the States engaging in the relevant practice and those in a position to react to it*'.[254] Relatedly the ICJ has noted that failure to react, particularly when a reaction would be expected, may '[b]ear witness to the fact that they did not consider… [a certain practice undertaken by others] to be contrary to international law'.[255] Again, however, determining whether silence constitutes tacit acquiescence, and thus affirmative *opinio juris* by third states, remains dependent on the circumstances.[256]

An interesting theory of customary international law has been advanced by Kirgis who argues that the constituent elements of state practice and *opinio juris* operate on a sliding scale. Under this approach, where there exists an abundance of evidence in favour of one element (say general practice), there is a lower evidentiary requirement of the second (*opinio juris*) and *vice versa*.[257] In this sense, the two constituent elements and their individual criterion are somewhat interchangeable rather than fixed secondary rules. Although this remains controversial,[258] it is worth recalling given the difficulty in determining state practice in relation to abstention norms – defined as 'a negative obligation to refrain from doing something'.[259] Such negative obligations clearly arise in the case of prohibitions concerning nuclear weapons testing activities,[260] and suggests that in the absence of positive, or affirmative practice, greater consideration of the *opinio juris* of states may be required.

Finally, it is well established that customary international law obligations can arise from the practice generated from adherence to pre-existing rules found in multilateral treaties and subsequently bind third states.[261] In the ILC's terms, the treaty rule in question can effectively give 'rise to a general practice that is acceptance as law (*opinio juris*), thus generating a new rule of

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253 Roberts and Sivakumaran (2018) 93-94.

254 *ILC Draft Conclusions*, 139 (emphasis added); and *Nicaragua*, [207].

255 In the *Fisheries Case* (*United Kingdom v Norway*) [1951] ICJ Rep 116, 139 (hereafter *Fisheries Case*).

256 The ILC notes that for silence to constitute acquiescence, two criteria must be met; '[f]irst, it is essential that a reaction to the practice in question would have been called for… [s]econd, the reference to a State being 'in a position to react' means that the State concerned must have had knowledge of the practice… and that it must have bad sufficient tome and ability to act', *ILC Draft Conclusions*, 142.

257 Frederic L Kirgis, 'Custom on a Sliding Scale' (1987) 81(1) *American Journal of International Law* 146.

258 See Roberts (2001); and Hugh Thirlway, *The Sources of International Law* (Oxford University Press 2014) 62, in particular at fn 29, who each dismiss Kirgis' theory.

259 Defined by Asada (2002) 93. See also Michael Wood, 'The Evolution and Identification of the Customary International Law of Armed Conflict' (2018) 51(3) *Vanderbilt Journal of Transnational Law* 727, 730, who, in discussing the ILC Drafts Conclusions on the Identification of Customary International Law, states the following 'where prohibitive rules are concerned, it may sometimes be difficult to find positive state practice (as opposed to state inaction); cases involving such alleged rules will thus most likely turn on evaluating whether there is deliberate inaction that is accepted as law'.

260 See e.g. Peter Hulsroj, 'Jus Cogens and Disarmament' (2006) 46(1) *Indian Journal of International Law* 1, 5; and Asada (2002) 93.

261 See e.g. Articles 34 and 38, VCLT.

customary international law'.[262] The ICJ has also confirmed that identical rules under customary international law and treaty obligations can exist in parallel.[263]

ii. Is there a Customary Prohibtion on all Nuclear Explosive Testing?

Although it can be reasonably argued that a customary prohibition of atmospheric, under water, and outer space nuclear testing exists,[264] the status of underground nuclear testing under customary law remains more contested. Those supporting a customary comprehensive test-ban point to the widespread support of the CTBT with 170 ratifications and 185 signatories as a favourable indication of state practice,[265] while the ICTY has determined that ratification can equally represent an expression of *opinio juris* when coupled with practice demonstrating compliance.[266] Equally, the creation of regional NWFZ can indicate further state practice in support of the customary prohibition of nuclear weapons testing.[267]

Moreover, there has, of course, been a notable decline in the number of nuclear tests taking place, particularly since the conclusion of the CTBT, with only 13 of the approximately 2,056 known nuclear weapons tests having occurred since 1996.[268] As MacKay concludes, '[s]tate practice does therefore seem to be coalescing' towards an overall abstention from testing nuclear weapons in all environments.[269] However, while the ILC observed that state practice can 'under certain circumstances, include inaction',[270] abstention norms – such as the prohibition on nuclear testing – raise important questions as to *why* a state is refraining from a particular course of action. Are states refraining from undertaking or engaging in nuclear weapons testing due to belief that such conduct is prohibited by law? Or due to previously assumed legally-binding obligations under existing nuclear weapons-related instruments?[271] Alternatively are states abstaining from this

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262 *ILC Draft Conclusions*, Conclusion 11(1)(c).
263 *North Sea Continental Shelf*, [63]; and *Nicaragua*, [175]-[177].
264 See e.g. Venturini (2014) 151; Michie (2012) 80; Tabassi (2009) 338; and MacKay (2014) 317. Hulsroj has gone so far to suggest that the prohibition on atmospheric testing has achieved the status of *jus cogens,* Hulsroj (2006) 8.
265 Previously noted by both Tabassi (2009) 333; and Green (2011) 10. In fact, the figures referenced here are notably higher than the numbers cited by Tabassi and Green as ratifications of the CTBT have continued over the last decade, see 'Status of signature and Ratification' (*CTBTO Preparatory Committee*) <https://www.ctbto.org/the-treaty/status-of-signature-and-ratification/>
266 As cited by Tabassi (2009) 333. *Prosecutor v Simić et al*, ICTY Trial Chamber Decision on the Prosecution Motion under Rule 73 for a Ruling Concerning Testimony of a Witness [1999] Case No IT-95-9-PT. Byers outlines various arguments for and against this approach, ultimately concluding that treaties may 'carry more weight' compared to statements in the customary international law formation process, see Byers (1999) 167-72. For a contrary position, see Mendelson (1998) 318-35.
267 Venturini (2014) 152.
268 Daryl G Kimball, 'The Nuclear Testing Tally' (*Arms Control Association: Fact Sheets and Briefs*, updated July 2020) <https://www.armscontrol.org/factsheets/nucleartesttally>
269 MacKay (2014) 317.
270 *ILC Draft Conclusions*, Conclusion 6(1). In this case, refraining from conducting nuclear weapons tests.
271 Green (2011) 11 ('In other words, States may be refraining from testing because of a belief that this is a legal obligation not to have nuclear weapons in the first place, rather than an obligation not to test *per se*').

practice out of simple choice, courtesy, morality,[272] or even due to lack of capacity to engage in a certain practice?[273] It could, for example, be argued that the general abstention from nuclear testing could simply indicate compliance with the CTBT prohibition,[274] or alternatively may constitute a by-product of NNWS non-proliferation obligations under Article II of the NPT.[275] One may similarly argue that the abstention from nuclear testing is a product of the unilateral moratoria declared by certain NWPS.[276]

Furthermore, although perfectly 'uniform' practice is not required during the formation of customary international law,[277] given that the NWPS remain the only states with the capacity to conduct nuclear tests – and may therefore be considered 'specially-affected' by the obligation to refrain from testing – their practice should arguably be attributed greater weight during the formation of customary international law.[278] Consequently, when one considers that a third of NWPS have tested nuclear weapons since 1996, this may weaken state practice supporting the emergence of a customary international law comprehensive test-ban.[279] Similarly, Le Mon notes that the absence of CTBT ratification by six NWPS could be indicative of a 'lack of *opinio juris* that they are prohibited from testing' under contemporary international law.[280]

Additionally, the ICJ has previously confirmed in the *Nicaragua* case that UNSC and UNGA resolutions can, though with some caution, be indicative of *opinio juris* depending on their formulation and means of adoption.[281] In the present context, Asada has argued that the UNGA

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272 Tabassi (2009) 333 ('Are States not testing because they can't or because they don't want to?').

273 In this context, a state such as Chad or Fiji does not engage in space exploration out of a sense of legal obligation from doing so, but rather due to a lack of financial and technological resources to engage in such conduct.

274 Green (2011) 11.

275 Ibid, 17.

276 Venturini (2014) 152; and Asada (2002) 93-94, who notes that moratoria are not equivalent to binding obligations to refrain from conducting nuclear tests which would occur through CTBT ratification.

277 As noted by the ICJ in *Nicaragua*, [186].

278 For discussion of 'specially affected states', see *North Sea Continental Shelf*, [63]; and Kevin J Heller, 'Specially-Affected States and the Formation of Custom' (2018) 112(1) *American Journal of International Law* 191, who notes the concept remains somewhat underexplored both judicially and academically.

279 This point is raised notably by Green (2011) 17. See also Yoram Dinstein, 'The ICRC Customary International Law Study' (2006) 82(1) *International Legal Studies* 99, 109 ('If several "states whose interests are specially affected" object to the formation of a custom, no custom can emerge').

280 Le Mon (2006). These states are the US, China, the DPRK, India, Pakistan, and Israel. Alternatively, given the unique characteristics of nuclear weapons, one could argue that all states are equally 'specially affected' by nuclear testing giving the possible transboundary environmental consequences of such activities.[280] This rationale was at least implicitly acknowledged in the *Marshall Islands* cases, in which the ICJ determined that the Marshall Islands had 'special reasons' to be concerned about nuclear disarmament, testing and other nuclear weapons-related issues due to the environmental damage caused by nuclear testing in the region, see *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v United Kingdom*) (Preliminary Objections) [2016] ICJ Rep 833, [44]. This broader, two-faced understanding of 'specially affected states' in relation to customary prohibitions of nuclear weapons activities will be examined in greater depth in Part III: Chapter 7: The TPNW and Customary International Law.

281 *Nicaragua*, [188]. Tabassi (2009) 322-31 summarises such statements and argues to the same effect.

resolutions urging both India and Pakistan to ratify the CTBT[282] would 'not be necessary' if an equivalent customary comprehensive test-ban already existed.[283] This argument, however, is unconvincing, as such resolutions can offer valuable reinforcement to and reiterate the existence of customary international law norms,[284] and may also reflect a desire to achieve the full application of the CTBT verification regime.[285] With this in mind, Tabassi notes that the broad condemnation by the international community and UNSC in response to the Indian, Pakistani, and DPRK nuclear tests are particularly significant as these states were not 'under any treaty obligation not to carry out nuclear weapons tests underground'.[286]

However, despite the widespread condemnation of India and Pakistan's 1998 tests, neither individual states or the UNSC explicitly referred to any violation of a specific international law obligation prohibiting testing, but rather framed the nuclear tests as a 'danger' to 'international peace and security', while calling upon both states to refrain from further testing, and ratify the CTBT.[287] Similarly, the resolutions drafted after the DPRK tests (which are directly binding upon the DPRK as UNSC decisions issued pursuant to Chapter VII),[288] only pointed to the breach of prior resolutions and previous NPT obligations, and obliged the DPRK *specifically* to refrain from conducting further nuclear tests and to join the CTBT.[289]

Moreover, when one considers that UNSC resolutions are meticulously crafted documents, MacKay convincingly suggests that:

> 'it is reasonable to conclude that the omission of any suggestion of a legal breach was *intentional*. By not suggesting that testing has breached customary international legal obligations, the NPT nuclear weapons states are *keeping open their legal options* should they wish to test in the future, unlikely as that may be'.[290]

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[282] See UNSC Res 1172 (6 June 1998) UN Doc S/RES/1172; and see also a similar response by the UNGA Res 53/77G (4 December 1998) UN Doc A/RES/53/77G.
[283] Asada (2002) 93; and Venturini (2014) 152.
[284] Green (2011) 15-16.
[285] Tabassi (2009) 337; and also, Venturini (2014) 152.
[286] Tabassi (2009) 330.
[287] A point noted by Tabassi (2009) 322-25; Asada (2002) 92-94; and MacKay (2014) 317-18. See UN Doc S/RES/1172 in particular, and Joint Communiqué of the Permanent Security Council Members (5 June 1998) UN Doc S/1998/473.
[288] As per Article 25, Charter of the United Nations (adopted 26 June 1945, entered into force 24 October 1945) 1 UNTS XVI.
For the binding nature of UNSC Resolutions, see *Legal Consequences for States of the Continued Presence of South Africa in Namibia* (South West Africa) Notwithstanding Security Council Resolution 276 (1970) [1971] ICJ Rep 16, [108]-[114].
[289] Tabassi (2009) 325-30. See UNSC Resolutions in response to DPRK nuclear tests, 6 October 2006 test, UNSC Res 1718 (14 October 2006) UN Doc S/RES/1718; 25 May 2009 test, UNSC Res 1874 (12 June 2009) UN Doc S/RES/1874; 12 February 2013 test, UNSC Res 2094 (7 March 2013) UN Doc S/RES/2094; 6 January 2016 test, UNSC Res 2270 (2 March 2016) UN Doc S/RES/2270; 9 September 2016 test, UNSC Res 2321 (30 November 2016) UN Doc S/RES/2321; and 3 September 2017 test, UNSC Res 2375 (11 September 2017) UN Doc S/RES/2375.
[290] MacKay (2014) 318 (emphasis added).

This argument also bares out in practice. Indeed, while the Nuclear Posture Review 2018 reiterates that the US 'will continue to observe a nuclear test moratorium', it proceeds to note that 'the United States must *remain ready to resume nuclear testing if necessary* to meet severe technological or geopolitical challenges'.[291] This assertion, although not explicitly challenging the existence of a customary comprehensive test-ban, suggests that the now former Trump Administration believed it was under no legal obligation to refrain from nuclear weapon testing, but rather felt there was no present need to test.

As a result, given the differing opinion and unclear evidence above, it remains uncertain whether a customary comprehensive nuclear test-ban exists *lex lata*,[292] though the international community of states would nevertheless be unlikely to tolerate any future nuclear weapons testing activities in any case.[293] In this author's view, we are likely – and have been for some time – on the precipice of the 'custom-making moment'.[294] The danger, of course, is that such progress towards the crystallisation point could be shattered by future contrary practice with the resumption of nuclear testing. And this is not entirely unforeseeable.[295] In May 2019, Director of the US Defence Intelligence Agency Lieutenant General Robert Ashley claimed that Russia had 'probably' carried out extremely low-yield nuclear tests at its Novaya-Zemlya testing facility, though no evidence to support the claim was offered.[296] Similar claims have been advanced by the US against China in April 2020.[297] And even more concerningly, in May 2020, US officials reportedly discussed the possibility of resuming nuclear testing, though no official policy change was adopted by the Trump

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[291] US Nuclear Posture Review 2018, 63 (emphasis added).

[292] See also Daniel Rietiker, 'The (Il?)legality of Nuclear Weapons Tests Under International Law – Filling the Possible Legal Gap by Ensuring the Comprehensive Test Ban Treaty's Entry into Force' (*ASIL Insights vol 21(4)*, 16 March 2017) <https://www.asil.org/insights/volume/21/issue/4/illegality-nuclear-weapons-tests-under-international-law—filling-possible> who argues that states such as Russia may simply 'rather easily plead to the contrary' regarding any declaration of customary comprehensive test-ban status that may be declared.

[293] As noted by Tabassi (2009) 335, who then assumes that this lack of toleration may indicate the existence of a customary comprehensive test-ban.

[294] Employing D'Aspremont's (2020) phrase.

[295] See for a concise summary of DPRK nuclear testing, 'Arms Control and Proliferation Profile: North Korea' (*Arms Control Association*, updated June 2018) <https://www.armscontrol.org/factsheets/northkoreaprofile>

[296] Daryl G Kimball, 'U.S. Claims of Illegal Russian Nuclear Testing: Myths, Realities, and Next Steps' (*Arms Control Association*, 21 August 2019) <https://www.armscontrol.org/policy-white-papers/2019-08/us-claims-illegal-russian-nuclear-testing-myths-realities-next-steps>

[297] Michael R Gordon, 'Possible Chinese Nuclear Testing Stirs U.S. Concern' (*The Wall Street Journal*, 15 April 2020) <https://www.wsj.com/articles/possible-chinese-nuclear-testing-stirs-u-s-concern-11586970435?mod=hp_lead_pos4>; and Executive Summary of Findings on Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments (*US Department of State*, April 2020) <https://www.state.gov/wp-content/uploads/2020/04/Tab-1.-EXECUTIVE-SUMMARY-OF-2020-CR-FINDINGS-04.14.2020-003-003.pdf> 8.

Administration.[298] Naturally, any resumption of nuclear testing would serve to undermine the testing norm developing under customary international law, alongside the CTBT itself.

Finally, even if one argues that a customary comprehensive test-ban has crystallised, it is likely the case that both India and Pakistan would be considered 'persistent objectors' to such a prohibition.[299] The persistent objector rule was discussed – though without expressly using this terminology – by the ICJ in both the *Asylum*[300] and the *Fisheries Case*, where in the latter judgment, the Court infamously noted that the ten-mile maritime equidistance delimitation rule 'would appear to be inapplicable as against Norway inasmuch as *she has always opposed any attempt to apply it to the Norwegian coast*'.[301] In order to qualify as a persistent objector, the objecting state must express its objection as early as possible during the formation process of the customary international law rule,[302] and on a 'persistent' basis rather than sporadic or singular objections.[303] Importantly, a successful persistent objection claim does not prevent the emergence of the customary rule, but rather exempts objecting states from having to abide by the crystalised rule in question.[304]

Both India and Pakistan have consistently distanced themselves from both the CTBT and NPT,[305] and their respective statements and actions, including the 1998 tests themselves,[306] would clearly qualify and meet the standards required of 'persistent', open objection during the formation of the customary rule.[307] Although Tabassi has argued that any potential persistent objector status

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298 Julian Borger, 'US Security Officials 'Considered Return to Nuclear Testing' after 28-Year Hiatus' (*The Guardian*, 23 May 2020) <https://www.theguardian.com/world/2020/may/23/us-security-officials-considered-return-to-nuclear-testing-after-28-year-hiatus>; and Aaron Mehta, 'Live Nuclear Testing Could Resume in 'Months' if Needed, Official says' (*Defense News*, 26 May 2020) <https://www.defensenews.com/smr/nuclear-arsenal/2020/05/26/live-nuclear-testing-could-resume-in-months-if-needed-official-says/>

299 See Green (2011) generally; Tabassi (2009) 348; and MacKay (2014) 318. For persistent objection generally, see James A Green, *The Persistent Objector Rule in International Law* (Oxford University Press 2016). See also *ILC Draft Conclusions*, Conclusion 15 and associated commentary; and Olufemi Elias, 'Some Remarks on the Persistent Objector Rules in Customary International Law' (1996) 6(1) *Denning Law Journal* 37. Some academics have challenged the doctrine of persistent objection as contrary to positivist understandings of the international legal system, see e.g. Gordon A Christenson, 'Jus Cogens: Guarding Interests Fundamental to International Society' (1987-88) 28(3) *Virginia Journal of International Law* 585.

300 *Asylum Case* (*Columbia v Peru*) [1950] ICJ Rep 266, 277-78.

301 *Fisheries Case*, 131(emphasis added).

302 *ILC Draft Conclusions*, 152-53.

303 Ibid. This basic formula is, of course, more complex but represents the essential elements of any persistent objection claim, Adam Steinfeld, 'Nuclear Objections: The Persistent Objector and the Legality of the Use of Nuclear Weapons' (1996) 62(4) *Brooklyn Law Review* 1635, 1647. See for greater depth, Green (2016) Part 2, where he discusses the criteria of persistent objection.

304 Olufemi Elias, 'Persistent Objector' (2006) *Max Planck Encyclopedia of International Law*, [3].

305 Karsten Frey, *India's Nuclear Bomb and National Security* (Routledge 2006) 19.

306 See Mary Beth D Nikitin, 'Comprehensive Nuclear Test-Ban Treaty: Background and Current Developments' (*Congressional Research Service*, September 2016) <https://fas.org/sgp/crs/nuke/RL33548.pdf> 10-13, for current positions of India and Pakistan.

307 Interestingly, Pakistan has traditionally based its opposition to joining the CTBT as reflecting the position of India, see 'Pakistan Would Consider Nuclear Test If India Tests' (*Reuters*, 20 August 2007) <http://in.reuters.com/article/topNews/idINIndia-29063920070820>. See also Johnson (2009) 30. Conversely, the DPRK would not qualify given its former NNWS status under the NPT subject to Article II which as noted, implicitly prohibits testing, therefore failing to object at an early stage during the formation of the customary comprehensive test-ban. See Tabassi (2009) 348.

could be overruled by what she considers to be the *jus cogens* nature of the customary international law comprehensive test-ban,[308] Green has convincingly dismissed this argument by noting that as the customary status of a comprehensive test-ban itself remains debated,[309] it is virtually impossible to conclude that the comprehensive test-ban should be considered a *jus cogens* norm.[310]

e. Summary

Overall, there remains reason to be cautious when determining the exact scope of obligations restricting the testing of nuclear weapons under international law in light of the 'incomplete and fragmentary' framework that exists.[311] Considering the aforementioned importance of establishing a truly comprehensive nuclear weapons testing prohibition as an indispensable 'effective measure' on nuclear disarmament, the failure of the CTBT to enter into force and the unclear status of the customary comprehensive test-ban constitutes a gaping hole in the existing nuclear weapons regulatory legal framework. Moreover, there are evident limitations within the testing framework, principally the failure to prohibit sub-critical and computer simulated testing, thereby limiting the nuclear disarmament objectives of the CTBT. Whether the TPNW can rectify these flaws will be examined in due course.[312]

3. Nuclear Weapon-Free Zones[313]

A further component of the nuclear non-proliferation and disarmament legal framework are NWFZ. The concept of NWFZs emerged during the 1950s following proposals to create a Central European NWFZ as part of the Rapacki Plan introduced by the Soviet Union.[314] Although this proposal was not adopted, the Rapacki Plan laid the foundations for the subsequent development of NWFZ, which have since spread geographically to cover almost the entire southern hemisphere,

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[308] Tabassi (2009) 347-50. Indeed, many scholars observe that persistent objection to *jus cogens* is impossible. See e.g. Maurizio Ragazzi, *The Concept of International Obligations Erga Omnes* (Claredon Press 2000) 67; Dino Kritsiotis, 'On the Possibilities of and for Persistent Objection' (2010) 21(1) *Duke Journal of Comparative and International* Law 121, 132-34; and Green (2016) 217-24.

[309] A point that is reached above also.

[310] Green (2011) 27-29.

[311] Daniel Rietiker, 'The (Il?)legality of Nuclear Weapons Tests Under International Law – Filling the Possible Legal Gap by Ensuring the Comprehensive Test Ban Treaty's Entry into Force' (*ASIL Insights vol 21(4)*, 16 March 2017) <https://www.asil.org/insights/volume/21/issue/4/illegality-nuclear-weapons-tests-under-international-law—filling-possible>; and Venturini (2014) 155.

[312] Part II: Chapter 3: Scope of the Article 1 Prohibitions. See for this author's thoughts on this issue elsewhere, Evans (2020b).

[313] (Hereafter NWFZ).

[314] For a useful history of NWFZs, see Cecilie Hellestveit and Daniel Mekonnen, 'Nuclear Weapon-Free Zones: The Political Context', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 348-51.

encompassing the territory of 116 states.[315] Existing NWFZ encompass both uninhabited regions including the Antarctic,[316] Outer Space,[317] and the Seabed,[318] alongside inhabited regions under the Treaties of Tlatelolco; Rarotonga; Bangkok; Pelindaba; and Semipalatinsk, while Mongolia has unilaterally declared itself a nuclear-weapons-free state, as recognised by the UNGA in 1999.[319] Indeed, Article VII of the NPT reaffirmed the right of state parties to conclude NWFZs as a means 'to assure the total absence of nuclear weapons in their respective territories'.[320]

For present purposes, the most important aspect of NWFZ is that they can be considered a precursor to the wider objective of achieving a 'nuclear weapon-free world'. Indeed, the growth of NWFZ has been likened to 'peeling an orange' by Hamel-Green, spreading from region to region to delegitimise nuclear weapons by the NNWS.[321] From this peeling analogy, one can immediately envisage the TPNW as the ultimate, 'global NWFZ', prohibiting nuclear weapons in their entirety on a global basis thus going beyond the regional progress made.[322] Consequently, although it is beyond the scope of this project to discuss each of the regional NWFZ in depth, an overview of the core obligations and impact of NWFZ in countering proliferation and reinforcing the goal of complete nuclear disarmament is necessary to provide a useful comparative 'baseline' to the obligations and prohibitions included within the TPNW.

a. Mapping the Template of Regional NWFZs

Although NWFZs have subtle differences,[323] the regional NWFZs generally establish a fairly common 'template' of obligations, prohibited activities, amongst other provisions for their respective state parties.[324] This section focuses predominantly on identifying some of the commonly incorporated characteristics of the five NWFZ established in inhabited regions.

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[315] See 'Fact Sheet: Nuclear-Weapon-Free Zones' (*United Nations Office for Disarmament Affairs*, July 2018) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2018/07/NWFZs-Fact-Sheet-July2018.pdf>

[316] The Antarctic Treaty (adopted 1 December 1959, entered into force 23 June 1961) 402 UNTS 71.

[317] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (adopted 27 January 1967, entered into force 10 October 1967) 610 UNTS 205 (hereafter the Outer Space Treaty).

[318] Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor, and in the Subsoil Thereof (adopted 11 February 1971, entered into force 18 May 1971) 955 UNTS 115 (hereafter the Seabed Treaty).

[319] UNGA Res 53/77 (12 January 1999) UN Doc A/RES/53/77.

[320] Article VII, NPT.

[321] Michael Hamel-Green, 'Peeling the Orange: Regional Paths to a Nuclear-Weapon-Free World' (2011) 2 *Disarmament Forum* 3.

[322] See also Sebastian Brixey-Williams, 'The ban treaty: A big nuclear-weapon-free zone?' (*Bulletin of the Atomic Scientists*, 21 June 2017) <https://thebulletin.org/2017/06/the-ban-treaty-a-big-nuclear-weapon-free-zone/>

[323] As noted by Michael Hamel-Green, *Regional Initiatives on Nuclear and WMD-Free Zone: Cooperative Approaches to Arms Control and Non-Proliferation* (UNIDIR 2005) 3.

[324] See generally Hellestveit and Mekonnen (2014).

As a useful starting point, however, in 1975, the UNGA defined the underlying content of NWFZs in Resolution 3472(XXX)B, essentially identifying two vital elements; the total absence of nuclear weapons to which the zone shall be subject; and 'an international system of verification and control […] established to guarantee compliance with the obligations deriving' from the NWFZ treaty.[325] These criteria were expanded upon in 1999,[326] but continue to reflect the central characteristics inherent to all current NWFZs covering inhabited regions.

The majority of NNWZ establish elaborate prohibitions on nuclear weapons-related activities which go beyond the obligations accepted by NNWS in the NPT. For example, all NWFZ explicitly include prohibitions on the possession, manufacturing, stationing, and testing of nuclear weapons within their respective regions.[327] In addition, and again building upon the NPT, other zones including the Treaties of Pelindaba, Semipalatinsk, and Rarotonga incorporate prohibitions on seeking assistance to engage in prohibited activities.[328] Moreover, certain NWFZs go beyond the prohibition of manufacturing nuclear weapons under Article II of the NPT by including specific prohibitions on the development of nuclear weapons too.[329] This in turn makes a broader range of activities illegal in comparison to the non-proliferation commitment accepted by NNWS under the NPT by capturing an earlier stage in the overall process of constructing a nuclear weapon.

Interestingly, three NWFZs do not incorporate an explicit prohibition on the use of nuclear weapons applicable to their state parties.[330] To some extent, this omission may simply be due to the fact that a prohibition on the use of nuclear weapons is technically unnecessary within a NWFZ, particularly as use would be indirectly prohibited as a consequence of the prohibition on possession incorporated within each NWFZ.[331] Nevertheless, including an explicit prohibition on the use of nuclear weapons in Article 3(1)(c) of the Treaty of Bangkok effectively circumvents

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325 UNGA Res 3472(XXX)B (11 December 1975) UN Doc A/RES/3472(XXX)B. These two components are also noted by Marco Roscini, 'International Law, Nuclear Weapon-Free Zones and the Proposed Zone Free of Weapons of Mass Destruction in the Middle East', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 321.

326 Establishment of Nuclear-Weapon-Free Zones on the Basis of Arrangements Freely Arrived at Among the States of the Region Concerned (April 1999) UN Doc A/54/42, Annex I.

327 Summarised by Hellestveit and Mekonnen (2014) 363-64.

328 Article 3(b), Treaty of Pelindaba; Article 3(1)(b), Treaty of Semipalatinsk; Article 3(b), Treaty of Rarotonga.

329 Article 3(a), Treaty of Pelindaba; Article 3(1)(a), Treaty of Bangkok; Article 3(1)(a), Treaty of Semipalatinsk, which incorporates an express prohibition on research into nuclear weapons also.

330 These are the Treaties of Rarotonga, Pelindaba and Semipalatinsk.

331 Roscini (2014) 331. Indeed, one cannot use what one does not have. This is largely the same outcome in relation to the Biological Weapons Convention, which does not prohibit use directly, but does prohibit possession and stockpiling. Moreover, the use of biological weapons in international armed conflict is prohibited by Article I, Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (adopted 17 June 1925, entered in force 8 February 1928) (hereafter Geneva Gas Protocol).

any possible interpretative disagreements regarding the extent of the obligations assumed under the NWFZs.[332]

Furthermore, in fulfilling the second criterion envisaged by Resolution 3472(B), the NWFZs include certain verification and monitoring mechanisms – albeit to varying degrees. Whereas some NWFZs establish regional implementation and monitoring bodies such as the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean[333] and the African Commission on Nuclear Energy,[334] the Treaty of Semipalatinsk only requires its members to conclude an Additional Protocol (INFCIRC/540) safeguards agreement with the IAEA[335]– though this goes further than the minimum safeguards under Article III of the NPT.[336] Despite this variation, expanding the existing verification framework is perhaps the most innovative element of the NWFZs,[337] serving as a confidence-building measure amongst other state parties, including notably the NWPS, by monitoring compliance with their respective obligations.[338] This clearly reinforces existing nuclear non-proliferation safeguards and commitments established by the NPT through greater monitoring of state activities.[339]

Also common to each of the five NWFZs covering inhabited regions are the incorporation of 'Protocols' which each of the five NPT-recognised NWS are able to ratify. Again, the precise content of these Protocols differs slightly, but of particular interest here are those Protocols that provide for 'negative security assurances'. Simply put, by ratifying these negative security assurance Protocols, each of the NWS commit to respect the integrity and principles of the NWFZ and agree not to use, or threaten to use, nuclear weapons against any of the parties to the regional treaties.[340] Unfortunately, ratification of these Protocols is lacking in some respects, particularly in connection to the Treaties of Bangkok and Semipalatinsk[341] – although Hellestveit and Mekonnen argue that

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[332] Article, 3(1)(c), Treaty of Bangkok; and Article 1(1)(a), Treaty of Tlatelolco.
[333] Article 7, Treaty of Tlatelolco. See also, Articles 7-9, Treaty of Bangkok; and Article 12, Treaty of Pelindaba.
[334] Article 12, Treaty of Pelindaba.
[335] Article 8, Treaty of Semipalatinsk.
[336] Article 10 and Annex, Treaty of Semipalatinsk.
[337] As noted by Hellestveit and Mekonnen (2014) 365-66.
[338] Michael Hamel-Green, 'Nuclear-Weapon-Free Zone Initiatives: Challenges and Opportunities for Regional Cooperation on Non-Proliferation' (2009) 21(3) *Global Change, Peace & Security* 357, 360. For the importance of verification in nuclear disarmament, see Pavel Podvig, 'Transparency in Nuclear Disarmament' (*UNIDIR,* March 2012) <http://unidir.org/files/publications/pdfs/transparency-in-nuclear-disarmament-390.pdf>; and George Perkovich and James M Acton (eds), 'Abolishing Nuclear Weapons: A Debate' (*Carnegie Endowment for International Peace,* 2009) <https://carnegieendowment.org/files/abolishing_nuclear_weapons_debate.pdf> Chapter 2.
[339] Hamel-Green (2011) 9-11, assessing the monitoring benefits for non-proliferation across the various NWFZs.
[340] For a useful discussion of these Protocols, see Leonard S Spector and Aubrie Ohlde, 'Negative Security Assurances: Revisiting the Nuclear-Weapon-Free Zone Option' (2005) 35(3) *Arms Control Today* 13.
[341] Indeed, no NPT-recognised NWS has so far ratified the Protocols to the Treaties of Bangkok or Semipalatinsk. The Treaty of Tlatelolco and Rarotonga each have in force negative security assurance Protocols, while Pelindaba has been ratified by the UK, France, Russia, and China only. Abraham Shanedling, 'Removing Weapons of Mass Destruction from the World's Most Volatile Region: How to Achieve a WMD-Free Zone in the Middle East' (2014) 46(1) *Georgetown Journal of International Law* 315, 326-27 suggests that the principal reasons for this concern transit rights,

negative security assurances are of 'less critical' significance for the establishment of NWFZ negotiated in the post-Cold War era.[342]

b. Closing the Stationing Loophole

Perhaps one of the most significant aspects of NWFZ treaties is how they address the issue of nuclear weapons stationing, an activity which is arguably permitted under the strict terms of Articles I and II of the NPT,[343] resulting in the sustained presence of US nuclear weapons in the territory of several European NATO allies; Belgium, the Netherlands, Germany, Italy and Turkey.[344] The NWFZ treaties, by contrast, stand apart from the NPT in that they each incorporate explicit prohibitions on the stationing and deployment of nuclear weapons within the territory of state parties, regardless of which state owns or controls the devices.[345] In this sense, the regional NWFZ begin to close the door on nuclear stationing, a controversial practice that has given rise to much contestation in the NPT Review Process.

This has particular importance for the Central-Asian NWFZ,[346] as all members of the Semipalatinsk Treaty, except Turkmenistan, are parties to the Tashkent Collective Security Treaty Organisation (CSTO) alongside Russia,[347] where under Article IV, aggression against one member state is viewed as aggression against all signatories.[348] From the perspective of Russia, this collective security clause would permit the stationing of nuclear weapons in the territory of other CSTO member states if jointly deemed necessary.[349] Naturally, this position was unacceptable for the UK, US, and France who consider such an interpretation to be incompatible with the central purpose of a NWFZ.[350] However, Roscini argues that because of the combined effect of the two paragraphs under Article 12 of the Treaty of Semipalatinsk, state parties to the Tashkent Treaty maintain an 'obligation to provide military assistance to other parties (including Russia) in case of aggression,

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the presence of military bases within the territorial scope of the NWFZ (particularly in connection with Pelindaba) and conflict with security arrangements.

342 Hellestveit and Mekonnen (2014) 350.

343 Jozef Goldblat, 'Nuclear-Weapon-Free Zones: A History and Assessment' (1997) 4(1) *The Nonproliferation Review* 18, 31; and Hamel-Green (2009) 359.

344 See section 1.a. above.

345 Article 1(1)(b), Treaty of Tlatelolco; Article 3(1)(b), Treaty of Bangkok; Article 3(1)(d), Treaty of Semipalatinsk; Article 4, Treaty of Pelindaba; and Article 5, Treaty of Rarotonga.

346 Jozef Goldblat, 'Denuclearization of Central Asia' (2007) 4 *Disarmament Forum* 25, 27.

347 Agreement on the Principles And Procedures for the Implementation of the Treaty on Conventional Armed Forces in Europe, Tashkent Collective Security Treaty, 15 May 1992 (hereafter Tashkent Treaty), and since 2002 the Collective Security Treaty Organisation.

348 Article IV, Tashkent Treaty.

349 Scott Parrish, 'Prospects for a Central Asian Nuclear-Weapon-Free-Zone' (2001) 8(1) *The Nonproliferation Review* 142, 146.

350 See Hellestveit and Mekonnen (2014) 359; and Marco Roscini, 'Something Old, Something New: The 2006 Semipalatinsk Treaty on a Nuclear Weapon-Free Zone in Central Asia' (2008) 7(3) *Chinese Journal of International Law* 593, 598.

but this assistance cannot include the acceptance of nuclear explosive devices on their territory'.[351] This interpretation seems valid, and preserves the object and purpose of NWFZ without undermining collective security arrangements entirely.

Ultimately, it is evident that the prohibition of stationing within NWFZs constitutes perhaps one of the most significant developments in countering the 'loophole' maintained under Articles I and II of the NPT currently exploited by the US and NATO in Central Europe. This contributes to preventing 'indirect' proliferation and reducing the reliance upon, and thus delegitimising, nuclear deterrence policies.

c. Analysing the Role and Significance of NWFZ

When analysing the contribution of NWFZ to the wider non-proliferation regime, it becomes clear that NWFZs certainly reinforce the non-proliferation objectives of the NPT under Article I and II, while expanding upon existing verification measures to improve confidence-building and monitoring of nuclear materials. These are all welcome benefits, particularly when considering how the NWS, notably the US, seem to prioritise non-proliferation and emphasise security concerns above disarmament as previously mentioned.[352]At the same time, attempts to initiate proceedings to create 'new' NWFZ regions have stalled, as evidenced by the stagnated proposal surrounding the Middle East WMDFZ, which has been a high priority of the NPT review process since the 1995 Review and Extension Conference.[353]

However, despite arguably having only a limited impact on progress towards nuclear disarmament *directly*, the regional NWFZs represent a pathway for the NNWS to contribute positively towards creating the conditions for nuclear disarmament pursuant to Article VI of the NPT[354] by reinforcing non-proliferation efforts and initiating a process of delegitimising and stigmatising nuclear weapon use and possession at a regional level.[355] Indeed, this growing collective goal amongst non-aligned NNWS in stigmatising nuclear weapons and related practices has undoubtedly created widespread support amongst NWFZ state parties to facilitate progress towards a nuclear weapon-free world, which ultimately inspired the negotiation of the TPNW.

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[351] Roscini (2008) 599. See for a different view, Goldblat (2007) 30, who instead argues that the two treaties cover different subject matters.
[352] See section 1.b. above.
[353] Review and Extension Conference of the Parties to the Treaty on the Prohibition of Nuclear Weapons (1995) 'Resolution on the Middle East', NPT/CONF.1995/32/RES/1; and Roscini (2014) 322-24. Significantly, the First Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction was held between 18-22 November 2019, see Report of the First Session of the Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction (22 November 2019) UN Doc A/CONF.236/6.
[354] Hellestveit and Mekonnen (2014) 368-69.
[355] Hamel-Green (2011) 3.

4. Concluding Remarks on the Existing Nuclear Weapons Legal Framework

As the above discussion emphasises, there are numerous gaps, and weaknesses inherent to the existing nuclear non-proliferation and disarmament international legal framework, epitomised by the limited scope of the term manufacture in Article II of the NPT, the stationing loophole exploited by the US, and the non-entry into force of the CTBT coupled with the uncertain status of the customary comprehensive test-ban. Moreover, Article VI of the NPT remains severely neglected, and efforts by the NWS to move in the direction of nuclear disarmament are limited. Finally, although international humanitarian law,[356] international human rights law,[357] and international environmental law impose additional restrictions as to when nuclear weapons can be lawfully used in accordance with international law,[358] it is clear that these connected fields do not establish a comprehensive prohibition on either the possession or use of nuclear weapons, nor do they provide any additional *disarmament* obligations for the NWPS.

Consequently, the ICJ's conclusions in the *Nuclear Weapons Advisory Opinion* reached in 1996 that '[t]here is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons' arguably remains correct in the present day.[359] With these conclusions of the Court, and the above context in mind, it is therefore unsurprising that certain commentators have alluded to the existence of a 'legal' gap which exists in the nuclear non-proliferation and disarmament legal framework.[360] The remainder of this thesis seeks to determine what contribution the TPNW may have in facilitating nuclear disarmament, and whether its provisions address existing deficiencies and loopholes identified in this Chapter.

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[356] For a useful discussion of the legality of nuclear weapons under international humanitarian law, see Susan Breau, 'Civilian Casualties and Nuclear Weapons', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014); Louise Doswald-Beck, 'International Humanitarian Law and the Advisory Opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons' (1997) 37(316) *International Review of the Red Cross* 35; and Stuart Casey-Maslen and Sharon Weill, 'The Use of Weapons in Armed Conflict', in Stuart Casey-Maslen (ed), *Weapons Under International Human Rights Law* (Cambridge University Press 2015).

[357] For a useful discussion of the legality of nuclear weapons under international human rights law, see Stuart Casey-Maslen, 'The Use of Nuclear Weapons and Human Rights' (2015) 97(899) *International Review of the Red Cross* 663; and Louise Doswald-Beck, 'Human Rights Law and Nuclear Weapons', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014).

[358] For a useful discussion of the legality of nuclear weapons under international environmental law, see Erik V Koppe, 'Environmental Protection During Armed Conflict', in Gro Nystuen, Stuart Casey-Maslen and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014); and Martina Kunz and Jorge E Viñuales, 'Environment Approaches to Nuclear Weapons', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014).

[359] *Nuclear Weapons Advisory Opinion*, [105(2)B]. This conclusion and the Court's rationale will be revisited in greater depth in Part III: Chapter 7: The TPNW and Customary International Law.

[360] Gro Nystuen and Kjølv Egeland, 'A 'Legal Gap'? Nuclear Weapons Under International Law' (2016) 46(2) *Arms Control Today* 8.

Part II: Analysis of the Treaty on the Prohibition of Nuclear Weapons, and Addressing the Critiques Raised by its Opponents

With the context of the TPNW's negotiation and the overview of the existing nuclear non-proliferation and disarmament international legal framework in mind,[1] the following Part seeks to undertake a critical analysis of the treaty's prohibitions and operational provisions. However, rather than simply undertaking a detailed article-by-article discussion of the TPNW,[2] the following intends to focus specifically upon the nuclear disarmament-related obligations and prohibitions to determine whether the TPNW establishes, in theory at least, a viable framework that can help contribute towards the achievement of nuclear disarmament and the maintenance of a nuclear weapon-free world.[3]

To begin, Chapter 3 analyses the scope and breadth of the nuclear weapons-related prohibitions established by Article 1 and examines the primary differences between the TPNW undertakings and prohibitions imposed by the pre-existing nuclear non-proliferation and disarmament legal regime. This serves two interrelated purposes: first, and most obviously, this discussion will examine precisely how comprehensive and detailed the prohibitions incorporated within Article 1 are in comparison to other disarmament instruments, thereby demonstrating how the TPNW differentiates itself from existing nuclear disarmament and non-proliferation instruments in terms of the activities in which it prohibits; and second, this will help ascertain whether the TPNW prohibitions address the flaws, loopholes, and weakness identified within the existing nuclear disarmament and non-proliferation international legal framework previously discussed in Part I, or alternatively whether any gaps remain left unrestricted by the TPNW.[4]

Having identified the main differences and general comprehensiveness of the various prohibitions incorporated within Article 1, Chapter 4 then turns to examine the 'pathways to nuclear disarmament' established under Article 4, which outline the means through which the NWPS and states with nuclear weapons stationed on its territory (hosting states) can join the

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[1] See Chapter 1: Introduction, section 6; and Chapter 2: Existing Nuclear Weapons-related Instruments.

[2] This has been undertaken elsewhere, most notably by Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019). See also, Daniel Rietiker and Manfred Mohr, 'Treaty on the Prohibition of Nuclear Weapons: A Short Commentary Article by Article' (*IALANA, Swiss Lawyers for Nuclear Disarmament*, April 2018) <https://www.ialana.info/wp-content/uploads/2018/04/Ban-Treaty-Commentary_April-2018.pdf>

[3] As per the underlying object and purpose of the treaty as enshrined within preambular paragraph 5, TPNW ('*Acknowledging* the ethical imperatives for nuclear disarmament and the urgency of achieving and maintaining a nuclear-weapon-free world, which is a global public good of the highest order, serving both national and collective security interests').

[4] See generally Part I: Chapter 2: Existing Nuclear Weapons-related Instruments.

TPNW. For practical purposes, much of the analysis undertaken here is based on the hypothetical scenario that if a NWPS decided to join the TPNW – a proposition which at present is concededly unlikely – how effective are the provisions of the TPNW itself to facilitate nuclear disarmament in such circumstances? Are the established pathways a useful foundation for disarmament and removal of nuclear weapons if a NWPS or umbrella state decided to join? And how would these pathways operate in practice?

Furthermore, this analysis of the disarmament 'pathways' will also determine if the TPNW goes beyond a 'simple ban' treaty endorsed throughout the Humanitarian Initiative, the 2016 OEWG, and the 2017 negotiation conference, or whether the TPNW instead includes the features of either a comprehensive nuclear weapons convention or 'framework' agreement, outlining key obligations that can pave the way for additional negotiations on matters not yet agreed upon.[5] Quite simply, determining the form that the TPNW has ultimately taken helps answer the question as to whether the treaty simply intends to establish legally binding prohibitions pursuant to a norm-building and stigmatising aim, or whether the 'pathways' under Article 4 allows the treaty to do much more and actually provide the means to facilitate nuclear disarmament should any prospective NWPS seek to join the treaty in the future.

Finally, Chapter 5 intends to identify and engage with frequently cited criticisms of the TPNW noted by its opponents, particularly the NWPS, current nuclear umbrella states, and academic commentators, and assess whether such concerns voiced are reasonably founded, or have instead been overexaggerated in an attempt to discredit the TPNW.[6] Specifically, the primary objective here is to discuss legal-orientated concerns, rather than predominantly political or strategic criticisms – although naturally, these perspectives will of course overlap to some extent and thus the political and strategic context will be considered where appropriate.

Each of the discussed arguments raise important legal questions, particularly regarding the relationship of the obligations imposed by the TPNW with existing commitments assumed under

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[5] This three-fold classification was noted alongside the traditional 'step-by-step' approach to disarmament by John Borrie, Tim Caughley, Torbørn Graff Hugo, Magnus Løvold, Gro Nystuen, and Camilla Waszink, *A Prohibition on Nuclear Weapons: A Guide to the* Issues (UNIDIR 2016) 18-24. See for a discussion of this point, Monika Subritzky, 'An Analysis of the Treaty on the Prohibition of Nuclear Weapons in Light of its Form as a Framework Agreement' (2019) 9(2) *Göttingen Journal of International Law* 367.

[6] See generally Newell Highsmith and Mallory Stewart, 'The Nuclear Ban Treaty: A Legal Analysis' (2018) 60(1) *Survival: Global Politics and Strategy* 129; Stefan Kadelbach, 'Possible Means to Overcome Tendencies of the Nuclear Weapons Ban Treaty to Erode the NPT", in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020); Michael Onderco, 'Why Nuclear Ban Treaty is Unlikely to Fulfil its Promise' (2017) 3(4-5) *Global Affairs* 391; Jean-Baptiste Jeangene Vilmer, 'The Forever-Emerging Norm of Banning Nuclear Weapons' (2020) *Journal of Strategic Studies*, DOI: https://doi.org/10.1080/01402390.2020.1770732; and Durward Johnson and Heather Tregle, 'The Treaty on the Prohibition of Nuclear Weapons and its Limited Impact on the Illegality of their Use' (*Just Security*, 7 December 2020) <https://www.justsecurity.org/73711/the-treaty-on-the-prohibition-of-nuclear-weapons-and-its-limited-impact-on-the-legality-of-their-use/>

the NPT, IAEA, and political commitments with NATO. However, the noted criticisms also highlight potential problems concerning the practical operation of the TPNW's nuclear disarmament-related provisions, specifically relating to verification and the possible impact on collective security arrangements with a nuclear dimension. Ultimately, and as will be shown, the underlying criticism raised by the NWPS that the TPNW 'clearly disregards the realities of the international security environment' simply reaffirms the entrenched dependency upon, and perceived rationality of nuclear deterrence amongst the NWPS and umbrella allies, thus reflecting the fundamental point of disagreement over the treaty.[7] Whether there has been a noticeable shift in position *vis-à-vis* the TPNW by the NWPS, alongside the treaty's broader humanitarian influence and impact in revitalising NWPS efforts towards nuclear disarmament negotiations generally, will be examined in Part III.

[7] 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

Chapter 3: Scope of the Article 1 Prohibitions

1. Introductory Remarks

The prohibitions adopted under Article 1 undoubtedly represent the core element of the TPNW, imposing extensive undertakings upon each prospective state party.[1] Although titled 'Prohibitions', the obligations imposed by Article 1 actually take the form of undertakings,[2] though the effect of this linguistical difference is minimal.[3] As outlined above, the underlying purpose of this section is to analyse the key differences between the TPNW and existing nuclear non-proliferation and disarmament instruments prohibitions. This, in turn, will allow this discussion to determine whether the TPNW closes any of the existing 'loopholes' facilitated and maintained under existing nuclear non-proliferation and disarmament instruments. Finally, this section concludes by assessing whether the Article 1 prohibitions could be considered limited in any particular way by omitting certain nuclear weapons-relating activities from its scope – specifically activities relating to the transit and financing of nuclear weapons programmes, as well as explicitly providing for the TPNW's continued operation during armed conflict.[4]

a. Rules of Treaty Interpretation

Before proceeding to analyse the scope of the Article 1 prohibitions, it is worth restating briefly the rules concerning treaty interpretation under international law.[5] Historically there have been three traditional approaches to interpretation:[6] the textual approach, which presumes the 'intentions of the parties are reflected in the text of the treaty'; the intent approach, which seeks to determine the intention of the parties adopting the treaty to resolve ambiguity; and the teleological school, which aims to ascertain the object and purpose of a treaty and interpret the provisions in light of this.[7] However, precisely how one should reconcile these approaches has

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[1] Marco Pedrazzi, 'The Treaty on the Prohibition of Nuclear Weapons: A Promise, a Threat or a Flop?' (2017) 27(1) *Italian Yearbook of International Law* 215, 221; and Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019) 132.

[2] See Article 1(1), TPNW 'Each State Party undertakes never under any circumstances to…'

[3] This author will use the both the terms 'prohibitions' and 'undertakings' interchangeably throughout the following discussion.

[4] As will be discussed, this is an important consideration given that the US takes the position that the NPT will cease to be applicable upon the outbreak of armed conflict, thus permitting the transfer of nuclear weapons to other states if so necessary, see section 8.c. below.

[5] For a comprehensive analysis of treaty interpretation under international law, see Richard Gardiner, *Treaty Interpretation* (2nd edn, Oxford University Press 2016).

[6] As noted by various authors, see e.g. Anthony Aust, *Modern Treaty Law and Practice* (3rd edn, Cambridge University Press 2013) 206-07; and Malcom N Shaw, *International Law* (7th edn, Cambridge University Press 2014) 676.

[7] See also Francis G Jacobs, 'Varieties of Approach to Treaty Interpretation: With Special Reference to the Draft Convention on the Law of Treaties Before the Vienna Diplomatic Conference' (1969) 18(2) *International and Comparative Law Quarterly* 318, 318-20.

remained the source of contention amongst international lawyers for decades.[8] Indeed, it is unsurprising that treaty interpretation is often regarded as an 'art' rather than a 'science'.[9]

The ILC sought to provide clarification on this issue through the adoption of treaty interpretation rules under Articles 31 and 32 of the VCLT,[10] which have since been regarded as reflecting customary international law.[11] Although the VCLT interpretation rules are often considered vague and leave significant room for individual discretion in the way in which they should be applied,[12] the rules equally provide a useful starting point when weighing up and balancing the competing interpretative approaches to allow an interpreter to reach a justified conclusion. Indeed, these rules provide a conceptual framework incorporating aspects of each of the three interpretative approaches noted above.

Article 31(1) states that a treaty shall be interpreted 'in *good faith* in accordance with the *ordinary meaning* to be given to the terms of the treaty in their *context* and in light of its *object and purpose*'.[13] A treaty's context includes its preamble and any attached annexes or agreements made by the parties in connection with the adoption of the treaty.[14] As per paragraph 3, subsequent agreement between the parties regarding the interpretation of the treaty's terms, alongside subsequent state practice in the application of the treaty provisions should also be considered alongside the context to inform its interpretation.[15]

In stating its justification behind the general rule incorporated into Article 31, the ILC explicitly confirmed its position that 'the text must be presumed *to be the authentic expression of the intention* of the parties', and therefore determined that the '*starting point* of interpretation is the elucidation of the intentions of the meaning of the text, not an investigation *ab initio into* the intention of the parties'.[16] Indeed, the ICJ has similarly recalled that 'interpretation must be based

[8] Ian Sinclair, *The Vienna Convention on the Law of Treaties* (2nd edn, Manchester University Press 1984) 114. See also the discussion by Nigel D White, 'Interpretation of Non-Proliferation Treaties', in Daniel H Joyner and Marco Roscini (eds), *Non-Proliferation Law as a Special Regime: A Contribution to Fragmentation Theory in International Law* (Cambridge University Press 2012) 88-99, and more generally for an intriguing discussion of interpretation approaches in the context of nuclear non-proliferation instruments.
[9] Fuad Zarbiyev, 'The 'Cash Value' of the Rules of Treaty Interpretation' (2019) 32(1) *Leiden Journal of International Law* 33, 33; and generally, Ulf Linderfalk, 'Is Treaty Interpretation an Art or a Science? International Law and Rational Decision Making' (2015) 26(1) *European Journal of International Law* 169.
[10] Articles 31 and 32, VCLT.
[11] As recalled by the ICJ, see *Territorial Dispute* (*Libyan Arab Jamahiriya/Chad*) [1994] ICJ Rep 6, [41]; and *LaGrand* (*Germany v United States of America*) [2001] ICJ Rep 466, [99].
[12] As noted by Shai Dothan, 'The Three Traditional Approaches to Treaty Interpretation: A Current Application to the European Court of Human Rights' (2019) 42(3) *Fordham International Law Journal* 765, 767.
[13] Article 31(1), VCLT (emphasis added). This supports the obligation of states to perform a treaty in good faith, or the principle of *pacta sunt servanda*, Article 26 VCLT.
[14] Article 31(2), VCLT.
[15] Articles 31(3)(a) and (b), VCLT respectively.
[16] See e.g. Report of the International Law Commission on the Work of its Eighteenth Session (1966) UN Doc A/6309/Rev.1, *United Nations Yearbook of International Law Commission*, Vol II, 169, 220 (emphasis added).

above all upon the text of the treaty'.[17] In fact, Aust suggests that Article 31 represents a 'logical progression', as any interpreter 'naturally begins with the text (para 1), followed by the context (para 2), and then other matters, in particular, subsequent material (para 3)'.[18] Quite simply, while the ordinary meaning of the treaty's terms represents the starting point for any interpretative investigation, the 'context and the treaty's object and purpose must inform its meaning'.[19]

Should an investigation under Article 31 prove inconclusive, recourse to the *travaux préparatoires* of the treaty is permitted in accordance with Article 32 in order 'to confirm the meaning resulting from the application of Article 31', or to determine the meaning if the application of Article 31 'leaves the meaning ambiguous or obscure; or leads to a manifestly absurd or unreasonable result'.[20] Although the *travaux préparatoires* is regularly referenced in matters of interpretative disputes, in theory, reliance upon the preparatory and negotiation history should only be used to 'supplement', aid or clarify the initial interpretation reached under Article 31.[21] Finally, extreme care must be taken to avoid relying 'disproportionately upon single statements of persons involved in the negotiating process', and, instead, evidentiary material and statements which clearly establishes the common intention of the negotiating parties should be afforded particular value.[22]

b. Comprehensive Scope of Application of the Prohibitions

It is first relevant to note that the TPNW negotiators sought to make clear that the prohibitions established under Article 1 would have an extensive scope of application. To begin, Article 1(1) states that 'each State Party undertakes *never under any circumstance*s…'[23] This represents a standardised clause within disarmament instruments,[24] and reflects the 'universal dimension of the prohibitions, which extends to all activities of all State Parties everywhere'.[25] Consequently, the

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[17] *Territorial Dispute* (*Libyan Arab Jamahiriya/Chad*) [1994] ICJ Rep 6, [41].
[18] Aust (2013) 208 (bracketed text added).
[19] David S Jonas and Thomas N Saunders, 'The Object and Purpose of a Treaty: Three Interpretative Methods' (2010) 43(3) *Vanderbilt Journal of Transnational Law* 565, 578.
[20] Article 32, VCLT; and Shaw (2014) 678.
[21] UN Doc A/6309/Rev.1, 223; and *Territorial Dispute* (*Libyan Arab Jamahiriya/Chad*) [1994] ICJ Rep 6, [41]. Pauwelyn and Elsig argue that the *travaux préparatoires* should therefore be considered as secondary rules of treaty interpretation, see Joost Pauwelyn and Manfred Elsig, 'The Politics of Treaty Interpretation: Variations and Explanations across International Tribunals', in Jeffrey L Dunoff and Mark A Pollock (eds), *Interdisciplinary Perspectives on International Law and International Relations* (Cambridge University Press 2013) 448. For a contrasting view, whereby the *travaux préparatoires* should be considered equally important during any interpretation, see Julian D Mortenson, 'The Travaux of Travaux: Is the Vienna Convention Hostile to Drafting History?' (2013) 107(4) *American Journal of International Law* 780.
[22] Daniel H Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011) 25.
[23] Article 1(1), TPNW (emphasis added).
[24] See e.g. Article 1(1), CWC; Article 1(1), CCM; and Article 1(1), APMBC.
[25] As noted in relation to the Chemical Weapons Convention by Walter Krutzsch, 'Art. I General Obligations', in Walter Krutzsch, Eric Myjer, and Ralf Trapp (eds), *The Chemical Weapons Convention: A Commentary* (Oxford University Press 2014) 64.

prohibitions established remain applicable *at all times*, including during periods of peacetime, instances of armed conflict, and times of internal violence,[26] thereby reinforcing the underlying intention of the negotiators to ensure that nuclear weapons are never used again, as reiterated by preambular paragraph 1.[27]

Moreover, the phrase 'never under any circumstances' indicates that any violation of the activities prohibited under Article 1 cannot be justified for any reason whatsoever. This phrase seems to stand in contrast to the *Nuclear Weapons Advisory Opinion* in which the ICJ appeared to suggest that the use of nuclear weapons in 'extreme circumstances of self-defence' could be justified under certain circumstances – particularly when the survival of the state is at stake.[28] The TPNW language, by contrast, closes this possibility entirely by prohibiting nuclear weapon use (amongst other activities) without exception.[29] Finally, the phrase 'never under any circumstances' ensures that the prohibitions under Article 1 'are forbidden not only *vis-à-vis* other State parties, but also with regards to non-Parties and even non-State actors, such as rebel groups and terrorists'.[30] In this sense, the prohibitions are *absolute*, which further enhances the overall comprehensiveness of the Article 1 prohibitions, and the desire to avoid possible loopholes.

Another advantage of Article 1 is that unlike the NPT which establishes different sets of obligations applicable to different categories of states, the TPNW imposes obligations that apply uniformly to all state parties on a *non-discriminatory* basis.[31] This is made abundantly clear when one identifies the 'subjects' of the prohibitions imposed Article 1, which notes that '*each state party* undertakes…' to never engage in the activities listed, thus indicating the equal application of the prohibitions to prospective state parties regardless of their present nuclear weapons 'status'. And importantly, this additionally has the effect of remedying some of the unequal obligations established by the NPT.

One such example relates to the undertaking never to transfer nuclear weapons, and the contrasting obligations incorporated within the NPT and TPNW respectively. In relation to the NPT, Article I requires only the five NWS defined by the NPT not to transfer nuclear weapons

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[26] Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 43. A similar conclusion is reached by Virgil Wiebe, Declan Smyth, and Stuart Casey-Maslen, 'Art. 1 General Obligations and Scope of Application', in Gro Nystuen and Stuart Casey-Maslen (eds), *The Convention of Cluster Munitions: A Commentary* (Oxford University Press 2010) 97.

[27] Preambular paragraph 1, TPNW.

[28] *Nuclear Weapons Advisory Opinion*, [105(2)E].

[29] As noted by Krutzsch in relation to the CWC, see Krutzsch (2014) 64; and Casey-Maslen (2019) 135.

[30] Daniel Rietiker, 'New Hope for Nuclear Disarmament or "Much Ado About Nothing?": Legal Assessment of the New "Treaty on the Prohibition of Nuclear Weapons" and the Joint Statement by the USA, UK, and France Following its Adoption' (2017) 59(Online) *Harvard International Law Journal* 22, 25.

[31] At least in regard to the prohibitions. As will be noted in due course, the TPNW does establish some degree of categorisation in relation to the verification obligations incumbent upon different states under Articles 2, 3 and 4.

to any recipient whatsoever, while no comparable obligation exists under Article II that would prevent the NNWS from transferring nuclear weapons to another state.[32] Similarly, while the NNWS undertake never to receive the transfer of nuclear weapons under Article II, there is no comparable obligation imposed upon the NWS, which, in theory at least, remain free to receive the transfer of nuclear weapons from the NNWS.[33] This creates a complex scenario whereby the NWS and NNWS assume different responsibilities in terms of transfer activities prohibited under the NPT.

The TPNW by contrast utilises and builds upon these existing NPT prohibitions. Under Article 1(1)(b), the TPNW incorporates an undertaking upon *each state party* never, under any circumstances, to 'transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly or indirectly'.[34] In addition, there exists a corresponding obligation upon *each state party* never to 'receive the transfer of or control over nuclear weapons or other nuclear explosive devices directly or indirectly'.[35] These reciprocal obligations apply to all states equally, thus ensuring that any prospective party cannot transfer or receive the transfer of nuclear weapons and nuclear explosive devices. In simple terms, rather than incorporating existing *quid pro quo* obligations in a *traité-contrat* approach similar to the NPT, the TPNW takes the form of a *traité-lois*, or law-making treaty, establishing universal, and uniform, obligations applicable to all states on a non-discriminatory basis.[36] This has the effect of expanding the scope of pre-existing legal obligations relating to nuclear non-proliferation and disarmament imposed by the NPT to all states regardless of their nuclear weapons 'status', which in turn further reflects the overall comprehension of the Article 1 prohibitions.

c. Definitions

In contrast to other disarmament instruments,[37] including the BWC,[38] and CWC,[39] the TPNW does not define the weapons in that it seeks to prohibit – that is either 'nuclear weapons' or 'other nuclear explosive devices'. Nor are any definitions of other key prohibited activities included

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32 Articles I and II, NPT. Although one could argue that this is an implied effect of the more generally non-proliferation obligation assumed by the NNWS to the NPT, as by agreeing never to acquire or manufacture nuclear weapons, the NNWS can never possess nuclear weapons, which in turn means that such states have no such weapons to transfer in the first place.

33 Michael J Moffatt, 'In Search of the Elusive Conflict: The (In-)Compatibility of the Treaties on the Non-Proliferation and Prohibition of Nuclear Weapons' (2019) 102(1) *Nuclear Law Bulletin* 7, 43. Again, such an outcome is unlikely, given that NNWS are unable to acquire nuclear weapons subject to the obligation under Article II.

34 Article 1(1)(b), TPNW.

35 Article 1(1)(c), TPNW.

36 A useful summary of this distinction is provided by Catherine Brölmann, 'Law-Making Treaties: Form and Function in International Law' (2005) 74(3-4) *Nordic Journal of International Law* 383, 383-84.

37 See e.g. the detailed definitions in Article 2, CCM; and Article 2, APMBC.

38 Article I(1), BWC.

39 Article II1(1)-(3), CWC.

despite various states expressing support for the inclusion of definitions on terms such as 'assist' and 'development'.[40] However, some states, including Mozambique, were wary of the limited timeframe of the negotiations mandated by UNGA Resolution 71/258,[41] and felt that discussion on definitions risked wasting precious time that would have been better spent debating more complex aspects of the text.[42] Furthermore, many states also argued that the NPT has operated effectively despite failing to define nuclear weapons and other nuclear explosive devices.[43]

Moreover, definitions of 'nuclear weapons' and other 'nuclear explosive devices' have already been largely standardised by other instruments, and can serve a useful basis for the discussion that follows. The Treaty of Tlatelolco, for example, defines a nuclear weapon as 'any device which *is capable of releasing nuclear energy in an uncontrolled manner* and which has a group of characteristics that are appropriate for use for *warlike* purposes'.[44] This aligns with the definition proposed by Sweden during the 2017 negotiations, that a nuclear weapon constitutes a '[Weapon] assembly that is capable of producing an *explosion* and massive damage and destruction by the sudden *release of energy* instantaneously released from the *self-sustaining nuclear fission and/or fusion*'.[45] Significantly, these definitions exclude both the transport or propulsion systems of the weapon, so long as it is separable from the warhead.[46] Yet it seems likely that this definition would encompass disassembled nuclear weapons within its scope.[47] This would prove a logical conclusion in order to extend the prohibitions on the possession, development and transfer of nuclear weapons to partially disassembled devices.[48]

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[40] Such as Ecuador, see Allison Pytlak, 'News in Brief' (2017) 1(5) *Nuclear Ban Daily*, 5.

[41] UNGA Res 71/258 (11 January 2017) UN Doc A/RES/71/258, [10] set the dates for the conference to last just four weeks between 27-31 March and 17 June – 7 July 2017.

[42] As noted by Casey-Maslen (2019) 134. This concern was reportedly shared by South Africa, see Allison Pytlak, 'News in Brief' (2017) 1(5) *Nuclear Ban Daily*, 6.

[43] See e.g. the position of Mexico, noted by Allison Pytlak, 'News in Brief' (2017) 1(5) *Nuclear Ban Daily*, 5. This point is also made by Stuart Casey-Maslen, 'The Impact of the TPNW on the Nuclear Non-Proliferation Regime', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 388-89.

[44] Article 5, Treaty of Tlatelolco (emphasis added). See similarly, Article 1(3), Treaty of Pelindaba, and Article 1(b), Treaty of Semipalatinsk.

[45] Working paper submitted by Sweden, 'Definition of a nuclear weapon in a treaty prohibiting nuclear weapons' (10 May 2017) UN Doc A/CONF.229/2017/WP.5, [8] (emphasis added). This definition drew directly from a definition reached by the five NPT-recognised NWS themselves, see P5 Working Group on the Glossary of Key Nuclear Terms, *P5 Glossary of Key Nuclear Terms* (China Atomic Energy Press 2015) 6. The ICJ also takes this release of energy through fission or fusion approach, see *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, [35] (hereafter *Nuclear Weapons Advisory Opinion*).

[46] As recalled by both Article 5, Treaty of Tlatelolco and the working paper submitted by Sweden, 'Definition of a nuclear weapon in a treaty prohibiting nuclear weapons' (10 May 2017) UN Doc A/CONF.229/2017/WP.5, [8].

[47] Tom Coppen, *The Law of Arms Control and the International Non-Proliferation Regime: Preventing the Spread of Nuclear Weapons* (Brill Nijhoff 2016) 124.

[48] Casey-Maslen takes a somewhat middle ground approach here, and suggests that while the definition only extends to assembled weapons for the prohibition on use, the prohibitions of development and production 'would cover the key components of such weapons', Casey-Maslen (2019) 137.

Similarly, a nuclear explosive device has been defined in the Treaty of Rarotonga as 'any nuclear weapon or other explosive device capable of *releasing nuclear energy*, *irrespective of the purpose* of which it could be used. The term includes such a weapon or device in *unassembled and partly assembled forms*'.[49] As such, it seems relatively uncontroversial that this definition covers any device 'capable of releasing nuclear energy' either for peaceful purposes or military purposes,[50] as well as any other devices that are not capable of being weaponised because they may be too large for existing delivery systems.[51] In this sense, by adopting both terms within its text, even without explicit definitions, the TPNW's prohibitions extend and apply to any form of nuclear weapons or nuclear explosive device broadly understood. This would also conform with the ordinary meaning of each term as commonly understood in discussions surrounding nuclear weapons policies or structures in accordance with the primary treaty interpretation rule under Article 31 of the VCLT.[52]

2. Use and Threat of Use

a. Use

Perhaps the most important prohibition established by the TPNW is the undertaking never to use nuclear weapons or other nuclear explosive devices under Article 1(1)(d).[53] As noted in Part I, in contrast to other weapons of mass destruction and other conventional disarmament instruments,[54] no comparable prohibition on the use of nuclear weapons existed on a globally applicable level prior to the adoption of the TPNW in 2017. This position was confirmed by the ICJ in the *Nuclear Weapons Advisory Opinion*, where the Court stated that 'there is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons'.[55] The Court further concluded that although the development of the NWFZ and their protocols may 'foreshadow a future general prohibition on the use… they do not constitute such a prohibition by themselves'.[56]

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[49] Article 1(c), Treaty of Rarotonga (emphasis added). See also Article 1(3), Treaty of Pelindaba.
[50] This is noted by Joyner, who argues that the distinction entails a difference in characteristic between nuclear weapon and other nuclear explosive devices which may be used for peaceful purposes, Daniel H Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press 2009) 12.
[51] Casey-Maslen (2019) 137.
[52] See section 1.a. above.
[53] As claimed by Rietiker and Mohr (2018) 13.
[54] Article I(1)(b), CWC; Article 1(1)(a), CCM; and Article 1(1)(a), APMBC. The BWC does not contain an explicit prohibition on use, however the use of biological and bacteriological weapons in international armed conflict is prohibited by the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (adopted 17 June 1925, entered in force 8 February 1928).
[55] *Nuclear Weapons Advisory Opinion*, [102(2)B].
[56] As noted, *Nuclear Weapons Advisory Opinion*, [55]-[63]. See also, Michael N Schmitt, 'The International Court of Justice and the Use of Nuclear Weapons' (1998) LI(2) *Naval College War Review* 92, 100-02.

This conclusion was supported by the continued reliance by many states on nuclear deterrence policies, amounting to significant practice of the NWS and military allies.[57] While recognising that nuclear weapons have not been used during conflict against another state since 1945,[58] the Court emphasised that states remain 'profoundly divided on the matter of whether the non-recourse to nuclear weapons over the past 50 years constitutes the expression of an *opinio juris*', ultimately deciding that 'the Court does not consider itself able to find that there is such an *opinio juris*' in support of the unlawfulness of the use of nuclear weapons'.[59] Finally, although the ICJ determined that the use of nuclear weapons would '*generally* be contrary to the rules of international law applicable in armed conflict',[60] its unwillingness to determine that the use of nuclear weapons would *always* be unlawful – specifically in extreme circumstances of self-defence where the survival of the state is at stake – demonstrated the existence of a 'legal gap' in contrast to other WMDs which are comprehensively prohibited in all instances without exception.[61]

The TPNW, however, seeks to avoid any disputes over the possible legality of using nuclear weapons by incorporating an explicit prohbition on the use of nuclear weapons and other nuclear explosive devices, applicable to each state that joins the treaty.[62] The prohibition under Article 1(1)(d) is also supported by the preamble, which goes further than the conclusion reached by the ICJ by stating explicitly that '*any* use of nuclear weapons would be contrary to the rules applicable in armed conflict', including the principles of distinction and unnecessary suffering.[63] Moreover, and as noted above,[64] the prohibition on use similarly applies in 'any circumstances' and therefore cannot be violated even in extreme circumstances of self-defence where the survival of the state is at stake.[65] The result is that the TPNW prohibition on use is 'absolute', and serves to

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[57] See generally, Dapo Akande, 'Nuclear Weapons, Unclear Law? Deciphering the Nuclear Weapons Advisory Opinion of the International Court' (1998) 68(1) *British Yearbook of International Law* 165, 196-99.

[58] Notwithstanding the 2,056 nuclear weapon test explosions that have taken place, many of which on the territory of states which do not possess nuclear weapons, such as the Pacific region, Algeria, and Australia.

[59] *Nuclear Weapons Advisory Opinion*, [66].

[60] *Nuclear Weapons Advisory Opinion*, [102(2)E] (emphasis added).

[61] Gro Nystuen and Kjølv Egeland, 'A 'Legal Gap'? Nuclear Weapons Under International Law' (2016) 46(2) *Arms Control Today* 8.

[62] Article 1(1)(d), TPNW.

[63] See preambular paragraphs 9-11, TPNW (emphasis added). Whether this position is legally substantiated remains open for debate. Sweden, for instance, did not support the inclusion of this preambular paragraph, see Sweden, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/170707-EoV-Sweden.pdf>. The question as to whether nuclear weapons can be used in an IHL compatible manner has prompted much debate and discussion, see e.g. Charles J Moxley, John Burroughs, and Jonathan Granoff, 'Nuclear Weapons and Compliance with International Humanitarian Law and the Nuclear Non-Proliferation Treaty' (2011) 34(4) *Fordham Journal of International Law* 595; and Akande (1998) 193, who states that 'it is impossible to make a blanket statement that the use of nuclear weapons will always be disproportionate when the use of such a weapon may be in response to a prior use or prior uses of nuclear weapons and may be the only way of safeguarding the integrity of the victim State'.

[64] Section 1.b.

[65] Thus, closing a possible loophole previously envisaged by the ICJ during the *Nuclear Weapons Advisory Opinion*, [102(2)E].

'remove[s] those ambiguities and contradictions' maintained by the ICJ.[66] This is additionally supported by the inability of state parties to make reservations to the TPNW under Article 16.

Although the term 'use' is undefined by the TPNW, it should ordinarily be understood as the 'new employment of a prohibited weapon in the conduct of hostilities',[67] with 'any act of employing a weapon consistent with its general purpose constitute[ing] usage'.[68] This should, however, be distinguished from nuclear weapon testing which does not constitute usage but is nonetheless prohibited by Article 1(1)(a) discussed below.[69] As such, it would seem reasonable to assume that any detonation of a nuclear weapon or other nuclear explosive device for its designed purpose would constitute usage. However, Casey-Maslen challenges this 'narrow' conception of use that requires a detonation, and instead suggests that a nuclear weapon should be considered 'used' from the point when it is either 'dropped, fired, or launched' towards its military objective regardless of its subsequent effect or whether detonation has occurred.[70]

This broader conception of 'use' would align with the concept of 'interceptive' self-defence under *jus ad bellum*,[71] which 'reinterprets the beginning of an armed attack' to an earlier point in time.[72] If, for example, a nuclear weapon has been launched by state A and is proceeding towards state B but has not yet reached its intended target, the attack is no longer perceived as 'imminent', but rather should be considered as underway, or in progress.[73] As Dinstein suggests, 'it would be absurd to require the defending State to sustain a devastating (perhaps a fatal) blow, only to prove an immaculate conception of self-defence'.[74] This rationale is particularly significant when one considers the extensive humanitarian consequences, environmental harm, and general devastation that would likely be caused by a nuclear weapon attack. Consequently, once a nuclear weapon is launched, this would unquestionably give rise to a necessity[75] of lawful interceptive self-defence in

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[66] Rietiker and Mohr (2018) 14.
[67] Stuart Casey-Maslen and Tobias Vestner, *A Guide to International Disarmament Law* (Routledge 2019) 73.
[68] Wiebe, Smyth, and Casey-Maslen (2010) 111.
[69] See section 5.
[70] Casey-Maslen (2019) 151. See for a similar comment in relation to the CCM, Wiebe, Smyth, and Casey-Maslen (2010) 111-12.
[71] As coined by Yoram Dinstein, *War, Aggression and Self-Defence* (5th edn, Cambridge University Press 2012) 203-05.
[72] Arnulf B Lorca, 'Rules for the "Global War on Terror": Implying Consent and Presuming Conditions for Intervention' (2012) 45(1) *New York University Journal of International Law and Politics* 1, 48; Horace B Robertson Jr, 'Self-Defense against Computer Network Attack under International Law' (2002) 76(1) *International Law Studies* 121, 124-25; and Christian Henderson, *The Use of Force and International Law* (Cambridge University Press 2018) 275. See also Dinstein (2011) 201 who notes that the crucial element is determining when an armed attack has begun.
[73] Tom Ruys, '*Armed Attack*' *and Article 51 of the UN Charter* (Cambridge University Press 2010) 253. The notion of imminence by contrast has caused much greater difficult in determining at precisely what stage an attack should be considered imminent, see Noam Lubell, 'The Problem of Imminence in an Uncertain World', in Marc Weller (ed), *The Oxford Handbook of the Use of Force in International Law* (Oxford University Press 2015).
[74] Dinstein (2012) 204.
[75] On the customary principles of necessity and proportionality which all self-defensive actions must conform to, see David Kretzmer, 'The Inherent Right to Self-Defence and Proportionality in Jus Ad Bellum' (2013) 24(1) *European Journal of International Law* 235; and Kimberley N Trapp, 'Back to Basics: Necessity, Proportionality, and the Right of Self-Defence Against Non-State Terrorist Actors' (2007) 56(1) *International and Comparative Law Quarterly* 141. The ICJ

accordance with Article 51 UN Charter,[76] provided that there is 'clear and compelling evidence that the opponent has embarked upon an apparently irreversible course of action'.[77]

Finally, although it has been argued that 'a prohibition [on use] is unnecessary as it is implied in the prohibition of possession and control',[78] an explicit prohibition on use brings two significant benefits. First, this avoids any ambiguity or future interpretative debates as to whether a 'loophole' allowing the use of nuclear weapons would be maintained by the absence of any explicit prohibition in the TPNW.[79] Second, and more importantly, an explicit prohibition on use reinforces the normative 'taboo'[80] and desired stigmatising effect of the TPNW, thereby strengthening the support from states themselves against the legitimacy of nuclear weapon use in any circumstances. Indeed, this stigmatisation and delegitimisation of nuclear weapon use forms one of the primary objectives of the TPNW and contributes towards the 'norm-building' intentions of ban supporters and the Humanitarian Initiative.[81]

Overall, Article 1(1)(d) explicitly closes the most pressing 'legal gap' left open by the NPT and identified by the ICJ by providing an unequivocal prohibition of the use of nuclear weapons under any circumstances. And importantly, the prohibition on use evidently supports the underlying object and purpose of the TPNW in both achieving nuclear disarmament and avoiding the catastrophic humanitarian harm that would be caused by nuclear weapon use. As such, this undertaking should rightly be regarded as of central importance to the TPNW.

b. Threaten to Use

One of the most unique, and disputed, prohibitions included within Article 1(1)(d) is the undertaking never, under any circumstance, to 'threaten to use' nuclear weapons or other explosive devices.[82] No other disarmament instrument, including those prohibiting other forms of WMDs,

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has reaffirmed the customary principles of necessity and proportionality in self-defence during *Military and Paramilitary Activities in and against Nicaragua* (*Nicaragua v United States of America*) (Merits) [1986] ICJ Rep 14, [176].

[76] As noted by James A Green, 'The Ratione Temporis Elements of Self-Defence' (2015) 2(1) *Journal on the Use of Force and International Law* 97, 107. The author even questions the conceptual basis and need for this additional category of self-defence on such grounds, as the armed attack is essentially in progress already.

[77] Ruys (2010) 253.

[78] As noted by Roscini in connection with nuclear weapon-free zone prohibitions Marco Roscini, 'International Law, Nuclear Weapon-Free Zones and the Proposed Zone Free of Weapons of Mass Destruction in the Middle East', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 331. Indeed, one cannot use what one does not have. See for a similar conclusion, Schmitt (1998) 101.

[79] A point noted by Roscini (2014) 331.

[80] See notably Nina Tannenwald, 'The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use' (1999) 53(3) *International Organization* 433. Tannenwald later revisits the nuclear taboo and suggests that it has since become weakened, see Nina Tannenwald, 'How Strong is the Nuclear Taboo Today?' (2018) 41(3) *The Washington Quarterly* 89.

[81] See Chapter 1: Introduction, section 6.

[82] Article 1(1)(d), TPNW. This is included alongside the prohibition of use discussed in the previous section. For a useful discussion of this prohibition, see Nobuo Hayashi, 'Is the Nuclear Ban Treaty Accessible to Umbrella States?',

prohibits its state parties from *threatening* to use certain weapons. The incorporation of this prohibition into the TPNW is therefore unprecedented and remained subject to extensive debate throughout the negotiations.[83] However, while ultimately included, the participating states failed to define precisely what acts satisfy the notion of 'threaten to use' nuclear weapons during the 2017 negotiations. According to Casey-Maslen, one state – left unnamed by the author – suggested that the prohibition would cover 'any acts whether physical or verbal, that would create the perception that nuclear weapons would be used',[84] though this interpretation was not incorporated into the final text.

The concept of threats of force are more commonly analysed in the context of *jus ad bellum*.[85] Brownlie famously defined a threat of force as consisting of 'an express or implied promise by a government of a resort to force conditional on non-acceptance of certain demands of that government'.[86] A somewhat similar definition is provided in Sadurska's seminal piece from 1988 – and cited with approval by Grimal[87] – who suggests that a threat of force constitutes 'a message, explicit or implicit, formulated by a decision maker and directed to the target audience, indicating that force will be used if a rule or demand is not complied with'.[88]

Roscini has likewise defined a threat of force under Article 2(4) of the UN Charter 'as an explicit or implicit promise of a future and unlawful use of armed force against one or more states the realization of which depends on the threatener's will'.[89] Like Brownlie and Sadurska's definitions, this again alludes to the coercive nature of a threat, 'accompanied by specific demands for the targeted state(s) to adopt a particular conduct'.[90] Moreover, and as recognised by the ICJ in the *Nuclear Weapons Advisory Opinion*, such threats of force are accompanied by a 'signalled intention to use force if certain events occur',[91] and must be formulated in a sufficiently precise

in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019) 377-94.

[83] South Africa, Indonesia, Brazil, Thailand, Egypt, Kazakhstan, and Nigeria all supported the inclusion of a prohibition on the threat of use, Tamara L Patton and Allison Pytlak, 'News in Brief' (2017) 2(3) *Nuclear Ban Daily*, 7. Yet at the same time, Malaysia expressed caution as to how this would be implemented in practice, as noted by Casey-Maslen (2019) 154.

[84] Casey-Maslen (2019) 155.

[85] See for the most prominent publications discussing threats of force in international law, Romana Sadurska, 'Threats of Force' (1988) 82(2) *American Journal of International Law* 239; Marco Roscini, 'Threats and Armed Force and Contemporary International Law' (2007) 54(2) *Netherlands International Law Review* 229; Nikolas Stürchler, *The Threat of Force in International Law* (Cambridge University Press 2007); and Francis Grimal, *Threats of Force: International Law and Strategy* (Routledge 2013).

[86] Ian Brownlie, *International Law and the Use of Force by States* (Oxford University Press 1963) 364.

[87] Grimal (2013) 6 and 43.

[88] Sadurska (1988) 242. These classic definitions of threats of force remained frequently cited in the present day, see generally François Dubuisson and Anne Lagerwall, 'The Threat of the Use of Force and Ultimata', in Marc Weller (ed), *The Oxford Handbook of the Use of Force in International Law* (Oxford University Press 2015).

[89] Roscini (2007) 235. This would seem to correspond with elements inherent to both Brownlie and Sadurska's aforementioned definitions.

[90] Dubuisson and Lagerwall (2015) 913.

[91] *Nuclear Weapons Advisory Opinion*, [47]. See also more generally Roscini (2007) 237-43.

manner, thereby excluding vague or generalised threats.[92] Other commentators have suggested that membership in a collective-security alliance may constitute evidence of threatening behaviour, though justified due to the largely defensive-orientated nature of such alliances.[93]

It is generally accepted that if the envisaged use of force resulting from the intended threat would violate Article 2(4), then the threat itself would also be unlawful.[94] This was restated by the ICJ during the *Nuclear Weapons Advisory Opinion*:

> 'if the envisaged use of force is itself unlawful, the stated readiness to use it would be a threat prohibited by Article 2, paragraph 4… In short, if it is to be lawful, the declared readiness of a State to use force must be a use of force that is in conformity with the Charter'.[95]

Put simply, a threat of force would be unlawful if it does not constitute a lawful act of self-defence under Article 51 of the Charter and in accordance with the customary principles of necessity and proportionality, or is not authorised by the UNSC under Article 42.[96] As a result, a retroactive test is generally employed in order to determine whether the initial threat of force is unlawful.[97]

In truth, however, the TPNW arguably bypasses the issue as to whether threats of nuclear weapons force are lawful under *jus ad bellum*. While some delegations argued that including a prohibition on threatening to use nuclear weapons risked questioning the validity of the Article 2(4) prohibition,[98] it can be persuasively argued that the TPNW does not interfere with the operation of Article 2(4) in any way. Indeed, Article 1(1)(d) explicitly requires state parties never, *under any circumstances*, to threaten to use nuclear weapons, even if the threatened use is in an extreme circumstance of self-defence, or other possible lawfully justified threats issued in accordance with

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[92] Dubuisson and Lagerwall (2015) 913.
[93] See e.g. Sadurska (1988) 243; and James A Green and Francis Grimal, 'The Threat of Force as an Action in Self-Defense under International Law' (2011) 44(2) *Vanderbilt Journal of Transnational Law* 285, 296.
[94] Paraphrasing Roscini (2007) 236-37.
[95] *Nuclear Weapons Advisory Opinion*, [47]. Significantly, Corten has suggested that no state or commentator has challenged the premise and basic position of this point, Olivier Corten, *The Law Against War* (Hart Publishing 2010) 114.
[96] A conclusion reached by Brian Drummond, 'UK Nuclear Deterrence Policy: An Unlawful Threat of Force' (2019) 6(2) *Journal on the Use of Force and International Law* 193, 208. See also Stürchler (2007) 273; and Dubuisson and Lagerwall (2015) 915 for a similar conclusion in this regard.
[97] Francis Grimal, 'Twitter and the Jus ad Bellum: Threats of Force and Other Implications' (2019) 6(2) *Journal on the Use of Force and International Law* 183, 186.
[98] See e.g. statement of Austria (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://statements.unmeetings.org/media2/14683377/austria.pdf>; and statement of Sweden (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/29March_Sweden-T2.pdf>

the UN Charter.[99] In this sense, the separate prohibition on threatening to use nuclear weapons makes clear that any issuance of credible threats to use nuclear weapons can never be permitted if the issuing state is a party to the TPNW, regardless of its permissibility under *jus ad bellum* rules. From this perspective, Article 1(1)(d) effectively imposes a form of additional restriction on the manner in which state parties can lawfully threaten to use force in circumstances of self-defence by making clear that nuclear weapons cannot be used for this purpose. As such, it seems unlikely that the prohibition under Article 1(1)(d) will 'adversely affect the principal prohibition of threatened force',[100] but rather imposes a more specific restriction than the general prohibition under Article 2(4) of the UN Charter.

Another important benefit brought by the prohibition of threatening to use nuclear weapons stems from its relationship with nuclear deterrence policies.[101] Roscini distinguishes between deterrent and compellent threats:

> 'the former aim to coerce the target not to do something (for instance, not to militarily resist an invasion, or not to enter into an alliance), while the latter force it to take some kind of action (e.g., to cede a territory, to accede to a certain treaty, or to modify the constitution)'.[102]

Nuclear deterrence policies of the NWPS largely fall within the former type of threats, which essentially aim to prevent – that is deter – unwanted action, behaviour, or aggression by an adversarial state. Indeed, the ICJ has described nuclear deterrence as a policy 'by which those States possessing or under the umbrella of nuclear weapons seek to discourage military aggression by demonstrating that it will serve no purpose, necessitates that the intention to use nuclear weapons be credible'.[103] As Grimal notes:

> 'deterrence is based on the four 'Cs': capability, commitment, communication and credibility. The terms are self-evident. In order to effectively deter your opponent from a particular course of action, they have to feel threatened. Deterrence is about

[99] Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 48.
[100] Hayashi (2019) 380-82.
[101] For the foremost discussion of the concept of deterrence, see Thomas Schelling, *Arms and Influence* (Yale University Press 2008 edn); Thomas Schelling and Morton H Halperin, Strategy and Arms Control (The Twentieth Century Fund 1961); and Lawrence Freedman, *The Evolution of Military Strategy* (3rd edn, Palgrave MacMillan 2003).
[102] Roscini (2007) 235. See also Schelling (2008) 69-78.
[103] *Nuclear Weapons Advisory Opinion*, [48]. See also Stürchler (2007) 46.

the perception of the capabilities of your opponent. *Deterrence, by definition, is a threat and the enemy has to perceive it as such*'.[104]

In essence therefore, deterrence policies are typically credible ongoing conditional threats to use force in certain circumstances.[105]

Given the above understanding of deterrence, the inclusion of an individual prohibition on threatening to use nuclear weapons is both beneficial and seemingly logical. Although this distinguishes the TPNW from other disarmament instruments,[106] it reflects the unique character of nuclear weapons and the perceived role such devices play in deterring unwanted behaviour, including the possible use of nuclear weapons, from other NWPS – although the utility of nuclear deterrent postures to deter conventional threats is certainly less apparent.[107] Including a prohibition on threatening to use nuclear weapons under Article 1(1)(d) therefore ensures that nuclear deterrence policies 'are further brought into question and delegitimized (at least politically) by the new treaty'.[108] As President Whyte Gómez argued following the conclusion of negotiations, 'it was finally agreed by the conference that Article 1 should include a prohibition to use or to threaten to use nuclear weapons, *in the understanding that the threat of use lies at the heart of deterrence* and the current security paradigms'.[109]

However, it may still be validly argued that the specific prohibition on threatening to use nuclear weapons is unnecessary due to the undertakings never to possess or stockpile nuclear weapons under Article 1(1)(a).[110] In simple terms, and as similarly noted in relation to the prohibition on using nuclear weapons discussed previously, a state cannot credibly threaten the use of nuclear weapons if it is prevented from possessing them.[111] At the same time, it is

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104 Grimal (2013) 61 (emphasis added).
105 Drummond (2019) 213. The concept of deterrence will be examined in greater depth in Chapter 5.
106 Caughley made this point during the negotiations, Tim Caughley, 'UNIDIR's Comments on Miscellaneous Prohibitions, Obligations and Organizational Issues', in Tim Caughley and Gaukhar Mukhatzhanova (eds), *Negotiation of a Nuclear Weapons Prohibition Treaty: Nuts and Bolts of the Ban* (UNIDIR 2017) 5.
107 To offer just some examples, the UK's possession of nuclear weapons did not prevent Argentina from invading the Falkland Islands in 1982. Nor has Israel's ambiguous nuclear deterrent posture prevented frequent attacks from Hezbollah and Hamas operating from Lebanon in 2006 and the Palestine territories. The point here, therefore, is that for deterrence to be successful, a conventional deterrent is equally significant in many ways. See also Part II: Chapter 5: Addressing Criticisms of the TPNW, section 4.a where this point is noted further. See also Bruce M Russett, 'The Calculus of Deterrence' (1963) 7(2) *Journal of Conflict Resolution* 97, 98 who concludes that deterrence policies generally fail 'when the attacker decides that the defender's threat is not likely to be fulfilled'; and Michael Quinlan, *Thinking about Nuclear Weapons: Principles, Problems, Prospects* (Oxford University Press 2009) 23.
108 Rietiker and Mohr (2018) 14.
109 See President Whyte Gómez, <https://www.youtube.com/watch?v=lwTEx1jixSE> as quoted by Rietiker and Mohr (2018) 14-15.
110 Discussed further below in section 3.
111 This argument has been made by Kjølv Egeland, 'To Ban Nuclear Deterrence, Ban Possession, Not Threat of Use' (*Head of Mímir*, 22 May 2017) <https://headofmimirorg.wordpress.com/2017/05/22/to-ban-deterrence-ban-possession-not-threats-of-use/>

questionable as to whether mere possession of nuclear weapons alone expressly constitutes a threat to use them.[112] While the ICJ recognised that possession may infer a preparedness to use nuclear weapons,[113] Judge Weeramantry persuasively notes that deterrence refers to 'the possession of weapons in a *state of readiness for actual use…* there is clearly a vast difference between weapons stocked in a warehouse and weapons so readied for immediate action'.[114] In other words, a deterrent threat not only requires the possession of nuclear weapons, but also a demonstratable 'will to use them' on the part of the threatening state.[115] Such will and intention to use nuclear weapons must also be credible in order to amount to a violation of Article 1(1)(d), and mere political gesturing without sufficient credibility that the threat can in fact be carried out would not suffice.[116]

Overall, the prohibition on threatening to use nuclear weapons in Article 1(1)(d) brings additional value to the comprehensiveness of Article 1 by essentially prohibiting any threats to use nuclear weapons, regardless of whether the specified use may potentially be permitted under *jus ad bellum*. This brings a sense of symbolic significance in making clear that threats to use nuclear weapons are considered by TPNW parties to be unlawful in any circumstances. Equally, this normative value additionally helps further stigmatise existing nuclear deterrence policies more generally, and explicitly challenges the lawfulness of conditional threats to use nuclear weapons in certain specified circumstances. When coupled with the prohibition on possession discussed next, it seems difficult to imagine how any state relying directly upon nuclear deterrence policies is able to join in conformity with the TPNW.[117]

3. Possess or Stockpile

A further significant undertaking under Article 1(1)(a) is the explicit inclusion of a prohibition on the possession and stockpiling of nuclear weapons. Although Article II of the NPT requires each NNWS party not to receive the transfer of, control, manufacture or otherwise acquire nuclear weapons,[118] thereby encapsulating an implicit prohibition on possession upon the majority of the

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[112] Casey-Maslen (2019) 156.
[113] *Nuclear Weapons Advisory Opinion*, [47].
[114] Dissenting Opinion of Judge Weeramantry, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 429, 540.
[115] Drummond (2019) 196. To some extent, it could be suggested that through possession, one can infer both a will and capability to use nuclear weapons if deemed necessary. Otherwise, what exactly is the point in seeking to obtain or acquire possession of nuclear weapons in the first place if not to potentially use them should the circumstance require such use?
[116] Casey-Maslen (2019) 156. Although see Hayashi (2019) 387, who argues that what matters most is intention by the threatening state, and apprehension by the targeted states. If the targeted state 'feels' threatened, then the threat has essentially been successful.
[117] This assertion will be discussed further in relation to arguments raised by the NWPS and nuclear umbrella allies against the TPNW in Part II: Chapter 5: Addressing Criticisms of the TPNW.
[118] Article II, NPT.

world's states,[119] the NPT also had the effect of 'tolerating possession of the same weapons, for an undefined period, by a handful of states'.[120] Indeed, the NWS argued during the *Nuclear Weapons Advisory Opinion* that their possession of nuclear weapons was to some degree permitted and legitimised by the provisions of the NPT.[121]

The TPNW therefore directly challenges this assertion of an afforded 'right' to possess nuclear weapons maintained by the NPT, and follows the approach taken within the NWFZ by prohibiting state parties from either possessing, controlling, or stockpiling nuclear weapons or other nuclear explosive devices.[122] The prohibitions on possession and stockpiling were widely endorsed by the negotiating states,[123] and were considered an essential means of further delegitimising and stigmatising policies of nuclear deterrence by enhancing the norm of non-possession of nuclear weapons.[124] The scope of the prohibition itself is also relatively clear: no state party can be in compliance with this undertaking should it continue to possess or stockpile nuclear weapons within its jurisdiction or territory. One point of contention however, and to be discussed in greater detail in Chapter 4, concerns a possible source of conflict between this prohibition and the 'join then destroy' accession pathway for NWPS under Article 4(2).[125]

Although the concepts of stockpiling and possession clearly overlap, the notion of possession constitutes a much broader concept. In brief, to possess something means to 'have or

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[119] Indeed, if a NNWS is obligated never to acquire nuclear weapons by any means, such a state can in turn never possess those weapons.

[120] Jozef Goldblat, *Arms Control: The New Guide to Negotiations and Agreements* (2nd edn, Sage Publishing 2002) 101.

[121] See also *Nuclear Weapons Advisory Opinion*, [61] in which the Court notes that the NWS contend that 'the possession of nuclear weapons by the five nuclear-weapon States has been accepted'. See also Daniel H Joyner, 'Amicus Memorandum to the Chair of the United Nations Negotiating Conference for a Convention on the Prohibition of Nuclear Weapons' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf> 3, who also recognises this.

[122] Or a variation of these three terms, see e.g. Article 3(a), Treaty of Rarotonga; Article 3(a), Treaty of Pelindaba; Article 3(1)(a), Treaty of Bangkok; and Article 3(1)(a), Treaty of Semipalatinsk. This departs from other disarmament instruments that requires state parties never to 'retain' the prohibited weapons in question, see Article I, CWC for instance.

[123] See e.g. statement of Sweden (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/29March_Sweden-T2.pdf>; and statement by Brazil (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://statements.unmeetings.org/media2/14683375/brazil.pdf>. See also working paper submitted by the Women's International League for Peace and Freedom, 'Banning Nuclear Weapons: Prohibitions of a Legally Binding Instrument' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.2, 1.

[124] As noted by Rietiker and Mohr (2018) 13; Merav Datan and Jürgen Scheffran, 'The Treaty is Out of the Bottle: The Power and Logic of Nuclear Disarmament' (2019) 2(1) *Journal for Peace and Nuclear Disarmament* 114, 122; and Kjølv Egeland, 'To Ban Nuclear Deterrence, Ban Possession, Not Threat of Use' (*Head of Mímir*, 22 May 2017) <https://headofmimirorg.wordpress.com/2017/05/22/to-ban-deterrence-ban-possession-not-threats-of-use/>. As will be analysed at a later stage, this represents the foundation of NWPS opposition to the TPNW, due to its direct challenge and threat to the policy of nuclear deterrence.

[125] Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions, section 5.a.

own something',[126] either temporarily or permanently. The verb to stockpile, by contrast, generally takes a narrower definition and is ordinarily understood as 'a gradually accumulated reserve of something'.[127] This idea of stockpiling nuclear weapons held in reserve is clearly more limited than the notion of possession of nuclear weapons more generally. Nevertheless, it is evident that the combination of the undertakings never to possess or stockpile nuclear weapons under Article 1(1)(a) has a broad reach, encompassing all nuclear weapons presently in storage, alongside all 'active' nuclear weapons situated and possessed elsewhere, including those deployed on patrolling submarines, or stationed in the territory of another state.[128] In addition, given the above states' definitions of nuclear weapons and nuclear explosive devices agreed upon elsewhere,[129] this prohibition likely extends to cover disassembled nuclear explosive devices either stockpiled or in the possession of state parties. This would constitute a reasonable interpretation and avoids creating a potentially troublesome loophole whereby a NWPS could simply disassemble its existing nuclear weapons, keep the dismantled devices in storage with little difficulty in re-assembling the components in the future, while still being considered as compliant with this undertaking.[130]

4. Develop, Produce, Manufacture

One major limitation of the NPT framework is its failure to prohibit all states from engaging in activities related to the early stages in the development and production of nuclear weapons.[131] Under Article II, *only* the NNWS are prohibited from receiving, acquiring, or more importantly for present purposes, 'manufacturing' nuclear weapons or other nuclear explosive devices.[132] As discussed in Chapter 2,[133] there is widespread – though by no means universal – support for a narrow interpretation of the term 'manufacture' as covering only the 'physical manufacture' of a completed nuclear explosive device,[134] or 'at its broadest' the physical construction of key component parts.[135] Indeed, during the NPT negotiations it was suggested by the US that a specific

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[126] 'Possess', Definition 1 (*Cambridge Online Dictionary*) <https://dictionary.cambridge.org/dictionary/english/possess>

[127] 'Stockpile', Definition 1(b) (*Merriam-Webster Online Dictionary*) <https://www.merriam-webster.com/dictionary/stockpile>

[128] Cassey-Maslen (2019) 143.

[129] Section 1.c. above

[130] This is similarly argued by Casey-Maslen (2019) 143.

[131] As discussed in Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 1.a.

[132] Article II, NPT.

[133] Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 1.a.

[134] David S Jonas, 'Ambiguity Defines the NPT: What Does 'Manufacture' Mean?' (2014) 36(2) *Loyola Los Angeles International and Comparative Law Review* 263, 266-67 who notes that a broader approach would entail constructing a state's content based on early steps, thus needing to go into the mind of a state so to speak. For a contrasting approach, see e.g. Andreas Persbo, 'A Reflection on the Current State of Nuclear Non-proliferation and Safeguards', *EU Non-Proliferation Consortium: Non-Proliferation Papers 8,* February 2012, 4-5.

[135] Daniel H Joyner, 'Iran's Nuclear Program and the Legal Mandate of the IAEA' (*JURIST*, 9 November 2011) <https://www.jurist.org/commentary/2011/11/dan-joyner-iaea-report/>. Joyner later restricts this further to cover

prohibition on 'preparing to manufacture' should be explicitly included within Article II, though this recommendation was rejected by the Soviet Union.[136] The 1967 Treaty of Tlatelolco additionally includes an undertaking never to 'produce' nuclear weapons, which has been defined as including 'not only manufacture (i.e. production in a factory) but also local improvisation or adaptation of weapons'.[137] Again, however, like the term manufacture, this understanding of the notion of 'production' seemingly alludes to the latter stages of the construction process of the prohibited weapon in question.[138]

Fortunately, the TPNW goes beyond the NPT by incorporating a 'catch-all' undertaking never to develop, produce, or manufacture nuclear weapons or other nuclear explosive devices.[139] Most interesting and significant for present purposes in terms of scope, is the notion 'develop', a prohibition similarly included in some of the NWFZ (though inconsistently),[140] the CWC,[141] and both the APMBC and CCM.[142] Though remaining undefined in each of these treaties, ordinarily the term develop means 'to create or produce especially by deliberate effort over time',[143] or 'to invent something or bring something into existence'.[144] This would seem to allude to a broad scope of activities covered under the notion of development, whereby any activity or process that contributes or is directed towards the 'development of the weapon or its integral parts and components are prohibited'.[145] Thus should an activity assist or contribute towards the preparation for production of nuclear weapons, it would likely run afoul of the prohibition on development in Article 1(1)(a).[146]

Moreover, the prohibition of development is particularly significant as it would in practice prevent the NWPS from developing, and ultimately constructing *new* strategic and tactical nuclear weapons designs and configurations, and thus directly impacts nuclear weapons modernisation efforts that each of the NWPS are currently in the process of implementing.[147] This partially

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only 'completed' nuclear weapons, Daniel H Joyner, *Iran's Nuclear Programme and International Law: From Confrontation to Accord* (Oxford University Press 2016) 79-86.

136 As discussed by Joyner (2016) 79-86.

137 Casey-Maslen and Vestner (2019) 37.

138 As noted in relation to the CCM, see Wiebe, Smyth, and Casey-Maslen (2010) 117.

139 See Article 1(1)(a), TPNW.

140 Article 3(a), Treaty of Pelindaba; Article 3(1)(a), Treaty of Semipalatinsk; and Article 3(1)(a), Treaty of Bangkok each include undertakings never to develop nuclear weapons.

141 Article I(1)(a), CWC.

142 Article 1(1)(b), APMBC; and Article 1(1)(b), CCM.

143 'Develop', Definition 2(b) (*Merriam-Webster Online Dictionary*) <https://www.merriam-webster.com/dictionary/develop>

144 'Develop (start)' (*Cambridge Online Dictionary*) <https://dictionary.cambridge.org/dictionary/english/develop>

145 Casey-Maslen and Vestner (2019) 93.

146 Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law,* October 2018, 20.

147 For a collective overview of current NWPS modernisation efforts, see 'Assuring Destruction Forever: 2020' (*Reaching Critical Will, Women's International League for Peace and Freedom*, June 2020)

rectifies the failure of the NPT to prohibit activities that can prolong the lifespan of nuclear weapon programmes of the NWS, thereby allowing the five NWS to essentially take any measures they see fit.[148] Therefore, as well as the obvious non-proliferation benefits that this obligation provides, Article 1(1)(a) serves to contribute towards nuclear disarmament efforts too.

a. Research

A more pressing issue here is whether nuclear weapons-related research falls within the scope of the prohibition on development under Article 1(1)(a). In the present context, research is defined as 'the systematic investigation into and study of materials and sources *in order to establish facts and reach new conclusions*'.[149] It is first necessary to emphasise that the TPNW preserves the 'inalienable right of its State Parties to *develop* research, production and use of *nuclear energy for peaceful purposes* without discrimination'.[150] In this respect, some research and development nuclear-related activities are clearly permitted under the TPNW, reflecting the dual-use application of nuclear energy, materials, and technology. This additionally reaffirms and supports the peaceful use of nuclear energy 'pillar' of the NPT 'Grand Bargain' provided under Article IV(1).[151] Such research, of course, must be clearly distinct from any nuclear weapons-related application.[152]

However, would nuclear weapons-related research be caught by the prohibition on development? Given that separate references to both 'research' and 'development' have been included within the Treaties of Pelindaba and Semipalatinsk,[153] one could argue that both terms should be independently understood, though nevertheless remain interrelated and overlap to some degree.[154] In other words, one may be reluctant to conclude that research activities are captured by the prohibition on development given the fact that military-orientated research steps have been prohibited explicitly elsewhere.[155] Moreover, in relation to the CWC, Krutzsch suggests that although the concept of development is generally broad, the prohibition only covers activities 'from an *advanced* stage onwards' with a clearly 'defined and recognisable purpose'.[156] From this

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<https://www.reachingcriticalwill.org/images/documents/Publications/modernization/assuring-destruction-forever-2020v2.pdf>

148 Though arguably modernisation efforts could be seen as both a continuation of the nuclear arms race, and contrary to the goal of nuclear disarmament under Article VI.

149 'Research', Definition 1 (*Oxford Online Dictionary*) <https://www.lexico.com/en/definition/research>

150 Preambular paragraph 21, TPNW.

151 Article IV(1), NPT.

152 A similar approach is taken by Article I(1)(a), CWC, whereby Krutzsch suggests that the term development encompasses 'a number of steps from creating a functioning weapon ready for production, stockpiling, and use, as distinct from permitted research', Krutzsch (2014) 65.

153 Article 3(a), Treaty of Pelindaba; and Article 3(1)(a), Treaty of Semipalatinsk.

154 As suggested also by Datan and Scheffran (2019) 122.

155 John Burroughs, 'Key Issues in Negotiations for a Nuclear Weapons Prohibtion Treaty' (2017) 47(5) *Arms Control Today* 6, 8.

156 Krutzsch (2014) 65.

perspective, it seems uncertain whether 'early-stage' research activities would be captured under the notion of development.[157]

On the other hand, Casey-Maslen and Vestner argue that 'research forms an *integral part of the international legal concept of development*',[158] alluding to the interconnected relationship between both concepts. From this perspective, research essentially comprises just one of the many constituent aspects of the wider development process considered collectively. This seems desirable, particularly as the majority of disarmament instruments – excluding the aforementioned exceptions – fail to individually prohibit research activities as an independent undertaking. Consequently, when taking a broader prohibition of development to encompass 'any of the actions intended to prepared for its [nuclear weapons] production',[159] as soon as it can be accurately determined that a state party 'begins to develop a prohibited weapon, it violates that prohibition on development, *irrespective of how advanced the design or research* may be'.[160] It is of course often problematic, particularly with regards to dual-use technologies, to determine the point when permitted research crosses the Rubicon and becomes prohibited development.[161] In truth, however, this is an issue related to the available means of verifying compliance with the prohibition in question, rather than the scope of the notion of development *per se*. With this in mind, this author rejects any imposition of a temporal, advanced stage criteria, as this 'appears to conflate the content of the prohibition with the means and ease of verification of compliance'.[162]

Furthermore, the *travaux préparatoires* lends support for the broad interpretation of development to encompass research steps.[163] Austria, for example, considered the concepts of 'research' and 'design' to be covered by the notion of development, and additionally warned that an explicit prohibition on research could unintendedly prohibit research into the peaceful

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[157] Unless the intended purpose of such research activities indisputably aims to facilitate the acquisition or manufacture of nuclear weapons in violation of the TPNW. For instance, developing designs for a nuclear warhead or gun-style trigger mechanism.
[158] Casey-Maslen and Vestner (2019) 91 (emphasis added).
[159] Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 44.
[160] Casey-Maslen (2019) 138.
[161] Goldblat for instance suggests that this may in fact explain why a provision on research activities was omitted from the BWC, as 'research aimed at developing agents for civilian purposes may be difficult to distinguish research serving military purposes', see Goldblat (2002) 138-39.
[162] As noted in relation to the CCM, Wiebe, Smyth, and Casey-Maslen (2010) 116.
[163] See e.g. statement of Ireland (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/29March_Ireland-T2.pdf> 2, which states 'that the term develop in the context of weapons prohibitions is interpreted as capturing design, testing and production, and indeed anything required to bring a weapon into existence and operation'. This again alludes to a broad understanding of develop in a wider sense.

application of nuclear energy and technology.[164] The ICRC suggested that including similar prohibitions to Article 1(1) of the CWC, which included a prohibition on development but not on research, 'would suffice to achieve the purposes of the nuclear weapons ban treaty', and would 'employ well understood terminology, which also served as the basis for the prohibitions set out in other international conventions prohibiting weapons'.[165] This interpretation seemed to have been accepted, at least tacitly, by the participating delegations as little debate on the need for a separate prohibition on prohibited research activities followed thereafter.[166]

b. Development and Research Activities

Assuming that the prohibition of development is to be construed in a broad fashion as determined above, it seems clear that a number of steps that were otherwise permitted under the NPT would now constitute a breach of Article 1(1)(a).[167] Design schematics of the key components of a nuclear explosive device, such as warhead specifications or 'trigger' mechanisms of a nuclear weapon would certainly be covered here. It also seems clear that the production of fissile material, that is highly enriched uranium above 90% U-235 or reprocessed plutonium, would constitute unlawful development, provided that there is a coupled intention to produce nuclear weapons or other nuclear explosive devices.[168]

A more controversial issue is whether TPNW parties would be able to develop weapons delivery systems – particularly those capable of carrying *both* nuclear and conventional weapons – while remaining in compliance with this prohbition. As noted above, the definition of nuclear weapons and other nuclear explosive devices describes the effect of the devices and includes the warhead itself, but generally does not include its means of transport, propulsion or delivery.[169] This is further supported by reference to arms control instruments such as the INF Treaty, which expressly restricts the deployment of nuclear *and* conventional ground-launched cruise and ballistic missiles with a range of 500-5,500 kilometres.[170] By a similar logic, it is unlikely that the development of aircraft, submarine and land-based missile launch-pad systems would be

[164] As noted by Tamara L Patton and Allison Pytlak, 'News in Brief' (2017) 2(3) *Nuclear Ban Daily*, 7. See for a similar concern expressed by the Netherlands, Compilation of Amendments Received from States on the President's Revised Draft Text (30 June 2017) UN Doc A/CONF.229/CRP.1/Rev.1, 15.
[165] Working paper submitted by the ICRC, 'Elements of a Treaty to Prohibit Nuclear Weapons' (31 March 2017) UN Doc A/CONF.229/2017/WP.2, 2.
[166] Casey-Maslen (2019) 138.
[167] See usefully Casey-Masen (2019) 138-41.
[168] Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 44.
[169] See e.g. Article 5, Treaty of Tlatelolco; and Article 1(d), Treaty of Pelindaba.
[170] Daryl G Kimball, 'The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance' (*Arms Control Association: Fact Sheet and Briefs*, updated August 2019) <https://www.armscontrol.org/factsheets/INFtreaty>

prohibited here, particularly as such delivery systems can be used, or easily converted to deliver conventional weapons.[171]

In effect, therefore, any research, design, or development step whose 'sole purpose' can only be to facilitate the subsequent manufacture of a nuclear weapon would be captured under the notion of 'develop' within Article 1(1)(a). Although making this determination may be challenging in practice to determine in many instances given the dual-use nature of nuclear technology, the TPNW nonetheless aspires to address the loophole stemming from the narrow obligation not to 'manufacture' nuclear weapons under the NPT, by instead ensuring that prospective TPNW parties are unable to conduct early nuclear weapons-related research and development steps. Finally, not only does this usefully serve to increase the 'break-out' time for nuclear weapons acquisition by a state, but this would also prohibit any prospective NWPS which joins the TPNW from modernising existing nuclear weapons, an activity not currently prohibited under the NPT.

5. Scope of Nuclear Weapon Testing Activities Covered

One notable loophole established by the existing nuclear non-proliferation and disarmament regulatory framework concerns permitted nuclear weapon testing activities. Although Article I(1) of the CTBT prohibits 'any nuclear weapon test *explosion* or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control',[172] it is accepted that the CTBT does not prohibit its state parties from conducting what are termed 'non-explosive' testing activities, specifically computer simulated tests and sub-critical experiments.[173] Moreover, and as explored in greater depth in Chapter 2, the CTBT is yet to enter into force as a consequence of its onerous Article XIV(1) ratification threshold. Therefore, and notwithstanding the uncertain existence of a parallel customary international law comprehensive nuclear test-ban,[174] at present, no truly comprehensive, legally binding nuclear weapons testing prohibition exists that covers all environments.

To begin with, it is worth emphasising that the prohibition of nuclear weapons test explosions captured by Article 1(1)(a) is certainly welcome. Indeed, given the current frailty of the CTBT in light of its unlikeliness to enter into force in the near future,[175] claims of Russian and

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[171] Casey-Maslen (2019) 140-41.
[172] Article I(1), CTBT (emphasis added).
[173] Gabriella Venturini, 'Test-Bans and the Comprehensive Test Ban Treaty Organisation', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume I* (Asser Press 2014) 145; Goldblat (2002) 60-62; and Masahiko Asada, 'CTBT: Legal Questions Arising from its Non-Entry into Force' (2002) 7(1) *Journal of Conflict and Security Law* 85, 87. See also '1994-96: Debating the Basic Issues' (*CTBTO Preparatory Commission*) <https://www.ctbto.org/the-treaty/1993-1996-treaty-negotiations/1994-96-debating-the-basic-issues/>
[174] See Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 2.d.
[175] Ibid, section 2 generally.

Chinese non-compliance with the zero-yield norm by the US,[176] and fears over a possible withdrawal from the CTBT by the US given its recent record of abandoning arms control instruments[177] – though such fears have likely subsided under the new Biden Administration for the time being – the now operational prohibition on nuclear explosive tests under the TPNW provides a welcome duplication and reinforcement of the CTBT prohibitions at the very least.

It is worth elaborating upon what exactly sub-critical and computer simulated testing activities entail.[178] During sub-critical experiments, fissile material used in nuclear warheads of a sub-critical mass is exposed to chemical explosives under high pressure in order to simulate a nuclear explosion. These tests provide information 'on the behavior of this key element [(ie plutonium or other fissile materials)] when it is subjected to the shock of an explosion',[179] but without causing an explosive event to occur, thereby complying with the CTBT zero-yield standard. Computer simulated testing is rather more self-explanatory. As the present author has described elsewhere:

> 'By inputting into supercomputers data on the specifications of current or newly developed nuclear weapons alongside information gathered from previous explosive testing activities and research, states are able to obtain predictions regarding the expected performance of the nuclear weapon that has been simulated'.[180]

As mentioned in Chapter 2, both Russia and the US have conducted regular sub-critical and computer simulated testing for 'safety and reliability' purposes since the late 1990s,[181] the latest by the US being the 'Nightshade A' test in November 2020.[182] However, even if the NWPS are

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176 See 'Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments' (*US Department of State,* August 2019) <https://www.state.gov/wp-content/uploads/2019/08/Compliance-Report-2019-August-19-Unclassified-Final.pdf> 39-40.

177 As equally suggested by Rebecca Johnson, 'What to Look for in the 2019 NPT Preparatory Committee' (*European Leadership Network*, 23 April 2019) <https://www.europeanleadershipnetwork.org/commentary/what-to-look-for-in-the-2019-npt-preparatory-committee/>

178 This author will often refer to both concepts collectively under the broader brush of 'non-explosive' tests. For a brief distinction upon which the following is based, see Christopher P Evans, 'Remedying the Limitations of the CTBT: Testing under the Treaty on the Prohibition of Nuclear Weapons' (2020) 21(1) *Melbourne Journal of International Law* 45, 53-54.

179 Frank von Hippel, 'Subcritical Experiments' (*Bulletin of the Atomic Scientists*, 14 December 2012) <https://thebulletin.org/2012/12/subcritical-experiments/>

180 Evans (2020) 54.

181 Asada (2002) 87-88.

182 Lillian M Anaya and Kenneth B Adkins, 'Operational and Mission Highlights: A Monthly Summary of top Achievements November 2020' (*Los Alamos National Laboratory Newsletter*, 18 December 2020) <https://permalink.lanl.gov/object/tr?what=info:lanl-repo/lareport/LA-UR-20-30359> 1-2. It has been reported that China has conducted approximately 200 computer simulated nuclear tests between September 2014 and December 2017, see 'China is Speeding Up Its Development of New Nuclear Armaments – Report' (*Sputnik News*,

genuinely conducting non-explosive testing experiments for supposedly 'safety and reliability' purposes, an obvious by-product of these experiments is that the lifespan of existing nuclear weapons can be extended. Consequently, the failure to prohibit both sub-critical and computer simulated testing hinder the CTBT's ability in realising one of its primary objectives of halting 'vertical proliferation and put[ting] the nuclear-armed states on the road to nuclear disarmament'.[183]

Although there was some disagreement amongst the negotiating states as to whether a prohibition of nuclear weapons explosive testing should be incorporated into the TPNW text,[184] what proved more controversial was whether the treaty should go further than the CTBT by prohibiting the non-explosive nuclear weapons testing activities described above.[185] Eventually the final text was agreed upon under Article 1(1)(a), which states:

> '1. Each State Party undertakes never under any circumstances to:
>
> (a) Develop, *test*, produce, manufacture, otherwise acquire, possess or stockpile *nuclear weapons or other nuclear explosive devices*'.[186]

Like earlier nuclear testing treaties, the TPNW does not define the word 'test' at any point. Yet, based on an assessment of its ordinary meaning, the term 'test' would essentially mean 'a procedure intended to establish the quality, performance, or reliability of something, especially before it is taken into widespread use'.[187] This element of the TPNW testing prohibition would seem to raise little controversy.[188]

However, upon closer inspection, the TPNW incorporates a subtly different phrasing of obligation in comparison to the testing prohibition imposed by the CTBT. Whereas the CTBT prohibits each state party from carrying out any 'nuclear weapon test *explosions*' or 'any other nuclear *explosions*', Article 1(1)(a) of the TPNW by contrast would seem to prohibit: first, the testing

29 May 2018) <https://sputniknews.com/asia/201805291064919519-china-nuclear-developments/> cited by Casey-Maslen (2019) 15. North Korea has admitted to carrying out sub-critical experiments in 2018, see Kim Tong-Hyung, 'Trump welcomes N. Korea plan to blow up nuke-site tunnels' (*Associated Press*, 13 May 2018) <https://apnews.com/4ccd19689a034e6c85ca741565dad49f>

[183] Johnson (2009) 180 (bracketed text added); and Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 2.d.

[184] Cuba, Venezuela, and Jamaica among others expressed support for a reference to testing within the TPNW prohibitions, see Allison Pytlak, 'News in Brief' (2017) 1(2) *Nuclear Ban Daily*, 4, while Mexico, Nigeria, and Sweden in particular opposed its inclusion, Tamara L Patton and Allison Pytlak, 'News in Brief' (2017) 2(4) *Nuclear Ban Daily*, 3.

[185] Casey-Maslen (2019) 132.

[186] Article 1(1)(a), TPNW.

[187] 'Test', Definition 1 (*Oxford Online Dictionary*) <https://www.lexico.com/en/definition/test>

[188] Indeed, there was no contrary suggestion that anything other than the ordinary meaning of the term test should be included here.

of nuclear weapons, *without* imposing the qualification that an 'explosion' is required;[189] and second, the testing of other nuclear explosive devices, which *does* incorporate an explosive requirement similar to the CTBT.

Despite this, given the previous discussion concerning definitions,[190] the terms nuclear weapons or other nuclear explosive devices would *both* seem to allude to the detonation of a *completed* nuclear device, whether for military or peaceful purposes,[191] *and* additionally require the release of nuclear energy as an essential aspect of the explosion taking place.[192] Consequently, although Article 1(1)(a) is linguistically distinct from Article I(1) of the CTBT, the ordinary meaning of the text would seem to involve the detonation of a *fully-constructed* or 'completed' nuclear weapon or nuclear explosive device, which in turn would require a release of nuclear energy resulting from an explosive event. This would, therefore, initially suggest that the 'testing loophole' of the CTBT has not been adequately remedied by the TPNW prohibition established.[193]

However, could it nonetheless be determined that non-explosive testing is captured by the TPNW? To begin with, when one considers the underlying object and purpose of the TPNW to achieve nuclear disarmament, an expansive interpretation of the testing prohibition here would certainly prove beneficial in facilitating this objective.[194] Admittedly, the *US-Iran Claims Tribunal* has noted that a 'treaty's object and purpose is to be used to clarify the text, *not to provide independent* sources of meaning that contradict the text'.[195] Similarly, Sinclair argues that over-relying upon a teleological interpretation could risk distorting the ordinary meaning of the text, which should always remain the starting point.[196] Consequently, while the object and purpose may support a wider testing prohibition, this should not come at the expense of contradicting the agreed upon formulated text of the TPNW.

Another argument is raised by Roscini when discussing the contrasting language incorporated within the Treaty of Semipalatinsk on testing under Article 5 – which 'prohibits nuclear weapon test explosions' in a similar manner to the CTBT[197] – with the obligations adopted in both the Treaties of Tlatelolco and Bangkok which prohibit the 'testing… of nuclear weapons',

[189] A requirement made explicit in relation to existing testing obligations assumed under the PTBT and CTBT, see Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 2.
[190] See Section 1.c. above
[191] Casey-Maslen and Vestner (2019) 92.
[192] Casey-Maslen (2019) 136.
[193] See Evans (2020) 66-69.
[194] Ibid, 69.
[195] *USA, Federal Reserve Bank v Iran, Bank Markazi*, Case No A28, (2000–02) 36 Iran–US Claims Tribunal Reports 5, [58]. See also *Golder v United Kingdom* (1975) Application no 4451/70, 21 February 1975 I EHRR 524, Separate Opinion of Judge Fitzmaurice, [23]-[47] who discusses the possibility of 'inventing new obligations' which are not present within the actual text of a treaty when adopting a teleological standard.
[196] Sinclair (1984) 131.
[197] Article 5, Treaty of Semipalatinsk.

without directly referencing the need for a nuclear explosion in a similar manner to Article 1(1)(a).[198] Roscini argues that the principle effect of this distinction is that the Treaty of Semipalatinsk imposes a narrower obligation prohibiting only 'nuclear weapon explosions', whereas the obligations under the Treaty of Tlatelolco and Bangkok – by referring only to the testing of nuclear weapons generally without requiring the qualification of an explosion – are able to capture both simulated and sub-critical tests within the scope of the testing prohibitions which they establish respectively.[199]

When applied to the present discussion, Roscini's argument would suggest that the TPNW establishes a more general undertaking not to test nuclear weapons in a broader sense, in contrast to the specific obligation not to conduct nuclear test explosions under Article I(1) of the CTBT. This conclusion is shared by Rietiker and Mohr who claim that 'while the new treaty [TPNW] refers to nuclear "test" very generally', the CTBT in contrast establishes a more specific requirement that a nuclear explosion, essentially requiring a release of energy, as noted above, to have occurred.[200] From this perspective, this different phrasing between the TPNW and CTBT is significant, and should not be dismissed lightly as a mere oversight by the negotiating states.

This argument would also seem to attract support from the *travaux préparatoires* that suggests the different phrasing was deliberate. In the first draft of the TPNW, President Whyte Gómez included the following testing prohibition:

> '1. Each State Party undertakes never under any circumstances to:
>
> > (e) Carry out any nuclear weapon test explosion or any other nuclear explosion'.[201]

In essence, President Whyte Gómez precisely replicated, word-for-word, the prohibition contained within Article I(1) of the CTBT within the 22 May draft. This approach in part reflected the shared desire amongst negotiating states to 'strengthen and compliment' the existing nuclear non-proliferation, testing, and disarmament regime, rather than undermining it.[202] This

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[198] See e.g. Article 1(1)(a), Treaty of Tlatelolco; and Article 3(1)(c), Treaty of Bangkok.
[199] See Marco Roscini, 'Something Old, Something New: The 2006 Semipalatinsk Treaty on a Nuclear Weapon-Free Zone in Central Asia' (2008) 7(3) *Chinese Journal of International Law* 593, 603.
[200] Rietiker and Mohr (2018) 42.
[201] Draft Article 1(1)(e), Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1.
[202] Briefing by the President (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 12 June 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/06/Briefing-by-President-12-June-2017.pdf>

formulation would have caused less uncertainty as to the scope of the TPNW testing prohibition by essentially incorporating a parallel obligation to the CTBT.

However, as noted, there was a certain degree of division amongst participating state delegations as to the scope of the testing prohibition that should have been established. Some states including Brazil[203] and Cuba called for the inclusion of a broader approach to the concept of testing under Article 1 from an early stage of the negotiations,[204] while Ecuador similarly 'wanted to see subcritical testing explicitly prohibited'.[205] By contrast, a second group of states including both Sweden and Mexico argued that Draft Article 1(1)(e) was unnecessary and risked undermining the CTBT framework by creating an alternative prohibition that could jeopardise future ratifications of the CTBT.[206]

Quite simply, therefore, the *travaux préparatoires* highlights the lack of agreement among the participating delegations throughout the negotiations as to whether an explicit reference to sub-critical and computer simulated testing should be included within the TPNW. As a result, Casey-Maslen has described the final testing provision language included under Article 1(1)(a) as representing a 'compromise' of the competing approaches, but concedes that the final prohibition was 'narrower than a number of states had advocated'.[207] This observation further suggests that the final prohibition, despite its alteration away from the wording of Article I(1) of the CTBT, still does not extend to cover both sub-critical and computer simulated tests.

Nevertheless, it is conceivable to suggest that because the negotiating delegations consciously agreed to modify the initial undertaking in the 22 May draft away from an exact replication of Article I(1) of the CTBT indicates a desire – at least to some extent – to include a broader testing obligation under Article 1(1)(a). In other words, why change the 22 May formulation if a direct replication of the testing norm established Article I(1) of the CTBT was generally preferred? However, while this would seem to add support for the view that non-explosive testing is covered by the TPNW prohibition, the ultimate decision to omit a specific prohibition on non-explosive testing, despite calls from Ecuador and Brazil to include such a

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[203] As noted by Allison Pytlak, 'News in Brief' (2017) 1(2) *Nuclear Ban Daily*, 4.

[204] Cuba for instance made an early declaration that testing should cover sub-critical and computer simulated tests in order for the treaty to be truly comprehensive, see statement by the Permanent Representative of Cuba to the United Nations, Ambassador Anayansi Rodríguez Camejo (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 27 March 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/06/2017-03-27-Eng.-Intervenci%C3%B3n-Conferencia-de-NNUU-Eliminaci%C3%B3n-Armas-Nucleares.pdf>

[205] Casey-Maslen (2019) 133.

[206] Tamara L Patton and Allison Pytlak, 'News in Brief' (2017) 2(3) *Nuclear Ban Daily*, 8. See also Sweden, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/170707-EoV-Sweden.pdf>

[207] Casey-Maslen (2019) 134.

standard, equally reflects the fact that attending states were unable to reach consensus regarding the inclusion of non-explosive testing under the TPNW's prohibitions.[208]

Moreover, this lack of consensus regarding the scope of the prohbition here is further reflected in the subsequent practice of states towards the end of negotiations, and following on from the TPNW's adoption.[209] Upon ratifying the TPNW, Cuba submitted an interpretative declaration[210] stating that 'the prohibition on the testing of nuclear weapons contained in Article 1(1)(a) *encompasses all forms of testing, including* those performed using non-explosive methods such as subcritical testing and computer simulations', thus clearly supporting the wider prohibition.[211] By contrast, Sweden reiterated its 'strong preference not to have nuclear testing in this Treaty',[212] while Switzerland argued that the 'generic reference to nuclear testing' lacked specificity and could undermine the CTBT norm.[213] Similarly, both Iran and Kazakhstan argued during the final stages of negotiations that the TPNW 'should have included sub-critical testing' according to one observer,[214] thereby suggesting that the scope of the prohibition is necessarily narrower than these states had hoped.

Overall, such subsequent divergent opinions among states merely provides additional evidence that the precise scope of the Article 1(1)(a) testing prohibition remains unclear,[215] meaning that non-explosive testing activities may be left unregulated by the testing prohibition of Article 1(1)(a). Fortunately, however, the prohibition of development also contained in Article 1(1)(a) may afford a secondary means of capturing non-explosive testing activities.[216] As noted above,[217] the prohibition of developing nuclear weapons can be interpreted in a broad fashion to encompass various 'research' activities that may aid the process of acquiring a nuclear weapon. In essence, as soon as it can be determined that an activity contributed towards the development,

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[208] Evans (2020) 72, where this author notes that this also stands in contrast to the Model Nuclear Weapons Convention that includes a specific prohibition on non-explosive forms of testing too.
[209] Article 31(3)(b), VCLT, allows recourse to subsequent practice of states to aid interpretation.
[210] Separate to its declaration submitted pursuant to Article 2, TPNW.
[211] See Declaration of Cuba, <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26&clang=_en#EndDec>. Similar opinions were issued near the end of negotiations, by both Nigeria, Allison Pytlak, 'News in Brief' (2017) 2(13) *Nuclear Ban Daily*, 7; and Ecuador, Allison Pytlak, 'News in Brief' (2017) 2(15) *Nuclear Ban Daily*, 3.
[212] Sweden, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons*, *Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/170707-EoV-Sweden.pdf>
[213] Switzerland, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Swiss-Explanation-of-Vote2.pdf>
[214] Allison Pytlak, 'News in Brief' (2017) 2(13) *Nuclear Ban Daily*, 7.
[215] Evans (2020) 72.
[216] A view shared by Stuart Casey-Maslen, 'The Impact of the TPNW on the Nuclear Non-Proliferation Regime', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 392.
[217] See section 4.a.

research or production of a nuclear weapon or nuclear explosive device, such activities would be prohibited under the notion of 'develop' within Article 1(1)(a).[218]

Given this broad understanding of development to encompass research activities, one could argue that both sub-critical and computer simulated testing activities would amount to prohibited research activities. This is particularly persuasive when one considers the purpose of non-explosive experiments, which 'enhance our understanding of how a newly developed or qualitatively improved existing nuclear weapon would operate under certain conditions, and therefore help ascertain the expected result of its use and affirm the reliability of current stockpiles'.[219] This in turn helps to ascertain the expected result of a nuclear weapon's use, and thus reaffirms the reliability of current stockpiles.[220] Put simply, the underlying aim of non-explosive testing activities clearly conforms to and falls within the investigative nature of research, which has the objective of 'establishing facts and reaching conclusions' as to the performance of the nuclear weapon in question.[221]

Moreover, there is some support from the *travaux préparatoires* that the negotiating states endorsed the inclusion of non-explosive forms of nuclear weapon testing within the ambit of the prohibition of development. Ireland, for example, reportedly took this position in line with its wider understanding of the concept of development under the TPNW.[222] Chile similarly expressed concerns over the specific inclusion of 'test explosion' in the 22 May draft, and instead preferred 'a broader interpretation that there is a prohibition on any kind of development of nuclear weapons'.[223] In summarising the competing views expressed during the negotiations, Casey-Maslen claims that:

> 'those opposing the explicit prohibition of subcritical nuclear testing *were not* seeking to prevent the 2017 Treaty from rendering the activity unlawful… But as they argued, such *sub-critical testing is prohibited by the undertaking never under any circumstances to develop* nuclear weapons or other nuclear explosive devices'.[224]

Consequently, considering the research-orientated nature of both sub-critical and computer simulated testing, it seems reasonable to conclude that non-explosive testing activities would likely

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[218] Casey-Maslen (2019) 138.
[219] See Evans (2020) 77.
[220] Ibid; and noted also by Asada (2002) 88.
[221] As noted previously in section 4.a.
[222] Allison Pytlak, 'News in Brief' (2017) 1(4) *Nuclear Ban Daily*, 11.
[223] Tamara L Patton and Allison Pytlak, 'News in Brief' (2017) 2(4) *Nuclear Ban Daily*, 4.
[224] Casey-Maslen (2019) 144 (emphasis added). This could logically extend to computer simulated tests given the similar purposes and aims of the activities.

be captured by the wider ambit of the prohibition of development under Article 1(1)(a), thus closing the testing 'loophole' established under the CTBT framework.

At the same time, it is apparent that some sub-critical and computer simulated testing activities may amount to peaceful, and therefore permitted, research. Indeed, one possible example may be the use of computer simulations to highlight the potential dangers and consequence for global weather and food production in the event of a limited nuclear exchange, such as Helfand's 'Nuclear Famine' report.[225] Such activities clearly lack the required intent to engage in research that would lead to the acquisition of nuclear weapons, and would instead likely be justified as peaceful research and planning. What is necessary to determine, therefore, is the purpose of the research activity in question. If a state party were to carry out non-explosive testing experiments for purposes that no longer have any identifiable civilian application, such activities would be prohibited under the guise of the prohibition of development within Article 1(1)(a).[226]

6. Stationing, Installation and Deployment

Nuclear weapons stationing remains a contentious, legally disputed matter that the TPNW has sought to address. As recalled in Part I of this thesis,[227] the US has argued that Articles I and II of the NPT were specifically drafted to ensure that existing nuclear sharing arrangements with NATO allies in Europe would remain permitted, so long as control over the weapons in question remained with the US.[228] Although the legality of this position and nuclear sharing arrangements remains disputed,[229] the reality of the matter is that the US has managed to maintain a physical nuclear presence in Europe, with US nuclear weapons currently stationed in military bases located in Italy, Germany, Belgium, the Netherlands, and Turkey.[230] Given the existence of this loophole, it was therefore vital for many TPNW supporters to ensure that a watertight prohibition on all forms of

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225 See for instance reports which use simulated information on hypothetical nuclear exchanges to determine environmental damage, such as Ira Helfand, 'Nuclear Famine: Two Billion People at Risk?' (*International Physicians for the Prevention of Nuclear War and the Physicians for Social Responsibility*, November 2013) <https://www.psr.org/wp-content/uploads/2018/04/two-billion-at-risk.pdf>

226 Krutzsch (2014) 65, who employs a similar construction of 'defined and recognisable purpose' in determining the illicit nature of a development activity in the context of the CWC.

227 As discussed in Part 1: Chapter 2: Existing Nuclear Weapons-related Instruments, section 1.

228 Mohamed I Shaker, *The Nuclear Nonproliferation Treaty: Origin and Implementation, 1959-1979*, *Volumes I-III* (Oceana Publications 1980) Vol I, 234. The US argument in relation to nuclear stationing is explored in greater depth in section 8.c. below, particularly its assertion that the NPT will cease to be the controlling legal framework upon the outbreak of armed conflicts.

229 For a detailed analysis of the history behind the 'stationing loophole', see Shaker (1980) Vol I, 191-245; and see Joyner (2009) 13-15, who summarises and critiques the US position.

230 See for further details of these arrangements, 'Nuclear Disarmament NATO: U.S. Nuclear Weapons on the Territories of 5 NATO States' (*Nuclear Threat Initiative*, 28 June 2019) <https://www.nti.org/analysis/articles/nato-nuclear-disarmament/>

nuclear weapon stationing should be expressly included within the final treaty text.[231] Article 1(1)(g) constitutes the outcome of this desire, and obligates state parties never to '[a]llow any stationing, installation or deployment of any nuclear weapons or other nuclear explosive devices in its territory or at any place under its jurisdiction or control'.[232]

It must first be noted that Article 1(1)(g) imposes what seems to be a qualifying criterion through the inclusion of the term 'allow'. In essence, this means that a state party would *only* violate Article 1(1)(g) if it gives permission, or knowingly accepts the stationing of nuclear weapons within its territory or under its jurisdiction or control. A state party that is overpowered by a NWPS, which then decides to station its nuclear weapons within the territory of the overrun state party, is unlikely to have violated Article 1(1)(g), provided the state party has 'done all it reasonably could to prevent the stationing, installation or deployment of any nuclear weapons or other nuclear explosive devices from occurring'.[233] This would naturally align with the general principle incumbent upon all states to perform its treaty obligations in 'good faith'.[234]

Although the TPNW takes a comprehensive approach by prohibiting state parties from allowing the stationing, installation and deployment of nuclear weapons in its territory or jurisdiction, it seems apparent that the former concept of stationing would seem to encompass both installation and deployment activities.[235] The Treaty of Rarotonga, for example, defines stationing widely as 'emplantation, emplacement, transportation on land or inland waters, stockpiling, storage, installation and deployment'.[236] Although other NWFZ take a more restrictive approach, they still similarly define stationing as 'to deploy, emplace, implant, install, stockpile or store' nuclear weapons.[237]

Casey-Maslen, however, suggests that each concept can be distinguished temporally based on the length of duration of the 'stationing' arrangement in question.[238] Stationing, in his view,

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[231] As noted by Daniel H Joyner, 'The Treaty on the Prohibition of Nuclear Weapons' (*EJIL: Talk!*, 26 July 2017) <https://www.ejiltalk.org/the-treaty-on-the-prohibition-of-nuclear-weapons/>; and Allison Pytlak, 'News in Brief' (2017) 1(4) *Nuclear Ban Daily*, 11. See also statement of Algeria (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://statements.unmeetings.org/media2/14683461/algeria.pdf>; and statement of Thailand (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://statements.unmeetings.org/media2/14683405/thai.pdf>

[232] Article 1(1)(g), TPNW.

[233] Casey-Maslen (2019) 170-71.

[234] Article 26, VCLT.

[235] As noted by John Borrie, Tim Caughley, Torbjørn Graff Hugo, Magnus Løvold, Gro Nystuen, and Camilla Waszink, *A Prohibition on Nuclear Weapons: A Guide to the Issues* (UNIDIR, 2016) 32. A contrasting opinion is offered by Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 53, who considers deployment to be the broadest term, though this fails to appreciate the definitions afforded within the NWFZ noted here.

[236] Article 1(d), Treaty of Rarotonga. See also, Article 1(d), Treaty of Pelindaba.

[237] See e.g. Article 1(d), Treaty of Bangkok. See also, Article 1(c), Treaty of Semipalatinsk. Notably the Treaty of Tlatelolco only prohibits the installation and deployment of nuclear weapons, see Article 1(1)(b).

[238] Casey-Maslen (2019) 171-72.

should be regarded 'typically as a medium- to long-term undertaking' subject to bilateral or multilateral agreement. Installation by contrast is an act of deployment which is 'expected to be prolonged and requires supporting infrastructure', such as the construction of missile silos or the placing of ground-launched missile launchers. Finally, deployment is a short-term undertaking that 'involves bringing into another jurisdiction nuclear weapons that *may soon be employed in a military operation*'.[239] In other words, Article 1(1)(g) encompasses a wide notion of activities included to ensure that no presence of nuclear weapons, even of a short or temporary duration is permitted. This useful distinction demonstrates the overlapping, and thus comprehensive, scope of activities covered by Article 1(1)(g),[240] and confirms that a violation of Article 1(1)(g) would not require any prolonged duration of stationing: in effect, any presence of nuclear weapons of a third state would be prohibited by the TPNW if not swiftly followed by the removal of such weapons.[241]

Finally, the TPNW prohibits state parties from allowing the aforementioned activities in either its territory or 'at any place under its jurisdiction or control'. In contrast to the narrower definition taken by the Treaty of Tlatelolco,[242] the Treaty of Rarotonga adopts a somewhat more expansive interpretation of territory to include 'internal waters, territorial sea and archipelagic waters, the seabed and subsoil beneath, the land territory and the airspace above them'.[243] This wider definition seems appropriate to apply in the present context, and clearly identifies the various forms of sovereign territory a state may possess.[244] Moreover, this pragmatically avoids the extension of the idea of 'territory' to cover exclusive economic zones, an issue that has led to opposition from the NWPS in relation to the Treaty of Bangkok's zone of application.[245] In addition, although jurisdiction is closely linked with a state's sovereign territory,[246] it is generally accepted that 'vessels on the high seas are subject to no authority except that of the State whose jurisdiction they fly'.[247] As such, while a vessel would perhaps not ordinarily be understood as a

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239 Ibid, (emphasis added).
240 See section 1.b. above.
241 Indeed, if a NWPS is simply transporting nuclear weapons through the territory of a state party, this would not likely constitute stationing but rather transit, a point made by Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 53. As will be noted, transit is not explicitly prohibited by the TPNW, but may be captures implicitly by other prohibitions, see section 8.a.
242 Article 3, Treaty of Tlatelolco.
243 Article 1(b), Treaty of Rarotonga. See also Article 1(b), Treaty of Pelindaba.
244 Agreeing with Casey-Maslen (2019) 172.
245 As noted by Cecilie Hellestveit and Daniel Mekonnen, 'Nuclear Weapon-Free Zones: The Political Context', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 357.
246 See generally, Bernard H Oxman, 'Jurisdiction' (2007) *Max Planck Encyclopaedia of International Law*.
247 *The Lotus* [*France v Turkey*] PCIJ 1927, Series A No 10, [64].

'place' *per se*,[248] should a state party host any nuclear weapons of a NWPS on its military vessels located in international waters – over which it would have jurisdiction and control – this would likely constitute a violation of Article 1(1)(g).

Overall, the TPNW undoubtedly resolves the disputed stationing 'loophole' supposedly established by the NPT.[249] It does not matter if a state party does not have physical or operational control over the weapons: nuclear weapons simply cannot be present, for any reason or any circumstances, in the territory of a state party.[250] Accordingly, the conclusion and criticism raised by the Netherlands that the TPNW is 'incompatible with its NATO obligations' relating to existing nuclear sharing is entirely correct.[251] Indeed, it would be contrary to the TPNW's underlying object and purpose of achieving and maintaining a nuclear free-world if a 'hosting' state were able to accede to the treaty while permitted to allow nuclear stationing on its territory. The two acts are simply incompatible.

7. Assist, Encourage, Induce

Finally, under Article 1(1)(e) each state party undertakes never under any circumstances to 'assist, encourage, or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Treaty',[252] nor to seek or receive assistance to engage in any activity prohibited by the TPNW under Article 1(1)(f).[253] It will be recalled that under the NPT Articles I and II, the NWS remain free to provide assistance in the development of nuclear weapons to other NWS,[254] an exception included to allow for continued US-UK cooperation in the field of nuclear weapons development.[255] Instead, only the provision of assistance, encouragement or inducement to NNWS is prohibited by Article I. Furthermore, while NNWS are obligated not to 'seek or receive assistance in the manufacture of nuclear weapons',[256] nothing in the text of Article II of the NPT requires the NNWS to refrain from providing assistance, encouragement or induce NWS to

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[248] Although the notion 'place' infers a location or building, it could equally be defined as an 'area [or location] used for a specified purpose or activity', such as military operations at sea, 'Place', Definition 1 (*Lexico Online Dictionary*) <https://www.lexico.com/definition/place>

[249] Mika Hayashi, 'NATO's Nuclear Sharing Arrangements Revisited in Light of the NPT and the TPNW' (2021) *Journal of Conflict and Security Law* (advance access) 15 ('Unlike the previous debate with regard to the NPT, the nuclear sharing arrangements incompatibility with the TPNW appears to be undisputed').

[250] Roscini (2008) 598 makes this point also in relation to the Treaty of Semipalatinsk.

[251] See the Netherlands, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons*, *Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Netherlands-EoV-Nuclear-Ban-Treaty.pdf>. This argument against the TPNW will be explored in greater depth in due course in Chapter 5.

[252] Article 1(1)(e), TPNW.

[253] Article 1(1)(f), TPNW.

[254] This is recalled by Goldblat (2002) 101.

[255] As noted during the NPT negotiations by Mason Willrich, 'The Treaty on Non-Proliferation of Nuclear Weapons: Nuclear Technology Confronts World Politics' (1968) 77(8) *Yale Law Journal* 1447, 1477; and Joyner (2009) 11.

[256] Article II, NPT.

possess, develop, or even use nuclear weapons.[257] This allows NWS to receive nuclear materials such as uranium deposits and technology or component parts of a nuclear weapon from NNWS. Moreover, this would seemingly fail to prohibit NNWS from providing assistance to any NPT defined NNWS that remain outside of the NPT regime.[258]

Although the inclusion of a prohibition on assisting, encouraging, or inducing received extensive support throughout the negotiations by participating states,[259] it is likely that this prohibition will prove particularly controversial in terms of its practical application. This largely stems from the fact that the scope of activities included within the notions of 'assist', 'encourage' and 'induce' is not readily apparent or defined by the TPNW.[260] Despite this, there are various indications that the undertakings within Article 1(1)(e) are extensively broad, encompassing a wide, non-exhaustive range of activities that would constitute prohibited assistance, encouragement, or inducement.

First, rather than simply prohibiting assistance, encouragement, and inducement *vis-à-vis* other state parties to the TPNW, the obligation is directed to never assist, encourage, or induce 'anyone'. According to Krutzsch in discussing a comparable provision in the CWC, this may 'not only be a State, irrespective or nor it is Party to the Convention, but also an organization, an enterprise, a person, or a group of persons, regardless of citizenship'.[261] In essence, this term effectively ensures that state parties cannot provide assistance to any natural or legal person, nor any state and non-state entities.[262]

Second, Article 1(1)(e) states that TPNW parties undertake never to assist, encourage, or induce anyone, 'in any way', to engage in prohibited activities under the treaty. According to the ICRC, this suggests the material scope of the obligation assumed 'should be construed broadly, to include conduct by action and by omission'.[263] This is examined further in the subsection sections that follow.[264]

Finally, state parties cannot assist anyone to engage in 'any activity prohibited to a State Party under this Treaty' – in other words, those activities prohibited under Article 1(1). When read in conjunction with the terms 'in any way' and 'anyone' it seems clear that the undertaking assumed

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257 Willrich (1968) 1477.
258 Goldblat (2002) 102.
259 As noted by Burroughs (2017) 10.
260 See for a similar conclusion reached by Casey-Maslen (2019) 158.
261 Krutzsch (2014) 67.
262 Casey-Maslen (2019) 160.
263 Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 2. On the other hand, Wiebe, Smyth, and Casey-Maslen (2010) 127 suggest that the words 'in any way' are redundant, and do not affect the scope of the APMBC in light of its omittance.
264 See sections 7.a. and 7.b. below.

by state parties here is purposefully designed to be extensively broad in terms of persons and activities covered by such prohibited assistance. As a result, the TPNW expands upon the narrower obligation first imposed under Article I of the NPT, universalising the prohibition established to all parties on an equal footing.

a. Assist

The notion of assistance is ordinarily understood as meaning 'to give usually supplementary support or aid'.[265] The idea of assistance is most commonly discussed in connection with Article 16 of the ILC *Draft Articles on State Responsibility*, which offers a useful guiding reference for the following discussion.[266] Specifically, Draft Article 16 sets two criteria needed to establish state responsibility for unlawful assistance:[267] first, a causal *nexus* between the conduct and prohibited act; and, second, the mental element or requisite intention.[268] In terms of the causal *nexus*, although, as noted, assistance can be provided in numerous different ways, it remains necessary to establish a causal *nexus* between the assistance provided, and the prohibited act of the receiving state. By employing a similar rationale advanced by the DARSIWA, specifically Article 16,[269] the assistance in question must have 'contributed significantly to the internationally wrongful act, even if it was not essential to its occurrence'.[270] In other words, so long as the assistance in question does more than offer a minimal contribution to the prohibited activity in question, this causal requirement will be satisfied.[271] As such, while the scope of activities covered by Article 1(1)(e) are broad, they are equally not unlimited.[272]

However, while it is reasonable to suggest that the assistance in question must have contributed 'significantly' to the wrongful act,[273] what has led to greater disagreement academically is the coinciding 'mental element' and precisely what level of intention or knowledge on the part

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[265] 'Assist', Definition 1 (*Merriam-Webster Dictionary*) <https://www.merriam-webster.com/dictionary/assist>
[266] Draft Article 16, International Law Commission, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries' (2001) UN Doc A/56/10, *Yearbook of the International Law Commission*, Vol II, Part Two, 65. See also on the commentary to Draft Article 16 here (hereafter DARSIWA or UN Doc A/56/10).
[267] As identified by Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law,* October 2018, 17-18.
[268] UN Doc A/56/10, 66.
[269] Draft Article 16, UN Doc A/56/10, specifically 66 at [5].
[270] Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 5.
[271] As will be discussed shortly, the ILC and ICRC both emphasis the need to establish a 'mental' element. This will be discussed separately in due course.
[272] As similarly concluded by Anna Hood and Monique Cormier, 'Can Australia Join the Nuclear Ban Treaty Without Undermining ANZUS?' (2020) 44(1) *Melbourne University Law Review* 132, 146.
[273] Hood and Cormier (2020) 147.

of the assisting state is required.[274] The requisite mental element remained a matter of contention throughout the negotiations of the TPNW, and remains largely unresolved in disarmament law.[275]

In his role as Special Rapporteur, Crawford emphasised the need to show that the assisting state '*intended*, by the aid or assistance given, to facilitate the occurrence of the wrongful conduct'.[276] This clearly imposes an incredibly high threshold requirement of having to demonstrate an express intention by the assisting state to purposefully contribute towards the wrongful act of by the receiving state. Casey-Maslen, however, has opposed this approach in the context of disarmament instruments, instead highlighting the text of Article 16 itself which refers only 'to knowledge of the circumstances of the internationally wrongful act'.[277] Casey-Maslen further draws from the ICJ during the *Genocide* case, where the Court noted that assistance:

> 'cannot be treated as complicity in genocide *unless at the least that organ or persons acted knowingly,* that is to say, in particular, *was aware of the specific intent of the principal perpetrator*'.[278]

This approach gains some support from the *travaux préparatoires* of the 2017 negotiations. According to the ICRC, Sweden submitted an amendment during the negotiations to include the word 'intentionally' before assist, encourage or induce.[279] However this revision was opposed by other delegations, which may suggest that the 'majority did not want to limit the mental element of Article 1(1)(e) mere to intent'.[280]

Which approach is therefore appropriate in the present context? It is evident that a state party that expressly intends to provide assistance to any actor to engage in an unlawful act would undoubtedly violate the prohibition of assistance under Article 1(1)(e).[281] Such admissions or clarity

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274 For an excellent discussion of this element, see Harriet Moynihan, 'Aiding and Assisting: The Mental Element Under Article 16 of the International Law Commission's Articles on State Responsibility' (2018) 67(2) *International and Comparative Law Quarterly* 455, 463-64.

275 As noted by the ICRC, see Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 6-7.

276 UN Doc A/56/10, 66 (emphasis added).

277 Casey-Maslen (2019) 161-62; and as noted by Moynihan (2018) 463-64.

278 *Case Concerning Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (*Bosnia and Herzegovina v Serbia and Montenegro*) [2007] ICJ Rep 43, [421].

279 Compilation of Amendments Received from States on the President's Revised Draft Text (30 June 2017) UN Doc A/CONF.229/CRP.1/Rev.1, 20.

280 Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 6.

281 Hood and Cormier (2020) 148. Casey-Maslen also comes to this conclusion in the context of the APMBC, see Stuart Casey-Maslen, *Commentaries on Arms Control Treaties Volume I: The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction* (2nd edn, Oxford University Press 2005) 95.

of circumstance are of course unlikely to arise, and construing intent can be incredibly challenging in most cases.[282] However, it can be argued that an assisting state that has sufficient knowledge and awareness of the factual circumstances may 'automatically imply knowledge of breaches of the law' by offering assistance in some cases.[283] For example, if a state party were to supply 'State A' – which is widely known to be developing a nuclear weapons programme – with fissile material such as reprocessed plutonium suitable for nuclear warheads, one can reasonably infer the requisite intention of the assisting state party in question from the facts, specifically given the likely outcome of providing such assistance would help State A develop or produce nuclear weapons contrary to Article 1(1)(a). In other words, one could be 'practically certain' of the eventual unlawful activity on the part of the receiving state in certain circumstances.[284] Such factual certainty must, of course, be inferred with caution,[285] but the 'more reasonably foreseeable this causal link, the more difficult it will be for a State Party to credibly argue it did not have the requisite knowledge'.[286]

As noted above, the phrase 'in any way' would suggest that a wide variety of activities could constitute 'assistance', a position supported by Bangladesh during the negotiations of the TPNW.[287] This broad interpretation also makes sense in light of the interpretation of assistance adopted within the CWC.[288] Here, Krutzsch notes that:

> 'assistance… can be given not only by means of material or intellectual support, e.g., supplying chemicals or technology needed for the production of chemical weapons, but also through financial resources, technological-scientific know-how, or provision of specialized personnel, military instructors, etc… or by supporting the concealment of such activities'.[289]

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[282] For a useful overview of how one construes intent under international law, see Moynihan (2018) 467-68.

[283] Moynihan (2018) 459; and Georg Nolte and Helmut P Aust, 'Equivocal Helpers: Complicit States, Mixed Messages and International Law' (2009) 58(1) *International and Comparative Law Quarterly* 1, 13-15. Quite simply, the assisting state would have had 'knowledge that its conduct would have such a result', Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 7.

[284] See for a similar example related to Germany providing airbases to the US in 1958 prior to US intervention in Lebanon, John Quigley, 'Complicity in International Law: A New Direction in the Law of State Responsibility' (1986) 57(1) *British Yearbook of International Law* 113, 113.

[285] For a discussion of the arguments for and against constructive knowledge, see Moynihan (2018) 460-64.

[286] Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 7.

[287] Ibid, 3.

[288] See Article I(1)(d), CWC.

[289] Krutzsch (2014) 67.

Consequently, one could argue that the supply of highly enriched, 'weapons-grade' fissile material would constitute unlawful assistance, provided that the assisting state is aware of the future use of this material for nuclear weapons rather than scientific research. Similarly, a state party which permits its territory to be used by another state in order to test inter-continental ballistic missiles (ICBM) specifically designed to deliver nuclear warheads would likely violate Article 1(1)(e).[290] Moreover, reliance on extended nuclear deterrence in order 'to benefit from an ally's political commitment to use nuclear weapons on its behalf in certain circumstances' would likely violate the obligation never to 'seek or receive' assistance in any prohibited activity imposed by Article 1(1)(f).[291] However, providing nuclear materials and technology to another state for peaceful purposes – assuming that the receiving state has IAEA safeguard agreements in place[292] – would clearly not amount to prohibited assistance under the TPNW. Nor would trading in dual-use materials and technology, provided that the exporting state party has no knowledge of any intention on the part of the recipient state to engage in prohibited activity.[293]

b. Encourage and Induce

Alongside the prohibition on assistance, the TPNW also goes considerably further than general rules of international law of assistance in terms of state responsibility enshrined within Draft Article 16 of DARSIWA, and instead consistently follows the terminology employed elsewhere by prohibiting encouragement and inducement.[294] The term 'encourage' in ordinary parlance means to 'attempt to persuade',[295] or 'to make something more likely to happen'.[296] This aspect of Article 1(1)(e) bares most significance due to its implication for those states that are currently members of collective security arrangements, particularly the NATO alliance.[297] Indeed, it is difficult to envisage how a state party to the TPNW can endorse the continued possession, and even the potential use or threat of use of nuclear weapons in certain circumstances of an allied NWPS, without such support constituting prohibited encouragement.[298] As will be discussed, these

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290 For a discussion of activities that would likely be covered here, see Casey-Maslen (2019) 162-63.
291 International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 3.
292 As previously required by Article III(2), NPT.
293 Nystuen, Egeland, and Graff Hugo (2018) 18.
294 See for example, Article I(1)(d), CWC; and Article 1(1)(c), APMBC.
295 'Encourage', Definitions 1(b) (*Merriam-Webster Online Dictionary*) <https://www.merriam-webster.com/dictionary/encourage>
296 'Encourage', Definition 1 (*Cambridge Online Dictionary*) <https://dictionary.cambridge.org/dictionary/english/encourage>
297 Casey-Maslen (2019) 163.
298 As concluded by the International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018)

prohibitions under Article 1(1)(e) and (f) represent one of the primary arguments raised against the TPNW by nuclear umbrella states within NATO by preventing reliance upon extended deterrence.[299]

Finally, the prohibition on 'inducing' other states to engage in activities prohibited under Article 1(1) generally encompasses offering some form of incentive, or 'something in exchange for the performance of that activity'.[300] In other words, it entails a *quid pro quo*, or exchange of undertakings in order to influence or persuade an actor to do something.[301] Although there is a degree of overlap between this concept and both encouragement and assistance, Wiebe, Smyth, and Casey-Maslen suggest that inducement would seem to be narrower in scope by implying that the violation in question would 'have to happen', as opposed to merely encourage a violation of prohibited activity.[302]

This is perhaps a stretch. Indeed, a state could perhaps *try* to induce another state to engage in a prohibited activity through the offering of an incentive, be that monetary, political, or some other asset, but ultimately be unsuccessful. This would not, however, negate the fact that the inducing state has attempted to engage in a course of conduct that is expressly prohibited by Article 1(1)(e). Indeed, Article 1(1)(e) provides no indication that the inducement (or encouragement for that matter) must be successful for a violation to arise, but rather only that it must not be attempted by the state party *prima facie* under any circumstances. Thus, a state which offers some form of incentive to any other entity to engage in a prohibited activity under Article 1 would likely violate this prohibition, regardless of whether the inducement has led to a violation of activities prohibited under Article 1.

c. Summary

Overall, Articles 1(1)(e) and (f) establish a 'catch-all' obligation capable of capturing a wide range of activities which have not been prohibited explicitly by the TPNW. Yet equally significant however, the undertakings never to assist, encourage and induce provides the non-aligned NNWS with a means to challenge nuclear weapon dependency by prohibiting activities which encourage their retention. Indeed, although the non-aligned NNWS obviously cannot physically disarm existing nuclear weapons themselves, this prohibition provides one way the non-aligned NNWS

<http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf>

299 See Part II: Chapter 5: Addressing Criticisms of the TPNW.

300 Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 51.

301 Casey-Maslen (2019) 166.

302 Wiebe, Smyth, and Casey-Maslen (2010) 129.

can have some tangible impact moving forward by prohibiting any significant assistance where there is knowledge that the receiving state may engage in activities prohibited by the TPNW. This is therefore a welcome development which addresses the limited prohibition of assistance established by Article I and II of the NPT.

8. Does the TPNW Leave Any Gaps in Terms of Activities not Prohibited?

Despite the apparent comprehensiveness of the TPNW prohibitions made evident above, it is also worth exploring if any possible activities remain free from the scope of Article 1. In truth, this likely concerns two principle activities: transit, and financing. However, this section will also explore another possible loophole concerning the continued application of the TPNW prohibitions in all circumstances, including during armed conflicts.

a. Transit

One contentious issue throughout the negotiations was whether the TPNW should explicitly prohibit the transit of nuclear weapons through the territory or jurisdiction of a state party.[303] Transit has not been defined in any of the NWFZs, but is ordinarily understood as meaning 'the action of passing through or across a place'.[304] In practice, a prohibition on transit would require state parties to take positive steps 'to ensure that nuclear weapons or their components do not traverse its territory and the air and water over which it has jurisdiction and control'.[305] Unsurprisingly, therefore, some states argued that the inclusion of the prohibition of transit afforded a practical measure that could be implemented by the NNWS themselves, which 'could impact directly on policies and practices of the nuclear-armed States'.[306]

However, there are valid reasons as to why the prohibitions of transit was not included within the final TPNW prohibitions. To begin, the NWFZ 'are relatively vague on the issue of transit'.[307] For example, Article 5(2) of the Treaty of Rarotonga notes that state parties are:

> '*free to decide for itself* whether to allow visits by foreign ships and aircraft to its ports and airfields, transit of its airspace by foreign aircraft, and navigation by foreign

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303 As noted by Alyn Ware, 'The Ban Treaty, Transit and National Implementation: Drawing on the Aotearoa-New Zealand Experience' (*Aotearoa Lawyers for Peace*, 2017) <http://www.unfoldzero.org/wp-content/uploads/The-ban-treaty-transit-and-national-implementation.pdf>

304 'Transit', Definition 2 (*Oxford Online Dictionary*) <https://www.lexico.com/en/definition/transit>

305 Burroughs (2017) 9.

306 As noted by Ware (2017) 1. See also Gaukhar Mukhatzhanova, 'The Nuclear Weapons Prohibtion Treaty: Negotiations and Beyond' (2017) 47(7) *Arms Control Today* 12, 16; and statement of Ambassador Tene of Indonesia (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 29 March 2017) <http://statements.unmeetings.org/media2/14683445/indonesia.pdf>

307 Caughley (2017) 5.

> ships in its territorial sea or archipelagic waters in a manner not covered by the rights of innocent passage, archipelagic sea lane passage or transit passage of straits'.[308]

Although the TPNW does not contain a comparable obligation to this, Nystuen, Egeland and Graff Hugo equally observe that 'nothing in the text of the TPNW prevents state parties from deciding for themselves whether to allow the transit passage of foreign ships and aircraft or to require visiting ships to actively declare whether or not they are carrying nuclear weapons'.[309] While this obviously would not amount to a standardised, legally binding obligation imposed by the TPNW, this does allow state parties to unilaterally implement national legislation and penal measures designed to prevent transit in conjunction with its wider explicit obligations assumed under the treaty.[310]

Perhaps the most significant reason to exclude an explicit prohibition on transit is that enforcing and verifying compliance with the undertaking would be incredibly challenging from a practical perspective.[311] Indeed, various questions concerning verification here would arise: would a state be able to detect the transit of nuclear-armed submarines through its territorial waters? Would this require state parties to inspect every visiting ship or military aircraft to ensure that no components of, or completed nuclear explosive devices have been brought within the territory or jurisdiction of the state party? In addition, including a prohibition on transit would also re-open unresolved issues relating to the demarcation of territorial maritime spaces.[312]

On the other hand, it has been argued that these verification-related concerns have been overplayed. First, the UNSC has previously touched upon WMD transit-related issues under Resolution 1540,[313] which aims to address the threat posed by WMD-proliferation to terrorist organisation and other non-state actors.[314] This requires all UN member states to '[e]stablish, develop, review and maintain appropriate effective national export and trans-shipment controls over such items, including appropriate laws and regulations to control export, transit, trans-shipment and re-export' in order to prevent non-state actors from trafficking in and ultimately

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[308] Article 5(2), Treaty of Rarotonga (emphasis added). See also Article 4(2), Treaty of Pelindaba; Article 7, Treaty of Bangkok; and Article 4, Treaty of Semipalatinsk for comparable obligations.
[309] As noted by Nystuen, Egeland, and Graff Hugo (2018) 18.
[310] A point emphasised by Ware (2017) 2.
[311] A point raised by both Austria and Malaysia, see Allison Pytlak, 'News in Brief' (2017) 1(4) *Nuclear Ban Daily*, 11.
[312] This has been pointed out by Datan and Scheffran (2019) 123.
[313] UNSC Res 1540 (28 April 2004) UN Doc S/RES/1540.
[314] For an excellent analysis of Resolution 1540 in greater depth, see generally Masahiko Asada, 'Security Council Resolution 1540 to Combat WMD Terrorism: Effectiveness and Legitimacy in International Legislation' (2008) 13(3) *Journal of Conflict and Security Law* 303.

acquiring nuclear weapons, materials and their means of delivery.[315] It could therefore be argued that an additional prohibition on transit would not appear to significantly 'increase the burden' established under the legally binding obligations imposed by Resolution 1540.[316]

Second, some NWFZ parties have adopted domestic legislative measures to prohibit transit by nuclear-armed vehicles within their respective territory and jurisdiction. The New Zealand Nuclear Free Zone, Disarmament and Arms Control Act of 1987 is one example,[317] through which New Zealand has successfully implemented a unilateral transit prohibition by relying upon open-source information to determine whether a particular vehicle is designed to carry nuclear weapons.[318] As Ware summarises rather succinctly:

> 'It is recognised that 100% perfect verification of compliance in the territorial waters might not be possible. Submarines carrying nuclear weapons are designed for stealth and are not easily detectable. However, in New Zealand's case, the capacity for perfect verification was not considered necessary, in order to adopt the general principal of prohibition'.[319]

And finally, it appears possible that some transit activities would likely be covered by the prohibition never to 'assist, encourage, or induce in any way, anyone to engage in prohibited activities' under Article 1(1)(e).[320] For example, if a state party were to knowingly allow a nuclear-armed vehicle of a NWPS to refuel while on route to deploy or transfer a nuclear weapon to a third state, this would almost certainly constitute prohibited assistance,[321] provided the requisite 'mental element' discussed previously is satisfied.[322] Equally, if a particular instance of transit becomes prolonged, it is possible the initial transit activity would instead amount to either stationing, deployment or installation, activities prohibited by Article 1(1)(g).[323] These hypothetical circumstances would not cover all transit activities that would otherwise remain beyond the reach

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315 See UN Doc S/RES/1540, [3(d)] in particular.
316 This point has been made by Burroughs (2017) 10.
317 New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act 1987, Public Act 1987 No 86, Date of Assent 8 June 1987.
318 This domestic legislation is usefully summarised by Ware (2017).
319 Ware (2017) 3.
320 This interpretation has been shared by Cuba upon ratification, see Declaration of Cuba, <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26&clang=_en#EndDec>
321 As noted by Nystuen, Egeland, and Graff Hugo (2018) 18.
322 This point is noted by Casey-Maslen (2019) 163, who concedes that transit may 'potentially' be covered by Article 1(1)(e), thereby envisioning instances when it will be permitted. Indeed, if a state knowingly allows a nuclear-armed submarine or ship to dock at its port, this could be viewed as unlawful assistance.
323 Subject to its own scope which is discussed above in Section 7.

of the TPNW obligations.[324] But again, nothing would prevent a TPNW party from implementing its own domestical legislation measures to restrict and penalise transit if so desired.

b. Financing

Alongside transit, another contentious prohibition on the financing nuclear weapons programmes was similarly omitted from the final treaty text, despite extensive support from civil society in particular.[325] It was suggested by civil society group PAX during the negotiations that although NNWS 'cannot eliminate weapons they themselves do not possess', prohibiting the financing of activities of the TPNW would offer one means in which state parties can make the retention of nuclear weapons more challenging.[326] Indeed, when one considered that 'financing and investment are an active choice, based on a clear assessment of a company and its plans', any decision by a state to finance or invest in companies with direct links to a NWPS's production efforts and modernisation programmes would demonstrate tacit approval of such weapons.[327] Accordingly, expressly prohibiting the financing of nuclear weapons would help further delegitimise practices that maintain nuclear weapons, and equally provide additional support for the other prohibitions established by Article 1.[328] Finally, and as with transit above, all UN member states are already required to adopt measures in accordance with Resolution 1540 – including controls on financing – to prevent non-state actors from acquiring WMDs within domestic legislation.[329]

However, and as similarly raised in relation to transit, one underlying challenge relating to including a specific prohibition of financing under Article 1 would be the complex implementation, verification, and enforcement of this prohibition.[330] Indeed, in connection with the notion of financing, a key issue relates to the provision of financial resources to bodies, either private or public in nature, which may potentially use such resources for either permitted or prohibited means. Casey-Maslen, for example, argues that 'legally speaking, a distinction exists between buying shares in (i.e. investing in) a company that has some involvement in a nuclear weapons programme, and specifically financing a programme to develop, produce, or maintain nuclear

[324] As similarly concluded by Casey-Maslen (2019) 163.
[325] See for a clear example, working paper submitted by PAX, 'Banning Investment: An Explicit Prohibition on the Financing of Nuclear Weapons' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.5; and working paper submitted by the Basel Peace Office, 'Parliamentarians for Nuclear Non-Proliferation and Disarmament and UNFOLD ZERO' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.6.
[326] Working paper submitted by PAX, 'Banning Investment: An Explicit Prohibition on the Financing of Nuclear Weapons' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.5, 1.
[327] Ibid, 1-2.
[328] Working paper submitted by the Basel Peace Office, 'Parliamentarians for Nuclear Non-Proliferation and Disarmament and UNFOLD ZERO' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.6, 1.
[329] UNSC Res 1540 (28 April 2004) UN Doc S/RES/1540, [2].
[330] Burroughs (2017) 10-11 also notes the 'complex and demanding' implementation of a prohibition on financing.

weapons'.[331] Although this distinction likely seems correct from a legal perspective, it does pose challenging questions in practice, and alludes to a possible loophole whereby states can simply invest generally into a company that takes on many functions – one of which is a nuclear weapons-producing element. Although not establishing a direct, or even indirect, causal link to a particular nuclear weapons-related activity covered under Article 1(1) *per se*, such investment would still in some way contribute to the operational aspects of nuclear weapons development such as running costs of research and development activities.

Take Boeing, for example, which has both an extensive civilian aircraft manufacturing capacity, but has also been a leading organisation behind the modernisation of delivery systems for US nuclear weapons by developing new designs for the B61-12 gravity bombs and the ground-based strategic deterrent to replace Minuteman-III ICBMs.[332] Would general financial investment into Boeing by a state constitute unlawful financing under a hypothetical financing prohibition? Or would an intention and causal nexus to directly finance the nuclear weapons programme of another state be required? This raises complicated legal, political, and pragmatic considerations, all of which likely explains the reluctance to include an explicitly prohibition on financing in practice.

Despite the failure to address such questions, as with transit above, state parties to the TPNW may consider the undertaking never to 'assist, encourage or induce anyone in any way' to include the provision of 'financial resources... to anybody who is resolved to commit such prohibited activity or by support in the concealment of such activities'.[333] Approximately 40 states have made similar interpretative statements to this effect in relation to the prohibition on assistance under the APMBC,[334] while the ICRC has noted how a 'number of states' have already submitted that Article 1(1)(e) of the TPNW could include the 'financing of nuclear-weapon-related activities'.[335] In essence, provided that a significant 'causal link' and a sufficient degree of knowledge can be established between the provided financial assistance and the prohibited activity,[336] certain financing arrangements would be prohibited under Article 1(1)(e). This would

[331] Casey-Maslen (2019) 167.
[332] See for an extensive analysis into a number of large organisations that currently development nuclear weapons, Susi Snyder, 'Producing Mass Destruction: Private Companies and the Nuclear Weapon Industry' (*ICAN and PAX*, May 2019) <https://www.dontbankonthebomb.com/wp-content/uploads/2019/05/2019_Producers-Report-FINAL.pdf> specifically 31-33 for Boeing.
[333] As noted by Krutzsch (2014) 67 in relation to the CWC.
[334] According to the working paper submitted by the Basel Peace Office, 'Parliamentarians for Nuclear Non-Proliferation and Disarmament and UNFOLD ZERO' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.6.
[335] Briefing Note, 'The Prohibition to Assist, Encourage or Induce Prohibited Activities Under the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 3. This position was supported by Cuba, see Declaration of Cuba, <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26&clang=_en#EndDec>; and Ecuador, see Allison Pytlak, 'News in Brief' (2017) 2(15) *Nuclear Ban Daily*, 3.
[336] As required under Article 1(1)(e), TPNW. See section 7 above.

seem to satisfy Casey-Maslen's distinction between a blanket prohibition on investment and direct financing of specific nuclear weapon programmes or activities.[337]

c. Application During Armed Conflict?

Having discussed the scope of the Article 1 prohibitions, a final cause for concern relates to the continued application of such prohibitions at all times, including during armed conflict. Ensuring the unequivocal continued application of the TPNW at all times was endorsed most notably by Joyner, whose concerns stem from the position advanced by the US and NATO allies that current nuclear stationing arrangements in Europe do not technically violate the non-proliferation obligations under Articles I and II of the NPT because the transfer of 'control of the weapons… is not contemplated to occur until the outbreak of an armed conflict'.[338] According to the position of the US, once an armed conflict begins, 'the NPT would no longer be the controlling legal framework',[339] and thus operational control over the nuclear weapons stationed in Europe can be lawfully transferred to other NATO member states, or more likely the Supreme Allied Commander. For Joyner, therefore, it was essential to explicitly incorporate a provision guaranteeing the TPNW's continued application upon the outbreak of any armed conflicts, to ensure the provisions, specifically the prohibitions of Article 1, continue to operate as desired.[340] This recommendation, however, was not implemented by participating states.

At the same time, the argument put forward by the US in relation to the NPT can be persuasively challenged from a legal perspective, particularly in light of the ILC *Draft Articles on the Effects of Armed Conflicts on Treaties* released in 2011.[341] Most significantly, the ILC determined under draft Article 3 that:

> 'The outbreak of an armed conflict does not *ipso facto* terminate or suspend the operation of treaties:
>
> (a) as between State parties to the conflict:

[337] Casey-Malsen (2019) 167, who makes the distinction between a blanket prohibition which is not covered, and a specific prohibition on financing nuclear weapons programme which is captured.

[338] Daniel H Joyner, 'Amicus Memorandum to the Chair of the United Nations Negotiating Conference for a Convention on the Prohibition of Nuclear Weapons' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf> 4-5.

[339] Joyner (2009) 14.

[340] Daniel H Joyner, 'Amicus Memorandum to the Chair of the United Nations Negotiating Conference for a Convention on the Prohibition of Nuclear Weapons' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf> 4-5.

[341] International Law Commission, 'Draft Articles on the Effects of Armed Conflicts on Treaties, with Commentaries', *Report of the International Law Commission of its Sixty-Third Session* (2011) UN Doc A/66/10, 108 (hereafter UN Doc A/66/10).

> (b) as between a State party to the conflict and a State that is not'.[342]

This is well-distanced from the traditionalist approach that formerly held that the outbreak of armed conflict would terminate all treaties between the belligerent states.[343] Although the proposed rules are not universally accepted as reflecting customary international law,[344] it has been suggested that state practice is beginning to coalesce towards the position that the outbreak of armed conflict does not invalidate existing treaties between belligerents.[345] And while this rule does not 'amount to an outright presumption continuity' *per se*,[346] it can equally be suggested that 'there is no presumption that hostilities, however intensive or prolonged, will necessarily have the effect of terminating or suspending the operation of treaties between the parties to the conflict'.[347]

Moreover, draft Article 6 identifies factors that may indicate whether a certain treaty is susceptible to termination:

> 'In order to ascertain whether a treaty is susceptible to termination, withdrawal or suspension in the event of an armed conflict, regard shall be had to all relevant factors, including:
>
> (a) the *nature of the treaty, in particular its subject-matter, its object and purpose*, its content and the number of parties to the treaty; and…'[348]

The ILC then provides under draft Article 7, and its attached annex, a list of treaties, 'the subject-matter of which involves an implication that they continue in operation, in whole or in part, during armed conflict'.[349] This is a relatively broad notion, and expressly includes reference to treaties relating to international humanitarian law (IHL) and other multilateral law-making treaties. Significantly, however, this list is not exhaustive.[350]

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342 Draft Article 3, UN Doc A/66/10.
343 As recalled by Special Rapporteur Ian Brownlie, 'First Report on the Effects of Armed Conflict on Treaties', *International Law Commission* (21 April 2005) UN Doc A/CN.4/552, 4.
344 Aust (2013) 271.
345 As noted by Christopher Greenwood, 'The Concept of War in Modern International Law' (1987) 36(2) *International and Comparative Law Quarterly* 283, 296-97; and Benny Tan Zhi Peng, 'The International Law Commission's Draft Article on the Effects of Armed Conflicts on Treaties: Evaluating the Applicability of Impossibility of Performance and Fundamental Change' (2013) 3(1) *Asian Journal of International Law* 51, 54.
346 As noted by Special Rapporteur Lucius Caflisch, 'Articles on the Effects of Armed Conflicts on Treaties' (*United Nations Audiovisual Library*, 2016) <http://legal.un.org/avl/pdf/ha/aeact/aeact_e.pdf>
347 Aust (2013) 272.
348 Draft Article 6, UN Doc A/66/10.
349 See Draft Article 7 and attached Annex, UN Doc A/66/10.
350 Caflisch (2016) 3-4.

Although Article 7 and its annex do not list arms control or disarmament instruments explicitly, it must be recalled that TPNW is heavily inspired by and embedded in principles of IHL and international human rights law, with the primary objective of upholding the security of humanity and preventing catastrophic humanitarian consequences by prohibiting nuclear weapons. This humanitarian purpose is clearly evidenced within the preamble of the treaty,[351] alongside its negotiation history.[352] Moreover, if one were to support the converse position – that all arms control, non-proliferation, and disarmament treaties would be suspended automatically upon the outbreak of hostilities – this would have the effect of undermining the fundamental object and purpose of such instruments, including the TPNW, which principally aim to prevent the future use of the prohibited weapons in any circumstances.[353]

In addition, the TPNW itself alludes to its continued application during armed conflict in both an explicit and implicit manner. First, under the prohibitions imposed by Article 1, it is made abundantly clear that state parties are obligated to refrain from engaging in conduct prohibited by Article 1 of the TPNW 'under any circumstances'.[354] As noted, this clearly alludes to the underlying intention of the negotiating parties to ensure that the activities listed under Article 1 cannot be engaged in at any time – whether in peacetime or during the outbreak of armed conflict – and would subsequently continue to apply automatically upon the outbreak of an armed conflicts.[355]

Furthermore, while a state party maintains a right to withdraw from the TPNW[356] if it subjectively determines that 'extraordinary events related to the subject matter of the Treaty have jeopardized the supreme interests of its country',[357] this is qualified by the procedural requirement imposed by paragraph 3, which states that:

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[351] See notably preambular paragraphs 2-11, TPNW.

[352] This humanitarian nature was noted in Chapter 1: Introduction, section 6, and has been repeatedly emphasised in the literature on the treaty, see e.g. Daniel Rietiker, 'The Treaty on the Prohibition of Nuclear Weapons: A Further Confirmation of the Human- and Victim-Centred Trend in Arms Control Law', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019); Alexander Kmentt, *The Treaty on the Prohibition of Nuclear Weapons: How it Was Achieved and Why it Matters* (Routledge 2021); Rebecca Davis Gibbons, 'The Humanitarian Turn in Nuclear Disarmament and the Treaty on the Prohibition of Nuclear Weapons' (2018) 25(1) *The Nonproliferation Review* 11; and Bonnie Docherty, 'A 'Light for all Humanity': The Treaty on the Prohibition of Nuclear Weapons and the Progress of Humanitarian Disarmament' (2018) 30(2) *Global Change, Peace and Security* 163. Indeed, as I have noted this elsewhere, see Christopher P Evans, 'Questioning the Status of the Treaty on the Prohibition of Nuclear Weapons as a 'Humanitarian Disarmament' Agreement' (2021) 36(1) *Utrecht Journal of International and European Law* 52.

[353] As noted by Joyner (2009) 15; and Guido den Dekker and Tom Coppen, 'Termination and Suspension of, and Withdrawal From WMD Arms Control Agreements in light of the General Law of Treaties' (2012) 17(1) *Journal on Conflict and Security* Law 25, 41.

[354] See conclusions reached in section 1.b. above.

[355] This point is also noted in relation to the BWC and CWC by den Dekker and Coppen (2012) 40.

[356] The content and role of this withdraw clause will be assessed further in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 2.

[357] Article 17(2), TPNW. The extraordinary events clause is common amongst arms control instruments, see e.g. Article X(1), NPT; and Article XV1(2), CWC. For a discussion of the subjective nature of the 'extraordinary events' withdrawal clause, see Daniel H Joyner, 'What if Iran Withdraws from the Nuclear Nonproliferation Treaty? Part 1: Can They Do That?' (*ESIL Reflections*, 13 December 2012) <https://esil-sedi.eu/wp-

> 'If, however, on the expiry of that 12-month period, the withdrawing State Party is a party to an armed conflict, the State Party shall continue to be bound by the obligations of this treaty and of any additional protocols until it is no longer a party to an armed conflict'.[358]

As noted by Casey-Maslen, this encompasses both international, and non-international armed conflicts.[359] Moreover, if a state is engaged in long-term armed conflicts, or various concurrent armed conflicts at once, the ability to withdraw can only be effective once *all* armed conflicts involving the withdrawing state have ceased. Indeed, the TPNW does not specify that the initial armed conflict in question has ended, but rather notes that the withdrawing party must not be involved in 'an' armed conflict in a general sense. This may have the practical effect of restraining the ability to withdraw from the TPNW for a lengthy period beyond the initial 12-months.[360] However, for present purposes Article 17(2) and (3) at least implicitly indicate the continued application of TPNW obligations until the withdrawing state has ended its involvement in any armed conflicts. In other words, this reiterates that state party involvement in an armed conflict will not effectuate withdrawal and subsequent engagement in activities otherwise prohibited by the TPNW.[361]

Overall, while Joyner's concerns are justified given the imaginative interpretations of Articles I and II of the NPT raised by the US which created the dubious 'sharing loophole' in the first place, given the various reasons stated above, it seems doubtful that an interpretation supporting the TPNW's termination upon the outbreak of an armed conflict could be defended. Consequently, the failure to include a specific provision reaffirming the continued application of the TPNW during armed conflict is unlikely to be detrimental to the performance and implementation of the Article 1 prohibitions most significantly.

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content/uploads/2012/12/ESIL-Reflections-Joyner.pdf>; den Dekker and Coppen (2012) 36-38; and Nicholas Sims, 'Withdrawal Clauses in Disarmament Treaties: A Questionable Logic?' (1999) 42 *Disarmament Diplomacy* 16 ('Nevertheless, the withdrawal clause suffers from the disadvantage that the whole assessment is within the sole prerogative of the withdrawing states. It decided for itself if the three conditions have been met. It exercises its own judgement, which is then the final authority on the matter, regardless of how partial or faulty that judgment appears to others').

[358] Article 17(3), TPNW. This drew upon comparable obligations imposed under Article 20(3), CCM.

[359] Casey-Maslen (2019) 254.

[360] Nystuen, Egeland, and Graff Hugo (2018) 16.

[361] As similarly noted by Daniel Rietiker, 'Withdrawal Clauses in Arms Control Treaties: Some Reflections About a Future Treaty Prohibiting Nuclear Weapons' (*Association of Swiss Lawyers for Nuclear Disarmament*, 22 March 2017) <https://safna.org/2017/03/22/withdrawal-clauses-in-arms-control-treaties-some-reflections-about-a-future-treaty-prohibiting-nuclear-weapons/>

9. Concluding Remarks on the Prohibitions

In light of the above discussion, it is evident that the prohibitions established under Article 1 of the TPNW both build upon pre-existing obligations established under the NPT, CTBT, and NWFZ, but additionally go much further and strengthen existing nuclear weapons regulations by addressing specific loopholes relating to the prohibition on use, possession, development, and non-explosive testing activities. Though many of these activities are prohibited regionally by NWFZ, the TPNW by contrast imposes globally reaching prohibitions which cannot be derogated from under any circumstances.[362] Consequently, the TPNW prohibitions should be considered sufficiently comprehensive, watertight, and void of any detrimental loopholes.[363] Even in relation to possible gaps left open by the TPNW such as transit and financing, it is clear that at least some activities would fall under the prohibition of assisting, encouraging and inducing contained in Article 1(1)(e). Finally, it is apparent that the prohibitions will also continue to apply upon the outbreak of armed conflict, thereby avoiding dubious arguments raised by the US regarding the permissibility of nuclear sharing arrangements under the NPT.

[362] Nor can reservations be issued mitigating the application of these prohibitions, see Article 16, TPNW.
[363] The comprehensiveness of the prohibitions included under Article 1 is equally noted by Casey-Maslen (2019) 132; and Hood and Cormier (2020) 133.

Chapter 4: Analysing the Nuclear Disarmament Provisions

Having discussed the extent and breadth of the Article 1 prohibitions,[1] the following Chapter turns to analyse the content of the nuclear disarmament provisions of the TPNW contained within Article 4, titled 'Towards the Total Elimination of Nuclear Weapons'.[2] Alongside the declaration obligations of Article 2,[3] the provisions established by Article 4 constitutes the totality of the nuclear disarmament obligations under the TPNW. The combined effect of these provisions is therefore to provide different avenues for both NWPS and states that permit the stationing or deployment of nuclear weapons within their territory or jurisdiction – that is, 'hosting states'[4] – to join the TPNW.[5] As will become apparent, the nuclear disarmament provisions under Article 4 (and the Article 2 declaration requirements) are relatively 'basic' compared to other multilateral disarmament instruments,[6] and it is therefore unsurprising that these provisions should be considered as 'general guidelines' for nuclear disarmament.[7]

Although it is unlikely that any NWPS will ratify the TPNW in the foreseeable near-term,[8] the future occurrence of such an eventuality cannot be ruled out entirely.[9] In light of this, Mukhatzhanova observed during the negotiations that it was considered 'important to make sure that the text of the new instrument does not foreclose that possibility [of NWPS accession to the treaty] altogether'.[10] Consequently, ensuring a viable option which allows NWPS to accede to the TPNW is vital in order to realise the underlying object and purpose of achieving and maintaining

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[1] See Part II: Chapter 3: Scope of the Article 1 Prohibitions.
[2] Article 4, TPNW.
[3] Which will also be explored in detail during this section.
[4] As will be recalled from Chapter 2, these states are Belgium, the Netherlands, Germany, Italy, and Turkey which host US nuclear weapons at military installations.
[5] This underlying objective of the disarmament provisions is similarly noted by Mitsuru Kurosawa, 'The Treaty on the Prohibition of Nuclear Weapons: Its Significance and Challenges' (2018) 65(1) *Osaka University Law Review* 1, 12.
[6] As claimed by Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law*, October 2018, 14. Equally, however, Daniel Rietiker and Manfred Mohr, 'Treaty on the Prohibition of Nuclear Weapons: A Short Commentary Article by Article' (*IALANA, Swiss Lawyers for Nuclear Disarmament*, April 2018) <https://www.ialana.info/wp-content/uploads/2018/04/Ban-Treaty-Commentary_April-2018.pdf> 20, argue that the disarmament provisions are both complex and lengthy. The destruction and disarmament provisions of other instruments, particularly the CWC, APMBC, and CCM will often be used as a contrast throughout the discussion which follows below.
[7] Tytti Erästö, Ugnė Komžaitė, and Petr Topychkanov, 'Operationalizing Nuclear Disarmament Verification' (2019) No 3 *SIPRI Insights on Peace and Security*, 14.
[8] It has been noted at many stages of this thesis that each of the NWPS have expressed opposition to the TPNW. For a useful overview of current state positions, see Grethe Laughlo Østern (ed), 'Nuclear Weapons Ban Monitor 2020', *Norwegian's People Aid*, January 2021, 14-21.
[9] As noted by Podvig in his discussion of the disarmament pathways, see Pavel Podvig, 'Practical Implementation of the Join-and-Disarm Option in the Treaty on the Prohibition of Nuclear Weapons' (2021) 4(1) *Journal for Peace and Nuclear Disarmament* 34, 34.
[10] Gaukhar Mukhatzhanova, 'Provision for the Nuclear-Armed States Accession to the Convention on the Prohibition of Nuclear Weapons', in Tim Caughley and Gaukhar Mukhatzhanova (eds), *Negotiation of a Nuclear Weapons Prohibition Treaty: Nuts and Bolts of the Ban* (UNIDIR 2017) 27 (hereafter Mukhatzhanova (2017a)).

a nuclear weapons-free world.[11] Finally, analysing both the content and possible challenges arising from Articles 2 and 4 is more than a simply theoretical, purely academic exercise, and instead contributes to our understanding and appreciation of how the nuclear disarmament provisions of the TPNW may operate in practice.

Consequently, this Chapter intends to resolve some areas of ambiguity relating to the different 'pathways' established by Article 4, thereby bringing some clarification to the broader accession process. First, each of the three nuclear disarmament 'pathways' and the relationship between Articles 2 and 4 will be outlined. Following this overview, the discussion will explore the substantive form and nature of the TPNW as a disarmament instrument, and whether the inclusion of preliminary disarmament pathways alters the treaty's classification as a 'simple-ban' treaty and instead creates a more elaborate instrument. This Chapter will then explore the extent and required content of the declarations, or reporting obligations, under Article 2 and 4(5). Next, the issue of which organisation or actor should become the 'competent international authority' tasked to verify the implementation of the disarmament obligations under Article 4 will be explored. Finally, other notable textual discrepancies and ambiguities will be examined.

1. Overview of the Disarmament Provisions

Rather than incorporating a specific 'obligation to destroy' nuclear weapons and nuclear explosive devices in a similar manner to other disarmament instruments such as the APMBC[12] and the proposed model Nuclear Weapons Convention,[13] the TPNW establishes three accession 'pathways' under Article 4 through which states that possess or host nuclear weapons can join the treaty: NWPS that take the decision to disarm after 7 July 2017 and then subsequently accede to the TPNW;[14] current NWPS that seek to join and then disarm;[15] and finally, obligations for hosting states that permit the stationing of nuclear weapons within their territory that seek to join the treaty.[16]

[11] Thus, reinforcing the humanitarian-based objectives of the TPNW in reducing human suffering and ensuring that the catastrophic harm and unacceptable suffering caused by nuclear weapon use never occurs again. See Bonnie Docherty, 'The Legal Content and Impact of the Treaty of the Prohibition of Nuclear Weapons' (*Speech delivered to the Legal Education Center*, *Norwegian Red Cross*, 11 December 2017) <http://hrp.law.harvard.edu/wp-content/uploads/2017/12/Impact-of-TPNW-Nobel-presentation-Dec-2017.pdf> 2. See also Daniel Rietiker, 'New Hope for Nuclear Disarmament or "Much Ado About Nothing?": Legal Assessment of the New "Treaty on the Prohibition of Nuclear Weapons" and the Joint Statement by the USA, UK, and France Following its Adoption' (2017) 59(Online) *Harvard International Law Journal* 22, 28; and Mukhatzhanova (2017a) 27-28.
[12] Article 1(2), APMBC. See for a similar obligation Article I(1)(2), CWC.
[13] Article I(2), Model Nuclear Weapons Convention (18 January 2008) UN Doc A/62/650, Annex.
[14] Article 4(1), TPNW. See section 1.a. below.
[15] Article 4(2) and (3), TPNW. See section 1.b. below.
[16] Article 4(4), TPNW. See section 1.c. below.

Importantly, however, Article 4 must be considered in combination with Article 2,[17] which requires each acceding state party to submit a declaration detailing whether it previously or currently owns or possesses nuclear weapons or other nuclear explosive devices, or whether it presently hosts nuclear weapons controlled by another state at any other place in its territory or under its jurisdiction or control.[18] This initial declaration essentially 'categorises' all acceding states into one of four groups: states that *never* possessed nuclear weapons;[19] states that *previously* possessed nuclear weapons and eliminated them prior to joining the TPNW; states that *continue* to possess nuclear weapons; and finally, states *hosting* nuclear weapons owned or control by another states within its territory.[20] This categorisation process in turn triggers the subsequent application of different obligations under the TPNW;[21] a state that submits positively under one of the three declarations of Article 2 will follow the associated disarmament pathway of Article 4 as noted below, whereas a state that submits negatively to each of the declarations will be subject to the safeguarding obligations of Article 3.[22] With this in mind, the following section outlines the accession pathways available to the three former 'groups' of states above established by Article 4.[23]

a. Destroy then Join

The first pathway concerns those NWPS that may decide in the future to disarm and eliminate their nuclear weapons stockpile *prior* to joining the TPNW – the so-called 'destroy then join' disarmament pathway. This option drew inspiration from the South African nuclear disarmament model during the late 1980s and early 1990s,[24] a state that unilaterally dismantled its nascent nuclear weapons programme before subsequently joining the NPT and accepting IAEA safeguards in July

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[17] As noted by Rietiker and Mohr (2018) 17, who emphasise that the declaration scenarios 'correspond to the three options open to former or current NWS and their allies under Article 4, dealing with nuclear disarmament'.
[18] See generally Article 2, TPNW. For a more detailed discussion of the negotiation of this provision, see Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019) 174-79.
[19] In other words, the NNWS.
[20] As noted by Marco Pedrazzi, 'The Treaty on the Prohibition of Nuclear Weapons: A Promise, a Threat or a Flop?' (2017) 27(1) *Italian Yearbook of International Law* 215, 224. Moffatt by contrast has diluted this categorisation further, though largely within the confines of the four categories listed by Pedrazzi, see Michael J Moffatt, 'In Search of the Elusive Conflict: The (in-)compatibility of the Treaties on the Non-Proliferation and Prohibition of Nuclear Weapons' (2019) 102(1) *Nuclear Law Bulletin* 7, 20-23.
[21] Podvig (2021) 35.
[22] Article 3, TPNW explicitly notes its application to 'Each State Party to which Article 4, paragraphs 1 and 2, does not apply…' These safeguard provisions will be examined in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 3.a.
[23] For a useful overview of the negotiations of the declarations under Article 2 and the associated disarmament pathways under Article 4, see Casey-Maslen (2019) 174-79 and 189-201 respectively.
[24] As noted explicitly by President Whyte Gómez, Briefing by the President (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 12 June 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/06/Briefing-by-President-12-June-2017.pdf> 6-7.

1991.[25] In essence, the 'destroy then join' approach allows each of the NWPS to do their 'homework first by getting rid of their weapons before joining the treaty'.[26] This pathway therefore offers a relatively simple procedure for accession, in comparison to the 'join then destroy' pathway discussed below, by avoiding the need to negotiate additional nuclear disarmament and elimination plans with the acceding NWPS in question.[27] Rather, the central challenge for the 'destroy then join' pathway becomes one of verifying the completeness of the prior disarmament in question.

An acceding NWPS taking this approach would first be required to submit positively under Article 2(1)(a) and declare that it previously '*owned*, *possessed*, or *controlled* nuclear weapons *and eliminated* its nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear-weapon-related facilities, prior to the entry into force of this Treaty for that state party'.[28] Although left unmentioned by the TPNW,[29] the phrase 'eliminated its nuclear weapon programme' would seem to encompass the destruction of all nuclear weapons and nuclear explosive devices, while 'all nuclear-weapons-related facilities' would broadly cover any research, development, production, testing, storage and any other facilities that help maintain the acceding states nuclear weapons programme.[30]

States submitting positively under Article 2(1)(a) would include *all* former NWPS that had owned nuclear weapons at *any* time and has since disarmed prior to entry into force of the TPNW for that state. Consequently, it would be expected that South Africa, Belarus, Kazakhstan, and Ukraine would be required to provide 'positive' declarations under Article 2(1)(a),[31] alongside any of the present nine NWPS that decide to disarm prior to joining the TPNW.[32] Significantly, however, the aforementioned states[33] would not be required to subject themselves to further dismantlement verification under Article 4(1). This is made clear by the wording of Article 4(1) itself, which is solely concerned with prospective state parties that have disarmed *after* 7 July 2017 and subsequently joined the TPNW.[34] In other words, Article 4(1) essentially addresses all *future*

[25] For a useful case-study explaining how the TPNW drew in part from this experience, see Hassan Elbahtimy and Christopher Eldridge, 'Verifying the Nuclear Ban: Lessons from South Africa' (*Bulletin of the Atomic Scientists*, 13 September 2017) <https://thebulletin.org/2017/09/verifying-the-nuclear-ban-lessons-from-south-africa/>; and Yolandi Meyer, 'Lessons from South Africa's Voluntary Denuclearisation Process and the African Continent's Position on Nuclear Weapons', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020).
[26] Rietiker and Mohr (2018) 20.
[27] Mukhatzhanova (2017a) 28 and 30-32; and Podvig (2021) 35.
[28] Article 2(1)(a), TPNW (emphasis added). Note the past tense wording of this subparagraph.
[29] Thus, following the lack of definition of other terms such as 'nuclear weapons', 'nuclear explosive device' and the prohibitions established under Article 1 as noted previously in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 1.c.
[30] As suggested convincingly by Casey-Maslen (2019) 194.
[31] Even if such possession was inherited following the dissolution of the Soviet Union in December 1991.
[32] As similarly noted by Moffatt (2019) 20-21.
[33] That is South Africa, Belarus, Kazakhstan, and Ukraine.
[34] Casey-Maslen (2019) 194.

'destroy and join' situations. This approach is logical when one recalls that these states have already verifiably dismantled or removed their respective nuclear weapon stockpiles under previous arrangements,[35] thereby avoiding any unnecessary 'duplicative verification exercise'.[36] Moffatt therefore considers the states that would be subject to the disarmament obligations under Article 4(1) as 'newly disarmed states', in contrast to the position of the 'formerly armed states' of South Africa, Belarus, Kazakhstan and Ukraine[37] – a distinction this author supports.

A state that submits an affirmative declaration under Article 2(1)(a) and disarmed after 7 July 2017 is required by Article 4(1) to 'cooperate with the competent international authority designated pursuant to paragraph 6 of this Article for the purpose of verifying the irreversible elimination of its nuclear weapon programme'.[38] Moreover, the acceding state in question is then obligated to conclude a safeguards arrangement with the IAEA capable of providing 'credible assurance of the non-diversion of declared nuclear materials from peaceful nuclear activities', to be negotiated within 180 days of entry into force of the TPNW for that state party.[39] This agreement should then enter into force no later than 18 months from the entry into force of the treaty for that state party.

b. Join then Destroy

The second disarmament pathway established under Articles 4(2) and (3) permits a NWPS to join the TPNW while possessing nuclear weapons and *then* disarm and eliminate its nuclear weapons programme. This 'join then destroy' disarmament pathway has its origins in the 22 May draft proposed by President Whyte Gómez,[40] but ultimately developed into its eventual form based upon a proposal submitted by South Africa on 29 June 2017.[41] In fact, the 'join then destroy'

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[35] The former Soviet states agreed to hand over the nuclear weapons inherited after the dissolution of the Soviet Union to Russia under the terms of the Lisbon Protocol to START I, and agreed to accede to the NPT as NNWS, see Kingston Reif, 'The Lisbon Protocol at a Glance' (*Arms Control Association*, updated December 2020) <https://www.armscontrol.org/node/3289>. For a useful overview of the elimination of South Africa's nuclear weapons, see Meyer (2020).

[36] See Letter from Ambassador Whyte Gómez (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination*, 24 May 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/05/Letter-from-the-Chair_May-24-2017.pdf> 5.

[37] Moffatt (2019) 22. Moffatt similarly notes the possibility that further states may reveal clandestine nuclear weapons programmes after 7 July 2017, describing them as 'Newly Covertly Disarmed States'.

[38] Article 4(1), TPNW.

[39] The scope of this safeguarding obligation is not entirely apparent, and will be discussed in relation to the criticism of the verification regime in greater detail.

[40] Draft Article 5, Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1. For a useful discussion of this provision, see Mukhatzhanova (2017a) 32-33.

[41] Compilation of Amendments received from States on the President's draft text and South Africa's proposal (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination*, 29 June 2017) <https://www.un.org/disarmament/tpnw/other-documents.html> 37-38.

approach was even considered a preferable solution for some participants,[42] particularly attending civil society groups, as it would improve transparency throughout the disarmament process by incorporating oversight of each stage of the dismantlement process.[43]

States joining under this pathway are first required to submit a positive declaration under Article 2(1)(b) declaring that it presently 'owns, possesses or controls … nuclear weapons or other nuclear explosive devices'.[44] This positive declaration subsequently triggers the application of the steps imposed by Articles 4(2) and 4(3). Under these provisions, the acceding NWPS party is required to follow three distinct, yet connected, steps.[45]

First, the acceding state in question must 'immediately remove' its nuclear weapons from 'operational status'. Although the TPNW does not provide a definition of precisely what constitutes 'operational status', Casey-Maslen suggests that this phrase should be considered analogous to the term 'deployment' and would mean 'that if they [nuclear weapons] are mounted on launchers, loaded onto aircraft or submarines, or set within silos, they must be removed and placed into safe and secure storage facilities'.[46] In other words, any possessed, owned or controlled nuclear weapons adjoined to any delivery system or made available for combat use must be placed into storage or retired stockpiles.[47]

Second, the acceding state is then obligated to destroy its nuclear weapons '*as soon as possible* but not later than a deadline to be determined by the first meeting of States Parties', and eliminate its entire nuclear weapons programme, 'including the elimination or irreversible conversion of all nuclear-weapons-related facilities'.[48] This elimination process should occur in accordance with a 'legally binding, time-bound plan' to verify the disarmament and dismantlement process. A draft of this plan must be submitted by the acceding state within 60 days after the TPNW enters into

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[42] Austria, Ireland, Mexico, and New Zealand demonstrated a preference for this approach during the negotiations, provided it was carefully drafted to avoid possible loopholes, see Ray Acheson, 'Pathways to Elimination' (2017) 2(4) *Nuclear Ban Daily*, 2.

[43] See e.g. Ray Acheson, 'One week to the Nuclear Ban' (2017) 2(11) *Nuclear Ban Daily*, 3, who states that 'It seems useful to have states sign on to the prohibition against the use, testing, and other nuclear weapon related activities while engaging in a disarmament programme. This is the approach taken by the Chemical Weapons Convention (CWC), which allows states that possess stockpiles of chemical weapons to join the treaty and eliminate those weapons and related facilities while being bound by the treaty's prohibitions and to provide, negotiate, implement, and conclude process for verified and irreversible elimination of its programme'.

[44] Article 2(1)(b), TPNW. Note the present tense wording used here in contrast to Article 2(1)(a).

[45] As outlined usefully by Nystuen, Egeland, and Graff Hugo (2018) 18.

[46] Casey-Maslen (2019) 196 (bracketed text added). See also Steven Starr, 'An Explanation of Nuclear Weapons Terminology' (*Nuclear Age Peace Foundation*, 29 November 2007) <https://www.wagingpeace.org/an-explanation-of-nuclear-weapons-terminology/> which uses a similar comparison.

[47] It is worth noting that unlike Article 3(1), CCM, no obligation under Article 4, TPNW requires state parties to 'mark' nuclear weapons ready for destruction. This, however, is likely due to the fact that Article 3(6), CCM permits the 'retention or acquisition of a limited number of cluster munitions and explosive submunitions for the development of and training in cluster munition and explosive submunition detection, clearance or destruction techniques', thus envisioning the continued retention of some cluster munitions for training purposes.

[48] Article 4(2), TPNW (emphasis added). As with Article 4(1), TPNW above, the nuclear facilities in question would similarly cover research, development, production, testing, storage, and any other facilities.

force for it, which must then be negotiated with a presently unidentified 'competent international authority'.[49] The authority is then obligated to submit the plan for approval to the next meeting of states parties or TPNW review conference: whichever comes first. The process establishing both the meeting of states parties and review conferences is provided for under Article 8.[50]

Finally, the state party subject to Article 4(2) is then required under Article 4(3) to conclude a safeguard agreement with the IAEA, which – as with the 'destroy then join' pathway – should be 'sufficient to provide credible assurance of the non-diversion of declared materials from peaceful nuclear activities'.[51] Rather significantly, the negotiation of the safeguard agreement with the IAEA should only occur 'no later than the date upon which implementation of the plan referred to in paragraph 2 is completed', and must 'enter into force no later than 18 months after the initiation of negotiations'.[52] This has led to some concern that a 'safeguard gap' may arise between the point when nuclear disarmament is verifiably complete under the legally binding plan and the point at which the IAEA safeguard agreement comes into effect.[53]

c. Nuclear Stationing States

The final pathway in question concerns the accession of states that permit the stationing of nuclear weapons within their territory or jurisdiction – i.e. hosting states.[54] To begin, Article 2(1)(c) requires all state parties to declare 'whether there are any nuclear weapons in its territory or in any place under their jurisdiction that are owned, possessed, or controlled by another State'.[55] In effect, this would require existing NATO hosting states – the Netherlands, Germany, Belgium, Italy and Turkey – to declare the presence of nuclear weapons currently stationed within their respective

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49 Although not made expressly clear, one would assume that the negotiated plan must also be agreed upon too, as Casey-Maslen (2019) 197 suggests.

50 Article 8, TPNW.

51 Article 4(3), TPNW. This mirrors the assumed safeguarding obligation imposed by Article 4(1) above under the 'destroy then join' approach. Precisely what form of agreement must be concluded will be discussed later in relation to the criticisms raised against the TPNW concerning the scope of safeguard and verification obligation imposed under the treaty, see Part II: Chapter 5: Addressing Criticisms of the TPNW, section 3.b.

52 Article 4(3), TPNW.

53 As noted by John Carlson, 'Nuclear Weapons Prohibition Treaty: A Safeguards Debacle' (*VERTIC*, *Trust and Verify* (158), Autumn 2018) <https://www.vertic.org/media/assets/TV/TV158.pdf> 2. This safeguard gap will be explored further when discussing the criticisms raised against the TPNW in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 3.b.iii.

54 Perplexingly, the possibility of such hosting states joining the TPNW was overlooked in the first draft, see Tariq Rauf, 'The "Bizarre" Ban – a Response to the Draft Prohibition of Nuclear Weapons' (*Atomic Reports*, 28 May 2017) <http://www.atomicreporters.com/2017/05/bizarre-ban-response-draft-prohibition-nuclear-weapons/>. This again was rectified by South Africa's Article 4 proposal, see Compilation of Amendments received from States on the President's draft text and South Africa's proposal (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination*, 29 June 2017) <https://www.un.org/disarmament/tpnw/other-documents.html> 37-38.

55 Article 2(1)(c), TPNW.

territories.[56] As with the previous two declarations discussed, acceding host states would then follow the coinciding provisions under Article 4(4), and 'shall ensure the prompt removal of such weapons, as soon as possible but not later than a deadline to be determined by the first meeting of States Parties'.[57] This evidently represents an attempt to operationalise the undertaking by state parties to never permit the stationing, installation or deployment of nuclear weapons established under Article 1(1)(g).[58]

Following the removal of the nuclear weapons in question from its territory, the acceding hosting state 'shall submit to the Secretary-General of the United Nations a declaration that it has fulfilled its obligations' under Article 4(4). Yet in contrast to the previous two pathways applicable to NWPS, hosting states are not required to adopt safeguards with the IAEA capable of providing 'credible assurance' of non-diversion of nuclear materials from peaceful purposes. Instead, as the hosting states are considered NNWS, such states acceding subject to Article 4(4) must only implement safeguard procedures on peaceful nuclear activities as required under Article 3 – either to maintain existing safeguards in force, or negotiate a more limited comprehensive safeguards agreement INFCIRC/153 (Corrected) with the Agency.[59] Even more surprisingly, the 'competent international authority' referenced in Articles 4(1) and (2) is not required to verify the removal of nuclear weapons from the host state's territory. These two differences from the previous accession pathways discussed raise questions relating to the verification provisions of the TPNW generally.[60]

2. Structural Nature of the TPNW

The inclusion of the disarmament provisions under Article 4 creates some ambiguity with regards to the supposed structural form and nature of the TPNW as a disarmament instrument. Throughout the negotiations of the TPNW, it became evident that civil society groups, specifically ICAN, generally endorsed the idea of concluding a simple 'ban-style' treaty within the NPT Review Process,[61] the UNGA First Committee,[62] and the three Humanitarian Conferences held between

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[56] See for further details of these arrangements, 'Nuclear Disarmament NATO: U.S. Nuclear Weapons on the Territories of 5 NATO States' (*Nuclear Threat Initiative*, 28 June 2019) <https://www.nti.org/analysis/articles/nato-nuclear-disarmament/>

[57] Article 4(4), TPNW.

[58] Discussed previously, see Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 6.

[59] Article 3, TPNW.

[60] This will be discussed later in relation to the criticisms raised against the TPNW concerning the scope of safeguard and verification obligation imposed under the Treaty in Chapter 5.

[61] ICAN Statement, Meeting of States Parties to Nuclear Weapon-Free Zone Treaties (*Third Preparatory Committee of the 2015 NPT Review Conference*, 7 May 2014) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom14/statements/7May_ICAN.pdf>

[62] Ray Acheson, 'ICAN Statement to the First Committee', UNGA First Committee (69th Session, 28 October 2014) <http://statements.unmeetings.org/media2/4654535/ican.pdf>

2013-14.[63] Indeed, by the end of the 2016 OEWG, it had become evident that the majority of non-aligned NNWS, expressed a common desire '*to negotiate a legally binding instrument to prohibit nuclear weapons*, leading towards their total elimination'.[64]

Yet despite the consistent endorsement of this limited approach, the incorporation of the Article 4 disarmament pathways would seem to challenge the assertion that the TPNW constitutes a 'simple ban-style' treaty.[65] Accordingly, the following discussion seeks to determine the structural form of the TPNW as a disarmament instrument, offers an explanation for why the final text went beyond the 'simple ban' approach, and finally examines the possible practical consequences of adopting this more elaborate approach to disarmament. Before proceeding, it is worth briefly elaborating upon the various treaty-based approaches to nuclear disarmament that were frequently envisaged during the Humanitarian Initiative, drawing particularly from a working paper submitted by the New Agenda Coalition during the 2014 NPT Preparatory Committee.[66]

a. The 'Simple Ban' Approach

The general idea behind the 'simple ban', or prohibition treaty is relatively straightforward, essentially constituting a rather short agreement that aims to establish the central prohibitions 'necessary for the pursuit, achievement and maintenance of a world free of nuclear weapons'.[67] The ban-style approach would follow the example set by the 1925 Geneva Gas Protocol, which sought to prohibit the use of asphyxiating gases and bacteriological methods of warfare during war,[68] while later being followed by specific, and more elaborate steps for elimination under both the BWC and CWC.[69] The proposed prohibitions of the ban treaty could either be relatively

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[63] See e.g. Rebecca Johnson, ICAN Intervention (*Oslo Conference on the Humanitarian Impact of Nuclear* Weapons, 4-5 March 2013) <https://www.regjeringen.no/globalassets/upload/ud/vedlegg/hum/hum_ican_final.pdf>; Ray Acheson, ICAN Closing Statement (*Nayarit Conference on the Humanitarian Impact of Nuclear Weapons*, 13-14 February 2014) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nayarit-2014/statements/ICAN-closing-statement.pdf>; and ICAN Statement (*Vienna Conference on the Humanitarian Impact of Nuclear Weapons*, 9 December 2014) <https://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/Statements/HINW14_Statement_ICAN.pdf>

[64] Note by the Secretary-General, 'Report of the Open-Ended Working Group taking Forward Multilateral Nuclear Disarmament Negotiations' (1 September 2016) UN Doc A/71/371, [67] (emphasis added).

[65] As so claimed by its prominent supporters, see generally Beatrice Fihn, 'The Logic of Banning Nuclear Weapons' (2017) 59(1) *Survival: Global Politics and Strategy* 43; and Tom Sauer and Mathias Reveraert, 'The Potential Stigmatizing Effect of the Treaty on the Prohibition of Nuclear Weapons' (2018) 24(5) The *Nonproliferation Review* 437.

[66] Working paper submitted by Ireland on behalf of the New Agenda Coalition, 'Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons' (2 April 2014) NPT/CONF.2015/PC.III/WP.18 (hereafter NPT/CONF.2015/PC.III/WP.18). See also Treasa Dunworth, 'Pursuing "Effective Measures" Relating to Nuclear Disarmament: Ways of Making a Legal Obligation a Reality' (2015) 97(889) *International Review of the Red Cross* 601.

[67] NPT/CONF.2015/PC.III/WP.18, 9; and Jonathan L Black-Branch, *The Treaty on the Prohibition of Nuclear Weapons: Legal Challenges for Military Doctrines and Deterrence Policies* (Cambridge University Press 2021) 136.

[68] Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare (adopted 17 June 1925, entered into force 8 February 1928) 94 LNTS 65.

[69] As noted by Rebecca Davis Gibbons, 'The Humanitarian Turn in Nuclear Disarmament and the Treaty on the Prohibition of Nuclear Weapons' (2018) 25(1) *Nonproliferation Review* 11, 19; Beatrice Fihn, 'Multilateral treaty-based

concise by simply banning the use of nuclear weapons – similar to the Geneva Gas Protocol – or could incorporate a comprehensive array of prohibitions comparable to the model Nuclear Weapon Convention, the CWC, or even existing NWFZs prohibitions.[70] Ultimately, the final TPNW text adopted within Article 1 demonstrates that a more comprehensive assortment of prohibitions was desired by the negotiating states.[71]

However, unlike the proposed model NWC,[72] details relating to both the verification and monitoring of nuclear disarmament would remain largely undeveloped within the ban treaty itself.[73] This is reflective of the fact that the fundamental objectives behind the ban-style approach are normative, by stigmatising and delegitimising both the possession and use of nuclear weapons through prohibition,[74] while paving the way for disarmament and eventual elimination at a *later* stage.[75] This reflects the underlying rationale that prohibition proceeds elimination. Finally, a simple ban treaty has the advantage that it can be negotiated without the participation of the NWPS because complex matters relating to verification would not be incorporated into the provisions of the ban instrument.[76] In other words, universality would be a desirable goal as opposed to a necessary element during the negotiation of a ban treaty, thus making this approach politically attainable – particularly when one considers the lack of NWPS interest in nuclear disarmament efforts at present.[77]

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commitments and obligations' (*Open-Ended Working Group*, 14 May 2013) <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/OEWG/statements/14May_Fihn.pdf>; and Magnus Løvold, Beatrice Fihn, and Thomas Nash, 'Humanitarian Perspectives and the Campaign for an International Ban on Nuclear Weapons', in John Borrie and Tim Caughley (eds), *Viewing Nuclear Weapons Through a Humanitarian* Lens (UNIDIR 2013) 145-56.

[70] As noted by Dunworth (2015) 610-11.

[71] As already demonstrated in Part II: Chapter 3: Scope of the Article 1 Prohibitions.

[72] Which will be examined in section 2.b. below.

[73] Indeed, the New Agenda Coalition working paper notes that 'it would not seem necessary for a Ban Treaty to prescribe the kinds of legal and technical arrangements needed for the establishment and maintenance of a nuclear weapons-free world', NPT/CONF.2015/PC.III/WP.18, 14.

[74] See generally Fihn (2017); Sauer and Reveraert (2018); Clea Strydom, 'Stigmatisation as a Road to Denuclearisation – The Stigmatising Effect of the TPNW', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021); and Kjølv Egeland, 'Banning the Bomb: Inconsequential Posturing or Meaningful Stigmatization?' (2018) 24(1) *Global Governance* 11.

[75] Dunworth (2015) 610. This would therefore follow the trend in both the APMBC and CCM prohibiting anti-personnel mines and cluster munitions respectively, see e.g. Fihn (2017) 45-46; and John Borrie, Tim Caughley, Torbørn Graff Hugo, Magnus Løvold, Gro Nystuen, and Camilla Waszink, *A Prohibition on Nuclear Weapons: A Guide to the* Issues (UNIDIR and International Law and Policy Institute 2016) 24.

[76] Monika Subritzky, 'An Analysis of the Treaty on the Prohibition of Nuclear Weapons in Light of its Form as a Framework Agreement' (2019) 9(2) *Göttingen Journal of International Law* 367, 373; and Borrie, Caughley, Graff Hugo, Løvold, Nystuen and Waszink (2016) 24.

[77] Subritzky (2019) 375.

b. Nuclear Weapons Convention (NWC)

In contrast to the limited simple ban treaty, another commonly endorsed approach was the negotiation of a comprehensive NWC.[78] This instrument would effectively follow the example set by the CWC,[79] and tackles the issues of prohibition and elimination simultaneously within a single, extensive instrument containing elaborate and detailed provisions concerning verification and disarmament processes.[80] As such, Dunworth considers the NWC to be the 'gold standard' approach to nuclear disarmament and would constitute a full implementation of the nuclear disarmament obligation established by Article VI of the NPT.[81] A model NWC was first released in 1997,[82] and later revised in 2007 by the *International Association of Lawyers Against Nuclear Arms* and the *International Physicians for the Prevention of Nuclear War*.[83] The updated NWC has since been regularly circulated in the UNGA by Costa Rica and Malaysia since 2008.[84]

As explained in the New Agenda Coalition working paper, the proposed NWC would contain numerous elaborate elements that would provide for a 'phased process for nuclear weapons elimination', including amongst others, irreversible nuclear disarmament verification mechanisms, institutional oversight, national implementation measures, procedures for compliance and dispute settlement among other provisions.[85] In addition, and somewhat similar to the ban-approach, both comprehensive prohibitions and general obligations would also be included within the terms of the NWC.[86] However, the negotiation of these verification measures would require the participation of the NWPS, which would provide technical insight and eventual consent to the verification and monitoring mechanisms negotiated.[87] Subritzky similarly concludes that the NWPS would need to 'lead the process or else it will prove futile'.[88] Unfortunately,

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[78] For an overview of previous efforts to negotiate a NWC, and discussion in regard to the obligations often envisaged, see Tim Wright, 'Negotiations for a Nuclear Weapons Convention: Distant Dream or Present Possibility' (2009) 10(1) *Melbourne Journal of International Law* 217; and Peter Weiss, 'A Legal Path to a Nuclear Weapons Free World' (2010) 15(1) *Austrian Review of International and European Law* 159, 166-69.

[79] And would ultimately 'complete the international treaty framework for the elimination and prohibition of all weapons of mass destruction', NPT/CONF.2015/PC.III/WP.18, 12.

[80] Subritzky (2019) 370; and Borrie, Caughley, Graff Hugo, Løvold, Nystuen and Waszink (2016) 19.

[81] Dunworth (2015) 606.

[82] Permanent Representative of Costa Rica to the United Nations addressed to the Secretary-General (17 November 1997) UN Doc A/C.1/52/7.

[83] 'Securing our Survival: The Case for a Nuclear Weapons Convention' (*The International Association of Lawyers Against Nuclear Arms, the International Network of Engineers and Scientists Against Proliferation, and the International Physicians for the Prevention of Nuclear War*, 2007) <http://lcnp.org/pubs/2007-securing-our-survival.pdf>

[84] Permanent Representatives of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General (18 January 2008) UN Doc A/62/650, Annex, Model Nuclear Weapons Convention.

[85] NPT/CONF.2015/PC.III/WP.18, 11-13.

[86] Consequently, it is possible that a model NWC could pursue similar normative objectives to the 'simple-ban' approach noted previously.

[87] Note by the Secretary-General, 'Report of the Open-Ended Working Group taking Forward Multilateral Nuclear Disarmament Negotiations' (1 September 2016) UN Doc A/71/371, [37]; and John Borrie, Michael Spies, and Wilfred Wan, 'Obstacles to Understanding the Emergence and Significance of the Treaty on the Prohibition of Nuclear Weapons' (2018) 30(2) *Global Change, Peace and Security* 95, 103.

[88] Subritzky (2019) 372.

however, obtaining NWPS participation has proven to be a 'stumbling block',[89] and current prospects for the adoption of a NWC seem very slim.

c. A Middle Ground? Framework Agreements

In between the two extremes of the ban treaty and NWC, the New Agenda Coalition working paper envisaged the possible adoption of a 'framework agreement'.[90] Framework agreements have been described as a 'relatively recent regulatory technique in international law',[91] although they are more prevalent in the field of international environmental law.[92] Matz-Lück has succinctly described framework agreements generally as:

> 'a legally binding treaty of international law that establishes broad commitments for its parties and a general system of governance, while leaving more detailed rules and the setting of specific targets either to subsequent agreements between the parties, usually referred to as protocols, or to national legislation'.[93]

In essence, framework agreements tend to establish a legally binding '*chapeau*' instrument that establishes initial broad commitments and a 'general system of governance' and other preliminary institutional arrangements for its parties, while leaving room for negotiations relating to matters of implementation and other 'thornier issues' to be determined at a later stage.[94] A useful example in the field of disarmament law is the 1980 Convention on Conventional Weapons, which establishes a baseline agreement of general obligations and foresees the negotiation of additional protocols – of which there are presently five – that facilitate the Convention's subsequent implementation.[95]

Although there is no standardised form that framework agreements take,[96] Bodansky identifies six elements that may indicate the existence of a framework agreement: 1) the preamble lists the object and purpose of the instrument; 2) there are general obligations in the main

[89] Ibid.
[90] NPT/CONF.2015/PC.III/WP.18, 16. See also, working paper submitted by Peace Depot Inc. Japan, 'Proposal of a Framework Agreement on Nuclear Disarmament Containing a Protocol to Prohibit Nuclear Weapons' (23 March 2017) UN Doc A/CONF.229/2017/NGO/WP.7; and Dunworth (2015) 613-17.
[91] Nele Matz-Lück, 'Framework Conventions as a Regulatory Tool' (2009) 1(2) *Göttingen Journal of International Law* 439.
[92] Dunworth (2015) 614. See for example the United Nations Framework Convention on Climate Change, UNGA Res 48/189 (20 January 1994) UN Doc A/RES/48/189. For a useful overview of framework agreements generally, see Nele Matz-Lück, 'Framework Agreements' (2011) *Max Planck Encyclopaedia of International Law*.
[93] Matz-Lück (2011) [1].
[94] Subritzky (2019) 379.
[95] United Nations Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (adopted 10 October 1980, entered into force 2 December 1983) 1342 UNTS 137.
[96] As noted by Matz-Lück (2011) [1]; and Dunworth (2015) 616.

agreement; 3) there are various provisions for the creation of institutions, modes of governance, and oversight; 4) mechanisms for implementation and dispute resolution may be included in the *chapeau* agreement, but can additionally be concluded in later protocols; 5) there must be amendment procedures; and 6) there are suitable clauses relating to ratification and entry into force.[97] These criteria are non-exhaustive, but reinforce the underlying idea that framework agreements establish a 'skeleton agreement' of general obligations, upon which future negotiations and protocols would emerge.[98]

According to the New Agenda Coalition working paper, the initial *chapeau* agreement would first outline the 'detail[s] of general obligations and prohibitions to be assumed' – similar to those of a 'ban-style' approach – while envisioning the eventual 'elaboration of a series of mutually supporting instruments that, together, would address the various requirements of achieving and maintaining a world without nuclear weapons'.[99] Perhaps most fundamentally, and in contrast to a limited ban-style instrument, the proposed framework agreement would maintain a 'structural link' between the prohibition and elimination of nuclear weapons.[100] Because of this, the framework approach provides an opportunity to 'bridge' the differences towards nuclear disarmament envisaged in the 'ban-style' and NWC approaches.[101]

d. Situating the TPNW

Based on this brief outline, it becomes evident that the TPNW does not neatly fall within any of the aforementioned approaches. On the one hand, the treaty clearly does not incorporate extensive disarmament verification and monitoring measures and obligations. In fact, the TPNW itself is relatively brief, spanning just 11 pages – a substantial part of which is dedicated to the lengthy preamble – standing in contrast with the CWC, which measures 165 pages in total, including a detailed Verification Annex over 90 pages long.[102] Conversely, however, the TPNW seemingly goes further than other ban-style instruments like the Geneva Gas Protocol, and incorporates more than just limited prohibitions against the use of nuclear weapons.

[97] Daniel Bodansky, 'The Framework Convention/Protocol Approach: Framework Convention on Tobacco Control', *World Health Organisation* (1999) WHO/NCD/TFI/99.1, as cited by Subritzky (2019) 378.
[98] Borrie, Caughley, Graff Hugo, Løvold, Nystuen and Waszink (2016) 21.
[99] NPT/CONF.2015/PC.III/WP.18, 16. See also Subritzky (2019) 379, who notes that 'thornier issues' can be left unresolved until a later time under this approach.
[100] Borrie, Caughley, Graff Hugo, Løvold, Nystuen and Waszink (2016) 21; and Subritzky (2019) 377.
[101] As noted in a working paper submitted by the Middle Powers Initiative to the Open-ended Working Group Taking Forward Multilateral Nuclear Disarmament Negotiations, 'Options for a Framework Agreement' (4 May 2016) UN Doc A/AC.286/NGO/20, 1.
[102] See for a discussion of this annex at length, Walter Krutzsch, Eric Myjer, and Ralf Trapp (eds), *The Chemical Weapons Convention: A Commentary* (Oxford University Press 2014) 445-655.

As such, it appears that the TPNW incorporates elements and features inherent to *both* the simple ban-style approach and framework agreements, particularly as Article 4(2) expressly recognises the possibility of negotiating 'legally binding' disarmament plans, likely taking the form of treaties or additional protocols. Indeed, this possibility is also raised by Article 8(1)(b), which allows meetings of state parties to take 'decisions' on further measures for nuclear disarmament, including '[m]easures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes, *including additional protocols* to this Treaty'.[103] In this respect, the 'join then destroy' pathway is perhaps the firmest indication of the TPNW's framework character, and 'provides much more substantial detail regarding the elimination and verification of weapons than would normally be expected of a Ban Treaty'.[104] This similarly reflects the inherent flexibility of framework agreements that are capable of taking various forms in order to evolve as a 'living instrument' over time.[105] Consequently, although the TPNW does not seek to achieve both prohibition and elimination *simultaneously* in a single instrument,[106] it nevertheless maintains an underlying 'structural link' between prohibition and elimination. It is this feature that places the TPNW between the 'simple ban' and NWC, and suggests that the treaty is more akin to the framework agreement approach.[107]

This conclusion, however, raises questions as to why the TPNW ultimately developed in such a way to incorporate various features common to framework agreements, particularly given the explicit support for the simple ban during the Humanitarian Initiative and the build-up to the 2017 negotiations.[108] Why did participating states delegations and civil society groups ultimately see fit to incorporate more detailed accession pathways and disarmament provisions during the negotiations, beyond those envisaged in a 'ban-style' approach? In truth, this likely stems from two interrelated objectives of the negotiators: first, the intention of the negotiators to establish extremely detailed and comprehensive prohibitions under Article 1 rather than merely banning nuclear weapon use;[109] and second, an underlying desire to ensure that the TPNW would be accessible to the current NWPS and their umbrella allies in the future, in order to promote universal adherence to the treaty.[110]

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[103] Article 8(1)(b), TPNW (emphasis added).

[104] As noted by Subritzky (2019) 383. See also Paul Meyer and Tom Sauer, 'The Nuclear Ban Treaty: A Sign of Global Impatience' (2018) 60(1) *Survival: Global Politics and Strategy* 61, 67.

[105] Subritzky (2019) 378.

[106] As would occur under a comprehensive NWC, see section 2.b. above.

[107] This continued link between prohibition and elimination in future agreements reflects the framework nature of the TPNW as noted previously.

[108] As noted above, see section 2.a.

[109] See Part II: Chapter 3: Scope of the Article 1 Prohibitions.

[110] This was noted by Ray Acheson, 'Pathways to Elimination' (2017) 2(4) *Nuclear Ban Daily*, 2. This desire for universality is also further epitomised through Article 12, TPNW ('Each State Party shall encourage States not party

Given the desire to pursue these two objectives, and recalling the mandate of the 2017 negotiations provided by UNGA Resolution 71/258,[111] the inclusion of the accession pathways under Article 4 envisioning further legally binding disarmament plans and agreements became a necessary, and somewhat inevitable, outcome in order to encourage universal accession to the TPNW, and eventually achieve compliance with the Article 1 prohibitions.[112] This evolution and shift away from a limited ban treaty towards an instrument that would incorporate features inherent to a more detailed framework agreement was in fact foreseen by the New Agenda Coalition working paper in 2014, which noted that a:

> 'Ban Treaty, in whatever form it might take, *would need to make some provision for the elaboration* (either within the Ban itself or by other means) *of the disarmament obligations and arrangements that would be a necessary and irreducible element of the accession of any nuclear-weapon-possessor State*… A short-form Ban Treaty that does not delineate detailed verification arrangements for disarmament *could equally make provision for the subsequent elaboration of these details at a later date*'.[113]

Put simply, the working paper identified the possibility of a degree of overlap between the ban and framework approaches. With this, and the aforementioned objectives of the TPNW negotiators and Humanitarian Initiative in mind, one could argue that the inclusion of more detailed disarmament provisions and the ability to negotiate further legally binding elimination obligations became a somewhat inevitable outcome of the negotiation process.[114]

Consequently, the inclusion of elements inherent to framework agreements, particularly the envisioning of subsequent disarmament plans and protocols, helps facilitate the realisation of prohibition of nuclear weapons, while maintaining the bridge to a more ambitious nuclear disarmament agenda in line with the underlying object and purposes of the TPNW to achieve and

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to this Treaty to sign, ratify, accept, approve or accede to the Treaty, with the goal of universal adherence of all States to the Treaty'); and Mukhatzhanova (2017a) 27.

[111] UNGA Res 71/258 (11 January 2017) UN Doc A/RES/71/258, [8] ('Decides to convene in 2017 a United Nations Conference to negotiate a legally binding instrument to prohibit nuclear weapons, *leading towards their total elimination*'). This clearly envisages that the negotiations should adopt an instrument which facilitates the ultimate goal of nuclear disarmament.

[112] The Under-Secretary-General of the United Nations and High Representative for Disarmament Affairs Izumi Nakamitsu also notes how Article 4 was incorporated to avoid imposing 'obstacles' which could have prevented the future participation of the NWPS, see Fumihiko Yoshida, 'UN on Nuclear Disarmament and the Ban Treaty: An Interview with Izumi Nakamitsu' (2018) 1(1) *Journal for Peace and Nuclear Disarmament* 93, 95.

[113] NPT/CONF.2015/PC.III/WP.18, 15 (emphasis added). Kurosawa similarly notes that although the TPNW text was initially focused on prohibitions, 'arguments to provide ways of totally eliminating nuclear weapons intensified during the negotiations', see Kurosawa (2018) 12.

[114] Subritzky (2019) 376.

maintain a nuclear weapon-free world.[115] In this sense, the TPNW should be viewed as a *sui generis*, 'hybrid' ban/framework disarmament instrument, which bridges and integrates elements of each approach within its provisions.

e. Assessing the TPNW as a 'Hybrid' Ban/Framework Agreement

The identification of the TPNW as a 'hybrid' ban/framework agreement brings certain benefits and challenges. Perhaps most notably, the TPNW's hybrid structure grants extensive flexibility as to how its disarmament provisions can be implemented through future protocols.[116] Indeed, the 'join then destroy' pathway under Article 4(2) could theoretically permit future progress towards nuclear disarmament on a case-by-case basis through the negotiation of *ad hoc*, 'state specific' disarmament plans with the competent international authority, thereby accounting for the unique characteristics of each acceding NWPS's nuclear stockpiles.[117] This point was implicitly noted by President Whyte Gómez during the 2017 negotiations:

> 'As the circumstances for each State possessing nuclear weapons *differs greatly*, and we cannot anticipate at this stage *at which point in the future they will be compelled to engage in a process leading to the total elimination of their nuclear weapon programmes*, it would be difficult and likely impossible for the Conference, in the span of three weeks, to develop these provisions'.[118]

Although it could be argued that this flexibility within the TPNW is actually a weakness that reflects the treaty's poor drafting and lack of detail on verification,[119] the better view is that envisioning further protocols to be negotiated alongside the central *chapeau* agreement offers a practical solution to the complexity of nuclear disarmament verification. This also addresses the non-participation of NWPS, whose involvement would be essential during the development of comprehensive disarmament and verification-related procedures.[120] Consequently, one could argue

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115 As noted in preambular paragraph 15, TPNW.

116 The flexibility inherent in framework agreements generally is noted by Matz-Lück (2009) 453-54.

117 This would contrast with a NWC, which would set a standardised process for nuclear weapons elimination under a one-size fits all approach, see Jürgen Scheffran, 'Verification and Security of Transformation to a Nuclear-Weapon-Free World: The Framework of the Treaty on the Prohibition of Nuclear Weapons' (2018) 30(1) *Global Change, Peace and Security* 143, 157.

118 Briefing by the President (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 12 June 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/06/Briefing-by-President-12-June-2017.pdf> 8 (emphasis added).

119 A possibility noted by Subritzky (2019) 380; and a line of reason taken by the NWPS and opponents in their criticism of the TPNW discussed in due course, see Chapter 5.

120 Recall that adopting extensive verification under a NWC would require NWPS involvement. See also Ray Acheson, Thomas Nash, and Richard Moyes, 'A Treaty Banning Nuclear Weapons: Developing a Legal Framework for the

that the 'hybrid' approach of the TPNW represents a pragmatic middle-ground that recognises the importance of NWPS contribution to the development of the disarmament verification process, but seeks to incorporate more ambitious obligations and objectives beyond a more limited 'simple ban' approach.[121]

Ultimately, however, the success of implementing the TPNW's future disarmament obligations and protocols where appropriate remains heavily reliant upon attracting political support from, and the participation, of NWPS.[122] While the initial *chapeau* agreement, that is the TPNW itself, was capable of being negotiated without the involvement of the NWPS, it will remain necessary to enlist the participation of NWPS in order to actually implement Article 4 and realise the disarmament objectives of the treaty.[123] Subritzky similarly notes this possible limitation:

> 'It is evident *that political will on the part of States will always be a necessary element in the success of a framework arrangemen*t. It is also clear from the outset that it would be politically *less risky from States to agree to a framework agreement* over a comprehensive Convention… A framework arrangement also has the potential to be effective, *though the extent of this effectiveness depends upon the political will of parties to negotiate subsequent protocols or implementing agreements*'.[124]

As such, while the negotiation and conclusion of framework (or in this case the 'hybrid') agreements tend to be more achievable initially compared to the more comprehensive NWC, the conclusion of additional protocols to implement Article 4 remains dependent upon – and will likely be persistently frustrated by – the continued opposition of the NWPS towards the TPNW.

Having said this, it is worth noting that despite its 'hybrid' ban/framework nature, the TPNW first and foremost continues to prioritise the normative-based objectives of stigmatising and delegitimising nuclear weapon possession and use through Article 1.[125] This assertion is reinforced by the fact that the Article 1 prohibitions are considered the 'core' obligations established by the TPNW *chapeau* instrument.[126] With this in mind, one could argue that the

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Prohibition and Elimination of Nuclear Weapons' (*Article 36*, May 2014) <http://www.article36.org/wp-content/uploads/2014/04/A_TREATY_BANNING_NUCLEAR_WEAPONS.pdf> 15.

[121] As noted by Meyer and Sauer (2018) 67.

[122] This is similarly noted by Matz-Lück (2011) [14]-[15] in relation to framework agreements generally.

[123] Stefan Kadelbach, 'Possible Means to Overcome Tendencies of the Nuclear Weapons Ban Treaty to Erode the NPT', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020) 315-18.

[124] Subritzky (2019) 380 (emphasis added).

[125] As suggested by Kjølv Egeland, Torbjørn Graff Hugo, Magnus Løvold, and Gro Nystuen, 'The Nuclear Weapons Ban Treaty and the Non-Proliferation Regime' (2018) 34(2) *Medicine, Conflict and Survival* 74, 80, who note that the TPNW's purpose is 'first and foremost to further stigmatize nuclear weapons'.

[126] As described by Pedrazzi (2017) 221.

negotiation of further disarmament protocols should be considered additional 'bonus' or 'longer-term objectives' of the TPNW, secondary to its stigmatising aims pursued under Article 1. Indeed, although the TPNW evidently maintains a structural link between the two objectives of prohibition and elimination, it must be recalled that the treaty was informed by the simple premise that 'prohibition precedes elimination'.[127] Consequently, even if subsequent nuclear disarmament protocols cannot be concluded for lack of political will on the part of the NWPS, the underlying stigmatising objectives pursued enshrined within Article 1 – and similarly fundamental to the 'ban-style' approach – can still be pursued through the TPNW's *chapeau* instrument.

Overall, although the TPNW has been explicitly framed as a 'prohibition' instrument, the inclusion of more substantive disarmament provisions and the option to conclude additional protocols towards this objective means that a *sui generis* type of agreement has ultimately been adopted – defined here as a 'hybrid' approach.[128] This was, in many ways, an inevitable consequence of the intention of the negotiating states and civil society to establish detailed, comprehensive prohibitions, while concurrently allowing the possible accession of the NWPS under Article 4. While the negotiation of additional disarmament protocols for the purposes of Article 4(2) in particular will remain dependent upon NWPS political will, the stigmatisation objectives inherent to the 'ban-style' approach can still be pursued through the TPNW *chapeau* agreement. This ensures that the underlying object and purpose of the 'simple ban' remains intact, even if the more ambitious nuclear disarmament objectives stemming from the TPNW's 'hybrid' ban/framework nature remain unfilled.

3. Extent of the Reporting Obligations

Although the primary nuclear disarmament-related pathways and provisions are established by Article 4, the role of the Article 2 'Declarations', or reporting measures must be appreciated in the TPNW disarmament process. As mentioned, one of the purposes of Article 2 is that the initial declaration submitted has the effect of categorising acceding state parties into four distinct groups.[129] This categorisation step is an essential process that determines, and ultimately triggers, subsequent obligations for all acceding states based on the declaration that they provide, either under Article 4, or for the majority of acceding NNWS, the safeguarding provisions imposed by Article 3.

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[127] See e.g. Fihn (2017) 45-46; Kadelbach (2020) 312; and Borrie, Caughley, Graff Hugo, Løvold, Nystuen and Waszink (2016) 24.

[128] Indeed, the fact that civil society and TPNW state supporters have described the TPNW as a ban-style instrument is somewhat irrelevant. What matters instead is the actual form it has taken, a view shared by Subritzky (2019) 378; and Matz-Lück (2011) [3].

[129] As noted in section 1 above.

Yet alongside this categorisation purpose, Article 2 also constitutes the primary reporting and transparency obligations assumed by state parties under the TPNW.[130] Reporting or transparency measures have been described by Casey-Maslen and Vestner as a 'staple' feature of disarmament instruments,[131] and generally have an underlying, two-fold function: first, to increase transparency by establishing an initial baseline that determines an acceding state's 'weapon status' in relation to the treaty in question;[132] and second, to provide an ability to measure, monitor, and therefore assess the implementation of a state's disarmament obligations under the particular treaty.[133] These purposes are similarly highlighted by Trapp, who notes how declarations help create a 'point of reference for the Convention's procedures to address non-compliance concerns'.[134] As such, reporting obligations act as a form of 'confidence-building measures' for other state parties that a disarming state is, in fact, moving in the direction of elimination,[135] and can reveal 'what challenges it [the disarming state] faces and what kind of international assistance it needs to overcome obstacles'.[136] The following discussion offers an analysis of the scope and extent of the reporting obligations incorporated in Articles 2 and 4(5) of the TPNW.

a. Reporting Obligations in Other Disarmament Instruments

Before turning to the TPNW, it is first worth noting that the scope of reporting obligations in disarmament treaties has undergone a steady, though significant, evolution over the past 50 years.[137] At one extreme, the 1972 BWC did not establish any reporting measures requiring state parties to declare either current or previous possession of biological agents, weapons or prohibited

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130 Along with Article 4(5), TPNW, which as noted below requires states acceding and subject to Article 4 to provide annual reports on the implementation of their disarmament efforts.
131 Stuart Casey-Maslen and Tobias Vestner, *A Guide to International Disarmament Law* (Routledge 2019) 171.
132 Bonnie Docherty, 'The Legal Content and Impact of the Treaty of the Prohibition of Nuclear Weapons' (*Speech delivered to the Legal Education Center*, *Norwegian Red Cross*, 11 December 2017) <http://hrp.law.harvard.edu/wp-content/uploads/2017/12/Impact-of-TPNW-Nobel-presentation-Dec-2017.pdf> 4.
133 As noted by Casey-Maslen and Vestner (2019) 170. The latter object therefore complements the verification function of disarmament instruments. Similarly, the reporting obligations under the APMBC were described by Ambassador Jean Lint, President of the Fourth Meeting of State Parties, as a 'valuable source of information to both support cooperation and assess progress' of disarmament obligations, see President of the Fourth Meeting of State Parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction, General Status and Operation of the Convention (12 May 2003) <https://www.apminebanconvention.org/fileadmin/APMBC/IWP/SC_may03/speeches_gs/President_GenStat_Summary_Final_12May2003.pdf> 2.
134 Ralf Trapp, 'Art. III Declarations', in Walter Krutzsch, Eric Myjer, and Ralf Trapp (eds), *The Chemical Weapons Convention: A Commentary* (Oxford University Press 2014) 107. A similar conclusion is reached by Mirko Sossai, 'Transparency as the Cornerstone of Disarmament and Non-proliferation Regimes', in Andrea Bianchi and Anne Peters (eds), *Transparency in International Law* (Cambridge University Press 2013) 394.
135 For a useful overview of confidence-building measures and reporting obligations in arms control instruments, see Casey-Maslen and Vestner (2019) 170-208.
136 Bonnie Docherty, 'Art. 7 Transparency Measures', in Gro Nystuen and Stuart Casey-Maslen (eds), *The Convention on Cluster Munitions: A Commentary* (Oxford University Press 2010) 423.
137 For a useful overview of the different reporting requirements in various disarmament instruments, see Casey-Maslen and Vestner (2019) 171-80.

toxins.[138] This omission largely reflects the absence and failure to incorporate any detailed verification mechanisms under the BWC generally.[139] Attempts to remedy the inadequate reporting requirements were made during the 1986 and 1991 BWC Review Conferences, where attending parties reached agreement on certain confidence-building measures, including some reporting obligations relating to biological agent research centres, vaccine production, and previous biological-related defence programmes.[140] However, these confidence-building measures have had limited success and the legally binding nature of the developed measures has been disputed.[141]

By contrast, disarmament treaties since the negotiation of the CWC in 1993 have tended to establish much more extensive and detailed reporting obligations.[142] A notable example is the CCM of 2008.[143] Under Article 7, each state party shall provide an initial declaration report within 180-days after the treaty enters into force for that state party.[144] These initial declaration reports must include the 'total of all cluster munitions, including explosive submunitions… a breakdown of their type, quantity and, if possible, lot numbers of each type'.[145] In addition, technical characteristics of each type of cluster munition owned, specifically in relation to dimensions, explosive content, and fusing mechanisms must be provided.[146] Other information relating to the decommissioning of cluster munition facilities,[147] and cluster munitions discovered after the reported completion of destruction shall be provided too.[148] Finally, Article 7(2) requires state parties to update the information provided in its declaration annually by 30 April the following year.[149] This annual reporting requirement essentially helps to ensure that the latest, most accurate

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[138] As noted similarly by Jozef Goldblat, 'The Biological Weapons Convention – An Overview' (1997) 37(318) *International Review of the Red Cross* 251, 258.
[139] Ibid, 258-62. The BWC instead only offers an option to appeal to the UNSC in cases of suspected non-compliance, see Article VI, BWC.
[140] See for a useful discussion of these measures, Daryl Kimball, 'The Biological Weapons Convention (BWC) at a Glance' (*Arms Control Association*, updated March 2020) <https://www.armscontrol.org/factsheets/bwc>; and Iris Hunger and Shen Dingli, 'Improving Transparency: Revisiting and Revising the BWC's Confidence Building Measures' (2011) 18(3) *The Nonproliferation Review* 513.
[141] As noted by Casey-Maslen and Vestner (2019) 172; and Daryl Kimball, 'The Biological Weapons Convention (BWC) At a Glance' (*Arms Control Association*, updated March 2020) <https://www.armscontrol.org/factsheets/bwc>
[142] This is noted by Casey-Maslen and Vestner (2019) 172-74. For a discussion of the transparency measures and reporting obligations in the CWC, see Trapp (2014) 105-18.
[143] Similarly extensive reporting obligations are incorporated within Article 7, APMBC. See also Stuart Casey-Maslen, *Commentaries on Arms Control Treaties Volume I: The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction* (2nd edn, Oxford University Press 2005) 209-219.
[144] Article 7(1), CCM. See also the obligations under Article 7, APMBC from which the CCM drew inspiration. The use of the term 'shall' alludes to the mandatory nature of this obligation, as noted by Docherty (2010) 436.
[145] Article 7(1)(b), CCM.
[146] Ibid, Article 7(1)(c).
[147] Ibid, Article 7(1)(d).
[148] Ibid, Article 7(1)(g). See for a useful overview of the full extent of the CCM reporting obligations, Docherty (2010) 420-53 generally.
[149] Article 7(2), CCM.

information of state party progress on implementing the obligations under the CCM is provided and made available for the UN Secretary-General to transmit to all state parties.[150]

Overall, multilateral disarmament instruments have slowly adopted ever-increasingly detailed reporting obligations, with the CCM setting arguably the most elaborate obligations so far.[151] The question, therefore, is whether the TPNW declarations follows this trend.

b. TPNW Reporting Obligations

When one considers the reporting obligations of the TPNW, it is immediately apparent that a substantial difference in terms of the scope of the reporting obligations is established by the initial declarations under Article 2.[152] In contrast to the CCM and even the CWC, which, under Article III(1)(a)(i)-(v), requires states submitting affirmative declarations to provide further details relating to its chemical weapons stockpiles,[153] there is no explicit requirement for acceding states under the TPNW to provide exact numbers relating to current, or previously possessed nuclear weapons; any details relating to yield size of different nuclear weapons owned by the state in question; nor any information on nuclear weapons-related facilities.[154] Instead, Article 2 merely obliges each acceding state to declare whether it either previously possessed, or continues to possess nuclear weapons, or has ever hosted nuclear weapons of another state in its territory.

This limited interpretation of the reporting obligations has been challenged by Cuba, which submitted an interpretative declaration upon ratifying the TPNW suggesting that '[t]he declarations that States Parties are required to make under Article 2 must include information on any activity they carry out *that is prohibited under Article 1*'.[155] However, Cuba's interpretation is not supported by the plain meaning of the text contained within Article 2, which instead focuses purely on whether a party owns, possesses or controls nuclear weapons, or if such weapons are present in its territory.[156] Nothing under Article 2 requires any acceding state to declare, for example, whether it has ever used, tested, or developed nuclear weapons.

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[150] As noted by Docherty (2010) 452.

[151] Ibid, 423 ('Article 7 of the Convention on Cluster Munitions takes transparency even further. It builds on precedent for transparency measures, supplementing it with reporting requirements on newly discovered stockpiles, victim assistance, national points of contract, national resources, and international cooperation and assistance').

[152] Indeed, one only needs to briefly compare Article 2, TPNW with Article 7, CCM to appreciate the contrast in terms of the extent of the reporting obligation imposed under each instrument. This is readily apparent on face value.

[153] See notably Article III(1)(a)(ii), CWC which requires state parties submitting affirmatively to '[s]pecify the precise location, aggregation quantity and detailed inventory of chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control'.

[154] This point is noted also by Casey-Maslen (2019) 177 ('There is, though, no specification as to what level of detail (if any) is required in the event of a 'yes' declaration').

[155] See the interpretative declaration of Cuba, <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26&clang=_en#EndDec> (emphasis added).

[156] Casey-Maslen (2019) 178.

As a result, the reporting obligation under Article 2 could be described as a simple 'yes-no' declaration. Indeed, the ICRC has seemingly accepted this 'yes-no' approach, and has since drafted various 'model Article 2 declarations' adapted for different categories of states that accede to the TPNW – i.e. NNWS, former NWPS, current NWPS, and nuclear weapons-hosting states.[157] While this has the important effect of categorising state parties,[158] this basic 'yes-no' initial reporting obligations established by Article 2 has been correctly described as 'minimal' by Casey-Maslen, given the lack of specificity and detail required from state parties in the submitted declaration.[159]

As of 30 September 2021, 54 state parties have submitted declarations as required by Article 2 out of the 56 states to have ratified the TPNW.[160] The Cook Islands submitted the first such declaration in September 2018, answering each of the above three declarations negatively.[161] However, given the limited 'yes-no' nature of the declaration provided, this would essentially constitute the end of the Cook Islands' reporting requirements under the TPNW.[162] Indeed, unlike both the CCM and APMBC, the TPNW does not require state parties that submit negative declarations under Articles 2(1)(a), (b), and (c) to later reconfirm the correctness of the first submitted declarations through a subsequent annual reporting requirement.[163] This would initially seem to be a disappointing outcome that undermines the TPNW's ability to enhance transparency and build confidence amongst its state parties, and bucks the trend towards greater detail established by the CWC, APMBC, and CCM.

However, this author argues that the approach incorporated within the TPNW can be justified on two grounds. First, it is worth recalling that in relation to the CWC, APMBC, and CCM, numerous states had at some stage possessed the prohibited weapons in question.[164] This

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[157] 'Model declarations under article 2 of the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 15 January 2021) <https://www.icrc.org/en/document/model-declarations-under-article-2-treaty-prohibition-nuclear-weapons>
[158] As noted previously. Trapp notes a similar 'sorting' effect in relation to Article III(1)(a)(i), CWC, see Trapp (2014) 107-08.
[159] Casey-Maslen and Vestner (2019) 175. Though it should be emphasised that Article 2 obviously goes further than the BWC which does not even incorporate this basic yes-no declaration at all.
[160] A list of the Article 2 declarations is available online, see 'Declarations pursuant to Article 2 of the TPNW' (*United Nations Office for Disarmament Affairs*) <https://www.un.org/disarmament/wmd/nuclear/tpnw/article-2-of-the-tpnw>
[161] See, the Cook Islands, Declaration, <https://treaties.un.org/doc/Publication/CN/2018/CN.398.2018-Eng.pdf> 'The Government of the Cook Islands:
(a) declares that it does not own, possess, or control nuclear weapons or nuclear explosive devices, neither does it have a nuclear-weapon programme or nuclear-weapons-related facilities in its territory or in any place under its jurisdiction or control;
(b) notwithstanding Article 1 (a) [sic!], declares that it does not own, possess, or control any nuclear weapons or other nuclear explosive devices;
(c) notwithstanding Article 1 (g) [sic!], declares there are no nuclear weapons or other nuclear explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State'.
[162] As noted by Casey-Maslen and Vestner (2019) 175.
[163] In contrast to Article 7(2), CCM; and Article 7(2), APMBC.
[164] See example for a useful overview of the states which previously or currently possess chemical or biological weapons, 'Chemical and Biological Weapons Status at a Glance' (*Arms Control Association*, updated April 2020) <https://www.armscontrol.org/factsheets/cbwprolif>. According to one civil society source, 93 states reportedly

stands in contrast to the situation with nuclear weapons, where presently only nine states are known to possess nuclear weapons.[165] Moreover, all NNWS have previously committed to refrain from acquiring nuclear weapons under Article II of the NPT, an obligation reinforced through membership in regional NWFZ, and now those prohibitions within Article 1 of the TPNW.[166] Consequently, for the vast majority of potential NNWS parties to the TPNW, the minimal reporting obligations imposed by Article 2 are sufficient given the existence of legal obligations not to proliferate.[167] Indeed, as New Zealand noted during the negotiations:

> 'for us [the NNWS participating in the TPNW negotiations] there is no need whatsoever to establish a baseline. For all of us here, Article 2 is in effect drafted as an invitation to us to make a declaration that we have acted illegally'.[168]

Second, any acceding state that submits an 'affirmative' declaration under Article 2 – and is therefore subject to one of the three reciprocal disarmament pathways under Article 4 outlined previously – is subsequently required by Article 4(5) to 'submit a report to each meeting of States Parties and each review conference on the progress made towards the implementation of its obligations under this Article, until such time as they are fulfilled'.[169] In effect, this creates an additional or supplementary reporting requirement for those states acceding under any of Article 4 accession 'pathways' on the progress made towards implementing its specified disarmament or removal obligations.[170] Therefore, although in the case of many NNWS Article 2 encompasses the initial and totality of the reporting obligation, Article 4(5) ensures that further reporting obligations are imposed upon either former NWPS, current NWPS, or present hosting states, thereby enhancing transparency during the disarmament process.[171]

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stockpiled cluster munitions prior to the adoption of the CCM, see 'Global Problem: Stockpilers of Cluster Munitions' (*Cluster Munition Coalition*) <http://www.stopclustermunitions.org/en-gb/cluster-bombs/global-problem/stockpilers.aspx>

165 And only five states presently host the nuclear weapons of another state and would therefore be required to submit a positive declaration under Article 2(1)(c), TPNW.

166 Recall that Article 1(1)(a), TPNW requires each state party never to 'develop, test, produce, manufacture, otherwise acquire, possess or stockpile nuclear weapons or other nuclear explosive devices'.

167 Casey-Maslen and Vestner (2019) 175-76.

168 See Compilation of Amendments received from States on the President's draft text and South Africa's proposal (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination*, 29 June 2017) <https://www.un.org/disarmament/tpnw/other-documents.html> 36-37 (bracketed text added). As a result, New Zealand called for the deletion of Article 2, and instead proposed to include an initial declaration requirement under Article 4 and the accession pathways for the NWPS.

169 Article 4(5), TPNW.

170 Casey-Maslen (2019) 177 similarly notes the additional requirements imposed here.

171 Casey-Maslen and Vestner (2019) 176.

One initial observation is worth making here in relation to the frequency in which subsequent reports should be submitted to the 'meeting of States Parties and each review conference'. Article 8(2) confirms that the first meeting shall be convened 'within one year of the entry into force of this Treaty', while further meetings shall be convened on a 'biennial basis, unless otherwise agreed by the State Parties'.[172] This would suggest that Article 4(5) progress reports will only be provided roughly once every two-years, giving little opportunity for state parties to remain informed of progress towards implementing Article 4. Of course, it may be that state parties choose different intervals for both the meetings specified under Article 8(2) and review conferences. Indeed, the TPNW does give states discretion on this matter,[173] thus allowing for more frequent reporting in relation to Article 4(5) if state parties so decide.

Furthermore, it seems apparent that the subsequent disarmament progress reporting obligations established by Article 4(5) contain similar limitations to the vague requirements of Article 2 by failing to specify what information and technical details should be included in the implementation reports submitted.[174] Other disarmament treaties, by contrast, implicitly require equally detailed subsequent annual reports by requesting that the declaratory information provided 'shall be *updated* by the State Parties annually'.[175] It would seem reasonable to conclude that this reference to updating requires each state party to again submit a report on the same information provided initially: indeed this seems to be the interpretation accepted by state parties to the CCM.[176] Assuming a similar approach is followed through the TPNW, given that the initial reporting obligations under Article 2 take the form of minimalistic 'yes-no' declarations, one could argue that the progress reports under Article 4(5) similarly do not require extensive levels of detail, instead simply requiring the state in question to confirm that progress is being made.[177]

Moreover, if this interpretation is accepted, a further difficultly concerns the ability of state parties to verify the completeness and correctness of the progress reports submitted under this provision.[178] This point is made by Costlow in connection with Article 4(5), who argues that the TPNW puts 'trust' in the NWPS to submit accurate reports, and suggests in turn that '[w]hile one would hope that each state [acceding under Article 4] would be truthful and transparent in such a

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172 Article 8(2), TPNW.
173 As noted by Casey-Maslen (2019) 228.
174 Rather the report should simply note the 'progress made towards the implementation' of the states' obligations under Article 4.
175 See specifically in this regard both Article 7(2), APMBC; and Article 7(2), CCM.
176 This point is noted by Docherty (2010) 452.
177 This could again amount to a 'yes-no' declaration as to whether progress towards nuclear disarmament under Article 4 has been made or not.
178 Loghin mentions this in relation to Article 2 as well, see Adina C Loghin, 'Which International Authority Should be Designated for Verifying the Irreversible Elimination of Nuclear Weapons Under Article 4 of Nuclear Ban Treaty' (2019) 11(1) *Amsterdam Law Forum* 73, 85.

report, hope is not the firmest foundation on which to ban the most destructive weapon man has ever invented'.[179]

In truth, however, it is likely that these concerns are somewhat overstated. Although the precise content of the Article 4(5) reports is not specified under a purely textual reading, it seems logical that such reports must go beyond a simple confirmation that progress towards nuclear disarmament is being made.[180] The inclusion of precise figures in terms of weapon dismantlement, facilities destroyed or converted and other specific information would therefore be necessary in order to accurately assess the progress made towards implementing nuclear disarmament obligations under the TPNW, while additionally increasing transparency and confidence among member states. Furthermore, given that Article 4 requires a 'competent international authority' to verify either the prior or future elimination of an acceding state's nuclear weapons,[181] one could assume the authority in question would have appropriate access to information and data on the nuclear disarmament process to help verify the accuracy of the subsequent Article 4(5) declaration submitted. And finally, the submission of expanded Article 4(5) reports would also facilitate the successful implementation of the disarmament obligations imposed under the TPNW.

Still, another practical difficulty with the Article 4(5) reporting obligation relates to the ability to actually assess what progress has been made, particularly as Article 2 fails to establish a 'baseline' in terms of the number of weapons a NWPS possessed at the time of accession. Consider the following example. 'State A' accedes to the TPNW while possessing nuclear weapons, and therefore submits an affirmative declaration under Article 2(1)(b) and begins to irreversibly eliminate or convert its nuclear weapons and nuclear weapons-related facilities. 'State A' then submits progress reports as required by Article 4(5) to each meeting of state parties and each review conference 'on the progress made towards the implementation of its obligation' and claims it has dismantled 100 nuclear weapons or nuclear explosive devices. The difficulty here is that 'State A's' initial Article 2 declaration would merely confirm that it possesses nuclear weapons, but imposes no legal requirement to specify the number of weapons stockpiled, or details related to nuclear weapons facilities in operation. In other words, no initial 'baseline' is set, and therefore determining precisely what progress towards disarmament 'State A' has made by the first Article

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[179] Matthew Costlow, 'The Nuclear Ban Treaty is Way Off Target' (*The War on the Rocks*, 28 July 2017) <https://warontherocks.com/2017/07/the-nuclear-ban-treaty-is-way-off-target/>

[180] Indeed, if a state submitting a subsequent report under Article 4(5), TPNW merely says 'yes, progress has been made towards implementation our assumed disarmament objectives', how would other state parties be able to assess precisely what progress has in fact occurred?

[181] Under Article 4(1) and (2), TPNW respectively. Determining which authority should be designated to undertake this role will be explored in section 4 below.

4(5) progress report submitted may prove difficult to measure regardless of how comprehensive this subsequent report is.

Despite this concern, it is worth noting that many civil society and non-governmental organisations carry out extensive research into the number of nuclear weapons possessed by different states and provides analysis of the nuclear weapon programmes of each individual NWPS.[182] The *Federation of American Scientists*, for example, has provided regularly updated 'Status of World Nuclear Forces' reports for many years,[183] alongside more specific assessments of the nuclear weapons programmes of different NWPS.[184] Another example is the *Nuclear Weapons Ban Monitor*, the 'unofficial watchdog' of the TPNW, which offers analysis on whether states are in compliance with TPNW commitments, particularly the prohibitions established by Article 1.[185] Although this collected data is by no means an official account of the actual status of a NWPS's nuclear weapons programme, this can, at the very least, partially address the void caused by the 'yes-no' declaration requirement under Article 2 and help assess early progress towards nuclear disarmament through the TPNW framework.[186]

c. Summarising the Reporting Obligations of the TPNW

Overall, although the scope of the reporting obligations imposed under Article 2 are rightly described as minimal by Casey-Maslen, these can be justified on the two grounds noted above. It is also worth emphasising once more that for the vast majority of NNWS, the minimalist reporting obligation under Article 2 will prove sufficient, and further details would not be required from the states most likely to accede in the near future. Finally, the limited reporting requirements of the TPNW largely reflects the wider hesitation among participants during the 2017 negotiations to establish specific verification and monitoring provisions on nuclear disarmament in the initial

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[182] As noted by Michael Crowley and Andreas Persbo, 'The Role of Non-Governmental Organizations in the Monitoring and Verification of International Arms Control and Disarmament Agreements', in John Borrie and Vanessa Martin Randin (eds), *Thinking Outside the Box in Multilateral Disarmament and Arms Control Negotiations* (UNIDIR 2006). Non-governmental organisations have taken on a similar role in the field of International Human Rights Law, as noted by Marie Törnquist-Chesnier, 'NGOs and International Law' (2004) 3(2) *Journal of Human Rights* 253.

[183] See e.g. Hans M Kristensen and Matt Korda, 'Status of World Nuclear Forces' (*Federation of American Scientists*, updated August 2021) <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/>

[184] As reported in the Federation of American Scientist 'Nuclear Notebooks', published in the Bulletin of the Atomic Scientists, and available online, providing regular updates on the status of NWPS forces, see generally the resources available at 'FAS Nuclear Notebook' (*Federation of American Scientists*) <https://fas.org/issues/nuclear-weapons/nuclear-notebook/>

[185] See for the most recent edition, Grethe Laughlo Østern (ed), 'Nuclear Weapons Ban Monitor 2020', *Norwegian's People Aid*, January 2021, specifically 82-286.

[186] Having said this, it must be emphasised that this approach is by no means a preferred alternative than including detailed legally binding reporting obligations like those under Article 7(2), CCM.

treaty text without the input of the NWPS, instead choosing to leave such issues to the negotiation of additional verification protocols.[187]

4. Competent International Authority

As alluded to above, the TPNW foresees a future role for a currently unidentified 'competent international authority' to take on the position of verifying the implementation and completeness of disarmament obligations assumed under Articles 4(1) and (2), and would naturally be required to provide information and reports relating to the implementation of 'destroy then join' and 'join then destroy' disarmament pathways.[188] In accordance with Article 4(6), the state parties 'shall designate a competent international authority or authorities to negotiate and verify the irreversible elimination of nuclear-weapons programmes… in accordance with paragraphs 1, 2 and 3 of this Article'.[189] However, should this designation not occur by the time that a state accedes subject to either Article 4(1) or (2), Article 4(6) specifies that the 'Secretary-General of the United Nations shall convene an extraordinary meeting of State Parties to take any decisions that may be required' in the designation of the authority.

It is clear that the designation of the competent international authority constitutes a 'key decision' that will prove 'crucial for both the future implementation and legitimacy of the Treaty'.[190] Unfortunately, however, the TPNW does not provide any indication as to which authority, organisation or actor will take on this role of under Article 4,[191] resulting in various suggestions by commentators.[192] The following discussion intends to analyse three commonly suggested options for this role – the IAEA, ICAN, or the creation of a new, specifically designed international organisation – and determine which proposed authority is most suitable and least problematic from both a technical and legal perspective.

[187] This reflects the 'hybrid' ban/framework nature of the TPNW discussed above. The extent of the verification oblgiations under the TPNW will be discussed in relation to the criticisms raised by the NWPS against the treaty later in Chapter 5 of this thesis.

[188] As suggested by Casey-Maslen (2019) 196.

[189] Article 4(6), TPNW.

[190] Tamara L Patton, Sébastien Phillippe, and Zia Mian, 'Fit for Purpose: An Evolutionary Strategy for the Implementation and Verification of the Treaty on the Prohibition of Nuclear Weapons' (2019) 2(2) *Journal for Peace and Nuclear Disarmament* 387, 388.

[191] As noted by Matthew Costlow, 'The Nuclear Ban Treaty is Way Off Target' (*The War on the Rocks*, 28 July 2017) <https://warontherocks.com/2017/07/the-nuclear-ban-treaty-is-way-off-target/>

[192] See notably, Loghin (2019); Patton, Phillippe, and Mian (2019); Thomas Shea, *Verifying Nuclear Disarmament* (Routledge 2018) 9-12; and Erästö, Komžaitė, and Topychkanov (2019).

a. IAEA

Perhaps unsurprisingly, the most commonly endorsed organisation for this role is the IAEA,[193] thus expanding its already envisaged safeguarding role in the disarmament process under Article 4(1) and (3).[194] In many respects, the IAEA is perhaps the obvious candidate for this role given its reputation in nuclear safeguarding activities and its existing legal relationship with the vast majority of states.[195] This option would also, in effect, ensure that all nuclear material-related safeguard and verification activities are monitored by a single international organisation.[196] In fact, during the TPNW negotiations, the initial 22 May Draft identified the IAEA as taking on the role of verifying nuclear disarmament,[197] with President Whyte Gómez explaining how this drew 'directly from the mandate and objectives pursued by the IAEA in South Africa' during the early 1990s.[198] This approach, however, was ultimately not adopted by participating delegations, and rightly so for the following reasons.

To begin, there are some technical and legal concerns as to whether the IAEA can effectively take on the envisaged disarmament role under Article 4. Such scepticism reflects the fact that the IAEA's primary role since its inception in 1957 has focused on verifying the non-diversion of nuclear materials and activities from peaceful, civilian purposes.[199] Indeed, the Agency's previous disarmament verification activities in South Africa was largely *sui generis*, beyond the realm of the IAEA's mandated authority.[200] In this sense, the IAEA's prior nuclear disarmament experience has been of a rather limited scope, covering either 'nascent or renounced

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[193] See e.g. Casey-Maslen (2019) 194-95; Loghin (2019) 91-92; and Patton, Phillippe, and Mian (2019) 389. Fleck similarly argues that TPNW parties 'would like to put most of this burden on the IAEA', see Dieter Fleck, 'The Treaty on the Prohibition of Nuclear Weapons: Challenges for International Law and Security', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation and International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019) 405.

[194] Recall that Article 4(1) and (3), TPNW requires acceding states to which the Article applies to conclude safeguards agreements 'sufficient to provide credible assurance of the non-diversion of declared nuclear material' with the IAEA. In addition, the IAEA also takes on a safeguarding role under Article 3, TPNW relating to peaceful nuclear activities.

[195] Patton, Phillippe, and Mian (2019) 389.

[196] Rather than diversifying the number of institutions taking on nuclear-related verification activities, as noted by Loghin (2019) 92.

[197] Draft Article 4, Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1.

[198] Briefing by the President (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 12 June 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/06/Briefing-by-President-12-June-2017.pdf> 6.

[199] This primary function is noted in Article II, the Statute of the International Atomic Energy Agency (adopted 16 October 1956, entered into force 29 July 1957) 276 UNTS 3 (hereafter Statute of the IAEA) ('The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose').

[200] Noted similarly by Daniel H Joyner, 'My Impressions on the Second Draft of the Nuclear Ban Treaty' (*Arms Control Law*, 28 June 2017) <https://armscontrollaw.com/2017/06/>; and Michael Onderco, 'Why Nuclear Weapon Ban Treaty is Unlikely to Fulfil its Promise' (2017) 3(4-5) *Global Affairs* 391, 395.

programmes'.[201] Indeed, there is a substantial difference between verifying the elimination of South Africa's relatively small nuclear weapons programme,[202] and verifying the completeness of US or Russian nuclear disarmament.[203] Scheffran, for example, also notes that the IAEA would require considerable additional manpower, technical expertise and additional competence to monitor a 'considerably higher amount of materials and a large number of facilities' and verify nuclear disarmament effectively.[204] Quite simply, therefore, the Agency lacks experience in verifying nuclear disarmament in its current form.[205]

Consequently, the Statute of the IAEA would likely need to be amended to provide an extended mandate and additional competences to allow the Agency to undertake nuclear disarmament related activities.[206] The Statute does provide an amendment process under Article XVIII that could rectify this issue.[207] However, this would require the approval of two-thirds of the member states present and voting at the IAEA General Conference,[208] which may prove challenging in practice given the broad membership of NWPS and their military allied states within the General Conference which collectively oppose the TPNW. Thus, although the IAEA could acquire the appropriate competences to verify nuclear disarmament, political hurdles make this possibility unlikely.

Another concern noted by Casey-Maslen is that Article 4 essentially imposes legally binding treaty-based obligations upon the unidentified competent international authority relating to nuclear disarmament verification.[209] Yet under traditional, positivist, consent-based conceptions of international law it is generally not possible for a third party, be that a state,[210] or an international

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[201] Patton, Phillippe, and Mian (2019) 390.

[202] South Africa is presumed to have developed just six functioning nuclear explosive devices, 'South Africa: Nuclear' (*Nuclear Threat Initiative*, updated September 2015) <https://www.nti.org/learn/countries/south-africa/nuclear/> (including sources cited at footnote 15).

[203] A point similarly noted by Zia Mian, Tamara L Patton, and Alexander Glaser, 'Addressing Verification in the Nuclear Ban Treaty' (2017) 47(5) *Arms Control Today* 14, 17-18.

[204] Scheffran (2018) 151. A similar point is noted in Larry MacFaul (ed), 'The IAEA and Nuclear Disarmament Verification: A Primer' (*VERTIC*, September 2015) <https://www.vertic.org/media/assets/Publications/VM11%20WEB.pdf>

[205] Similarly noted elsewhere by Erästö, Komžaitė, and Topychkanov (2019) 15; Patton, Phillippe, and Mian (2019) 391; and Onderco (2017) 395. Although at the same time, any other organisation taking on this role would be in a similar position.

[206] Loghin (2019) 91; Scheffran (2018) 151; Erästö, Komžaitė, and Topychkanov (2019) 15; while Joyner similarly notes that any previous disarmament verification activities have not been 'undertaken solely on the basis of the IAEA's regular authority pursuant to its statute and safeguards agreements, see Daniel H Joyner, 'My Impressions on the Second Draft of the Nuclear Ban Treaty' (*Arms Control Law*, 28 June 2017) <https://armscontrollaw.com/2017/06/>. For a contrasting view, see Patton, Phillippe, and Mian (2019) 389-92, who argue that nuclear disarmament verification would seem to fall under the existing mandate permitting safeguards, though nonetheless accepting the technical difficulties mentioned above facing the IAEA in ensuring verification at present.

[207] See generally Article XVIII, Statute of the IAEA.

[208] Article XVIII(c), Statute of the IAEA.

[209] Casey-Maslen (2019) 194.

[210] See Article 34, VCLT.

organisation, to be bound by treaty obligations to which it has not consented to be bound.[211] The ICJ has also reaffirmed the continued importance of the *pacta tertiis nec nocent nec prosunt* rule.[212] Returning to the present context, although the IAEA certainly possesses sufficient legal personality to enter into binding agreements given its conclusion of numerous safeguard agreements on a bilateral basis with other states,[213] the Agency is only legally bound by any commitments or agreements stemming from the TPNW 'if the parties to the treaty intend the provision to be the means of establishing the obligation and the third State or third organisation [the IAEA] expressly accepts that obligation in writing'.[214]

Having said this, the TPNW negotiators have tactically avoided violating this principle by not explicitly referencing the IAEA as the competent international authority under Article 4.[215] Instead, it is suggested that TPNW parties could approach the IAEA to accept additional commitments under the treaty and become the Article 4 authority.[216] But while this approach ensures that Article 34 of the VCLT-IO is not violated, this solution is again hindered by political hurdles. Although Article XVI(a) confirms, in principle, that the IAEA can enter into agreements with the UN and 'any other organizations the work of which is related to that of the Agency',[217] this must be entered into by the Board of Governors,[218] which presently consists of representatives from seven NWPS and numerous allied states.[219] Given the opposition of many of these states

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[211] Article 34, Vienna Convention on the Law of Treaties between States and International Organisations or between International Organisations (21 March 1986) UN Doc A/CONF.129/15 (hereafter VCLT-IO). This treaty is not presently in force.

[212] See *Military and Paramilitary Activities in and against Nicaragua* (*Nicaragua v United States of America*) (Merits) [1986] ICJ Rep 14, [135]. See also Louis Henkin, *International Law: Politics and Values* (Kluwer Law 1995) 28 ('No treaty, old or new, whatever its character or subject, is binding on a state unless it has consented to it'); and Robert Jennings and Arthur Watts (eds), *Oppenheim's International Law* (9th edn, Longman Publishing 1992) 1260 ('The general rule is so well established that there is no need to cite extensive authority for it').

[213] For a useful overview of existing safeguard agreements in place, see 'Safeguards Agreements' (*IAEA*) <https://www.iaea.org/topics/safeguards-agreements>. Moreover, Article III(4), NPT also explicitly notes the legally binding nature of the bilateral safeguard agreements entered into force principally aim to ensure the non-diversion of nuclear materials from peaceful purposes.

[214] Article 35, VCLT-IO (bracketed text added).

[215] Newell Highsmith and Mallory Stewart, 'The Nuclear Ban Treaty: A Legal Analysis' (2018) 60(1) *Survival: Global Politics and Strategy* 129, 133, similarly note the logic of referring vaguely to a 'competent international authority' as opposed to the IAEA given its expertise in non-proliferation matters.

[216] This need for approval by the Board of Governors is noted by Larry MacFaul (ed), 'The IAEA and Nuclear Disarmament Verification: A Primer' (*VERTIC*, September 2015) <https://www.vertic.org/media/assets/Publications/VM11%20WEB.pdf> 27-28. See also Article XVI(A), Statute of the IAEA ('The Board of Governors, with the approval of the General Conference, is authorized to enter into an agreement or agreements establishing an appropriate relationship between the Agency and the United Nations and any other organizations the work of which is related to that of the Agency').

[217] Article XVI(a), Statute of the IAEA.

[218] With the approval of the General Conference of all member state parties established pursuant to Article V, Statute of the IAEA.

[219] The current board members for 2020-21 are Argentina, *Australia*, Austria, Brazil, *Canada*, *China*, Egypt, *Estonia*, *France*, *Germany*, Ghana, *Greece*, *Hungary*, *India*, *Japan*, Kuwait, Malaysia, Mexico, Mongolia, New Zealand, Nigeria, *Norway*, Panama, Paraguay, Peru, *Poland*, *Russia*, Saudi Arabia, Senegal, South Africa, Sweden, Switzerland, the UAE, *the UK*, *the US*, and Uruguay. The italicised states are either NWPS or those states that have entered into extended nuclear deterrence arrangements with a NWPS.

towards the TPNW – a point similarly noted above in connection with the arduous amendment process[220] – Highsmith and Stewart correctly observe that it is unlikely that the present Board of Governors will 'approve IAEA verification of the ban treaty' for the purposes of verifying nuclear disarmament.[221]

Consequently, while the IAEA is certainly the most experienced body in promoting nuclear safety and safeguarding peaceful nuclear-related activities, and could feasibly be given a mandate to take on nuclear disarmament verification, the practical challenges posed by the amendment process – in particular the political difficulty of achieving a necessary amendment to the Statute of the IAEA – ultimately means that the Agency is unlikely to take on the role of the competent authority envisaged under Article 4.

b. ICAN

Another proposal suggested by Loghin is for the civil society group ICAN to take on the role of competent international authority.[222] The rationale behind this proposal becomes particularly clear when one considers that ICAN – through one of its subsidiary partner organisations the *Norwegian People's Aid* – has already taken on the role of the unofficial 'watchdog' of the TPNW through the establishment of the *Nuclear Weapons Ban Monitor*.[223] Moreover, given ICAN's growing reputation in the field of nuclear non-proliferation and disarmament and its leading role during the TPNW negotiation process, the organisation would also have the support of many TPNW supporters from both states and civil society.[224] Because of this existing observational role, Loghin argues that ICAN would be well-suited to 'sustain the efficient monitoring, verification and inspection of obligations falling under TPNW'.[225]

However, as with the IAEA proposal, there are both technical and legal obstacles that make this approach untenable. From a technical perspective, there is a substantial difference between monitoring compliance with the Article 1 prohibitions of the TPNW in an unofficial overseeing, 'watchdog' capacity, and conducting detailed verification activities of the dismantlement of a state's nuclear weapons for the purposes of Article 4.[226] Furthermore, when

[220] See footnotes 206-208 above.
[221] Highsmith and Stewart (2018) 133.
[222] See Loghin (2019) generally, and specifically, 92-94.
[223] For more information, and the latest report, see Grethe Laughlo Østern (ed), 'Nuclear Weapons Ban Monitor 2020', *Norwegian's People Aid*, January 2021.
[224] Loghin (2019) 93.
[225] Ibid, 92-93.
[226] In essence, it is relatively straightforward for a competent analyst to be able to objectively determine compliance with international law obligations through the use of already collated information and available data. This is essentially the approach taken in the Nuclear Weapons Ban Monitor. By contrast, actually leading the more technical process of comprehensively verify disarmament is much more challenging, and requires extensive expertise, insight, and funding.

one takes a glance at some of ICAN's partner organisations,[227] it is unclear which of these organisations and associated groups could offer prior experience or specific expertise and insights that would effectively contribute to the disarmament verification process envisioned under Article 4. Quite simply, and as with the IAEA,[228] it may be that ICAN presently lacks the technical capacity necessary to competently verify the dismantlement of an acceding state's nuclear weapons programme.

A more pressing concern stems from the current legal status of ICAN. Loghin takes the position that like the IAEA, ICAN constitutes an international organisation.[229] This would in turn suggest that it possesses international legal personality and the ability enter into legally binding arrangements with other subjects of international law as required by Article 4(2).[230] This, however, is an inaccurate assessment of ICAN's organisational nature and legal standing. Instead, ICAN constitutes a coalition of non-governmental organisations (NGO) established by private individuals, as opposed to arising from the given consent and negotiation of an inter-state agreement.[231] Indeed, ICAN's self-declared 'international structure' document describes the group as '*a coalition of non-governmental organizations* promoting adherence to and implementation of the United Nations nuclear weapons ban treaty'.[232]

The status of NGOs under international law has received little attention in comparison to international organisations.[233] However, as a basic starting point, it is commonly understood that NGOs do not *generally* possess legal personality and therefore do not constitute subjects of international law in strict sense.[234] Although NGOs can, and certainly do, have a prominent role

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[227] A list of ICAN's partner organisations both internationally and within individual nations is available on its website, see 'Partner Organisations' (*ICAN*) <https://www.icanw.org/partners>

[228] Discussed above.

[229] Loghin (2019) 92-93.

[230] For a useful overview of the international legal personality of international organisations, see P R Menon, 'The Legal Personality of International Organizations' (1992) 4(1) *Sri Lanka Journal of International Law* 79; and William T Worster, 'Relative International Legal Personality of Non-State Actors' (2016) 42(1) *Brooklyn Journal of International Law* 207, 215-21.

[231] This represents the traditional and somewhat basic distinction between international organisations and NGOs, see Steve Charnovitz, 'Nongovernmental Organizations and International Law' (2006) 100(2) *American Journal of International Law* 348, 352.

[232] See for further detail 'ICAN International Structure' (*ICAN*, April 2018) <https://d3n8a8pro7vhmx.cloudfront.net/ican/pages/131/attachments/original/1626423038/ICAN-international-structure.pdf?1626423038>

[233] For some scholarship in this area, see Pierre-Marie Dupuy and Luisa Vierucci (eds), *NGOs in International Law: Efficiency in Flexibility* (Edward Elgar 2008); Zoe Pearson, 'Non-Governmental Organisation and International Law: Mapping New Mechanisms for Governance' (2004) 23(1) *Australian Yearbook of International Law* 73; Worster (2016); Charnovitz (2006); and Törnquist-Chesnier (2010).

[234] Stephan Hobe, 'Non-Governmental Organizations' (2010) *Max Planck Encyclopaedia of International Law*, [39]-[41]. Likewise, both the ICJ in the *Reparations for Injuries Suffered in the Service of the United Nations*, Advisory Opinion [1949] ICJ Rep 174, 178 and even Special Rapporteur Giorgio Gaja, 'First Report on Responsibility of International Organizations', *International Law Commission* (26 March 2003) UN Doc A/CN.4/532, [17] have acknowledged that while the accepted list of subjects of international law is not entirely settled, NGOs have thus far not generally been recognised as subjects of international law.

during both the formation of international law and the monitoring of compliance with legal obligations – as the role of civil society and NGOs in the TPNW context indicates – the ability of NGOs to enter into legally binding commitments has traditionally been limited, and instead such groups rely on 'soft' measures to increase public awareness of particular issues.[235] This would cast doubt on whether ICAN could negotiate and conclude 'legally binding, time-bound' disarmament plans to verify an acceding state's progress towards the irreversible elimination of its nuclear weapons programme as required by Article 4(2).

Despite this, Worster correctly observes that some NGO's can acquire 'relative' legal personality depending upon the 'degree to which they function on the international plain'.[236] Indeed, the ICJ has effectively confirmed as much in the *Reparations Advisory Opinion*, in which the Court noted that once the international community of states decides that a particular actor should have certain powers, rights and duties, it will, in effect, be granted those powers.[237] Hoge concurs, and observes that NGOs may become 'partial legal subjects of international law, depending on their involvement in the official work of intergovernmental organisations and particularly the UN'.[238] In effect, this supports a 'functional' test for legal personality, in which powers may be granted to an actor 'to the extent necessary to execute its tasks'.[239]

One notable example is the ICRC, which, despite originating as a privately established civil society organisation under Swiss Law in 1863, has since been granted numerous privileges, immunities and rights by states themselves within the four Geneva Conventions of 1949 and its Additional Protocols of 1977 to enable the organization 'to carry out its mandate and to do so in full conformity with the principles of neutrality, impartiality and independence'.[240] Debuf therefore argues that the ICRC 'is really hybrid in nature and is neither a classic IO [international organisation] nor a typical NGO'.[241] Although the precise scope of the ICRC's legal personality

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235 Robert McCorquodale, 'The Individual and the International Legal System', in Malcom D Evans (ed), *International Law* (5th edn, Oxford University Press 2018) 275-78; and Pearson (2004) 87.

236 Worster (2016) 208 and 245-46.

237 See generally *Reparations for Injuries Suffered in the Service of the United Nations*, Advisory Opinion [1949] ICJ Rep 174, 178-89, specifically 180 where the Court concluded that 'Members (of the UN) have endowed the Organization with capacity to bring international claims when necessitated by the discharge of its functions'.

238 As noted by Hobe (2010) [43]-[44].

239 Worster (2016) 220.

240 Els Debuf, 'Tools to do the Job: The ICRC's Legal Status, Privileges and Immunities' (2016) 97(897-98) *International Review of the Red Cross* 319, 320. Debuf excellently examines the legal status and personality of the ICRC under international law at great depth.

241 Ibid, 324 (bracketed text added); and also, McCorquodale (2018) 276. Shucksmith similarly puts forward the argument that the ICRC should be considered a *sui generis* entity, see Christy Shucksmith, *The International Committee of the Red Cross and its Mandate to Protect and Assist: Law and Practice* (Bloomsbury 2017) 31-33.

remains contested,[242] its existence as a legal person is beyond doubt,[243] particularly when one recalls that the ICRC has previously negotiated bilateral agreements with states, which have recognised both explicitly and tacitly such personality in practice too.[244]

However, even if such granting of rights and privileges establishing international legal personality could theoretically be granted to ICAN by TPNW parties, it must be emphasised that the ICRC's legal status is highly unique and developed gradually over time. Indeed, while the ICRC was founded privately in 1863, its current legal mandate was not provided by states until the adoption of the Geneva Conventions in 1949.[245] States themselves have confirmed that the ICRC should be considered a unique organisation during the debates in 1990 concerning its designation as a UN observer due to its significant role in International Humanitarian Law.[246]

Despite ICAN's prominent role in both the negotiation and subsequent promotion of the TPNW,[247] it would be premature, and arguably quite controversial, to suggest that ICAN has acquired a level of international significance in the field of nuclear disarmament law on a comparable scale to the ICRC in the area of International Humanitarian Law. This is particularly so given ICAN's relative 'newness', having existed only since 2007.[248] Moreover, Pearson has expressed caution about expanding the legal capacity of NGOs and has raised concerns regarding the democratic legitimacy, impartiality and transparency of such groups.[249] This concern could legitimately be raised in relation to ICAN given its prominent support for the TPNW and its criticism of the NWPS nuclear dependency,[250] thus questioning its ability to act as a neutral

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242 On the one hand, Debuf (2016) 321 suggests the ICRC should now be considered a fully-fledged international organisation, whereas Hobe (2010) [43], has argued otherwise, maintaining that the ICRC's special status alludes to its 'partial' international legal personality.

243 The International Criminal Tribunal for the former Yugoslavia has also recognised the ICRC's legal personality, see *Prosecutor v Simić et al*, ICTY Trial Chamber Decision on the Prosecution Motion under Rule 73 for a Ruling Concerning Testimony of a Witness [1999] Case No IT-95-9-PT, [24] ('the prosecution does not dispute that the ICRC has a form of legal personality under international law nor does it dispute that the ICRC has a mandate recognised by the international community').

244 As emphasised by both Worster (2016) 246-47; and Debuf (2016) 325-29. Another example would be the International Olympic Committee which plays a significant role in international sports law, and has a functional role for the progressive evolution of international law in its field, see generally David J Ettinger, 'The Legal Status of the International Olympic Committee' (1992) 4(1) *Pace International Law Review* 97.

245 As noted by Debuf (2016) 320-21.

246 See UNGA Res 45/6 (16 October 1990) UN Doc A/RES/46/6. This is discussed by Debuf (2016) 325-26.

247 Recognised through its awarding of the 2017 Nobel Peace Prize.

248 Indeed, as of September 2021, no state has suggested that ICAN has acquired partial legal personality comparable to that of the ICRC.

249 As noted by Pearson (2004) 89-90. The need for NGOs generally to ensure greater transparency and accountability of its internal processes is noted by Richard Devetak and Richard Higgott, 'Justice Unbound? Globalization, States and the Transformation of the Social Bond' (1999) 75(3) *International Affairs* 483, 494.

250 See for a clear example of ICAN's criticism and opposition to NWPS policies and recent actions, statement by the International Campaign to Abolish Nuclear Weapons, delivered by Ms. Maria Eugenia Villareal, UNGA First Committee (74th Session, 8 October 2019) <http://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com19/statements/18Oct_ICAN.pdf>

authority.[251] With this in mind, some caution is warranted before granting any form of personality to ICAN.

One potential solution here, for those states acceding subject to Article 4 and required to conclude agreements and cooperate with the competent international authority, in this case ICAN, would be for the plans developed to take the form of 'unilateral declarations' by the state in question issued with the intention of producing legal effects.[252] As the ICJ noted in the 1974 *Nuclear Test Cases*:

> 'When it is the intention of the State making the declaration that it should become bound according to its terms, *that intention confers on the declaration the character of a legal undertaking*…. An undertaking of this kind, if given publicly, and with an intent to be bound, even though not made within the context of international negotiations, is binding'.[253]

But while this would alleviate some of the concerns regarding the ability of states to enter into legally binding agreements with NGOs such as ICAN, this possible solution does not remedy the technical issues raised above. Because of these legal and practical considerations, it may be preferable for ICAN to maintain its present role as the unofficial 'watchdog' of the treaty and in generating political and moral pressure around the TPNW.[254] This would equally avoid future accusations of impartiality, while concurrently reaffirming ICAN's position as the leading civil society NGO presence seeking to enhance the objectives of the TPNW.[255]

c. A New International Organisation

Given the legal and technical difficulties of both the IAEA and ICAN taking on the role of competent international authority, the most pragmatic option would be for TPNW parties to establish a new international organisation specifically designed to verify the dismantlement of

[251] Anderson for instance notes that NGOs are essentially pressure groups which naturally leads one to question the legitimacy and value of such groups in bringing democratic legitimacy to the international arena, see Kenneth Anderson, 'The Ottawa Convention Banning Landmines, the Role of International Non-Governmental Organizations and the Idea of International Civil Society' (2000) 11(1) *European Journal of International Law* 91, 112-20.
[252] See the International Law Commission, 'Guiding Principles Applicable to Unilateral Declarations of States Capable of Creating Legal Obligations', *Report of the International Law Commission of its Fifty-Eighth Session* (2006) UN Doc A/61/10, 367; and Alfred P Rubin, 'The International Legal Effect of Unilateral Declarations' (1977) 71(1) *American Journal of International Law* 1.
[253] *Nuclear Tests Case* (*Australia v France*) Advisory Opinion [1974] ICJ Rep 253, [43] (emphasis added). See also *Case Concerning the Frontier Dispute* (*Burkina Faso v Republic of Mali*) [1986] ICJ Rep 554, [39]-[40].
[254] Pearson (2004) 87, notes this advantage of NGOs to pressure state actors through public awareness campaigns.
[255] For a discussion of the roles, function, and status of civil society groups generally, see Gerald Staberock, 'Civil Society' (2011) *Max Planck Encyclopaedia of International Law*.

nuclear weapons and related facilities pursuant to Article 4.[256] This would have the initial advantage of ensuring that TPNW state parties are able to expressly grant the new authority the necessary international legal personality to enter into binding agreements as envisaged under Article 4(2) within its constituent instrument.[257] Such an approach would also be less politically problematic, and raises fewer legal hurdles too.

This approach has been endorsed by various commentators, including Patton, Phillippe, and Mian who discuss the option of creating an institution tentatively called the 'Organization for the Treaty on the Prohibition of Nuclear Weapons'.[258] Shea has similarly proposed the creation of the 'International Nuclear Disarmament Agency', which would have five primary 'missions': 1) encouraging nuclear disarmament; 2) verifying each stage of disarmament; 3) eliminating nuclear weapons-related facilities; 4) verifying non-explosive military uses of dual-use materials; and 5) estimating previous levels of nuclear stockpile production.[259] Patton has individually called for the creation of a new organisation that could oversee and monitor *both* the TPNW and NPT by uniting various verification technologies and systems under one framework.[260]

Although Highsmith and Stewart have correctly argued that the NWPS may object to the authority designated by TPNW parties,[261] it is equally worth noting that any new authority could be designated at an extraordinary meeting upon the accession of a NWPS that will be subject to the disarmament pathways – in accordance with the terms of Article 4(6). In other words, the precise design and scope of competences of the newly established authority does not necessarily have to be determined before a NWPS accedes under Article 4: rather, this can be negotiated once such a state joins, thereby permitting the acceding NWPS to have an input in the development and determination of the competences of the organisation. Patton, Phillippe, and Mian seem to endorse this approach, and suggest that preliminary efforts to develop appropriate necessary verification and disarmament implementation measures could be pursued through the creation of an Implementation Support Unit and a Scientific and Technical Advisory Board that could be developed before the creation of their proposed organisation[262] – perhaps during the first meetings

[256] This conclusion has been shared by Shea (2018) 9-12; and Erästö, Komžaitė, and Topychkanov (2019) 16, who argue '[t]his is essentially why the TPNW refers to an unidentified international authority or authorities, which would be responsible for verifying the elimination of existing arsenals'.
[257] Indeed, Article 6, VCLT-IO explicitly notes that 'The capacity of an international organization to conclude treaties is governed by the rules of that organization'.
[258] See generally for the verification approach suggested by these authors, Patton, Phillippe, and Mian (2019).
[259] Shea (2018) 9-10, and usefully summarised by Erästö, Komžaitė, and Topychkanov (2019) 16. These tasks correspond somewhat to the four primary missions of the new organisation proposed by Patton, Phillipe and Mian (2019) above.
[260] Tamara L Patton, 'An International Monitoring System for Verification to support both the Treaty on the Prohibition of Nuclear Weapons and the Nonproliferation Treaty' (2018) 30(2) *Global Change, Peace and Security* 187.
[261] Highsmith and Stewart (2018) 133.
[262] The authors describe this as 'Phase 1', with the designation of the new organisation occurring in 'Phase 2'.

of state parties now scheduled to be hosted in Vienna, Austria between 22-24 March 2022.[263] These supporting bodies would provide an initial 'focal point for engagement' for state parties and relevant international organisations, establishing some preliminary functions that would make the later designation process of a new specific international organisation more straightforward.[264]

Although the precise scope and competencies of such a new authority are not considered in depth here,[265] the creation of a new organisation would allow TPNW parties to implement the successes, while concurrently omitting the failures from other verification regimes including, amongst others, the Organisation for the Prohibition of Chemical Weapons,[266] and both the UN Special Commission and the UN Monitoring, Verification, and Inspection Commission, established pursuant to UNSC Resolutions 687 and 1284 respectively to verify the dismantlement of Iraq's chemical and biological weapons programmes following the end of the first Gulf War.[267] In addition, the IAEA's prior experience in verifying the completeness of South Africa's unilateral nuclear disarmament could prove insightful in determining the extent of disarmament competences established for the new authority.[268] TPNW state parties could even draw upon the envisaged approach to verification contained within the model NWC, which envisioned the creation of an international agency responsible for disarmament verification in conjunction with a global monitoring system.[269] Finally, whatever form the newly established organisation takes, it will be necessary to ensure that the new authority coordinates its activities with the IAEA's existing safeguarding mandate.[270]

Consequently, although TPNW state parties would be establishing a completely new international organisation, they would not be starting with a 'blank slate', while ensuring the new international authority has the appropriate personality to negotiate legally binding treaty

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[263] Following a postponement from 12-14 January 2022 to avoid clashing with the rescheduled tenth NPT Review Conference. See tweet by Alexander Kmentt, @alexanderkmentt (*Twitter*, 10 August 2021) <https://twitter.com/alexanderkmentt/status/1425080719571918849>; and more extensively Letter by the President-Designate Alexander Kmentt (*Treaty on the Prohibition of Nuclear Weapons – Meeting of States Parties*, 10 August 2021) <https://documents.unoda.org/wp-content/uploads/2021/08/2021-08-10-Letter-on-postponement-silence-procedure-final.pdf>

[264] Patton, Phillipe and Mian (2019) 394-96.

[265] For further details on the potential roles and functions a new authority could potential have, see the Articles cited above and the proposals made by Patton, Phillipe and Mian (2019); Scheffran (2018); and Shea (2018) in particular.

[266] As suggested by Scheffran (2018) 156.

[267] UNSC Res 687 (3 April 1991) UN Doc S/RES/687; and UNSC Res 1284 (17 December 1999) UN Doc S/RES/1284. For a useful discussion of the inspections process established by the UNSC in Iraq, see Coralie Pison Hindawi, 'The Controversial Impact of WMD Coercive Arms Control on International Peace and Security: Lessons from the Iraqi and Iranian Cases' (2011) 16(3) *Journal of Conflict and Security Law* 417.

[268] Adolf von Baeckmann, Garry Dillon, and Demetrius Perricos, 'Verifying South Africa's Declared Nuclear Inventory, and the Termination of its Weapons Programme, was a Complex Task' (*IAEA Bulletin*, 1995) <https://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull37-1/37105394248.pdf>

[269] Scheffran (2018) 156-57. See Permanent Representatives of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General (18 January 2008) UN Doc A/62/650, Annex, Model Nuclear Weapons Convention, 40-50, which outlines some of the possible functions of the proposed 'Agency' to be established.

[270] As noted by Patton, Phillippe, and Mian (2019) 402-03.

arrangements with an acceding state as required by Article 4(2).[271] And significantly, this approach would be able to co-ordinate and strengthen disarmament technology and verification processes, methods and technologies developed within other NWPS-led initiatives including the *International Partnership for Nuclear Disarmament Verification* (IPNDV)[272] and the *Verification Research, Training and Information Centre* (VERTIC).[273] In this sense, the newly established international authority could 'unite different verification mechanisms and technologies' to support the monitoring of nuclear disarmament under the TPNW,[274] rather than having to make extensive, and likely unattainable, amendments to existing organisations.

5. Other Potential Issues with the Disarmament Pathways

Finally, this Chapter ends by exploring other potential issues connected to Articles 2 and 4, specifically arising from certain ambiguous terms and language adopted within the final text. It is perhaps worth noting that the TPNW as a whole certainly contains various minor stylistic and linguistic discrepancies, the majority of which can be easily rectified based upon a reasonable interpretation of the provisions within the overall context of the TPNW.[275] One such example is in Article 4 itself where the phrases 'Notwithstanding Article 1(a)' in relation to the 'join then destroy' approach,[276] and 'Notwithstanding Article 1(b) and (g)' in relation to hosting states accession are used,[277] which should instead have referred to Article 1(1)(a) and Article (1)(1)(b) and (g) respectively.

Many of these minor discrepancies can likely be explained by the limited four-week timeframe for the negotiations granted by UNGA Resolution 71/258,[278] coupled with the 'prevailing desire amongst the states to adopt the treaty on 7 July 2017' in order to avoid the need to seek an extension of the negotiation timeframe from the UNGA.[279] Yet while many of these small linguistic flaws will prove uncontroversial in practice,[280] other ambiguous terms and phrasing

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[271] Ibid, 400-03.
[272] For more information on this initiative, see 'About IPNDV' (*International Partnership for Nuclear Disarmament Verification*) <https://www.ipndv.org/about/>
[273] 'About VERTIC' (*VERTIC*) <https://www.vertic.org/about-vertic/>
[274] This point is noted by Erästö, Komžaitė, and Topychkanov (2019) 16, citing the International Monitoring System for Nuclear Disarmament and Nonproliferation Verification approach advanced by Patton (2018).
[275] Article 31(1), VCLT.
[276] See Article 4(2), TPNW.
[277] See Article 4(4), TPNW.
[278] UN Doc A/RES/71/258, [10] set the dates for the conference to last just four weeks between 27-31 March and 17 June – 7 July 2017.
[279] This was noted by Gaukhar Mukhatzhanova, 'The Nuclear Weapon Prohibition Treaty: Negotiations and Beyond' (2017) 47(7) *Arms Control Today* 12, 14; and Oliver Meier, Sira Cordes, and Elisabeth Suh, 'What Participants in a Nuclear Weapons Ban Treaty (do not) Want' (*Bulletin of the Atomic Scientists*, 9 June 2017) <https://thebulletin.org/2017/06/what-participants-in-a-nuclear-weapons-ban-treaty-do-not-want/>
[280] As noted by Casey-Maslen (2019) 198-99, who mentions the aforementioned discrepancy but does not make any mention as to possible issues that may arise from it, thus alluding to its relatively minor nature.

under Article 4 pose more troublesome problems that may need to be resolved by state parties in the future. Some of these will be noted below.

a. Conflict with Article 1(1)(a)

First, it was noted by some delegations during the negotiations that permitting NWPS to 'join and destroy' under the Article 4(2) pathway would lead to a conflict with the undertaking never to possess or stockpile nuclear weapons under Article 1(1)(a).[281] In such a situation, although the acceding NWPS in question must remove all nuclear weapons from operational status immediately, the state will still stockpile and possess nuclear weapons in storage facilities in violation of Article 1(1)(a) pending destruction in accordance with the legally binding disarmament plan negotiated with the competent international authority pursuant to Article 4(2).[282] Indeed, Kadelbach notes that the TPNW does not include any explicit provisions that provide for a 'temporary suspension' of the prohibitions assumed by acceding states under Article 1 while acceding under the Article 4(2) and (4) pathways.[283] Acheson has further argued that this conflict of obligations could even allow the NWPS to 'try to carve out some justification for their continued possession of nuclear weapons while engaging in some long, drawn out, ultimately inconclusive disarmament programme'.[284]

In any case, permitting NWPS to remain in possession while disarming, subject to Article 4(2), creates a clear instance of conflict with Article 1, which in Black-Branch's view 'goes against one of the central purposes of the TPNW itself: non-ownership of nuclear weapons'.[285] According to Casey-Maslen, this conflict of provisions could have been easily avoided by including an undertaking never to 'retain' rather than possess nuclear weapons.[286] This would replicate the language used in other disarmament instruments such as the CWC,[287] and essentially signifies 'that there is a duty to destroy stockpiles' given that previous disarmament instruments then require its state parties to subsequently disarm.[288] Yet although this alternative language may be preferable, and would have avoided the conflict noted above, it is evident that throughout the negotiations

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281 Allison Pytlak, 'News in Brief' (2017) 2(9) *Nuclear Ban Daily*, 6.

282 This point was noted by Mukhatzhanova (2017a) 32; and Casey-Maslen (2019) 142 makes a similar point. Recall that under Article 4(2), TPNW, the acceding state must 'destroy them as soon as possible but not later than a deadline to be determined by the first meeting of States Parties, in accordance with a legally binding, time-bound plan for the verified and irreversible elimination of that State Party's nuclear-weapon programme'.

283 Kadelbach (2020) 312.

284 Ray Acheson, 'One week to the Nuclear Ban' (2017) 2(11) *Nuclear Ban Daily*, 3.

285 Black-Branch (2021) 141.

286 Casey-Maslen (2019) 142.

287 See Article I(1)(a), CWC. See for a similar formulation adopted within the Model Nuclear Weapons Convention, Permanent Representatives of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General (18 January 2008) UN Doc A/62/650, Annex, Model Nuclear Weapons Convention, alongside Article 1(1)(b), CCM; and Article 1(1)(b) APMBC.

288 Casey-Maslen (2019) 142. Mukhatzhanova reaches a similar conclusion too, Mukhatzhanova (2017a) 32.

the vast majority of negotiating states sought to include an explicit prohibition on possession in order to reinforce the aim of stigmatising and delegitimising nuclear deterrence policies.[289]

Moreover, although the TPNW does not permit the temporary suspension of the Article 1 prohibitions,[290] it is clear that any Article 4(2) acceding state would be required to come into compliance with the prohibitions on possession and stockpiling under Article 1(1)(a) 'as soon as possible' but no later than the deadline imposed by the time-bound plan for the irreversible dismantlement of the acceding state's nuclear weapons programme.[291] In other words, the negotiating states seemingly accepted the possibility of an initial – though only *temporary* – violation of the prohibition on possession and stockpiling under Article 1(1)(a) in order to encourage NWPS to join and subsequently destroy their respective stockpiles in good faith, and in accordance with the disarmament plan to be negotiated with the competent international authority.[292]

Finally, permitting states to join while initially violating the prohibition on possession should be understood in the wider context of the TPNW as a 'hybrid' disarmament agreement – particularly as a reflection of the framework characteristics of the treaty – providing sufficient flexibility and different approaches by which the NWPS can accede to the TPNW in order to achieve its underlying nuclear weapons elimination objectives.[293] This might also, to some degree, reflect the *lex specialis* relationship between the prohibitions under Article 1, and the more specific disarmament commitments under by acceding NWPS under Article 4. Consequently, while a conflict of obligations between Articles 1(1)(a) and 4(2) does exist on purely textual grounds, this should not be considered a permanent situation, and therefore the concerns raised by Acheson above are likely overstated.

b. Disarmament Timeframe Ambiguities

A further concern relates to the timeframe and deadline in which acceding states under Article 4(2) and (4) are required to destroy or remove nuclear weapons. States under these pathways are required to either destroy, or remove nuclear weapons '*as soon as possible*, but no later than a deadline to be determined by the first meeting of States Parties'.[294] Each of these phrases; 'as soon as

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[289] This point has already been emphasised in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 3.
[290] As noted by Kadelbach (2020) 312.
[291] As per the text of Article 4(2), TPNW. These concepts are discussed in greater depth in section 5.b. below.
[292] This is noted also by Black-Branch (2021) 141. A further point explored further below however arises here, in that an acceding state may join the treaty, implement its disarmament plan in good faith, but still take many years to disarm its nuclear weapons. See Mukhatzhanova (2017a) 33 who reaches a similar conclusion.
[293] As discussed in section 2 above.
[294] As included in Article 4(2), and (4), TPNW respectively. The notion of 'as soon as possible' is similarly included in relation to the disarmament of cluster munitions under Article 3(1), CCM.

possible', and 'deadline to be determined by the first meeting of state parties' creates some uncertainty as to when nuclear disarmament should be achieved under the TPNW.

First, the phrase 'as soon as possible' in its ordinary meaning naturally alludes to a sense of urgency, to act in a rapid fashion to complete the designated task 'at the earliest/first opportunity'.[295] As discussed by Smyth in relation to the CCM, this would suggest that 'work on the preparation of a destruction programme should therefore begin immediately after the Convention enters into force for a State possessing cluster munitions'.[296] It would be reasonable to apply a similar interpretation in the context of the TPNW. Despite this, Acheson has suggested that this phrase has the potential to be abused and could permit a NWPS to 'interpret "as soon as possible" to mean "we can take as long as we want"'.[297] In effect, this would risk prolonging the implementation of a state's assumed disarmament obligations under Article 4. To some extent, this concern is mitigated by the principle of *pacta sunt servanda*,[298] that 'every treaty in force is binding upon the parties to it and must be performed by them in good faith'.[299] States acceding under Article 4(2) and (4) must therefore sincerely and actively pursue the fulfilment of their legally binding disarmament commitments under the TPNW as soon as possible, without trying to delay such efforts.[300]

In any case, the TPNW also envisages a presently unidentified 'maximum' deadline, by which the destruction or removal of nuclear weapons and their related facilities under Articles 4(2) and 4(4) should be achieved, to be determined at the 'first meeting of States Parties'.[301] A preliminary question that arises here concerns which 'first meeting of states parties' the text of the TPNW is meant to refer to. From one perspective, Acheson suggests that the first meeting of states parties referenced under Articles 4(2) and (4) 'presumably… refers to the first one *after* the

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[295] The Collins Online Dictionary for instance describes 'as soon as' to mean that 'something happens immediately after the other thing', 'As Soon As' (*Collins Online Dictionary)* <https://www.collinsdictionary.com/dictionary/english/as-soon-as>

[296] Declan Smyth, 'Art. 3 Storage and Stockpile Destruction', in Gro Nystuen and Stuart Casey-Maslen (eds), *The Convention on Cluster Munitions: A Commentary* (Oxford University Press 2010) 263.

[297] This is similarly noted by Ray Acheson, 'Dealing with Disarmament in the Prohibition Treaty' (2017) 2(10) *Nuclear Ban Daily*, 1.

[298] The fundamental nature of the *pacta sunt servanda* principle was acknowledge by the International Law Commission during the drafting of the VCLT, see Report of the International Law Commission on the Work of its Eighteenth Session (1966) UN Doc A/6309/Rev.1, *United Nations Yearbook of International Law Commission*, Vol II, 169, 211.

[299] Article 26, VCLT. For a useful discussion of this principle, see Anthony Aust, 'Pacta Sunt Servanda' (2007) *Max Planck Encyclopaedia of International Law*; and I I Lukashuk, 'The Principle Pacta Sunt Servanda and the Nature of Obligation Under International Law' (1989) 83(3) *American Journal of International Law* 513. Additionally, the concept of good faith exists as a general principal of international law under Article 38(1)(c), VCLT, see Steven Reinhold, 'Good Faith in International Law' (2013) 2(1) *UCL Journal of Law and Jurisprudence* 40.

[300] Indeed, the idea that prolonging the achievement of an obligation as an indication of bad faith was also referenced in the *Lake Lanoux Arbitration* (*France v Spain*), Award of 16 November 1957, 24 ILR 101, 128, whereby acting to delay negotiations would amount to bad faith.

[301] This phrased is used in both Articles 4(2) and (4), TPNW.

concerned state joins the treaty'.[302] This would effectively permit the setting of different deadlines to be determined on a case-by-case basis to match the demands of the disarmament challenges posed by the acceding state in question.[303]

Alternatively, it seems to be the case that the majority of commentators, civil society organisations, and state representatives believe that it is the first meeting of state parties held 'within one year of the entry into force of this Treaty' under Article 8(2) that is required to establish the disarmament deadline.[304] This latter interpretation more closely aligns with the ordinary text of Articles 4(2) and (4) than the aforementioned case-by-case approach of Acheson. Consequently, the first meeting of states parties now scheduled to be held in Vienna in March 2022 will be required to determine the disarmament and removal deadlines envisaged by Article 4.

There have already been some suggestions from the scientific and disarmament community as to the necessary length of time that should be afforded to acceding NWPS and host states subjected to Article 4(2) and (4) respectively. A commonly referred to suggestion is the proposal by Kütt and Mian that recommends establishing a 10-year '*common deadline* for the destruction of nuclear weapons [that] will apply to all such states which join the treaty while still possessing nuclear weapons'.[305] For the purposes of the removal of stationed nuclear weapons under Article 4(4), the *Nuclear Weapons Ban Monitor* proposes a shorter three-year deadline.[306] These would certainly seem to constitute suitable timeframes and would afford sufficient time for the NWPS to implement the complex and time-consuming nuclear weapons dismantlement process.[307] This also reflects previous rates of dismantlement and destruction of nuclear weapons in the post-Cold War era too.[308]

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302 Ray Acheson, 'We've got a Treaty Banning Nuclear Weapons' (2017) 2(12) *Nuclear Ban Daily*, 3 (emphasis added).
303 And similarly reflecting the flexibility of the 'framework agreement' approach of the TPNW, by which numerous protocols relating to disarmament could be adopted in theory. This *ad hoc* approach would be somewhat comparable to the APMBC and CCM discussed below.
304 A position similarly noted by Moritz Kütt and Zia Mian, 'Setting the Deadline for Nuclear Weapons Destruction Under the Treaty on the Prohibition of Nuclear Weapons' (2019) 2(2) *Journal for Peace and Nuclear Disarmament* 410, 411. Casey-Maslen also seems to suggest that the first meeting in question would be the first meeting of state parties after the TPNW enters into force, see Casey-Maslen (2019) 197. See also the discussion held at informational meetings over the past few months discussing the first meeting of state parties, See for the programme of events, 'Implementation of the Treaty on the Prohibition of Nuclear Weapons' (*UNIDIR*) <https://unidir.org/events/implementation-treaty-prohibition-nuclear-weapons>; and 'The Treaty on the Prohibition of Nuclear Weapons – What's Next?' (*Vienna Centre for Disarmament and Non-Proliferation*, 2 February 2021) <https://vcdnp.org/the-treaty-on-the-prohibition-of-nuclear-weapons-whats-next-2/>, during each of which the participants generally seem to refer to the first meeting to be held within one year of entry into force as the meeting envisaged by Articles 4(2) and (4).
305 Kütt and Mian (2019) 411 (emphasis added, bracketed text added).
306 'Eight recommendations for the First Meeting of States Parties to the TPNW' (*Nuclear Ban Monitor*, 5 January 2021) <https://banmonitor.org/news/recommendations-for-the-first-meeting-of-states-parties-to-the-tpnw>
307 Noted by Kütt and Mian (2019) generally.
308 Ibid.

However, while Kütt and Mian speak of a 'common deadline' – thereby suggesting that this 10-year period should apply equally to all acceding NWPS and thus avoids any claims of discrimination – the authors do not specify at what point the 10-year deadline is expected to *commence* and countdown from. Previous disarmament treaties have taken alternative approaches as to the commencement of their specified deadline periods. On the one hand, the APMBC imposes an initial four-year deadline to destroy or ensure the destruction of stockpiled anti-personnel mines that it owns or possesses '*after the entry-into-force of this Convention for that State Party*'.[309] The CCM adopts this formula too but sets an initial eight-year deadline by which the disarmament of cluster munitions should be achieved.[310] This, in effect, establishes individual disarmament deadlines for each acceding state on an '*ad hoc*' basis, which would begin to 'countdown' or commence at once the treaty enters into force *for the new state party*.

An alternative approach was taken in the CWC which sets a maximum period of 10-years to achieve the destruction of its prohibited weapons after the *treaty's* entry into force.[311] In other words, the CWC effectively established a pre-specified disarmament deadline 'date' that would be 'set' once the conditions for the CWC to enter into force were met. Consequently, because the CWC entered into force on 29 April 1997, this initial 10-year deadline period was therefore set, and has subsequently passed, on 29 April 2007. This approach could therefore be described as a 'blanket' deadline applicable to all state parties who were initially required to disarm by a determinable point in time. Although this initial deadline was subsequently extended by five years to account for 'latecomers',[312] any state that now joins the CWC is required to destroy its chemical weapons 'as soon as possible' in accordance with an 'order of destruction' determined by the Executive Council.[313]

Although the CWC formula would seem to afford a more straightforward approach, there may be a possible disadvantage in setting a blanket deadline by a specified date. Say, for example, TPNW member states decide at the first meeting of states parties to set a 'blanket' deadline of 10-years beginning on the 1 April 2022 (shortly following the rescheduled first meeting of states parties) for nuclear disarmament under Article 4(2) to be achieved. Yet, as a practical matter, it must be recalled that it is presently very unlikely that any NWPS will decide to accede to the TPNW within the next 10 years given their current opposition towards the treaty.[314] Consequently, under

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[309] Article 4, APMBC (emphasis added). Article 5(1), APMBC also sets a ten-year deadline for the 'destruction of all anti-personnel mines in mined areas under its jurisdiction or control'.
[310] Article 3(2), CCM.
[311] Article IV(6), CWC.
[312] Ralf Trapp and Paul Walker, 'Art. IV Chemical Weapons', in Walter Krutzsch, Eric Myjer, and Ralf Trapp (eds), *The Chemical Weapons Convention: A Commentary* (Oxford University Press 2014) 126.
[313] See Article IV(8), and Annex Part IV(A), [24]-[28], CWC.
[314] This is explored further in Part III.

the blanket approach, should the initial deadline 'come and go', we would be left in the undesirable position where no NWPS has joined the TPNW but the deadline for disarmament has passed. Thus, by adopting a 10-year blanket deadline for nuclear disarmament under Article 4(2) to be achieved that begins counting on a specified date, TPNW parties will inadvertently set an unachievable deadline timeframe that in turn would become a 'symbolic' representation of the treaty's failure to contribute towards nuclear disarmament.

With a desire to avoid this outcome, one wonders whether the first meeting of states parties could adopt a comparable approach to the APMBC and CCM by agreeing upon a 10-year deadline that begins at the point in which a NWPS accedes subject to Articles 4(2) and the TPNW enters into force for that state (i.e. 90 days after ratification),[315] thereby creating deadlines on an *ad hoc* basis. A similar approach is recommended also for the accession of hosting states under Article 4(4). This formulation would create a sense of parity amongst acceding NWPS under the 'join then destroy' pathway – whereby all such states would have a maximum of 10-years to disarm once the TPNW enters into force for it. And importantly, this would avoid any creation of a symbolic pre-determined deadline date, thereby easily mitigating any potential future criticism from the NWPS and academic opponents as to the TPNW's failure to achieve disarmament by its identified disarmament deadline date.

Finally, it is worth noting that if nuclear disarmament is unachievable within this initial 10-year deadline, there is the possibility that extensions could be negotiated in the future in collaboration with the disarming (or removing) state and other TPNW parties. Indeed, Kütt and Mian correctly note that a state party may genuinely act in good faith when implementing its disarmament obligations and legally binding plan, yet may still be unable to destroy its nuclear weapons either 'as soon as possible' or by the determined deadline established.[316] Although the TPNW does not explicitly envision the possibility of negotiating extensions, there is equally nothing in its text that would prevent Article 4(2) and (4) states from seeking an extension to the deadline imposed in a similar manner to what has occurred in the context of the CWC,[317] and CCM.[318] Kütt and Mian similarly suggest that TPNW parties could approve additional 10-year

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[315] Article 15(2), TPNW.

[316] Kütt and Mian (2019) 412, citing issues of compliance with the disarmament obligations under the CWC in particular. See also Mukhatzhanova (2017a) 33 who reaches a similar conclusion.

[317] See for example the decisions to extend the disarmament deadline of both Russia and the US in 2003 in the CWC context, see 'Decision: Extension of the Intermediate and Final Deadlines for the Destruction by the United States of America of its Category 1 Chemical Weapons', Eighth Conference of the State Parties to the OPCW (24 October 2003) C-8/DEC.15; and 'Decision: Extension of the Intermediate and Final Deadlines for the Destruction by the Russian Federation of its Category 1 Chemical Weapons', Eighth Conference of the State to the Parties OPCW (24 October 2003) C-8/DEC.13.

[318] See Articles 3(3)-(5), CCM, which sets out in detail the way in which a state party can request and extension to the disarmament deadline set under this treaty.

extensions 'to allow for unexpected difficulties in the weapon dismantlement process',[319] assuming that the state requesting the extension has acted in good faith in fulfilling its Article 4 commitments thus far.[320] This could be approved by a subsequent meeting of states parties established pursuant to Article 8, which are given a broad mandate to 'take decisions in respect of any matter with regard to the application or implementation of this Treaty… and on further measures for nuclear disarmament',[321] including '[m]easures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes'.[322]

c. Potential Accession Loophole?

Finally, on close examination, it seems that a potential accession loophole is established by the present wording of Articles 2 and 4. It will be recalled that Article 2(1)(a) requires each state party to '[d]eclare whether it owned, possessed or controlled nuclear weapons or nuclear explosive devices *and* eliminated its nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear-weapons-related facilities, prior to the entry into force of this Treaty for that State Party'.[323] In effect, this sets a cumulative two-fold requirement that triggers a positive declaration:[324] first, confirmation that the acceding state previously possessed nuclear weapons and has disarmed; *and* second, that it has eliminated or irreversibly converted all of its nuclear-weapons-related facilities. The need for a state to have completed both steps before a positive declaration can be submitted under Article 2(1)(a) is similarly recognised by Casey-Maslen, who notes that '[t]echnically, therefore, a state party that has owned, possessed, or controlled nuclear weapons or nuclear explosive devices *but has not* eliminated its nuclear-weapon programme *is not obliged to report positively under subparagraph* (*a*)'.[325]

Despite recognising this possibility, neither Casey-Maslen nor any other commentators have recognised the potential consequence of this discrepancy; that a state could potentially disarm and accede to the TPNW while maintaining its broader nuclear weapons-related programme and facilities.[326] This is perhaps best explored through the following hypothetical scenario. Consider that a NWPS ('State A') seeks to join the TPNW. 'State A' could take the step of disarming itself

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319 Kütt and Mian (2019) 426.
320 Contrast this with the position of a NWPS which joins but fails to implement various stages of the disarmament plan adopted. This state would have acted in bad faith, and other TPNW parties may conclude that it is less committed to achieving nuclear disarmament as required by its accession through Article 4(2).
321 Article 8(1), TPNW.
322 Article 8(1)(b), TPNW.
323 Article 2(1)(a), TPNW (emphasis added).
324 As indicated by the phrase and emphasised above.
325 Casey-Maslen (2019) 179, footnote 24 in particular (emphasis added).
326 One exception here is Podvig (2021) 36, who notes that '[t]he treaty is not entirely clear as to which obligations will apply to a state that does not possess nuclear weapons by the time it joins the treaty but has not completed the elimination of its nuclear-weapon program'.

of its existing nuclear weapons stockpiles,[327] but then does not also eliminate or convert its nuclear weapons programme to peaceful purposes. 'State A' could then theoretically submit a 'negative' declaration under Article 2(1)(a) because it cannot, in good faith, submit positively to each of the two cumulative Article 2(1)(a) requirements.[328] This in turn would mean that the acceding state would not be required to follow the 'destroy then join' disarmament pathway under Article 4(1), which similarly repeats the two-fold test under Article 2(1)(a).[329] Moreover, 'State A' would also be required to submit a 'negative' declaration under Article 2(1)(b), which only requires an acceding state to 'declare whether it owns, possesses or controls any nuclear weapons or other nuclear explosive devices' but makes no reference to connected nuclear weapons-related facilities.[330] This would therefore fail to trigger the 'join then destroy' pathway and disarmament provisions established under Articles 4(2) and (3).[331]

Consequently, taking a *purely textual* interpretation of the obligations imposed by Article 2 and 4,[332] we would be left in the rather undesirable position whereby a NWPS could accede to the TPNW by eliminating its nuclear weapons while maintaining its entire nuclear weapons programme and related facilities, and subsequently remaining outside of the ambit of the disarmament pathways imposed by Article 4. Contrary to the assertion made by Casey-Maslen,[333] it seems that 'State A' would be subject to the safeguarding provisions of Article 3 that are applicable to '[e]ach State Party to which Article 4, paragraph 1 or 2, does not apply…'[334] This would effectively require 'State A' to either maintain its existing safeguard agreements in force with

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[327] Which would therefore fulfil the first step of the two-fold criteria noted above.
[328] Recall that the reporting obligations under Article 2 generally take the form of a somewhat basic 'yes-no' declaratory process.
[329] Article 4(1), TPNW ('Each State Party that after 7 July 2017 owned, possessed or controlled nuclear weapons or other nuclear explosive devices *and* eliminated its nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear- weapons-related facilities…').
[330] Article 2(1)(b), TPNW.
[331] Article 4(2), TPNW again repeats the phrasing of Article 2(1)(b), ('Each State Party that *owns, possesses or controls nuclear weapons or other nuclear explosive devices* shall immediately remove them from operational status, and destroy them as soon as possible but not later than a deadline to be determined by the first meeting of States Parties') (emphasis added).
[332] This point must be emphasised. As will be noted below, when considering the wider context and object and purpose of the TPNW, this possible interpretation becomes untenable.
[333] Casey-Maslen (2019) 183.
[334] Article 3(1), TPNW. Moreover, as noted above, it is likely that South Africa, Belarus, Kazakhstan, and Ukraine would also be subject to the Article 3 safeguarding provisions despite their respective prior possession of nuclear weapons, see section 1.a.

the IAEA,[335] or otherwise conclude a comprehensive safeguard agreement INFCIRC/153 (Corrected).[336]

In truth, however, this textual interpretation is incapable of withstanding deeper legal scrutiny, and fails to consider the more holistic treaty interpretation process incorporated under Articles 31 and 32 of the VCLT.[337] To begin with, although the ordinary meaning of the text is often presumed to be the 'starting point of interpretation',[338] it would be difficult to uphold the existence of this textual loophole 'in light of object and purpose' of the TPNW.[339] Indeed, Aust correctly argues that 'the role of the object and purpose is more for the purpose of confirming an interpretation. *If an interpretation is incompatible with the object and purpose*, it may well be *wrong*'.[340]

In the present context, the purely textual interpretation described above clearly leads to an outcome that would be contrary to the overall object and purpose of the TPNW, which quite simply is to achieve nuclear disarmament and maintain a nuclear-weapon-free world as the only way of guaranteeing that nuclear weapons are never used again.[341] As such, permitting 'State A' to accede to the TPNW while maintaining an intact nuclear weapons programme would clearly frustrate this underlying object and purpose, and would even constitute a manifestly absurd result.[342] Although it has been held that use of the object and purpose of a treaty cannot be used to contradict the ordinary and clear meaning of a treaty's text,[343] a teleological interpretation can,

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335 Article 3(1), TPNW. It should be noted that each of the five *de jure* NPT recognised NWS have concluded 'voluntary offer agreements' with the IAEA, whereby the Agency 'applied safeguards to nuclear material in facilities that the State has voluntarily offered and the IAEA has selected for the application of safeguards… to verify that nuclear material remains in peaceful activities and is not withdrawn from safeguards except as provided by the agreement', as noted on the IAEA website, 'Safeguards Agreements' (*IAEA*) <https://www.iaea.org/topics/safeguards-agreements>. These are similar in nature to the standard comprehensive safeguard agreements, but differ in that the NWS 'offer a list of facilities which the IAEA may select to apply safeguards', see Johan Rautenbach, 'International Atomic Energy Agency' (2006) *Max Planck Encyclopaedia of International Law*, [52] and [49] respectively for 'voluntary offer agreements' and 'item-specific safeguards'.

336 Article 3(2), TPNW.

337 As noted in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 1.a. Article 31, VCLT incorporates the three traditional schools of thought in relation to treaty interpretation, see Anthony Aust, *Modern Treaty Law and Practice* (3rd edn, Cambridge University Press 2013) 206-07.

338 Report of the International Law Commission on the Work of its Eighteenth Session (1966) UN Doc A/6309/Rev.1, *United Nations Yearbook of International Law Commission*, Vol II, 169, 220 (emphasis added).

339 Indeed, Article 31(1), VCLT incorporates the textual approach noted above alongside teleological approaches to interpretation which seek to ascertain and read the provisions of a treaty in light of its object and purpose, as noted by Ian Sinclair, *The Vienna Convention on the Law of Treaties* (2nd edn, Manchester University Press 1984) 114-15.

340 Aust (2013) 209 (emphasis added).

341 Preambular paragraphs 1 and 15, TPNW, thereby reinforcing the underlying humanitarian intentions behind the TPNW to reduce human suffering and the catastrophic harm caused by nuclear weapons, as noted by Bonnie Docherty, 'The Legal Content and Impact of the Treaty of the Prohibition of Nuclear Weapons' (*Speech delivered to the Legal Education Center*, *Norwegian Red Cross*, 11 December 2017) <http://hrp.law.harvard.edu/wp-content/uploads/2017/12/Impact-of-TPNW-Nobel-presentation-Dec-2017.pdf> 2.

342 To borrow the terminology of Article 32(b), VCLT.

343 See *USA, Federal Reserve Bank v Iran, Bank Markazi*, Case No A28, (2000–02) 36 Iran–US Claims Tribunal Reports 5, [58].

in this instance at least, overcome the unreasonable interpretation reached above in order to advance the TPNW's object and purpose.

This would also conform to the principle of effectiveness in treaty interpretation and the overall 'preference for an interpretation which gives a term some meaning rather than none'.[344] This principle additionally seeks to give meaning to treaty terms in a manner that realises the object and purpose of the treaty in question in order to give effect to the intention of the parties.[345] In the present circumstance, it would seem uncontroversial to suggest that the TPNW negotiators would not have intended for the above textual loophole to exist, contrary to the underlying goal of facilitating nuclear disarmament through Article 4. Indeed, no state delegation advocated for such a loophole during the 2017 negotiations, suggesting its existence occurred through oversight or simple accident. Consequently, it seems unlikely that the purely textual interpretation reached above could be reasonably sustained by any acceding NWPS when considering the broader purpose of the TPNW.

Furthermore, it would also be the case that any state that accedes while maintaining a nuclear weapons programme would almost certainly be in breach of the undertaking never to develop, produce, and manufacture nuclear weapons under Article1(1)(a).[346] This breach of an international obligation of a state party under the TPNW, attributable to the state itself, would amount to an internationally wrongful act,[347] which in turn would give rise to the so-called 'secondary' rules of state responsibility.[348] The acceding state in question remains under a duty to continue to perform its disarmament obligations,[349] and is required to cease continuing with the wrongful act and offer suitable guarantees of non-repetition under Article 30 of the ILC *Draft Articles on Responsibility of States for Internationally Wrongful Acts*.[350] This obligation to cease the

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[344] See Richard Gardiner, *Treaty Interpretation* (2nd edn, Oxford University Press 2016) 179-81 generally. Indeed, it has been noted elsewhere that the principle of effectiveness, though not explicitly referenced in either Articles 31 or 32 of the VCLT, underlies the principles of good faith and object and purpose during interpretation, see Jean-Marc Sorel and Valérie Boré Eveno, 'Application and Interpretation of Treaties, Art. 31 1969 Vienna Convention', in Olivier Corten and Pierre Klein (eds), *The Vienna Conventions of the Law of Treaties* (Oxford University Press 2011) 817.

[345] Gardiner (2016) 179-81.

[346] As discussed in depth previously, Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 4.

[347] See Draft Article 2, International Law Commission, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries' (2001) UN Doc A/56/10, *Yearbook of the International Law Commission*, Vol II, Part Two, 34-35 and associated commentary (hereafter DARSIWA).

[348] For a critique of the definition of rules in relation to state responsibility as secondary rules, see Ulf Linderfalk, 'State Responsibility and the Primary-Secondary Rules Terminology – The Role of Language for an Understanding of the International Legal System' (2009) 78(1) *Nordic Journal of International Law* 53. Undoubtedly, such a circumstance would also give rise to a 'material breach' of treaty obligations under Article 60, VCLT, allowing other TPNW states to 'suspend the operation of the treaty in whole or in part, or terminate it, in the relations between themselves and the defaulting State or to terminate or suspend the operation of the treaty completely'. This however would unlikely prove a suitable solution for other TPNW parties.

[349] Draft Article 29, DARSIWA.

[350] Draft Article 30, DARSIWA and its associated commentary at 88-91 for a useful overview of this remedy. Injured states may also seek restitution in accordance with Draft Article 34, or perhaps even compensation for any financially assessable loss, Draft Article 36, DARSIWA.

wrongful conduct would be particularly significant given the continuing character that a breach of the prohibition on development would have in maintaining a nuclear weapons programme.[351]

Overall, it is clear that the above loophole cannot be sustained when considering the broader context of the Article 1 prohibitions, alongside the underlying object and purpose of the TPNW. As such, any future 'State A' that accedes to the treaty with an intact nuclear weapons programme would be required to take steps to either eliminate or convert all nuclear weapons-related programmes and facilities for peaceful purposes as soon as possible – effectively accepting the obligations imposed by Articles 4(2) and (3).[352] It would equally be likely that an acceding 'State A' would be required to enter into a legally binding agreement – most likely decided at a future meeting of states parties under Article 8[353] – to ensure the verified elimination of its entire nuclear weapons programme in conjunction with the competent international authority designated under Article 4(6).[354]

[351] This was similarly highlighted in the *Case concerning the difference between New Zealand and France concerning the interpretation or application of two agreements, concluded on 9 July 1986 between the two States and which related to the problems arising from the Rainbow Warrior Affair* (France/New Zealand Arbitration Tribunal) (1990) 82 ILR 499, [114]. See also Draft Article 14, DARSIWA and its associated commentary at 60-61.

[352] Podvig (2021) 36 notes this also.

[353] Article 8(1), TPNW ('The States Parties shall meet regularly in order to consider and, where necessary, take decisions in respect of any matter with regard to the application or implementation of this Treaty, in accordance with its relevant provisions, and *on further measures for nuclear disarmamen*t, including:
(a) The implementation and status of this Treaty;
(b) *Measures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes, including additional protocols to this Treaty*;
(c) *Any other matters pursuant and consistent with the provisions of this Treaty*') (emphasis added).

[354] As discussed in section 4 above.

Chapter 5: Addressing Criticisms of the TPNW

This concluding Chapter of Part II intends to analyse commonly mentioned criticisms raised against the TPNW by both the NWPS and their military allied states that have opposed the treaty categorically, alongside sceptical academic commentators who have identified potential limitations in the TPNW's operative provisions. Specifically, the following discussion explores concerns which have a predominantly legal dimension – although naturally this will demand a consideration of coinciding criticisms raised from strategic, security, political, and even technical perspectives too. This discussion will naturally provide further legal examination of certain controversial elements of the TPNW which, in turn, enhances the overall assessment of the treaty's disarmament-related provisions undertaken within Part II thus far.

Before proceeding, however, a minor methodological clarification is worth noting. The purpose of the analysis that follows is not to formulate a further defence of the TPNW, its provisions, or its core object and purpose *per se*. Rather, my intention is to assess whether the particular criticisms examined are credible and thus legitimately highlighted, or conversely, whether they have been exaggerated or overstated by TPNW opponents. Indeed, present analyses of the TPNW tend to be either highly critical and negative towards specific provisions and obligations imposed by the treaty,[1] or conversely seek to act as a 'defence' by rebutting or challenging criticisms raised against the TPNW.[2] Consequently, the analysis undertaken here endeavours to analyse these

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[1] Various commentaries have offered criticisms of the TPNW, see e.g. Assistant Secretary, Bureau of International Security and Nonproliferation Christopher A Ford, 'Briefing on the Nuclear Ban Treaty' (*Carnegie Endowment for International Peace*, 22 August 2017) <https://carnegieendowment.org/2017/08/22/briefing-on-nuclear-ban-treaty-by-nsc-senior-director-christopher-ford-event-5675>; Michael Rühle, 'The Nuclear Weapons Ban Treaty: Reasons for Scepticism' (*NATO Review*, 19 May 2017) <https://www.nato.int/docu/review/articles/2017/05/19/the-nuclear-weapons-ban-treaty-reasons-for-scepticism/index.html>; John Carlson, 'The Nuclear Weapon Ban Treaty is Significant but Flawed' (*The Interpreter*, 11 July 2017) <https://www.lowyinstitute.org/the-interpreter/nuclear-weapon-ban-treaty-significant-flawed>; Scott Sagan and Benjamin A Valentino, 'The Nuclear Weapons Ban Treaty: Opportunities Lost' (*Bulletin of the Atomic Scientists*, 16 July 2017) <https://thebulletin.org/2017/07/the-nuclear-weapons-ban-treaty-opportunities-lost/>; Paige K W Gasser, 'Undermining the Non-Proliferation Treaty (NPT): A Legal Analysis of the Treaty on the Prohibition of Nuclear Weapons (TPNW)', in Sam Kanson-Benanav and Andi Zhou (eds), *Journal of Public and International Affairs* (Princeton University 2018); Jean-Baptiste Jeangene Vilmer, 'The Forever-Emerging Norm of Banning Nuclear Weapons' (2020) *Journal of Strategic Studies*, DOI: https://doi.org/10.1080/01402390.2020.1770732; Dieter Fleck, 'The Treaty on the Prohibition of Nuclear Weapons: Challenges for International Law and Security', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation and International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019); and Newell Highsmith and Mallory Stewart, 'The Nuclear Ban Treaty: A Legal Analysis' (2018) 60(1) *Survival: Global Politics and Strategy* 129.

[2] For examples of scholarship 'defending' the TPNW, or challenging specific criticisms made, see Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law,* October 2018; Mitsuru Kurosawa, 'The Treaty on the Prohibition of Nuclear Weapons: Its Significance and Challenges' (2018) 65(1) *Osaka University Law Review* 1, who reviews and discusses some of these criticisms; Stuart Casey-Maslen, 'The Status of Nuclear Deterrence Under International Law in Light of the Treaty on the Prohibition of Nuclear Weapons', in Terry D Gill, Robin Geiß, Heike Krieger, and Christophe Paulussen (eds), *Yearbook of International Humanitarian Law – Volume 21* (Springer 2018) (hereafter Casey-Maslen (2018a)); Stuart Casey-Maslen, 'Friend or Foe?: The Treaty on the Prohibition of Nuclear Weapons and the NPT' (*Arms Control Law*, 20 August 2018)

criticisms while retaining a conscious awareness and desire to be impartial – insofar as this is possible[3] – by instead discussing the validity and credibility of the criticisms noted and subsequent arguments raised in response.[4] Nevertheless, and as will become apparent, this does not negate my conclusions that many of the criticisms mentioned are somewhat overstated to differing degrees.

The discussion below therefore intends to evaluate the following criticisms raised against the TPNW: first, the treaty risks undermining the existing nuclear non-proliferation and disarmament framework instruments, in particular the NPT;[5] second, the TPNW establishes an unprecedentedly restrictive right of withdrawal under Article 17, which has been criticised as overly narrow on the one hand, and challenged for its inclusion altogether on the other;[6] third, the TPNW fails to incorporate sufficient nuclear disarmament verification processes and measures, and establishes weakened safeguard standards compared to those developed under the current NPT and IAEA regime;[7] and finally, the TPNW is 'incompatible with the policy of nuclear deterrence',[8] and fails to address the underlying security concerns of the NWPS that continue to make nuclear deterrence essential for their security.[9]

1. The TPNW Undermines the Existing Nuclear Non-Proliferation and Disarmament Legal Regime

Undoubtedly the most frequently cited criticism raised by TPNW opponents is that the treaty risks undermining the existing nuclear non-proliferation and disarmament international legal framework, and could therefore lead to an 'erosion of support' for the NPT in particular.[10] The UK, for example, argued during the 2017 UNGA First Committee debates that:

<https://armscontrollaw.com/2018/08/20/friend-or-foe-the-treaty-on-the-prohibition-of-nuclear-weapons-and-the-npt/> (hereafter Casey-Maslen (2018b)); and Eirini Giorgou, 'Safeguard Provisions in the Treaty on the Prohibition of Nuclear Weapons' (*Arms Control Law*, 11 April 2018) <https://armscontrollaw.com/2018/04/11/safeguards-provisions-in-the-treaty-on-the-prohibition-of-nuclear-weapons/>

[3] Of course, complete impartiality is impossible. My position is that any instrument designed with the underlying aim of furthering progress towards nuclear disarmament is welcome, which would indicate a slight tendency to favour the TPNW on the whole. Conversely, supporters of nuclear deterrence would likely question efforts towards nuclear disarmament due to the uncertain strategic consequences that would result, thus implying a more sceptical view of the TPNW.

[4] A similar approach is taken by Pedrazzi in his analysis of certain aspects and provisions of the TPNW, see generally Marco Pedrazzi, 'The Treaty on the Prohibition of Nuclear Weapons: A Promise, A Threat or a Flop?' (2017) 27(1) *Italian Yearbook of International Law* 215.

[5] Section 1.

[6] Section 2.

[7] Section 3.

[8] 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[9] Section 4.

[10] See e.g. Gasser (2018) generally; Fleck (2019) 403-05; 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017)

> '[t]he ban treaty is at odds with the existing non-proliferation and disarmament architecture. That risks *undermining the NPT*, which has been at the heart of global non-proliferation and disarmament efforts for almost 50 years'.[11]

Likewise, former US Assistant Secretary of International Security and Non-Proliferation Christopher Ford makes this point more explicitly in one of his (many) scathing criticisms of the TPNW:

> 'The "ban" treaty, by contrast, is likely to *harm the effective operation of the global nonproliferation regime* by increasingly entangling and preoccupying vital nonproliferation institutions – e.g., the Non-Proliferation Treaty (NPT) review process and the International Atomic Energy Agency – in sterile but contentious debates and disputes over disarmament policy'.[12]

Much of this criticism reflects a coinciding politically orientated concern that the TPNW represents a 'diversion' that risks disrupting negotiations towards nuclear disarmament within the NPT Review Process by polarising states into overly simplistic categories of TPNW 'opponents' and 'supporters.[13] This, however, is a misrepresentation of sorts. Indeed, various commentators have rightly observed that divisions regarding the most appropriate and effective way of advancing nuclear disarmament efforts 'were prevalent even before the mandate of the ban treaty was adopted'.[14] In fact, this polarisation almost certainly arose due to the frustration amongst the non-aligned NNWS over the slow progress towards nuclear disarmament made by the NPT-recognised

<https://www.nato.int/cps/en/natohq/news_146954.htm>; and 'Treaty on the Prohibition of Nuclear Weapons 'a Mistake' – Russian Foreign Ministry' (*TASS*, 3 May 2019) <https://tass.com/politics/1056868>. The frequency of this claim is noted by Casey-Maslen (2018b).

[11] See Matthew Rowland, UK Permanent Representative to the Conference on Disarmament, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 26 (emphasis added). See for a similar sentiment by France, 'Adoption of a Treaty Banning Nuclear Weapons' (*Ministère de L'Europe et des Affaires Étrangères, Permanent Mission of France to the United Nations in New York*, 7 July 2017) <https://onu.delegfrance.org/Adoption-of-a-treaty-banning-nuclear-weapons> ('The treaty is also likely to undermine the Treaty on the Non-Proliferation of Nuclear Weapons, the cornerstone of the non-proliferation regime').

[12] Ford (2017) (emphasis added).

[13] This concern has been raised by Ambassador Robert A Wood of the United States of America, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 7.

[14] Nystuen, Egeland, and Graff Hugo (2018) 26.

NWS in recent years. From this perspective, the negotiation of the TPNW 'reflects that frustration; it did not cause it'.[15]

In many respects, the most pressing legal concerns over the TPNW's future relationship and possible undermining of existing nuclear non-proliferation and disarmament instruments is centred upon two specific – though closely interrelated – issues explored below. In each regard, however, this perceived danger seems exaggerated.

a. An Uncertain Relationship with the NPT?

A first criticism, raised notably by Highsmith and Stewart, is that the TPNW 'subordinates' the NPT, and thus risks dislodging the NPT as the 'cornerstone' instrument of the nuclear non-proliferation and disarmament legal regime.[16] This criticism largely takes issue with the legal consequences stemming from the operation of Article 18 which, according to critics, essentially displaces international nuclear non-proliferation and disarmament legal commitments assumed by states under earlier instruments in favour of those assumed by the TPNW.[17]

While it was apparent throughout the 2017 negotiations that the relationship between the TPNW and NPT 'would be a bone of contention during the negotiations',[18] virtually all participating states agreed that the proposed treaty should serve to 'protect and strengthen' the NPT and other nuclear non-proliferation and disarmament legal instruments.[19] This desired reinforcement and harmonisation is further reflected in the TPNW preamble, which emphasises the continued place of the NPT as the '*cornerstone* of the nuclear disarmament and non-proliferation regime',[20] as well as recognising the 'vital importance of the *Comprehensive Nuclear Test-Ban Treaty and its verification regime as a core element* of the nuclear disarmament and non-proliferation regime'.[21]

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[15] Rebecca Davis Gibbons, 'The Nuclear Ban Treaty: How Did We Get Here, What Does it Mean for the United States?' (*War on the Rocks*, 14 July 2017) <https://warontherocks.com/2017/07/the-nuclear-ban-treaty-how-did-we-get-here-what-does-it-mean-for-the-united-states/>
[16] Highsmith and Stewart (2018) 140-41.
[17] 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/en/natohq/news_146954.htm>; and Ford (2017). See also more generally, Gasser (2018).
[18] Stuart Casey-Maslen, 'The Relationship of the 2017 Treaty on the Prohibition of Nuclear Weapons with other Agreements: Ambiguity, Complementarity, or Conflict?' (*EJIL: Talk!*, 1 August 2017) <https://www.ejiltalk.org/the-relationship-of-the-2017-treaty-on-the-prohibition-of-nuclear-weapons-with-other-agreements-ambiguity-complementarity-or-conflict/#more-15450>
[19] See e.g. statement by Ambassador Alexander Marschik of Austria (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 27 March 2017) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/27March_Austria.pdf> 2-3; and statement by Representative Courtenay Rattray of Jamaica (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 27 March 2017) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/27March_Jamaica.pdf> 4.
[20] Preambular paragraph 18, TPNW (emphasis added)
[21] Preambular paragraph 19, TPNW (emphasis added).

These preambular references clearly demonstrate that the negotiating states sought to make abundantly clear that the TPNW's provisions were intended to reinforce the nuclear weapons legal regime by imposing more onerous and explicit obligations to those that exist under the NPT.[22]

However, the concerns regarding inconsistencies between the TPNW and NPT largely relate to the practical operation of Article 18, titled 'Relationship with Other Agreements'.[23] In full, Article 18 states:

> 'The implementation of this Treaty shall not prejudice obligations undertaken by States Parties with regard to existing international agreements, to which they are party, where those obligations are *consistent with* the Treaty'.

To fully appreciate the effect and consequences of Article 18, it is worth briefly exploring the *travaux préparatoires* of this provision.[24] The initial draft Article 19 of the 22 May treaty text crafted by President Whyte Gómez originally stated that '[t]his Convention does not affect the rights and obligations of the States Parties under the *Treaty on the Non-Proliferation of Nuclear Weapons*'.[25] This language was supported strongly by the Netherlands, and essentially imposed a 'hierarchy of agreements', where in any case of conflict between the terms of the TPNW and the NPT, the NPT obligations would take precedence over any newly imposed commitments.[26] Simply put, through this proposed language, the provisions of the NPT would have effectively prevailed over the rights and obligations established by the new treaty.

However, there was a sense of apprehension that referencing the 'rights' of state parties under the NPT might have unintentionally created a loophole permitting the *de jure* NWS to accede to the TPNW while retaining possession of their nuclear weapons.[27] This concern was explained usefully by Joyner, who noted that '[s]ome nuclear weapons states have for some time argued that

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[22] Pedrazzi (2017) 229.

[23] For a discussion of Article 18, TPNW, see Christopher P Evans, 'Remedying the Limitations of the CTBT? Testing under the Treaty on the Prohibition of Nuclear Weapons' (2020) 21(1) *Melbourne Journal of International Law* 45, 81-86 (hereafter Evans (2020a)); and Casey-Maslen (2017).

[24] In accordance with Article 32, VCLT. While this is seen as a supplementary step in the treaty interpretation process, it is worth examining this initially.

[25] Draft Article 19, Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1.

[26] Tamara L Patton, 'News in Brief' (2017) 2(5) *Nuclear Ban Daily*, 11; and Laura Considine, 'Contests of Legitimacy and Value: The Treaty on the Prohibition of Nuclear Weapons and the Logic of Prohibition' (2019) 95(5) *International Affairs* 1075, 1085.

[27] This concern is also noted by Mirko Sossai, 'Il Rapporto Tra Il Trattato Sul Divieto Di Armi Nucleari e Gli Altri Accordi in Materia Di Non-Proliferazione e Disarmò' (2018) (1) *Rivista di Diritto Internazionale* 185, 195 ('Anche IL Comitato internazionale della Croce Rossa evidenziava che IL testo dell'art. 19 potesse interpretarsi nel senso di permettere ad uno State parte del trattato di mantenere IL possesso di armi nucleari'). My thanks go to Rebecca Rose Nocella for her help in translating this article.

the NPT gives them a "right" to possession and to further production and refinement of nuclear weapons', an assertion that he considers to be completely unsupported by the text of the NPT.[28] Thus by referencing 'rights' in the manner described above, it was felt that this draft provision may have added 'unhelpful mud' to this debate, and further fuelled this position of the NWS.[29] Moreover, maintaining this potential loophole by unintendingly permitting a 'right to possess nuclear weapons' once acceded to the treaty would have certainly undermined the fundamental object and purpose of the TPNW in contributing towards the achievement of a nuclear weapons-free world. Finally, draft Article 19 was overly narrow focusing solely on how the TPNW and NPT would interact in practice, while remaining silent on the treaty's future relationship with other instruments, including notably the CTBT.

Consequently, both Joyner and certain non-aligned NNWS called for the removal of this Article altogether in order to avoid 'interpretive and implementation confusion'.[30] While this suggestion was ultimately rejected, the draft provision was substantially revised based on a proposal by Malaysia[31] – and endorsed by the ICRC[32] – which replicated a corresponding provision from Article 26(1) of the Arms Trade Treaty.[33] In essence, Article 18 allows prospective TPNW parties to continue to respect and lawfully implement their existing legally binding obligations under earlier instruments including the NPT, CTBT or NWFZs, but only insofar as these prior obligations are 'consistent with', and therefore do not 'supersede those set out in the [TPNW]'.[34] As a result, in situations where there is an apparent conflict or inconsistency between a state party's assumed obligations under the TPNW and an earlier nuclear weapons-related instrument, 'the TPNW obligations will prevail'.[35] This directly reverses the situation created by draft Article 19 described above.

In light of this assessment, it is somewhat unsurprising that Highsmith and Stewart conclude that the NPT is essentially 'subordinated' to the TPNW.[36] Although accession to the

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[28] Daniel H Joyner, 'Amicus Memorandum to the Chair of the NW Ban Treaty Negotiating Conference' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf> 3; and a view shared by this author.
[29] Ibid.
[30] Ibid; and Tamara L Patton, 'News in Brief' (2017) 2(5) *Nuclear Ban Daily*, 10-11.
[31] As noted by Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford Unviersity Press 2019) 256.
[32] Comments of the International Committee of the Red Cross on key provisions of the Draft Convention on the Prohibition of Nuclear Weapons (14 June 2017) UN Doc A/CONF.229/2017/CRP.2.
[33] Article 26(1), Arms Trade Treaty (adopted 2 April 2013, entered into force 24 December 2014) UN Doc A/RES/67/234B.
[34] Casey-Maslen (2017) (emphasis added).
[35] As I have suggested elsewhere, see Evans (2020a) 82. See also Daniel Rietiker, 'New Hope for Nuclear Disarmament or "Much Ado About Nothing?" Legal Assessment of the New "Treaty on the Prohibition of Nuclear Weapons" and the Joint Statement by the USA, UK, and France Following its Adoption' (2017) 59(Online) *Harvard International Law Journal* 22, 30-31.
[36] Highsmith and Stewart (2018) 141.

TPNW does not affect previous obligations assumed by states that are *only* party to the NPT,[37] or 'preclude[s] a state party from adhering to any other treaty or binding agreement' relating to nuclear weapons,[38] the fact that the TPNW takes priority in the case of conflict of obligations may arguably be perceived as an attempt to displace the NPT as the 'cornerstone' instrument of the nuclear non-proliferation and disarmament international legal framework.

Having said this, the effect of Article 18 simply reaffirms general rules of international law concerning the relationship between treaties that have the same subject matter.[39] Although Aust rightly notes that conceptualising the relationship between successive treaties can often be 'immensely difficult' in practice,[40] Articles 30(3) and (4) of the VCLT establish the general rule that for parties to two instruments of the same subject matter, 'the earlier treaty applies *only to the extent that its provisions are compatible with those of the later treaty*'.[41] Article 18, in essence, reflects this very approach,[42] thereby conforming to the *lex posterior derogate priori* principle,[43] which the ILC has confirmed 'is at its strongest in regard to conflicting or overlapping provisions that are part of treaties that are institutionally linked *or otherwise intended to advance similar objectives*'.[44]

Nevertheless, despite mirroring general treaty law principles, the legal effect and practical consequences of Article 18 has also been criticised on the grounds that certain inconsistencies exist between the obligations within the TPNW and NPT.[45] Trezza, for example, suggests that '[t]he most conspicuous example relates to one of the pillars of the NPT, that is, *the distinction*

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[37] Treasa Dunworth, 'The Treaty on the Prohibition of Nuclear Weapons' (*ASIL Insights vol 21(12)*, 31 October 2017) <https://www.asil.org/insights/volume/21/issue/12/treaty-prohibition-nuclear-weapons>

[38] Casey-Maslen (2017).

[39] For a discussion of the relationship between successive treaties, see Jan B Mus, 'Conflicts Between Treaties in International Law' (1998) 45(2) *Netherlands International Law Review* 208; and Alexander Orakhelashvili, 'Art. 30 1969 Vienna Convention', in Olivier Corten and Pierre Klein (eds), *The Vienna Conventions on the Law of Treaties* (Oxford University Press 2011).

[40] Particularly when the terms of two treaties are inconsistent are the party to each instrument differ notably, see Anthony Aust, *Modern Treaty Law and Practice* (3rd edn, Cambridge University Press 2013) 192.

[41] Article 30(3), VCLT (emphasis added) which applies when the parties to both treaties are the same. See also Article 30(4), VCLT for the situation when the parties to each treaty differ. For a detailed discussion of the hierarchy of conflicting treaty-based obligations generally, see Report of the Study Group of the International Law Commission, 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law' (13 April 2006) UN Doc A/CN.4/L.682, [223]-[323] generally; Aust (2013) 192-202; and Christopher J Borgen, 'Resolving Treaty Conflicts' (2005) 37(3) *The George Washington International Law Review* 573.

[42]As noted by Sossai (2018) 197. Given this conclusion, Pedrazzi even questions whether Article 18 needed to be included at all, see Pedrazzi (2017) 226, therefore questions whether this provision needed to be included at all. See also Daniel H Joyner, 'Amicus Memorandum to the Chair of the NW Ban Treaty Negotiating Conference' (*Arms Control Law*, 12 June 2017) <https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf> 3.

[43] As noted by Pedrazzi (2017) 226; and Rietiker (2017, Online) 30-31.

[44] International Law Commission, 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law', *Report of the International Law Commission of its Fifty-Eighth Session* (2006) UN Doc A/61/10, 417 (emphasis added).

[45] Highsmith and Stewart (2018) 140-41; and Tytti Erästö, 'The NPT and the TPNW: Compatible of Conflicting Nuclear Weapons Treaties?' (*Stockholm International Peace Research Institute*, 6 March 2019) <https://www.sipri.org/commentary/blog/2019/npt-and-tpnw-compatible-or-conflicting-nuclear-weapons-treaties>

between states entitled to possess such weapons and non-nuclear weapon states, which is not contemplated by the TPNW'.[46] Rühle likewise claimed that '[b]y outlawing nuclear weapons instead of regulating their existence, a Nuclear Ban Treaty would *pull the rug* from under the NPT, and thus from the delicate balance of obligations of Nuclear and Non-Nuclear Weapon States it represents'.[47]

However, in the present author's view, this assessment is flawed. Rather than creating a 'conflict' or 'inconsistencies' of treaty obligations between the TPNW and prior instruments, the operation of Article 18 – when considered alongside the extremely elaborate prohibitions established by Article 1[48] – indicates that the TPNW negotiators sought to build upon and strengthen existing non-proliferation and disarmament commitments and regulations assumed under earlier nuclear weapons-related instruments in order to advance the objective of the achieving and maintaining of a nuclear weapons-free world – as envisaged by Article VI of the NPT itself.[49] The prohibition of both explosive and non-explosive nuclear testing activities under Article 1(1)(a) – explored earlier in this thesis and elsewhere by this author[50] – provides a useful example of how the TPNW both reinforces, but also expands upon pre-existing nuclear testing prohibitions of the CTBT.[51] Consequently, the TPNW prohibitions in Article 1 should be more accurately described as an 'evolution', or expansion of pre-existing prohibitions assumed elsewhere rather than creating inconsistencies *per se*.[52]

Given this evolutive understanding, the operation of Article 18 becomes logical from a practical perspective too, and indicative of the obligations to perform treaty commitments in good faith.[53] Indeed, as this author has argued elsewhere, 'it would be somewhat counterintuitive if earlier, more limited obligations assumed under an existing treaty could prevail *lex prior* over the more stringent prohibitions contained within art 1 of the *TPNW*'.[54] Article 18 therefore prevents a NWS from invoking its pre-determined status as a *de jure* NWS under Article IX(3) of the NPT as justification to retain possession of its nuclear weapons while acceding to the TPNW, thus 'superseding' its disarmament obligations and prohibition commitments accepted under the NPT.

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[46] Carlo Trezza, 'The UN Nuclear Ban Treaty and the NPT: Challenges for Nuclear Disarmament' (*Instituto Affari Internazionali Commentaries*, 15 September 2017) <https://www.iai.it/sites/default/files/iaicom1715.pdf> 2 (emphasis added).
[47] Rühle (2017) (emphasis added).
[48] See Part II: Chapter 3: Scope of the Article 1 Prohibitions.
[49] Casey-Maslen (2018b).
[50] Evans (2020a) 66-78.
[51] See Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 5.
[52] This evolution of obligations as opposed to conflicting obligations has been noted by this author previously, see Evans (2020a) 83. See also Dunworth (2017) who makes a similar point.
[53] In accordance with the principle of *pacta sunt servanda*, now codified by Article 26, VCLT.
[54] Evans (2020a) 83 (emphasis in the original). Although this does not disclose the application of the *lex prior* principle elsewhere, see Report of the Study Group of the International Law Commission, 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law' (13 Aril 2006) UN Doc A/CN.4/L.682, [236]-[242].

And rightly so. Permitting such an eventuality would certainly contradict the object and purpose of the TPNW, thus depriving the treaty of its practical value.[55]

Consequently, Article 18 harmonises and clarifies the future legal relationship between the TPNW and earlier nuclear weapons-related treaties in accordance with standard treaty law,[56] while reinforcing, and ultimately 'evolving' existing legally binding prohibitions and commitments of state parties assumed elsewhere. The complementary nature of the TPNW has since been highlighted by supporting states including Austria, which has argued that the treaty 'greatly strengthens nonproliferation and the NPT',[57] while Ireland has explicitly claimed that the treaty 'complements and does not undermine the NPT in any way'.[58] Similarly, Casey-Maslen correctly concludes that operation of Article 18 represents 'little more than a statement of common sense', and reflects the understanding that prospective TPNW parties are 'going beyond the obligations they accepted in earlier global treaties and agreements' in order to advance nuclear disarmament pursuant to both Article VI of the NPT, and the underlying object and purpose of the TPNW.[59]

b. The TPNW as a Competing Regime

A related argument to the above is that the adoption of the TPNW further fragments the nuclear non-proliferation and disarmament legal regime. Kadelbach, for example, has argued that the TPNW 'drafting history leaves the impression that we live in two separate worlds: the TPNW world where nuclear weapons are outlawed per se, and the NPT world which acknowledges possession of nuclear weapons by some States, but according to Article VI NPT envisages nuclear disarmament over time'.[60] In fact, many commentators have gone further and raised concerns that the adoption of the TPNW may lead to 'forum-shopping' by states,[61] whereby NNWS 'joining the TPNW might choose to *opt out* from the NPT' or other non-proliferation and disarmament commitments.[62] In other words, it is argued that the TPNW offers states the option of 'choosing'

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[55] Casey-Maslen (2019) 257.
[56] This conclusion has been widely shared, see Casey-Maslen (2017); Rietiker (2017, Online) 30-31; and Nystuen, Egeland, and Graff Hugo (2018) 27.
[57] Statement by Mr Gerschner of Austria, UNGA First Committee (72nd Session, 3 October 2017) UN Doc A/C.1/72/PV.3, 16, 17.
[58] Statement by Ms Quinn of Ireland, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 5, 6.
[59] Casey-Maslen (2017); and as similarly noted by Erästö (2019).
[60] Stefan Kadelbach, 'Possible Means to Overcome Tendencies of the Nuclear Weapons Ban Treaty to Erode the NPT', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020) 308.
[61] See specifically Gasser (2018) 124; and Adam Mount and Richard Nephew, 'A Nuclear Weapons Ban Should First do no Harm to the NPT' (*Bulletin of the Atomic Scientists*, 7 March 2017) <https://thebulletin.org/2017/03/a-nuclear-weapons-ban-should-first-do-no-harm-to-the-npt/>
[62] Ibid, and as usefully explained by Erästö (2019).

between different nuclear weapons-related instruments,[63] thus further fragmenting the nuclear non-proliferation and disarmament legal regime.[64]

Ambassador Yann Hwang of France has raised a similar concern by claiming that the TPNW may establish a 'competing' regime to the NPT by forming its own institutional review processes and meetings of state parties.[65] Pedrazzi also notes the possibility that the TPNW could undermine progress on achieving the CTBT's entry into force by 'induc[ing] [states] to ratify the TPNW without ratifying the CTBT, thus further delaying the entry into force of the latter and of its verification mechanism'.[66] Moreover, this 'forum-shopping' concern has been exacerbated by largely unsubstantiated suggestions that the adoption of the TPNW might (or should) instigate a 'mass withdrawal' of the NPT framework in favour of the 2017 treaty.[67]

In reality, however, these concerns are greatly exaggerated. First, and as mentioned before,[68] the TPNW preamble plainly recognises the continuing role of the NPT as the cornerstone of the nuclear non-proliferation and disarmament international legal regime,[69] and endorses further ratification and the entry into force of the CTBT alongside the implementation of NWFZs.[70] It is difficult to interpret these references as anything other than explicit support for and commitment to the existing nuclear non-proliferation and disarmament international legal framework.

Second, as far as this author is aware, no TPNW supporting state has publicly indicated that it is considering withdrawing from the NPT, CTBT or regional NWFZ in favour of accession to the TPNW, a conclusion shared by Nystuen, Egeland and Graff Hugo.[71] On the contrary, many of the non-aligned NNWS supporters of the treaty continue to reaffirm the relevance of the NPT

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[63] Erästö (2019).
[64] See also Gasser (2018) 124, who notes the possibility of regime proliferation in this regard, that is the creation of various incompatible instruments creating an overall lack of coherence.
[65] Ambassador Yann Hwang of France, UNGA First Committee (73rd Session, 10 October 2018) UN Doc A/C.1/73/PV.4, 10. This is also noted by Ford (2017).
[66] Pedrazzi (2017) 228. See similarly, though in less detail, Switzerland, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Swiss-Explanation-of-Vote2.pdf>
[67] Heather Williams, 'Does the Fight Over a Nuclear Weapons Ban Threaten Global Stability' (*Bulletin of the Atomic Scientists*, 9 February 2017) <https://thebulletin.org/2017/02/does-the-fight-over-a-nuclear-weapons-ban-threaten-global-stability/>; and Joelien Pretorius and Tom Sauer, 'Is it Time to Ditch the NPT?' (*Bulletin of the Atomic Scientists*, 6 September 2019) <https://thebulletin.org/2019/09/is-it-time-to-ditch-the-npt/>; who have repeated this claim in greater depth recently, see Joelien Pretorius and Tom Sauer, 'Ditch the NPT' (2021) 63(4) *Survival: Global Politics and Strategy* 103.
[68] See section 1.a. above.
[69] Preambular paragraph 18, TPNW.
[70] Preambular paragraphs 19 and 20, TPNW.
[71] Nystuen, Egeland, and Graff Hugo (2018) 27. See also Kjølv Egeland, Torbjørn Graff Hugo, Magnus Løvold, and Gro Nystuen, 'The Nuclear Weapons Ban Treaty and the Non-Proliferation Regime' (2018) 34(2) *Medicine, Conflict and Survival* 74, 87-88.

regime.[72] Austria, a leading state behind the TPNW process,[73] expressly noted during the 2018 NPT Preparatory Committee that it 'regards the NPT *as the cornerstone* of the international nuclear disarmament and non-proliferation regime'.[74] At the same meeting, the New Agenda Coalition asserted that all states 'share the common objective of *upholding and preserving* the NPT'.[75] Given this explicit support, Erästö argues that:

> '[w]hile it is possible that some countries do decide to withdraw from the NPT, the TPNW is unlikely to be the sole reason. Rather, the issue [over withdrawal] should be seen *in the context of the broader legitimacy crisis within the NPT*, which is caused mainly by the lack of implementation of Article VI, and which also contributed to the negotiation of the TPNW'.[76]

Finally, recalling the point raised by Pedrazzi and Switzerland that this 'forum-shopping' effect may delay the CTBT's early entry into force,[77] it should be emphasised that the CTBT has not entered into force due to the reluctance of the remaining Annex II 'hold-out' states to ratify the agreement.[78] Six of these hold-out states are NWPS, including notably the US and China, and are each extremely unlikely to ratify the CTBT in the near-term,[79] and which equally oppose the TPNW.[80] By contrast, the majority of TPNW supporting NNWS have ratified the CTBT, while

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[72] As noted by Kurosawa (2018) 19. See also the aforementioned statements by Mr Gerschner of Austria, UNGA First Committee (72nd Session, 3 October 2017) UN Doc A/C.1/72/PV.3, 16; and statement by Ms Quinn of Ireland, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 6.

[73] Austria hosted the second conference on the Humanitarian of Impact of Nuclear Weapons, see 'Vienna Conference on the Humanitarian Impact of Nuclear Weapons' (*Federal Ministry of Republic of Austria*, 8-9 December 2014) <https://www.bmeia.gv.at/en/european-foreign-policy/disarmament/weapons-of-mass-destruction/nuclear-weapons/vienna-conference-on-the-humanitarian-impact-of-nuclear-weapons/>

[74] Statement by Austria (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_Austria.pdf> 1 (emphasis added).

[75] Statement by Ambassador Higgie of New Zealand, on behalf of the New Agenda Coalition (*Second Preparatory Committee of the 2020 NPT Review* Conference, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_NAC.pdf> 4 (emphasis added).

[76] Erästö (2019) (bracketed text added). In relation to Iran, it is hardly the adoption of the TPNW that has fuelled its threats to withdraw from the NPT, but rather recent US aggression, imposition of sanctions following the US withdrawal from the JCPOA in May 2018, amongst other factors that may constitute its grounds for withdrawal, see Christopher P Evans, 'Going, Going, Gone? Assessing Iran's Possible Grounds for Withdrawal from the Treaty on the Non-Proliferation of Nuclear Weapons' (2021) 26(2) *Journal of Conflict and Security Law* 309.

[77] Switzerland, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Swiss-Explanation-of-Vote2.pdf>

[78] As noted elsewhere, see Evans (2020a) 86.

[79] The Trump Administration, for example, has ruled out submitting the CTBT to the US Senate for approval, see, 'Nuclear Posture Review' (*US Department of Defense*, February 2018) <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> 72.

[80] As similarly concluded by Pedrazzi (2017) 228.

members of the Non-Aligned Movement in particular have continued to call upon the remaining Annex II states to ratify the CTBT as a matter of urgency.[81] Consequently, the TPNW is unlikely to undermine efforts to achieve CTBT entry into force: on the contrary, the adoption of the TPNW offers welcome reinforcement to the CTBT which remains held hostage by the remaining Annex II states.

c. Conclusion

Overall, it seems that the various stated fears that the TPNW risks undermining and creating a competing regime to the NPT and CTBT are overstated. Instead, the TPNW complements, reinforces, and in many ways strengthens existing nuclear non-proliferation and disarmament instruments and regulation both normatively and conceptually. While Article 18 undoubtedly creates a hierarchy of sorts ensuring TPNW obligations prevail over the NPT, this effect is both logical considering the evolution of obligations assumed by the TPNW compared to the NPT, while remaining compatible with general international law concerning treaties enshrined within the VCLT. Finally, no NNWS supporters of the TPNW have expressed any indication of abandoning the NPT or CTBT: on the contrary, these supporting states have regularly emphasised how the TPNW supports and expands upon their pre-existing obligations and efforts towards nuclear disarmament. Accordingly, attempts to oppose the TPNW on the grounds that it threatens the continued operation of existing nuclear weapons-related international law agreements are simply insupportable.

2. (Un)easy Withdrawal Provisions?

One provision of the TPNW that has proven to be particularly controversial, both during the negotiations and subsequently,[82] is the withdrawal mechanism included within Article 17(2) and (3). Delegations were split during the negotiations on both whether – and if so, precisely how – the TPNW should allow for withdrawal.[83] In the end, however, despite a late attempt to rule out the possibility of withdrawal altogether by the majority of participating delegations and civil society

[81] See e.g. statement by HE Ms Ina H Krisnamurthi Deputy Permanent Representative of the Republic of Indonesia on Behalf of the Non-Aligned Movement', UNGA First Committee (73rd Session, 18 October 2018) UN Doc A/C.1/73/PV.11, 6.

[82] As noted by Casey-Maslen (2019) 251; and Daniel Rietiker and Manfred Mohr, 'Treaty on the Prohibition of Nuclear Weapons: A Short Commentary Article by Article' (*IALANA, Swiss Lawyers for Nuclear Disarmament*, April 2018) <https://www.ialana.info/wp-content/uploads/2018/04/Ban-Treaty-Commentary_April-2018.pdf> 40.

[83] See a summary of views by Allison Pytlak, 'News in Brief' (2017) 1(6) *Nuclear Ban Daily*, 7; and Papua New Guinea for instance suggested in a submitted working paper that withdrawal should not be allowed, see 'Possible Elements of the UN Nuclear-Weapon-Ban Treaty' (10 May 2017) UN Doc A/CONF.229/2017/WP.4, 7.

groups,[84] due to opposition from Egypt, Sweden, and Switzerland, amongst other participants,[85] a withdrawal provision was ultimately included. While Article 17(1) confirms that the TPNW 'shall be of unlimited duration',[86] Article 17(2) provides that each state party shall, 'in exercising its national sovereignty, have the right to withdraw from this Treaty if *it decides that extraordinary events related to the subject matter of the Treaty have jeopardized the supreme interests* of its country'.[87] The withdrawing state must give notice of its withdrawal to the Depositary,[88] which should include a 'statement of the extraordinary events that it regards as having jeopardized its supreme interests'.

Article 17(3) then imposes further substantive and procedural requirements and determines that withdrawal shall 'only take effect *12 months* after date of the receipt of the notification of withdrawal by the Depositary'.[89] Moreover, the TPNW further states that '[i]f, however, on the expiry of that 12-month period, the withdrawing State Party is a party to an armed conflict, the State Party *shall continue to be bound by the obligations of this Treaty* and any additional protocols *until it is no longer party to an armed conflict*'.[90]

The requirements of Article 17 have led to criticism from both TPNW cynics, but also from certain supporting states and civil society proponents. On the one hand, TPNW opponents have claimed that Article 17 – specifically paragraph 3 – unduly restricts the situations in which a state party can successfully invoke the withdrawal clause and exit the TPNW.[91] First, Highsmith and Stewart contend that the 12-month notice period under Article 17(3) is 'considerably longer than under the NPT (three months), the [CWC] (90 days) or New START (three months)'.[92] The authors subsequently assert that this extended period may create an unfavourable situation whereby a NWPS that has acceded to the TPNW and 'discovered an adversarial state was developing nuclear weapons, […] would have to wait a year – or longer – before it could legally begin rebuilding its own nuclear weapon programme'.[93] This would ultimately have the effect of

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[84] Casey-Maslen (2019) 252.
[85] For a useful summary of the negotiation of the withdrawal provisions under Article 17, TPNW, see Casey-Maslen (2019) 251-54; and Gaukhar Mukhatzhanova, 'The Nuclear Weapons Prohibtion Treaty: Negotiations and Beyond' (2017) 47(7) *Arms Control Today* 12, 18.
[86] Article 17(1), TPNW. This reflects the general approach of nuclear non-proliferation, arms control, and disarmament treaties, with the exception of the NPT which was concluded for an initial period of 25-years and extended indefinitely in 1995 in accordance with Article X(2), NPT.
[87] Article 17(2), TPNW (emphasis added).
[88] This aspect differs from other withdrawal clauses in nuclear weapons instruments such as Article X(1), NPT which requires notice to be given to the UNSC, whereas the Depositary under the TPNW is the UN Secretary-General. This likely reflects the absence of the permanent five members of the UNSC, who are also the *de jure* NWS under the NPT, from the TPNW negotiations.
[89] Article 17(3), TPNW (emphasis added). This twelve-month period was extended from an initial three months in the 22 May Draft, see Draft Article 18(3), Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1.
[90] Article 17(3), TPNW (emphasis added).
[91] See Highsmith and Stewart (2018) 136-38; and Ford (2017).
[92] Highsmith and Stewart (2018) 136.
[93] Ibid, 137.

'diminish[ing] the state party's security considerably in the interim' by permitting an adversary to gain a strategic upper hand through its discreet development and acquisition of nuclear weapons.[94]

In addition, the final sentence of Article 17(3) has been heavily criticised by TPNW opponents for potentially prolonging the withdrawal process.[95] Highsmith and Stewart again observe that 'long-running conflicts like those in Vietnam and Afghanistan could prevent withdrawal for far longer than the 12-month waiting period' specified in Article 17(3).[96] Ford makes a similar point, and argues that a state may, through no fault of its own, be victim to an aggressive armed attack giving rise to a right of self-defence in accordance with Article 51 of the UN Charter and customary principles of necessity and proportionality,[97] but 'will be prohibited from withdrawing for so long as such a conflict continues'.[98]

Finally, Ford has expressed concern that because withdrawal is permitted only in the case of extraordinary events related to the subject matter of the TPNW, 'it is not even clear that withdrawal would be permitted if a State Party were *not* attacked with nuclear weapons', but rather suffered an 'overwhelming' attack by conventional military forces.[99] The combined effect of these concerns, according to sceptics, would likely discourage the NWPS from ever acceding to the TPNW, and instead prevents the exercise of withdrawal 'precisely when such withdrawal might be most desperately necessary'.[100]

On the other hand, certain TPNW supporting NNWS and civil society actors have claimed that the withdrawal clause is not restrictive enough. This position rests on the supposition noted by Caughley that 'a treaty which is setting a global norm on something as fundamental as prohibiting nuclear weapons should not contemplate the prospect of withdrawal of any of its Parties'.[101] In other words, when one recalls the very purpose of the TPNW in building a norm against the use of nuclear weapons, permitting a right to withdraw from the TPNW obligations in

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[94] Vilmer (2020) 9.
[95] Which, as noted above, prohibited the right to withdraw if the withdrawing state is party to an armed conflict.
[96] Highsmith and Stewart (2018) 137.
[97] For self-defence in international law generally, see Tom Ruys, '*Armed Attack*' *and Article 51 of the UN Charter* (Cambridge University Press 2010); and Christine Gray, *International Law and the Use of Force* (4th edn, Oxford University Press 2018) 120-99.
[98] Ford (2017). This also creates challenging in assessing precisely when an armed conflict has ended, thus allowing withdrawal to be finalised, see Vilmer (2020) 9-10.
[99] Ibid. See also James Crawford, 'International Law and the Problem of Change: A Tale of Two Conventions' (2018) 49(4) *Victoria University of Wellington Law Review* 447, 456 ('In theory this prevents withdrawal even in case of jeopardy of "supreme interests" if this is for the purpose of using nuclear weapons in an existing armed conflict') (hereafter Crawford (2018a)).
[100] US Assistant Secretary, Bureau of International Security and Nonproliferation Christopher A Ford, 'The Treaty on the Prohibition of Nuclear Weapons: A Well-Intentioned Mistake' (*University of Iceland*, 30 October 2018) <https://2017-2021.state.gov/remarks-and-releases-bureau-of-international-security-and-nonproliferation/the-treaty-on-the-prohibition-of-nuclear-weapons-a-well-intentioned-mistake/index.html>
[101] Tim Caughley, 'UNIDIR's Comments on Miscellaneous Prohibitions, Obligations and Organizational Issues', in Tim Caughley and Gaukhar Mukhatzhanova (eds), *Negotiation of a Nuclear Weapons Prohibition Treaty: Nuts and Bolts of the Ban* (UNIDIR 2017) 22.

order to possibly use nuclear weapons could be viewed as both inconsistent with the treaty's intended purpose,[102] and the 'normative thrust of the treaty: that nuclear weapons are unacceptable and illegitimate under any circumstances'.[103] Indeed, Acheson likewise claims that '[t]he idea that there are circumstances in which the development, acquisition, use, or support for the use of nuclear weapons (thus permitting withdrawal) would ever be justifiable is anathema to the treaty'.[104]

With these criticisms in mind, many civil society groups and non-aligned NNWS called for the deletion of any grounds of withdrawal from the TPNW text.[105] Instead, it was felt that withdrawal should be regulated by general rules of international law,[106] specifically Article 56(1) of the VCLT, which states that a treaty that 'contains no provision regarding its termination and which does not provide denunciation or withdrawal *is not subject to denunciation or withdrawal*', unless the parties intended to admit the possibility of withdrawal, or a right of withdrawal can be implied.[107] *Lex generalis* principles of treaty termination and suspension in the event of material breach and fundamental change of circumstances respectively under Articles 60 and 62 of the VCLT would, however, remain applicable.[108]

These contrasting arguments ultimately raise the question as to whether the withdrawal clause established by Article 17(2) and (3) is desirable, or whether either of the above criticisms can be substantiated. The following discussion will therefore analyse the requirements of Article

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[102] This is similarly noted by Nystuen, Egeland, and Graff Hugo (2018) 16; and Mukhatzhanova (2017) 18.

[103] Considine (2019) 1090.

[104] Ray Acheson, 'And the Text Goes to Translation' (2017) 2(13) *Nuclear Ban Daily*, 1. Fihn makes a similar comment in that the language of 'supreme interest' endorses the supremacy of state interests, see Tony Robinson, 'Beatrice Fihn, ICAN: Either you're OK with mass murdering civilians with nuclear weapons or you're not. Why would we build bridges to that?' (*Pressenza: International Press Agency*, 7 September 2017) <https://www.pressenza.com/2017/09/beatrice-fihn-ican-either-youre-ok-mass-murdering-civilians-nuclear-weapons-youre-not-build-bridges/>

[105] As noted by Casey-Maslen (2019) 252; and Bonnie Docherty, 'The Legal Content and Impact of the Treaty on the Prohibition of Nuclear Weapons' (*Speech delivered to the Legal Education Center, Norwegian Red Cross*, 11 December 2017) <http://hrp.law.harvard.edu/wp-content/uploads/2017/12/Impact-of-TPNW-Nobel-presentation-Dec-2017.pdf> 5. See also working paper submitted by Papua New Guinea (10 May 2017) UN Doc A/CONF.229/2017/WP.4.

[106] Mukhatzhanova (2017) 18.

[107] Article 56(1), VCLT (emphasis added). If either of these conditions can be shown, withdrawal would occur following 12-months notice. See for a discussion of this provision, Theodore Christakis, 'Art. 56 1969 Vienna Convention', in Olivier Corten and Pierre Klein (eds), *The Vienna Conventions on the Law of Treaties* (Oxford University Press 2011) 1251-76. Helfer suggests that Article 56(1) is considered to be very controversial general rule, Laurence R Helfer, 'Terminating Treaties', in Duncan Hollis (ed), *The Oxford Guide to Treaties* (Oxford University Press 2020) 637.

[108] As noted by Marco Roscini, 'Withdrawal Provisions' (*Geneva Disarmament Platform and the Geneva Centre for Security Policy*, 10 March 2017) <https://www.disarmament.ch/wp-content/uploads/2017/04/Marco-Roscini_NBT-Discussion-2_Withdrawal.pdf> 4-5. It has been suggested by Joyner and Roscini that if a treaty's specific withdrawal provisions do not contradict the general rules of the VCLT under Articles 60-62, the general rules 'are still applicable to the relations between the treaty parties as rules of VCLT treaty law and customary international law', Daniel H Joyner and Marco Roscini, 'Withdrawal from Non-proliferation Treaties', in Daniel H Joyner and Marco Roscini (eds), *Non-Proliferation Law as a Special Regime: A Contribution to Fragmentation Theory in International Law* (Cambridge University Press 2012) 154.

17 before concluding – somewhat like Goldilocks and the Three Bears – whether the withdrawal clause is 'too hot', 'too cold', or 'just right'.[109]

a. Analysing the TPNW Withdrawal Clause

To begin with, the TPNW at least partially reflects the withdrawal approach adopted in earlier nuclear non-proliferation and disarmament instruments[110] by including what is frequently referred to as an 'extraordinary events clause' within Article 17(2).[111] Although the phrase 'extraordinary event related to the subject matter of the treaty' is somewhat ambiguous,[112] and while a state's 'supreme interest' cannot be objectively determined in all circumstances,[113] one could argue that this clause imposes further substantive and procedural requirements that 'narrows the range of events which can properly be invoked to justify withdrawal'.[114]

In practice, however, these requirements create few obstacles for a withdrawing state.[115] This is because, as with other 'extraordinary events' clauses, Article 17(2) imposes an 'auto-interpretive',[116] or subjective test to be determined by the withdrawing state itself as to whether an 'extraordinary event related to the subject matter' of the TPNW that has jeopardised its supreme interests, has in fact occurred.[117] This is confirmed by the text of Article 17(2), which describes the ability to withdraw as a 'right', thereby emphasising the 'individual, unilateral character of the right

[109] Robert Southey, *The Three Bears*, originally published in 1837.
[110] See e.g. Article IV, PTBT; and Article X(1), NPT.
[111] As phrased by Cindy A Cohn, 'Interpreting the Withdrawal Clause in Arms Control Treaties' (1989) 10(3) *Michigan Journal of International Law* 849, 851-55; and Joyner and Roscini (2012) 153. For a comparison of withdrawal clauses in other nuclear weapons instruments, see working paper submitted by the International Association of Lawyers Against Nuclear Arms, 'Withdrawal Clauses in Arms Control Treaties: Some Reflections about a Future Treaty Prohibiting Nuclear Weapons' (31 March 2017) UN Doc A/CONF.229/2017/NGO/WP.13.
[112] Cohn (1989) 854; and Emily K Penney, 'Is that Legal? The United States' Unilateral Withdrawal from the Anti-Ballistic Missile Treaty' (2002) 51(4) *Catholic University Law Review* 1287, 1300 ('there is no bright-line test to determine whether an event is either extraordinary or threatens national security').
[113] Guido den Dekker and Tom Coppen, 'Termination and Suspension of, and withdrawal From WMD Arms Control Agreements in light of the General Law of Treaties' (2012) 17(1) *Journal on Conflict and Security Law* 25, 36. Despite this, den Dekker and Coppen usefully note that while determining 'what exactly constitutes the supreme interests of a country perhaps cannot be answered in general and *in abstracto*, [but] it can be assumed that in the context of WMD control law such interests refer to the security interests of the State in question'.
[114] Nicholas Sims, 'Withdrawal Clauses in Disarmament Treaties: A Questionable Logic?' (1999) 42 *Disarmament Diplomacy* 16, <http://www.acronym.org.uk/old/archive/textonly/dd/dd42/42clause.htm>; and Cohn (1989) 854.
[115] As noted by den Dekker and Coppen (2012) 38 in the context of the NPT. See for an overview of the extraordinary events clause in practice, Evans (2021).
[116] As phrased by Egon Schwelb, 'The Nuclear Test Ban Treaty and International Law' (1964) 58(3) *American Journal of International Law* 642, 661; and Daniel H Joyner, 'What if Iran Withdraws from the Nuclear Nonproliferation Treaty? Part 1: Can They Do That?' (*ESIL Reflections*, 13 December 2012) <https://esil-sedi.eu/wp-content/uploads/2012/12/ESIL-Reflections-Joyner.pdf> 3.
[117] This seems to be widely accepted, see Joyner (2012); Roscini (2017) 2-3; Masahiko Asada, 'Arms Control Law in Crisis – A Study of the North Korean Nuclear Issue' (2004) 9(3) *Journal of Conflict and Security Law* 331, 349; Göran Lysén, *The International Regulation of Armaments: The Law of Disarmament* (Iustus 1990) 178; and Sims (1999) ('Nevertheless, the withdrawal clause suffers from the disadvantage that the whole assessment is within the sole prerogative of the withdrawing states. It decided for itself if the three conditions have been met. It exercises its own judgement, which is then the final authority on the matter, regardless of how partial or faulty that judgment appears to others').

of withdrawal' for state party.[118] Moreover, the phrase 'if *it* decides' also confirms the subjective discretion of the withdrawing state invoking Article 17(2) in deciding whether a particular extraordinary event has jeopardised 'its' subjectively determined supreme interests.[119] Arguably the only restrictions on this otherwise purely subjective assessment are first, the obligation upon state parties to perform their treaty commitments in good faith,[120] and second, that the extraordinary events mentioned must have materialised.[121]

Unsurprisingly, the 'extraordinary events' clause formulation has been subject to broad criticism for granting excessive flexibility to the withdrawing state. Indeed, Winters has described the NPT withdrawal clause under Article X(1) as a 'fundamental weakness' of the treaty.[122] The unaccompanied inclusion of Article 17(2) would have resulted in a similar criticism in TPNW context, whereby the determination of whether a specific event jeopardises a withdrawing state's supreme interest should be assumed to exist whenever the withdrawing state declares them to exist.[123] Ford's aforementioned concern, that it is uncertain whether a conventional attack may qualify as an 'extraordinary event related to the subject matter of the treaty',[124] would therefore seem to be overstated.[125] Instead, if a withdrawing TPNW party believes that any particular 'extraordinary' event has occurred and jeopardises its supreme interests, it can simply withdraw based on its own individually made assessment.

Fortunately, however, the negotiating delegations demonstrated an awareness of the need to establish a strengthened withdrawal clause by drafting Article 17(3).[126] This paragraph is advantageous from two perspectives. First, and as previously mentioned, the 12-month notice period is noticeably lengthier in comparison to existing nuclear weapons-related and other

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118 As noted in the context of the NPT by Joyner (2012) 3.

119 A phrase similarly included in Article X(1), NPT. Roscini (2017) 2-3; and den Dekker and Coppen (2012) 38.

120 Article 26, VCLT. See Frederic L Kirgis, 'North Korea's Withdrawal from the Nuclear Nonproliferation Treaty' (*ASIL: Insights vol 8(2),* 24 January 2003) <https://www.asil.org/insights/volume/8/issue/2/north-koreas-withdrawal-nuclear-nonproliferation-treaty> ('Arguably, customary international law would impose a good faith requirement on the party deciding that extraordinary events have jeopardized its supreme interests'); Schwelb (1964) 661; Penney (2002) 1304-06; Roscini (2017) 2-3; and Joyner (2012) 4. Ronzitti reaches a similar conclusion in the context of the 'extraordinary events' clause under the CWC, Natalino Ronzitti, 'Art. XVI Duration and Withdrawal', in Walter Krutzsch, Eric Myjer, and Ralf Trapp (eds), *The Chemical Weapons Convention: A Commentary* (Oxford University Press 2014) 408. Perez, however, questions whether any violation of the principle of good faith would override a state's sovereign right to withdraw, see Antonio F Perez, 'Survival of Rights Under the Nuclear Non-Proliferation Treaty: Withdrawal and the Continuing Right of International Atomic Energy Agency Safeguards' (1994) 34(4) *Virginia Journal of International Law* 749, 781.

121 Den Dekker and Coppen (2012) 38.

122 Raven Winters, 'Preventing Repeat Offenders: North Korea's Withdrawal and the Need for Revision to the Nuclear Non-Proliferation Treaty' (2005) 38(5) *Vanderbilt Journal of Transnational Law* 1499, 1513. See also Rachel A Weise, 'How Nuclear Weapons Changed the Doctrine of Self-Defense' (2012) 44(4) *New York Journal of International Law and Politics* 1331, 1382.

123 Asada (2004) 349; and Kirgis (2003).

124 See section 2 above.

125 As also concluded by Nystuen, Egeland, and Graff Hugo (2018) 16-17, who also note that this same concern has not been made in relation to the extraordinary events clause of the NPT.

126 See generally Tamara L Patton, 'News in Brief' (2017) 2(5) *Nuclear Ban Daily*, 10 in particular.

disarmament instruments.[127] Whereas Highsmith and Stewart argue that this prolonged period will deter NWPS accession,[128] this length brings certain benefits from the alternative perspective of remaining TPNW parties. Perhaps most significantly, Johnson argues that the 12-month period was included with the DPRK's previous instance of withdrawal from the NPT firmly in mind to 'provide some time for TPNW parties to *address the issues and prevent* a country from carrying through its notice to withdraw'.[129] The 12-month notice period may therefore provide an opportunity to settle the underlying dispute or circumstances giving rise to the withdrawal through a process of negotiation and consultation with the withdrawing state. Equally, however, this extended notice period could provide the remaining TPNW parties sufficient – and valuable – time to prepare for possible future contingencies resulting from the withdrawal, both individually and collectively.[130]

The second, and to some extent more significant element here, is the final sentence of Article 17(3):

> 'If, however, on the expiry of that 12-month period, the withdrawing State Party is a party to an armed conflict, the State Party shall continue to be bound by the obligations of this Treaty and of any additional protocols until it is no longer party to an armed conflict'.[131]

Although phrased slightly differently, this reflects similar provisions adopted within Articles 20(3) of both the APMBC and CCM, along with the withdrawal clauses of the 1949 Geneva Conventions and its Additional Protocols 1977.[132] The purpose of this provision, quite simply, is to prevent a state from announcing its withdrawal with the intention of using nuclear weapons in an armed conflict as soon as the 12-month notice period is satisfied.[133]

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[127] See International Association of Lawyers Against Nuclear Arms (31 March 2017) UN Doc A/CONF.229/2017/NGO/WP.13 for a useful comparison of notice periods.
[128] Highsmith and Stewart (2018) 136-37. See the discussion in section 2 above.
[129] Rebecca Johnson, 'The Nuclear Ban Treaty and Humanitarian Strategies to Eliminate Nuclear Threats', in Bård Nikolas Vik Steen and Olav Njølstad (eds), *Nuclear Disarmament: A Critical Assessment* (Routledge 2019) 87. This is also noted by Nystuen, Egeland, and Graff Hugo (2018) 16-17.
[130] This point is made by Walter Krutzsch and Ralf Trapp, *A Commentary on the Chemical Weapons Convention* (1st edn, Martinus Nijhoff 1994) 248, in relation to the withdrawal provisions incorporated in the CWC.
[131] Article 17(3), TPNW.
[132] As noted by the International Association of Lawyers Against Nuclear Arms (31 March 2017) UN Doc A/CONF.229/2017/NGO/WP.13, 3. See for instance Article 63, the Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 31 ('However, a denunciation of which notification has been made at a time when the denouncing Power is *involved in a conflict shall not take effect until peace* has been concluded').
[133] Mukhatzhanova (2017) 18. And similarly noted in relation to the APMBC and CCM respectively, see Stuart Casey-Maslen, *Commentaries on Arms Control Treaties Volume 1: The Convention on the Prohibition of Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction* (Oxford University Press 2005) 322; and Stuart Casey-Maslen and Gro Nystuen, 'Art. 20 Duration and Withdrawal', in Gro Nystuen and Stuart Casey-Maslen (eds), *The Convention of Cluster Munitions: A Commentary* (Oxford University Press 2010) 540.

Importantly, this clause covers armed conflicts of both an international or non-international character.[134] But moreover still, this clause is actually more far-reaching than it initially appears. Indeed, Casey-Maslen has noted that the wording of Article 17(3) means:

> 'that the specific armed conflict in which the withdrawing state party was engaged and that would prevent withdrawal at the end of the twelve-month notice period is *not the only one* that might prevent withdrawal from taking effect. *For while that armed conflict may come to an end, the state party may already be engaged in another armed conflict and this second armed conflict may persist, again delaying the effectiveness of the withdrawal.* In theory, this situation could go on ad infinitum'.[135]

In other words, withdrawal will not take effect until the state in question is no longer party to *any* armed conflicts, not just *the* specific armed conflict that it was engaged at the point in which withdrawal is announced.[136] This would certainly have a particularly noticeable impact on the US, which has been engaged in numerous long-running, successive, and overlapping armed conflicts over the past two decades.[137]

Although the practical effect of this requirement has been heavily criticised by TPNW opponents,[138] the present author believes that the insertion of Article 17(3) constitutes an innovative solution that reflects the underlying humanitarian objectives of the TPNW on the one hand, and the purpose of withdrawal clauses generally on the other.[139] As noted by Joyner and Roscini in the context of non-proliferation law:

> 'In this issue area of high security sensitivity and dynamic political and technological change and complexity, *withdrawal clauses in non-proliferation treaties are a political necessity* in order to assure national officials, including military planners and legislators who must give their consent to ratification, *that entry into a non-*

[134] As concluded by Casey-Maslen (2019) 254. Indeed, the initial draft of this provision was, substantially more limited, setting a three-month notice period and only continued to bound by the treaty if the withdrawing state is 'engaged in situations referred to in Article 2 common to the Geneva Conventions of 12 August 1949 for the Protection of War Victims, including any situation described by paragraph 4 of Article 1 of Additional Protocol I to these conventions'. Draft Article 18, Draft Convention on the Prohibition of Nuclear Weapons (22 May 2017) UN Doc A/CONF.229/2017/CRP.1. This was therefore limited solely to international armed conflicts, which led to the ICRC calling for removal to this reference, and instead referring simply to 'an armed conflict', Comments of the International Committee of the Red Cross on key provisions of the Draft Convention on the Prohibition of Nuclear Weapons (14 June 2017) UN Doc A/CONF.229/2017/CRP.2, 6-7.

[135] Casey-Maslen (2019) 254 (emphasis added).

[136] Ibid.

[137] As noted by Highsmith and Stewart (2018) 137; and Vilmer (2020) 9-10.

[138] See section 2 above, and Highsmith and Stewart (2018) 136-38; and Ford (2018).

[139] As suggested also by Rietiker and Mohr (2018) 41.

proliferation treaty does not permanently limit their flexibility to deal with new circumstances occurring in any of these areas of concern'.[140]

Withdrawal clauses therefore form part of broader 'risk management' strategies in treaty design,[141] which aim to balance the objectives of the treaty and preserving the interests of state sovereignty.[142] As such, including the possibility of withdrawal may lower the initial conditions for these states to accede to a treaty, thus granting flexibility to 'accommodate the desire of States to retain a certain level of autonomy, which in turn is consequential to the vital interests of State sovereignty, national security and defense'.[143] It can be argued that Article 17 reflects these purposes by aiming to induce initial state ratification of the TPNW, while simultaneously preserving state interests by permitting withdrawal on the restrictive grounds specified.[144] Indeed, this delicate balancing act was noted by Roscini during the negotiations, who argued that the prospective treaty would 'have more chances of success if a withdrawal clause is included'.[145] New Zealand – a state that preferred the omission of a withdrawal clause – nonetheless conceded this very same point.[146]

Moreover, the restrictive nature of the withdrawal clause in paragraph 3 arguably reinforces the underlying humanitarian objectives of the TPNW. As Nystuen, Egeland and Graff Hugo comment:

> 'Central to the TPNW is the prohibition of use of nuclear weapons, due to its catastrophic humanitarian impact and incompatibility with international humanitarian law (IHL). It is argued that involvement in armed conflict raises the risk of a nuclear weapons use, *and excluding withdrawal from the TPNW in such a situation therefore makes good sense*'.[147]

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140 Joyner and Roscini (2012) 161 (emphasis added).
141 For the purpose of withdrawal clauses generally in acting as a balancing act of competing interests and providing flexibility in international agreements as a risk management strategy, see Helfer (2020) 637-38; Laurence R Helfer, 'Flexibility in International Agreements', in Jeffrey L Dunoff and Mark A Pollack (eds), *Interdisciplinary Perspectives on International Law and International Relations: The State of the Art* (Cambridge University Press 2013); and more generally Barbara Koremenos, *The Continent of International Law: Explaining Agreement Design* (Cambridge University Press 2016).
142 James Crawford, 'The Current Political Discourse Concerning International Law' (2018) 81(1) *Modern Law Review* 1, 8-9; and den Dekker and Coppen (2012) 26.
143 Den Dekker and Coppen (2012) 27. The authors subsequently conclude that 'special withdrawal clauses' in arms control instruments can satisfy this need for flexibility.
144 Rietiker and Mohr (2018) 41.
145 Roscini (2017) 2-3.
146 John Burroughs, 'Key Issues in Negotiations for a Nuclear Weapons Prohibition Treaty' (2017) 47(5) *Arms Control Today* 6, 12.
147 Nystuen, Egeland, and Graff Hugo (2018) 16 (emphasis added).

This reinforcement of the humanitarian objectives of the TPNW is made further apparent when one considers that states knowingly accede to the TPNW on the understanding that they are relinquishing the right to possess or use nuclear weapons 'under any circumstances' based on the obligations accepted under Article 1. Accordingly, it would undoubtedly 'frustrate the object and purpose of the Treaty' if a state party were able to withdraw after 12-months and then immediately develop and use nuclear weapons while party to an ongoing armed conflict.[148] Thus by restricting the ability to withdraw, and subsequently develop and use nuclear weapons as a means of warfare during armed conflict, Article 17(3) reinforces the human-centred motivations of the TPNW – at least to some extent.

Finally, the last sentence of Article 17(3) inserts a further layer of 'objectivity' to the TPNW withdrawal process, particularly as other parties could also have a say in determining – perhaps during an Article 8 meeting of states parties[149] – whether a specific armed conflict has in fact ended. Such a determination, despite the practical difficulties of deciding when an armed conflict has concluded,[150] would more likely be based upon objective information and fact-finding, rather than the sole determination of the withdrawing state.

Despite these advantages, one cannot help but feel somewhat sympathetic with those NNWS states that called for the deletion of a reference to a withdrawal provision altogether during the 2017 negotiation conference.[151] By permitting an option to withdraw from the TPNW, even if on a more limited basis compared to other nuclear weapons-related treaties,[152] the invocation of Article 17 potentially risks undermining the normative agenda in stigmatising and delegitimising nuclear weapon possession and use inherent to the TPNW process, alongside the treaty's objectives of achieving irreversible nuclear disarmament through Article 4.[153] Sims emphasises the

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[148] Michael J Moffatt, 'In Search of the Elusive Conflict: The (In-)Compatibility of the Treaties on the Non-Proliferation and Prohibition of Nuclear Weapons' (2019) 102(1) *Nuclear Law Bulletin* 7, 42, specifically the text in fn 215.

[149] Article 8(1)(c), TPNW, which requires state parties to meet regularly to discuss '[a]ny other matters pursuant to and consistent with the provisions of this Treaty'.

[150] As also emphasised by Vilmer (2020) 9-10. For a discussion of the notion of armed conflict in international humanitarian law, see, 'How is the Term "Armed Conflict: Defined in International Humanitarian Law?' (*International Committee of the Red Cross*, *Opinion Paper*, March 2008) <https://www.icrc.org/en/doc/assets/files/other/opinion-paper-armed-conflict.pdf>; James G Stewart, 'Towards a Single Definition of Armed Conflict in International Humanitarian Law: A Critique of Internalized Armed Conflict' (2003) 85(850) *International Review of the Red Cross* 313; and Committee on the Use of Force, 'Final Report on the Meaning of Armed Conflict in International Law' (*International Law Association*, *The Hague Conference*, 2010) <http://www.rulac.org/assets/downloads/ILA_report_armed_conflict_2010.pdf>

[151] As noted in the introduction to section 2 above.

[152] Bonnie Docherty, 'The Legal Content and Impact of the Treaty on the Prohibition of Nuclear Weapons' (*Speech delivered to the Legal Education Center*, *Norwegian Red Cross*, 11 December 2017) <http://hrp.law.harvard.edu/wp-content/uploads/2017/12/Impact-of-TPNW-Nobel-presentation-Dec-2017.pdf> 5.

[153] Article 4(2), TPNW for example emphasises that disarmament should occur 'in accordance with a legally binding time-bound plan for the verified and *irreversible* elimination of that State's Parties nuclear-weapon programme' (emphasis added).This point has also been noted by Russia, Ambassador Mikhail Ulyanov, Director of Non-Proliferation and Arms Control Department of the MFA of Russia, UNGA First Committee (72nd Session, 4 October

difficulty in reconciling the purpose of withdrawal clauses with the goal of 'irreversibility' as a central component of disarmament instruments:

> 'The logic of withdrawal clauses can be accommodated within arms control, but sits less easily with disarmament. There *are logical difficulties with the insertion of withdrawal clauses into certain models of disarmament treaty which try to build irreversibility* into their structures. More generally, the presence of a withdrawal clause may detract from the expectations of durability which a disarmament treaty regime seeks to promote; it runs counter to the emergence of a "*regime of permanence*"'.[154]

Put differently, whereas the ability to withdraw was preferred in the NPT context to ensure that the NNWS would not be '*tying their hands indefinitely* if NWS were to fail to arrive at positive results in terms of limiting and reducing their nuclear arsenals',[155] the TPNW sets a non-discriminatory benchmark through which all prospective parties – both NWPS and NNWS alike – forego the option to develop, possess or use nuclear weapons under any circumstances on a permanent, irreversible basis.[156]

Moreover, the retention of a right to withdraw arguably prioritises an individual state's 'supreme interests' over the collective interests of humanity that supposedly informed the rationale behind the TPNW.[157] This is particularly so due to the interpretation and operation of the 'extraordinary events' clause which, as discussed, allows the withdrawing state itself to subjectively determine whether the grounds for withdrawal have arisen. Consequently, the language of 'supreme interests' in Article 17(2) further 'feeds the narrative that there are certain interests, there are certain reasons to have nuclear weapons which is just counter to the whole beginning of the treaty that bans them under any circumstances'.[158] As Ritchie argued during the final stages of the negotiations:

2017) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com17/statements/4Oct_Russia.pdf> 1 ('For example, the treaty recognizes the right of its parties to withdraw in the case of extraordinary circumstances by notification. This means that the prohibitions contained therein *are reversible*') (emphasis added).

154 Sims (1999) (emphasis added).

155 As noted by den Dekker and Coppen (2012) 34-36 (emphasis added).

156 As phrased in Article 1, TPNW.

157 Indeed, the human or victim-centred approach of the TPNW has commonly been cited as evidence of the treaty's humanitarian disarmament nature, see Daniel Rietiker, 'The Treaty on the Prohibition of Nuclear Weapons: A Further Confirmation of the Human- and Victim-Centred Trend in Arms Control Law', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019).

158 Tony Robinson, 'Beatrice Fihn, ICAN: Either you're OK with mass murdering civilians with nuclear weapons or you're not. Why would we build bridges to that?' (*Pressenza: International Press Agency*, 7 September 2017)

> '[i]t is arguably *incongruous* to base a prohibition on the unacceptable consequences of nuclear violence *while ostensibly enabling states to pursue nuclear weapons capability* after the current three months' notice, or even twelve months as the negotiators are now suggesting. *The very logic of the nuclear ban treaty delegitimises the sovereign prerogative to understand security in terms of nuclear weapons*'.[159]

As such, although irreversible elimination and clandestine nuclear weapons development cannot be ruled out entirely,[160] by preserving a right to withdraw – even if in very restricted circumstances – the TPNW implicitly envisages a potential future role for and the possibility of possessing and using of nuclear weapons. This very outcome would seem difficult to reconcile with the treaty's stated goals of irreversible disarmament under Article 4 and the underlying objective of both achieving and maintaining a nuclear weapon-free world as the only means of guaranteeing the non-use of nuclear weapons in the future.[161]

b. Concluding Thoughts on the Withdrawal Provisions

Overall, despite the above arguments and the preference amongst the majority of participating delegations for excluding withdrawal from the TPNW altogether,[162] President Whyte Gómez seemingly determined that there was insufficient consensus amongst all states to remove the proposed withdrawal provisions entirely.[163] The compromised nature of Article 17 was also acknowledged by Acheson, who states that '[i]n the end, the states calling for the removal of the withdrawal provision let it pass, making their priority the adoption of the treaty'.[164] From this perspective, the 'evolved extraordinary events' clause in Article 17 may constitute the most

<https://www.pressenza.com/2017/09/beatrice-fihn-ican-either-youre-ok-mass-murdering-civilians-nuclear-weapons-youre-not-build-bridges/>

159 Nick Ritchie, 'Delegitimising Nuclear Weapons in the Nuclear Weapon Ban Treaty' (2017) 2(7) *Nuclear Ban Daily*, 4 (emphasis added).

160 Indeed, it is impossible to de-invent nuclear weapons, Sims (1999). See section 3 below which notes the difficulties of detecting cheating and creating certainty of compliance in nuclear disarmament verification.

161 Pedrazzi (2017) 223 makes a similar point ('the consistency of such a provision in a treaty bound to totally eliminate a weapon considered radically unlawful may be called into question'). See also Considine (2019) 1090. It is on this ground that many NNWS delegations opposed withdrawal, see Nystuen, Egeland, and Graff Hugo (2018) 16-17. New Zealand seems to raise this point in particular, see Allison Pytlak, 'News in Brief' (2017) 2(9) *Nuclear Ban Daily*, 7.

162 See e.g. Casey-Maslen (2019) 252; and Ray Acheson, 'And the Text Goes to Translation' (2017) 2(13) *Nuclear Ban Daily*, 1-2.

163 As noted by Mukhatzhanova (2017) 18. See also Matthew Bolton, 'A Brief Guide to the New Nuclear Weapons Ban Treaty' (*Just Security*, 14 July 2017) <https://www.justsecurity.org/43004/guide-nuclear-weapons-ban-treaty/> who notes the 'stubborn insistence' of a few hold-out states here.

164 Ray Acheson, 'And the Text Goes to Translation' (2017) 2(13) *Nuclear Ban Daily*, 2.

achievable compromise amongst the negotiating states,[165] reflecting the desirability of including withdrawal provisions as a political incentive and 'risk management' tool to help induce future ratification and universalisation of the TPNW.

Having said this, it is far from clear whether the political flexibility and advantages generated by withdrawal clauses generally will come to fruition in the TPNW context and will ultimately help persuade NWPS to accede to the treaty. Indeed, the NWPS have opposed the TPNW on many other substantive and normative grounds in a much more explicit fashion based upon more fundamental differences regarding the present utility of nuclear weapons for deterrence, the TPNW's impact on the NPT, and diverging approaches to nuclear disarmament generally.[166] In other words, debates over the restrictiveness of the withdrawal clause is hardly the *only*, or even the primary factor which is keeping NWPS from ratifying the TPNW: rather this concern is a relatively minor arrow in the quiver of criticisms targeted against the TPNW.

Consequently, it could be asked whether including an explicit provision prohibiting withdrawal – while still permitting the future application of the general rules of international law of treaty termination, suspension, and withdrawal under the VCLT where appropriate – may have been more 'consistent with the treaty's overall purpose of creating an unconditional norm against nuclear weapons'.[167] Although this would have departed from the approach taken in other disarmament instruments, and would likely have led to even greater criticism by TPNW sceptics such as Ford, the inclusion of the withdrawal clause in Article 17, despite its restrictive nature, perhaps sends the 'wrong message regarding the universal and categorical prohibition being established',[168] which may in turn detract from the objective of achieving the irreversible elimination of nuclear weapons desired by the treaty.

3. Criticisms of the TPNW Verification Processes

A further frequently often cited criticism is that the TPNW establishes weak verification standards necessary to determine whether state parties are complying with their assumed obligations under

[165] Indeed, Pedrazzi suggests that the approach implemented under Articles 17(2) and (3) is 'commendable, and providing a possibility of withdrawal was probably unavoidable', Pedrazzi (2017) 223.
[166] As this entire Section itself demonstrates.
[167] Nystuen, Egeland, and Graff Hugo (2018) 16. Or alternatively, permitting withdrawal in accordance with the general rules of international law of treaty termination, suspension, and withdrawal under the VCLT where appropriate as suggested by the states opposing the inclusion of an explicit withdrawal clause, see section 2 above and accompanying footnotes. For further details of the VCLT rules on termination, withdrawal, and suspension, see Helfer (2020); and Aust (2013) 255-68.
[168] Matthew Bolton, 'A Brief Guide to the New Nuclear Weapons Ban Treaty' (*Just Security*, 14 July 2017) <https://www.justsecurity.org/43004/guide-nuclear-weapons-ban-treaty/>

the treaty. This particular criticism over the TPNW's verification mechanisms has been raised on two distinct grounds: first, the TPNW 'sets forth insufficient disarmament verification standards' in order to effectively assess whether an acceding NWPS has actually disarmed in accordance with Article 4;[169] and second, the TPNW fails to incorporate the highest standard of safeguard measures within Article 3, which in turn undermines efforts within the NPT and IAEA regimes to move towards the universalisation of the Additional Protocol (INFCIRC/540).[170] With a desire to maintain a distinction between these nuclear disarmament and non-proliferation verification activities respectively, the following sections evaluates the above-mentioned criticisms separately.

a. Disarmament under the TPNW is Unverifiable

Both NWPS, military allies, and commentators have expressed concern regarding the limited extent nuclear disarmament verification mechanisms included under Article 4 of the TPNW,[171] leading opponents to essentially argue that nuclear disarmament under the treaty is 'not verifiable'.[172] This view was made explicitly clear during the 2017 UNGA First Committee, with UK representative Matthew Rowland arguing that the TPNW does not 'address the considerable technical and procedural challenges that are involved in nuclear disarmament verification'.[173] The following year, US representative Andrea Thompson claimed that TPNW supporters 'do not offer a way to verify nuclear disarmament, ensure compliance or even acknowledge the need to address compliance concerns with existing arms control and disarmament treaties'.[174] Other commentators have noted that a NWPS may accede to the TPNW 'without knowing what "cooperation" on verification with the competent international authority would entail, since it is not detailed in the treaty'.[175] Ford similarly contends that:

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169 Shanelle Van, 'Revisiting the Treaty on the Prohibition of Nuclear Weapons' (*Lawfare*, 27 November 2018) <https://www.lawfareblog.com/revisiting-treaty-prohibition-nuclear-weapons>. See section 3.a.

170 See section 3.b. below.

171 The Article 4 'disarmament pathways' have already received extensive attention earlier in this thesis, discussion which will certainly provide valuable context to inform the following analysis, see Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions. This prior discussion must be borne in mind when assessing the nature of nuclear disarmament verification under the TPNW.

172 The Netherlands, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Netherlands-EoV-Nuclear-Ban-Treaty.pdf> 2.

173 Statement by Matthew Rowland, UK Permanent Representative to the Conference on Disarmament, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 26.

174 Statement by Andrea Thompson of the United States, UNGA First Committee (73rd Session, 10 October 2018) UN Doc A/C.1/73/PV.4, 6.

175 Gasser (2018) 123; and Highsmith and Stewart (2018) 132-33. See also Vilmer (2020) 10 ('while it seems obvious that "a nuclear weapon ban would require the highest standards of verification achievable", the TPNW provides *no standards at all*. It leaves the negotiation of verification processes to others in the future').

> 'The "ban" treaty, on the other hand, seems remarkably unserious about disarmamentverification [sic!], *for it leaves all significant disarmament verification issues to be determined later* – and what these are, and when this will be, it does not say. The idea that the ban treaty provides a workable framework for verifying the dismantlement of a state's nuclear *program is wishful, and indeed simply magical, thinking*… The "ban" thus contains *no system at all for verifying actual nuclear disarmament*'.[176]

To begin with, however, and considering the previous discussion of the Article 4 disarmament 'pathways' in Chapter 4, it is entirely *incorrect* to suggest that the TPNW omits any reference to nuclear disarmament verification whatsoever. Indeed, under the 'destroy then join' pathway, the acceding state in question '*shall* cooperate with the competent international authority designated pursuant to paragraph 6 of this Article for the purposes of *verifying the irreversible elimination of its nuclear-weapons programme*'.[177] Moreover, under the 'join then destroy' pathway, the acceding NWPS is required to disarm in accordance with a '*legally binding, time-bound plan for the verified and irreversible elimination* of that State Party's nuclear-weapon programme'.[178]

Accordingly, while it is evident that these provisions do not elaborate on the precise nature, scope and technical parameters of the verification processes and obligations imposed upon acceding NWPS, Article 4 undoubtedly 'highlights the need to develop such a regime when nuclear-armed states are ready to engage in the discussion'.[179] As a result, Article 4 establishes what is more appropriately described as a 'basic verification approach',[180] which sets 'guidelines' for nuclear disarmament verification to be negotiated, and subsequently implemented by state parties in conjunction with the 'competent international authority' to be designated in due course.[181]

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[176] Ford (2017) (emphasis added). Sarah Price, Head of the UK Counter Proliferation and Arms Control Centre has also claimed that the TPNW 'will not give anybody assurances that disarmament had happened', see Sarah Price, Uncorrected Oral Evidence: Nuclear Non-Proliferation Treaty and Nuclear Disarmament, Questions 152-165 (*House of Lords, Select Committee on International Relations*, 6 March 2019) <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/international-relations-committee/the-nuclear-nonproliferation-treaty-and-nuclear-disarmament/oral/97600.html>

[177] Article 4(1), TPNW (emphasis added).

[178] Article 4(2), TPNW (emphasis added).

[179] As suggested by Tytti Erästö, Ugnė Komžaitė, and Petr Topychkanov, 'Operationalizing Nuclear Disarmament Verification' (2019) No 3 *SIPRI Insights on Peace and Security*, 14.

[180] Jürgen Scheffran, 'Verification and Security of Transformation to a Nuclear-Weapon-Free World: The Framework of the Treaty on the Prohibition of Nuclear Weapons' (2018) 30(2) *Global Change, Peace and Security* 143, 147. Crawford similarly argues that the TPNW 'provides for verification but only in very broad terms', Crawford (2018a) 455.

[181] As suggested by Erästö, Komžaitė, and Topychkanov (2019) 14; and Nystuen, Egeland, and Graff Hugo (2018) 8 and 14-16. This would likely be developed within 'meetings of states parties' which permits discussion on '[m]easures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes, including additional protocols to this treaty', Article 8(1)(b), TPNW. As noted by Yasuyoshi Komizo, 'The Treaty on the Prohibition of Nuclear Weapons and the Future of Nuclear Disarmament', in *The Hiroshima Report: Evaluation of Achievement in Nuclear*

Consequently, to conclude that nuclear disarmament verification provisions and measures are omitted entirely from the TPNW would be stretching the truth somewhat.

To appreciate why this 'guideline' approach was taken, it is necessary to emphasise the complexity and challenge of verification in the field of nuclear disarmament, alongside the TPNW's characterisation as a 'hybrid' ban/framework disarmament agreement.[182] A jointly published UNIDIR and VERTIC report defines verification as:

> '[t]he process of gathering, interpreting and using information *to make a judgement about parties' compliance or non-compliance with an agreement*. The aim of verification is to establish or increase *confidence that all parties are implementing a treaty fairly and effectively*'.[183]

Koplow likewise defines verification as the 'processes of detecting, monitoring, characterizing, and interpreting the behaviour of another state, assessing that conduct against the requirements of an arms control accord, and *reaching judgements about compliance or non-compliance*'.[184]

With these characteristics in mind, it is evident, and uncontroversial, to suggest that a 'credible verification regime is a *sine qua non* for nuclear disarmament'.[185] Indeed, the *UN Group of Governmental Experts to Consider the Role of Verification in Advancing Nuclear Disarmament* established by UNGA Resolution 71/67[186] has concluded that developing a robust, effective verification framework for nuclear weapons elimination 'will be essential for achieving and maintaining a world without nuclear weapons'.[187] Importantly, such disarmament verification processes must also be 'effective', in the sense that the mechanisms, monitoring and tools adopted must be 'good enough

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Disarmament, Non-Proliferation and Nuclear Security in 2017 (Center for the Promotion of Disarmament and Non-Proliferation: The Japanese Institute of International Affairs 2018) 24.

[182] See Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions, section 2.

[183] 'Coming to Terms with Security: A Handbook on Verification and Compliance' (*UNIDIR and VERTIC*, June 2003) <https://www.unidir.org/files/publications/pdfs/coming-to-terms-with-security-a-handbook-on-verification-and-compliance-en-554.pdf> 1 (emphasis added). See similarly UN Department for Disarmament Affairs, Study on the Role of the United Nations in the Field of Verification (28 August 1990) UN Doc A/45/372, [12].

[184] David A Koplow, 'What Would Zero Look Like: A Treaty for the Abolition of Nuclear Weapons' (2014) 45(3) *Georgetown Journal of International Law* 683, 720.

[185] Alexander S Rinn, 'A Behavioural Economic Approach to Nuclear Disarmament Advocacy' (2013) 46(3) *Vanderbilt Journal of Transnational Law* 969, 987. See also Koplow (2014) 721 ('Both verification and enforcement are essential ingredients in an effective arms control regime'); and Hassan Elbahtimy, 'Multilateral Nuclear Disarmament Verification', in *Meeting in the Middle: Opportunities for Progress on Disarmament in the NPT* (Centre for Science and Strategic Studies, Kings College London, December 2019) <https://www.kcl.ac.uk/csss/assets/meeting-in-the-middle.pdf> 47.

[186] UNGA Res 71/67 (14 December 2016) UN Doc A/RES/71/67, [7].

[187] Group of Governmental Experts to Consider the Role of Verification in Advancing Nuclear Disarmament (15 May 2019) UN Doc A/74/90, 10 (hereafter *UN Group of Governmental Experts*), and shared by a number of experts participating. See also Tim Caughley, *Nuclear Disarmament Verification: Survey of Verification Mechanisms* (UNIDIR 2016); and Koplow (2014) 720-27 who each emphasise the importance of effective verification for nuclear disarmament.

to detect cheating in time to do something about it'.[188] The compliance-enhancing purpose of nuclear disarmament verification therefore serves a significant trust and confidence-building function to monitor and ascertain whether states are complying with their respective treaty-based commitments[189] – a role that becomes increasingly vital as nuclear disarmament progresses towards the point of absolute zero.[190]

Given the importance of effective verification for nuclear disarmament efforts,[191] there has been an influx of efforts to enhance state understanding of the technical, political, and legal obstacles facing nuclear disarmament verification.[192] The UK-Norway Initiative, for example, aims to investigate the procedural and technical complexity of nuclear disarmament verification as a politically-sensitive issue.[193] In 2014, the US launched the IPNDV 'to assess verification gaps, develop collaborative technical work streams and contribute to overall global nuclear threat reduction'.[194] The *UN Group of Governmental Experts* noted previously has also discussed the importance and complexity of nuclear disarmament verification at length.[195]

What each of these initiatives consistently demonstrate is that nuclear disarmament verification is incredibly complex and challenging,[196] and must take the broader 'life cycle' of nuclear weapon dismantlement into account.[197] Various expert commentators have suggested that

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188 Rose Gottemoeller, 'The New START Verification Regime: How Good Is It?' (*Carnegie Endowment for International Peace*, 21 May 2020) <https://carnegieendowment.org/2020/05/21/new-start-verification-regime-how-good-is-it-pub-81877>; Koplow (2014) 721; and Tariq Rauf, 'The General Framework of IAEA Safeguards', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation and International Law – Volume II: Verification and Compliance* (Asser Press 2016) 14. One only has to recall the absence of verification beyond national technical means of assessing compliance with the BWC which has since hindered its implementation in highlighting the dangers of omitting verification mechanisms, as observed by Michael Onderco, 'Why Nuclear Ban Treaty is Unlikely to Fulfil its Promise' (2017) 3(4-5) *Global Affairs* 391, 394; and Tim Wright, 'Negotiations for a Nuclear Weapons Convention: Distant Dream or Present Possibility' (2009) 10(1) *Melbourne Journal of International Law* 217, 240. Although Nystuen, Egeland, and Graff Hugo (2018) 8 nevertheless suggest that the BWC has had some success despite the absence of detailed verification provisions in revitalising the norm against the use of biological agents.

189 As noted by the *UN Group of Governmental Experts*, 9; and Caughley (2016) 8.

190 Koplow (2014) 721; and Rinn (2013) 987.

191 Nuclear arms control agreements are also dependent upon verification for their effective implementation too, as the elaborate verification procedures in New START demonstrate, see Rose Gottemoeller, 'The New START Verification Regime: How Good Is It?' (*Carnegie Endowment for International Peace*, 21 May 2020) <https://carnegieendowment.org/2020/05/21/new-start-verification-regime-how-good-is-it-pub-81877>

192 For a useful overview of many of these initiatives, see Caughley (2016) 11-33; and Erästö, Komžaitė, and Topychkanov (2019) 3-13.

193 'About Us' (*The UK-Norway Initiative*) <https://ukni.info/about-us/>

194 'About IPNDV' (*IPNDV*) <https://www.ipndv.org/about/>

195 See generally, *UN Group of Governmental Experts*, 'Conclusions and Recommendations', 14. The UNGA has since requested the Secretary-General to arrange further discussions in 2021 and 2022 to build upon the May 2019 conclusions, see UNGA Res 74/50 (19 December 2019) UN Doc A/RES74/50, [7].

196 See e.g. Onderco (2017) 394-96, who outlines some of the challenges posed by nuclear disarmament verification; Rinn (2013) 987-88; and Scheffran (2018) 147 ('Verifying the prohibition and elimination of nuclear weapons is a complex and challenging task, with a range of requirements for the different stages of the nuclear weapon cycle').

197 The IPNDV for instance identifies a life cycle of 14 steps for nuclear dismantlement, see generally 'Phase I Summary Report: Creating the Verification Building Blocks for Future Nuclear Disarmament' (*IPNDV*, November 2017) <https://www.ipndv.org/wp-content/uploads/2017/12/IPNDV-Phase-I-Summary-Report_Final.pdf> summarised by figure 2, 10.

verification could take a 'phased' approach that addresses each individual stage of a nuclear weapons disarmament process.[198] A UNIDIR report similarly points to a range of activities central to the elimination of nuclear weapons that will require some form of verification.[199] What is clear, however, is that any future nuclear disarmament verification measures and procedures will have to go 'far beyond any measures that have been negotiated and implemented – or even seriously contemplated – today'.[200]

Alongside the aforementioned technical challenges connected to nuclear disarmament verification, it becomes evident that for disarmament verification to be effective and thus to build confidence that cheating is not occurring, the verification measures established must be intrusive.[201] Indeed, the US itself has commented previously that 'future arms control treaties and agreements will need to provide for new and even more intrusive inspection provisions'.[202] Although verification may never be truly perfect, and while cheating can never be entirely ruled out,[203] the greater the level of intrusiveness permitted by states, the greater confidence and certainty can be provided by the verification process.[204]

However, the increased presence of intrusive verification authorities and activities creates a tension between enhancing certainty and credibility of verification on the one hand, and the preservation of national security and sovereignty interests of the disarming state on the other.[205] Highsmith and Stewart, for instance, have argued that '[a] state possessing nuclear weapons would have difficulty providing such access as a national-security matter, as well as a political matter and a legal matter, as nuclear weapons information is among the most highly classified material a state possesses'.[206] Indeed, there are even valid concerns that the sensitive nuclear-related materials handed over to verification bodies may be used deceitfully by other actors for proliferation purposes.[207] As Rinn ultimately concludes, the question is 'how much uncertainty would states be

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[198] This 'phased' approach has been suggested and explored by the Canberra Commission on the Elimination of Nuclear Weapons, *Australian Department of Foreign Affair*s, August 1996, 50-71 (hereafter *Canberra Commission*), and the associated verification Annex. See also Scheffran (2018); and *UN Group of Governmental Experts*, 9 and cited working papers.
[199] Caughley (2016) 7.
[200] This point is noted by Koplow (2014) 721, in his discussion of a nuclear weapons 'Zero Treaty'. Fleck (2019) 405 also notes that 'verification will have to be more intrusive and much more challenging under the TPNW, than under the NPT'.
[201] A similar point is noted by Rinn (2013) 987.
[202] These comments by the US are compiled in the Report of the Secretary-General, 'Nuclear Disarmament Verification' (8 August 2017) UN Doc A/72/304, 36-37 generally.
[203] *Canberra Commission*, 45-46.
[204] See also Rauf (2016) 14 who makes a similar point. This was similarly discussed in a US working paper submitted to the *UN Group of Governmental Experts* (9 April 2019) UN Doc GE-NDV/2018/11.
[205] Rinn (2013) 988; and Caughley (2016) 35.
[206] Highsmith and Stewart (2018) 134.
[207] Ibid.

willing to live with, and would states be willing to live with the intrusiveness that such a level [of nuclear disarmament verification] would require?'[208]

Furthermore, another possible legal issue relates to whether the disarming state that permits external involvement from other NNWS or NWPS during the Article 4 disarmament process may inadvertently violate the undertaking never to assist another state in the acquisition or development of nuclear weapons under Article 1(1)(e) of the TPNW.[209] This argument has been discussed in connection with NWS obligations under Article I of the NPT to 'not in any way assist, encourage, or induce any non-nuclear weapon State to manufacture or otherwise acquire nuclear weapons'.[210] Persbo and Bjørningstad have argued in the NPT context that:

> 'If non-nuclear weapon state inspectors are to play a role in the verification regime, negotiators would have to tackle several difficult issues. For example, *is a nuclear-weapon state assisting another state if it unintentionally leaks weapons-relevant information*, or does the assistance have to be *intentional*?'[211]

Such an eventuality is certainly foreseeable in the TPNW context, whereby experts from other states, be that NNWS or NWPS, working in conjunction with the 'competent international authority', are granted access to sensitive data and other information relating to the disarming state's nuclear weapons programme. If this acquired information is then illicitly diverted from its verification purpose and instead used for prohibited nuclear weapons-related activity by another state or actor, there is the possibility that the disarming NWPS could, in theory, unwittingly have contributed towards nuclear proliferation in violation of the TPNW.[212] In such an instance, would a disarming NWPS acceding subject to an Article 4(2) 'legally binding, time-bound' disarmament plan have violated its TPNW commitment not to provide assistance under Article 1(1)(e)?

Much of this determination rests upon the 'mental element' in relation with assistance. As discussed previously,[213] while the assistance in question must have contributed 'significantly' to the prohibited activities – thus demonstrating a causal *nexus* – the 'assisting' state must also have either intended, or have had knowledge of the perpetrator's unlawful intentions in the circumstances,

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[208] Rinn (2013) 988 (bracketed text added). A similar point is made by the *Canberra Commission*, 46 ('Inevitably, some risk will have to be accepted if the wider benefits of a nuclear weapon free world are to be realised').
[209] This possibility is noted by Nystuen, Egeland, and Graff Hugo (2018) 8.
[210] Article I, NPT.
[211] Andreas Persbo and Marius Bjørningstad, 'Verifying Nuclear Disarmament: The Inspector's Agenda' (2008) 38(4) *Arms Control Today* 14, 16. See also Rinn (2013) 988, who also recognises this possible legal issue.
[212] As noted by Highsmith and Stewart (2018) 133. And also, in violation of its NPT obligations as noted above.
[213] See Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 7.

that it's provided assistance would have led to prohibited conduct by the recipient.[214] In the present context, assuming the disarming NWPS acts in conformity with its legally binding time-bound disarmament plan and further Article 4 obligations, the disarming state should not be in violation of Article 1(1)(e) if another state party participating in, or exposed to sensitive material during the disarmament verification process subsequently uses any obtained information to illicitly acquire nuclear weapons.[215]

Importantly, however, when one considers the complex technical demands and possible legal controversies stemming from the intrusiveness of nuclear disarmament verification outlined above, the rather general, 'guideline' approach incorporated under Article 4 makes some pragmatic sense. Again, it has been recalled previously in connection with the Article's 'disarmament pathways' that NWPS involvement is essential in developing the comprehensive verification processes and mechanisms required during nuclear disarmament.[216] Although the future 'competent international body' could certainly incorporate existing tried and tested verification tools and activities such as routine or special inspections,[217] participation from the NWPS would provide valuable insights in relation to the characteristics of their respective nuclear stockpiles and facilities, contributing to a more robust verification process.[218] Indeed, it has been the involvement of NWPS, particularly the UK, US and France, which has made discussions in both the IPNDV and UK-Norway Initiative successful in developing new nuclear disarmament verification technologies and processes.

In light of this, and given the absence of NWPS participation in the TPNW negotiations, many attending non-aligned NNWS including Chile, Sweden, and Uganda decided that establishing detailed levels of nuclear disarmament verification within the central *chapeau* text:

> 'would not be necessary in the first phases unless States with nuclear weapons participated, which appears highly unlike at this time. Verification could be

[214] Ibid, section 7.a. in particular, which discusses the mental element of assistance in the TPNW context.
[215] Or subsequently any international responsibility either.
[216] As noted in Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions.
[217] Ibid, section 4, discussing the proposed activities and competences of different organisations taking on the role of 'competent international authority'.
[218] Ibid, and as also suggested in Note by the Secretary-General, 'Report of the Open-Ended Working Group Taking Forward Multilateral Nuclear Disarmament Negotiations' (1 September 2016) UN Doc A/71/371, UN Doc A/71/371, [37]; and John Borrie, Michael Spies, and Wilfred Wan, 'Obstacles to Understanding the Emergence and Significance of the Treaty on the Prohibition of Nuclear Weapons' (2018) 30(2) *Global Change, Peace and Security* 95, 103. Monika Subritzky, 'An Analysis of the Treaty on the Prohibition of Nuclear Weapons in Light of its Form as a Framework Agreement' (2019) 9(2) *Göttingen Journal of International Law* 367, 372 also notes how NWPS would need to lead the model NWC approach in developing verification 'or else it will prove futile'.

developed and negotiated at a later stage as a separate annex, *involving States with nuclear weapons in the process*'.[219]

As such, the complexity and challenge of verification, lack of participation of NWPS during the negotiations, the hybrid 'ban/framework' nature of the TPNW, and even the limited four-week timeframe for the 2017 negotiations,[220] all constitute valid explanations and justifications for the pragmatic, limited guideline approach to verification taken within the TPNW.

This pragmatism is made further apparent when one considers that the arguments raised against the TPNW approach to disarmament verification can be divided into two, interrelated camps: first, commentators including Ford who consider disarmament verification under TPNW to be either inadequate or non-existent;[221] and second, critics such as Highsmith and Stewart who claim that the NWPS are unlikely to accept any verification approaches which they did not help develop.[222] The difficulty is that in alleviating the former criticism raised by Ford and Vilmer by setting more elaborate verification obligations, the TPNW negotiators risked exacerbating the latter concern of Highsmith and Stewart that the NWPS would likely object to any verification measures, regardless of the level of detail included, if they did not contribute towards its development.[223] Conversely, omitting any reference to nuclear disarmament verification altogether, thus satisfying Highsmith and Stewart's above concern, would further fuel the criticism that nuclear disarmament under the TPNW is 'unverifiable'.[224]

Ultimately, therefore, the negotiating states were effectively caught between a 'rock and a hard place', and criticism of the TPNW's approach to nuclear disarmament verification would have likely been inevitable regardless of the level of detail included in the *chapeau* text. Rather than

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[219] Working paper submitted by Chile, Sweden, and Uganda, 'Need for a Verification Mechanism at this Stage for a Treaty Prohibiting Nuclear Weapons' (10 May 2017) UN Doc A/CONF.229/2017/WP.6, 1. Ireland also took a similar line of reasoning here too, as noted by Ray Acheson, 'Pathways to Elimination (2017) 2(4) *Nuclear Ban Daily*, 2. Nystuen, Egeland, and Graff Hugo (2018) 8 similarly note that this option was deemed 'impractical'.

[220] Indeed, Williams argues that '[v]erification was left out not because of lack of technical understanding or lack of seriousness, but because negotiations on verification would have significantly slowed momentum for the treaty, and this level of detail was not necessary for the "ideational reframing" approach', see Heather Williams, 'A Nuclear Babel: Narrative Around the Treaty on the Prohibition of Nuclear Weapons' (2018) 25(1) *The Nonproliferation Review* 51, 55. See also Jonathan L Black-Branch, *The Treaty on the Prohibition of Nuclear Weapons: Legal Challenges for Military Doctrines and Deterrence Policies* (Cambridge University Press 2021) 138. Vilmer accepts this premise, though argues that it does not make the omission of verification 'less problematic', Vilmer (2020) 10.

[221] See e.g. Ford (2017); Vilmer (2020) 10; and Gasser (2018) 123.

[222] As noted by Highsmith and Stewart (2018) 134 ('any verification approach with any chance of acceptance by the states possessing nuclear weapons *would have to be negotiated among those states*') (emphasis added).

[223] Again, recalling the balance between intrusiveness as a facilitator of greater certainty of compliance on the one hand, and national interests of the disarming state on the other.

[224] To borrow the phrase used by the Netherlands, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Netherlands-EoV-Nuclear-Ban-Treaty.pdf> 2.

constituting an unforgiveable omission that illustrates how TPNW supporters are 'unseriousness' about nuclear disarmament,[225] the 'guideline' verification approach sets a pragmatic 'middle-ground' that reflects the TPNW's unique 'hybrid' nature.[226] This limited approach should not be regarded as an avoidance or ignorance of the importance of verification, but rather demonstrates that TPNW supporters are 'entirely serious' about nuclear disarmament by tactfully recognising the complexity of nuclear disarmament verification and the necessity of NWPS involvement in developing these processes.[227]

b. Criticism of the TPNW Safeguards Obligations

A separate verification-related criticism raised by TPNW opponents concerns the supposedly 'weakened' and discriminatory safeguard obligations imposed by Articles 3 and 4.[228] Before examining these criticisms, it is useful to examine the purpose of safeguards,[229] and outline the existing safeguards regime developed through the NPT and IAEA to provide some context for the subsequent criticisms discussed below.[230]

In brief, safeguards are legally binding agreements between states and the IAEA that establish a variety of technical measures, 'through which the Agency seeks to independently verify that nuclear facilities *are not misused and nuclear material not diverted from peaceful uses*'.[231] Safeguards therefore perform a 'central role in preventing the proliferation of nuclear weapons through independent verification of States' compliance with nuclear non-proliferation undertakings'.[232]

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[225] As suggested by Ford (2017).
[226] See generally Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions, section 2.
[227] To turn the phrase of Christopher Ford above. See also Black-Branch (2021) 138, who notes that the absence of detailed verification measures 'were not included by its very design. This was not an oversight on the part of the framers, but simply a realistic consideration in order to achieve a result within a specific and short time frame'.
[228] Many of these criticisms are excellently summarised, and in turn rebutted by Giorgou (2018). Further concerns discussed in section 3.b.ii. below also relate to the level of safeguard obligations assumed by NWPS acceding subject to Article 4, TPNW.
[229] For useful discussion of safeguards generally, see Daniel H Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press 2009) 18-27; Laura Rockwood, 'The IAEA's Strengthened Safeguards System' (2002) 7(1) *Journal of Conflict and Security Law* 123; Laura Rockwood, 'The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the IAEA Safeguards Agreements', in Geir Ulfstein (ed), *Making Treaties Work: Human Rights, Environment and Arms Control* (Cambridge University Press 2007); Pierre-Emmanuel Dupont, 'Compliance with Treaties in the Context of Nuclear Non-Proliferation: Assessing Claims in the Case of Iran' (2014) 19(2) *Journal of Conflict and Security Law* 161, 172-78; and Michael Spies, 'Iran and the Limits of the Nuclear Non-Proliferation Regime' (2007) 22(3) *American University International Law Review* 401, 410-24. A comprehensive volume analysing various aspects of nuclear weapons verification is provided by Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation and International Law – Volume II: Verification and Compliance* (Asser Press 2016). Further information on IAEA safeguards is available on the IAEA's official website, see 'Safeguards and Verification' (*IAEA*) <https://www.iaea.org/topics/safeguards-and-verification> and associated links.
[230] See sections 3.b.i. and 3.b.ii.
[231] 'Basics of IAEA Safeguards' (*IAEA*) <https://www.iaea.org/topics/basics-of-iaea-safeguards> (emphasis added).
[232] 'Safeguards Legal Framework' (*IAEA*) <https://www.iaea.org/topics/safeguards-legal-framework>

Article III(4) of the NPT requires all NNWS parties to 'conclude agreements with the International Atomic Energy Agency to meet the requirements of this Article'.[233] More specifically, Article III(1) calls for the NNWS to conclude safeguard agreements with the IAEA for the 'exclusive purpose of verification of the fulfilment of its obligations assumed under this Treaty *with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons* or other nuclear explosive devices'.[234] These safeguards must be applied on 'all *source or special fissionable material in all peaceful nuclear activities* within the territory of such State, under its jurisdiction, or carried out under its control anywhere'.[235]

The model 'comprehensive safeguards agreement' INFCIRC/153 (Corrected) was subsequently developed by the IAEA in 1972.[236] Under the CSA, states are required to 'report to the IAEA on their nuclear facilities and the nuclear materials that moves through them'.[237] The Agency has a corresponding obligation to ensure that safeguards are applied in order to verify the correctness of the information provided by states, thus ensuring the '*timely detection* of diversions of significant quantities of nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons'.[238] However, the CSA was deliberately designed to impose 'the minimum burden necessary upon NNWS',[239] and as a result, access is normally granted only to agreed 'strategic points' within declared safeguarded facilities. Because of this, INFCIRC/153 agreements have been criticised for their limited verification mandate,[240] insufficient tools to verify the 'completeness' of state declarations, and for essentially trusting that states declare all of their nuclear facilities and materials in good faith.[241]

These limitations were exposed in the early 1990's when IAEA inspectors uncovered a clandestine nuclear weapons programme in Iraq, a state with an INFCIRC/153 in force.[242] This revelation prompted the IAEA to review and strengthen its safeguards standards,[243] culminating

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[233] Article III(4), NPT. Paragraphs 1 through 3 then detail the specific characteristics of the safeguards to be concluded, as noted by Daniel H Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011) 88-90.
[234] Article III(1), NPT (emphasis added).
[235] Ibid (emphasis added).
[236] 'The Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons' (June 1972) IAEA Doc INFCIRC/153 (Corrected) (hereafter CSA or INFCIRC/153).
[237] Orde F Kittrie, 'Averting Catastrophe: Why the Nuclear Nonproliferation Treaty is Losing its Deterrence Capacity and How to Restore it' (2007) 28(2) *Michigan Journal of International Law* 337, 352.
[238] INFCIRC/153, [28] (emphasis added).
[239] As noted by Joyner (2009) 21.
[240] Spies (2007) 411.
[241] Kittrie (2007) 352.
[242] Joyner (2009) 21. Another example highlighting these weaknesses is case of Libya, which in December 2003 admitted its pursuit of nuclear weapons, see Kittrie (2007) 353-54.
[243] 'Additional Protocol' (*IAEA*) <https://www.iaea.org/topics/additional-protocol>. See also Kelsey Davenport, 'IAEA Safeguards Agreements at a Glance' (*Arms Control Association*, updated June 2020) <https://www.armscontrol.org/factsheets/IAEASafeguards>; and Theodore Hirsch, 'The IAEA Additional Protocol: What It Is and Why It Matters' (2004) 11(3) *The Nonproliferation Review* 140.

in the adoption of the Model Additional Protocol (INFCIRC/540 (Corrected)) in 1997,[244] which operates as a supplement and reinforcement to the CSA and grants the IAEA further tools to accomplish its verification mandate.[245] In particular, the Additional Protocol requires an expanded declaration of information from states relating to their nuclear fuel-cycle activities, and grants the IAEA expanded rights of 'complementary access' to any place within a declared nuclear facility.[246] Consequently, the Additional Protocol assists the IAEA in verifying both the correctness *and* the completeness of a state's safeguard declaration, 'aims to fill the gaps in the information reported under a CSA', and therefore 'increases the IAEA's ability to provide much greater assurance on the absence of undeclared nuclear material and activities in those States [with an Additional Protocol in force]'.[247]

i. Weakened Safeguards?

Much of the critique surrounding the safeguarding obligations imposed by Article 3 is that the TPNW imposes an inadequate non-proliferation verification standard that risks 'undermining the IAEA safeguards regime and its universalization' by failing to set the Additional Protocol as the minimum safeguard standard applicable to acceding NNWS.[248] For example, in its review of the consequences of ratifying the TPNW, the Norwegian Ministry of Foreign Affairs claimed that Article 3 brings 'a risk that the results of 30 years of work to establish a safeguards system for peaceful nuclear activities could be undermined'.[249] Sweden expressed its disappointment with the omission of the Additional Protocol in its explanation of vote on the treaty, and claimed that this could undermine the TPNW's ability to verify 'compliance with key elements of the general obligations'.[250] In conjunction with its 'forum-shopping' concern discussed previously,[251] France

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[244] 'Model Protocol Addition to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards' (September 1997) IAEA Doc INFCIRC/540 (Corrected).
[245] As noted by Rockwood (2007) 308.
[246] Mark Hibbs, 'The IAEA Additional Protocol after the 2010 NPT Review: Status and Prospects' (*UNIDIR Resources*, 8 January 2013) <https://unidir.org/publication/iaea-additional-protocol-after-2010-npt-review-status-and-prospects> 1. For further details on the Additional Protocol, see Hirsch (2004) 143-44; Johan Rautenbach, 'International Atomic Energy Agency' (2006) *Max Planck Encyclopaedia of International Law*, [53]-[55]; and 'Strengthening Measures' (*IAEA*) <https://www.iaea.org/topics/additional-protocol/strengthening-measures>
[247] 'Additional Protocol' (*IAEA*) <https://www.iaea.org/topics/additional-protocol> (bracketed text added). And as concluded by Joyner (2009) 23; and Dupont (2014) 178.
[248] As noted by Alice Guitton, Ambassador and Permanent Representative of France, UNGA First Committee (72nd Session, 16 October 2017) UN Doc A/C.1/72/PV.14, 3-4. See also Highsmith and Stewart (2018) 136.
[249] 'Review of the Consequences for Norway of Ratifying the Treaty on the Prohibition of Nuclear Weapons' (*Norwegian Ministry of Foreign Affairs*, 28 November 2018) <https://www.regjeringen.no/en/dokumenter/review_tpnw/id2614520/>. This is similarly concluded by Ford (2017) ('the "ban" actually enshrines a significant *step backwards* [in relation to safeguards] by endorsing a system that has been understood for the last two decades as being inadequate') (emphasis added).
[250] Sweden, Explanation of Vote (*United Nations Conference to Negotiation a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/170707-EoV-Sweden.pdf> 2.
[251] See section 1.b.

has suggested that NNWS may abandon the existing safeguard standards of the NPT in favour of the 'weaker' approach established by the TPNW.[252]

Taking this point further, Carlson notes that Action 30 of the 2010 NPT Review Final Document reiterated that the highest standard of both 'CSAs and [Additional Protocols] should already apply in the NNWS, and CSAs and [Additional Protocols] will become universal through the ability to apply these to NWS as they disarm',[253] thus suggesting that NNWS are required to conclude an Additional Protocol with the IAEA as specified by the NPT Review Process. Moreover, and recalling the aforementioned confidence-building effect of the CSA and Additional Protocol together,[254] Carlson suggests that NWPS 'will not disarm when other states seen as potential… proliferators… have not committed to the strongest form of safeguards'.[255] Ultimately, these criticisms indicate that the failure to make the Additional Protocol obligatory for all state parties directly contradicts the safeguard standards endorsed and developed within the NPT process, and hinders the TPNW's disarmament objectives.[256]

However, these criticisms of the Article 3 safeguards standards are inaccurate on numerous grounds. First, the minimal CSA standard imposed by Article 3(2) is actually more specific than the NPT obligation.[257] Whereas Article III(4) of the NPT merely requires all NNWS to 'conclude safeguards' with the IAEA without specifying the type of agreement in question,[258] Article 3(2) expressly requires any parties that have not yet done so to '*conclude* with the International Atomic Energy Agency and bring into force a *comprehensive safeguards agreement (INFCIRC/153 (Corrected))*'.[259] In addition, both Article 3(1) and (2) implicitly encourage states to 'upgrade' and adopt higher safeguards standards in the future through the inclusion of the phrase '*without prejudice* to any

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[252] Alice Guitton, Ambassador and Permanent Representative of France, UNGA First Committee (72nd Session, 16 October 2017) UN Doc A/C.1/72/PV.14, 3-4.
[253] John Carlson, 'Nuclear Weapons Prohibition Treaty: A Safeguards Debacle' (*VERTIC*, *Trust and Verify* (158) Autumn 2018) <https://www.vertic.org/media/assets/TV/TV158.pdf> 4 (bracketed text added). See Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (2010) NPT/CONF.2010/50, Vol I: Conclusions and Recommendations, Action 30 (hereafter Final Document, 2010 NPT Review Conference).
[254] Noted briefly in Section 3 above, see Dupont (2014) 178.
[255] Carlson makes these comments during a guest post at Arms Control Wonk, see Jeffrey Lewis, 'Safeguards Challenges in the Nuclear Weapons Ban' (*Arms Control Wonk*, 10 July 2017) <https://www.armscontrolwonk.com/archive/1203571/safeguards-challenges-in-the-nuclear-weapons-ban/> (bracketed text omitted).
[256] Carlson (2017). In fact, Kadelbach even goes so far as to suggest that reference to the Additional Protocol is omitted entirely under Article 3, Kadelbach (2020) 314 ('The verification standards to which Article 3 TPNW refers are the INFCIRC/153 rules of 1972, whereas the higher standards of the Model Additional Protocol, which allow for access to more information as well as on-site inspection, are not mentioned') (footnotes omitted).
[257] Casey-Maslen (2018b); Nystuen, Egeland, and Graff Hugo (2018) 9-10; and Erästö (2019).
[258] Article III, NPT.
[259] Article 3(2), TPNW (emphasis added).

additional relevant instruments'.[260] This essentially makes explicit the implicit minimum safeguard obligation established under Article III of the NPT, and thus reinforces the position of the CSA as the baseline safeguards standard for NNWS, without preventing the possibility of additional safeguard agreements being adopted. And as Casey-Maslen notes, given that some NPT state parties have not yet concluded safeguard agreements with the IAEA,[261] '[s]urely, any other agreement that serves to pressure those states [which do not presently have a CSA] into concluding such an Agreement is a good thing?'[262]

Second, Article 3 actually *does* make the Additional Protocol obligatory, though concededly not on a universal basis for all acceding NNWS. This is made clear by the language of Article 3(1), which provides that all prospective NNWS parties[263] 'shall, at a minimum, *maintain its International Atomic Energy Agency safeguards obligations in force at the time of entry into force of this Treaty*'.[264] Quite simply, the effect of Article 3(1) means that any state party which has both a CSA and Additional Protocol in place at the time that the TPNW enters into force will be prohibited from withdrawing from *either* of these legally binding arrangements.[265] Consequently, it is theoretically possible that the 137 states presently with an Additional Protocol in force would be legally required to maintain this safeguard standard as their mandatory, minimum level of commitment upon accession to the TPNW due to the effect of Article 3(1).[266] The significance of this should not be underappreciated, and indicates that Article 3(1) exceeds the safeguards standard of the NPT to a certain extent.

Finally, although the conclusion of both a CSA and Additional Protocol is 'widely accepted as a standard safeguard practice' today,[267] and is certainly desirable from a non-proliferation and confidence-building perspective, the Additional Protocol remains *voluntary* for NNWS parties to

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[260] This is also concluded by Giorgou (2018). Moreover, this 'encouragement' language applies to the safeguard obligations that NWPS acceding subject to Article 4 are required to accept too. The safeguard standard applicable to NWPS acceding subject to Article 4 will be explored in section 3.b.ii. below.

[261] For an overview of safeguard implementation status, see 'Safeguards Statement for 2020' (*IAEA*) <https://www.iaea.org/sites/default/files/21/06/statement-sir-2020.pdf>, which notes that 10 NPT parties 'had yet to bring into force comprehensive safeguards agreements with the Agency as required by Article III of that Treaty' by the end of 2020.

[262] Casey-Maslen (2018b).

[263] That is, those states to which Article 4(1) and (2), TPNW does not apply.

[264] Article 3(1), TPNW.

[265] Giorgou (2018); Thomas Hajnoczi, 'The Relationship Between the NPT and the TPNW' (2020) 3(1) *Journal for Peace and Nuclear Disarmament* 87, 90; and Nystuen, Egeland, and Graff Hugo (2018) 10. Erästö argues that this 'does not allow states parties to downgrade their existing verification arrangements', Erästö (2019).

[266] 'Status List: Conclusion of Additional Protocols' (*IAEA*, updated 1 June 2021) <https://www.iaea.org/sites/default/files/20/01/sg-ap-status.pdf>. Because states must maintain safeguards in place *at the time when the TPNW enters into force*, it is plausible that states with an Additional Protocol in force presently could end these arrangements with the IAEA prior to the TPNW's entry into force, thus limiting the number of states that would be obliged to maintain the Additional Protocol under Article 3(2). However, while this is a possibility, as far as this author is aware, no state has taken such a decision prior to entry into force on 22 January 2021.

[267] As suggested by Kelsey Davenport, 'IAEA Safeguards Agreement at a Glance' (*Arms Control Association*, June 2020) <https://www.armscontrol.org/factsheets/IAEASafeguards>

the NPT.[268] This conclusion can be defended on numerous grounds. First, from a practical level, Asada has persuasively argued that 'if the conclusion of an additional protocol was an obligation under Article III, paragraph 1, it would follow that quite a number of NPT States Parties are in 'violation' of that paragraph'.[269] No NPT party has suggested that this is the case at present.

Moreover, contrary to the assertion of Carlson above, the Final Document of the 2010 NPT Review Conference actually reaffirms the voluntary nature of the Additional Protocol and diverging positions amongst NPT parties.[270] Specifically, after acknowledging the confidence-building benefits of concluding both a CSA and Additional Protocol, paragraph 18 merely '*encourages* all States that have not yet done so to conclude and bring into force an additional protocol',[271] while paragraph 17 confirms that 'it is the *sovereign decision* of any State to conclude an additional protocol'.[272] Furthermore, Carlson's prior reliance upon Action 30 of the Final Document fails to take into account Action 28, which – in reflecting paragraph 18 above – again merely '*encourages all States parties* which have not yet done so to conclude and to bring into force *as soon as possible*', rather than solely directing this encouragement towards NNWS alone.[273] As both Asada[274] and Giorgou persuasively note, this repeated language of 'encouragement' further emphasises the continuing voluntary nature of the Additional Protocol 'contrary to Actions 24 and 25 which *call on* and *urge*, respectively, states to adopt a CSA'.[275]

In addition, although certain states such as Canada and Australia have pushed to make the Additional Protocol mandatory as part of an evolutive interpretation of Article III of the NPT,[276]

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[268] The voluntary nature of the Additional Protocol has been noted elsewhere, see Masahiko Asada, 'The Treaty of the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol' (2011) 16(1) *Journal of Conflict and Security Law* 3; Joyner (2009) 23; Pierre-Emmanuel Dupont, 'Is the Conclusion of an Additional Protocol Mandatory under the NPT?' (*Arms Control Law*, 1 August 2012) <https://armscontrollaw.com/2012/08/01/is-the-conclusion-of-an-additional-protocol-mandatory-under-the-npt/>; and Kittrie (2007) 353. Even Laura Rockwood, former Section Head for Non-Proliferation and Policy Making in the Office of Legal Affairs of the IAEA, has conceded that the Additional Protocol is voluntary, Rockwood (2007) 308. For a converse view that takes that position that safeguards concluded under Article III of the NPT in conjunction with the IAEA should not be considered a static standard, but should evolve over time, see John Carlson, 'Is the Additional Protocol 'Optional'?' (*Nuclear Threat Initiative*, 1 January 2011) <https://www.nti.org/analysis/articles/additional-protocol-optional/>

[269] Asada (2011) 7-8.

[270] Dupont (2012).

[271] Final Document, 2010 NPT Review Conference, [18].

[272] Ibid, [17].

[273] Final Document, 2010 NPT Review Conference, Action 28.

[274] Masahiko Asada, 'The NPT and the IAEA Additional Protocol', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume II: Verification and Compliance* (Asser Press 2016) 112 and 127.

[275] Giorgou (2018) (emphasis added). See also Stuart Casey-Maslen, 'The Impact of the TPNW on the Nuclear Non-Proliferation Regime', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 395 who observes that this language of encouragement is 'a far cry from a binding legal obligation'.

[276] Asada (2011) 6-7.

most notably during the 2010 NPT Review Conference,[277] this has been met with fierce opposition from other NPT members, notably Brazil[278] and Egypt,[279] thereby resulting in the 'balanced', diluted conclusions of the 2010 Final Document.[280] The absence of universal support for the Additional Protocol is reflected most noticeably within the Non-Aligned Movement of states.[281] Indeed, in a working paper submitted to the 2015 NPT Review Conference, the Non-Aligned Movement refused to explicitly reference the Additional Protocol and instead acknowledged that 'it is fundamental to make a *clear distinction between legal obligations and voluntary confidence-building measures* and that such voluntary undertakings *shall not* be turned into legal safeguards obligations'.[282] Facing this scarcity of widespread support amongst the NNWS, it would seem difficult to contend that the Additional Protocol has become mandatory as a result of either subsequent agreement or practice between states regarding the interpretation or application of the NPT safeguards provisions in accordance with Article 31(3) of the VCLT.[283]

Unsurprisingly given the broad participation of the Non-Aligned Movement, these divisions became apparent during the discussion on Article 3 at the TPNW negotiations in 2017.[284] Although many states supported the inclusion of an obligation to conclude both a CSA and the Additional Protocol,[285] others including Brazil, Egypt,[286] and Malaysia again opposed making the conclusion of further safeguards with the IAEA mandatory in the proposed TPNW text.[287] Consequently, as New Zealand noted during the 2017 UNGA First Committee, '[t]he allegation

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277 A useful overview of statements endorsing the Additional Protocol as mandatory under Article III during the 2010 NPT Review Conference is provided by Dupont (2012).
278 See generally Asada (2016) and specifically at 99-100. Brazil has strongly objected the conclusion of an Additional Protocol while progress by the NWPS towards nuclear disarmament remains limited, as noted by Leonardo Bandarra, 'Brazilian Nuclear Policy Under Bolsonaro: No Nuclear Weapons But a Nuclear Submarine' (*Bulletin of the Atomic Scientists*, 12 April 2019) <https://thebulletin.org/2019/04/brazilian-nuclear-policy-under-bolsonaro/#>
279 Hibbs (2013) 5, offers a useful summary of the reasons in which certain states continue to object to the Additional Protocol as a mandatory commitment.
280 Dupont (2012).
281 For an overview of this division in the Non-Aligned Movement, William Potter and Gaukhar Mukhatzhanova, *Nuclear Politics and the Non-Aligned Movement: Principles vs Pragmatism* (Routledge 2012) 62-68.
282 Working paper submitted by the Group of Non-Aligned States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 'Safeguards' (9 March 2015) NPT/CONF.2015/WP.6, [8]. And repeated again at the 2019 NPT Preparatory Committee, see working paper submitted by the Group of Non-Aligned States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 'Safeguards' (21 March 2019) NPT/CONF.2020/PC.III/WP.17, [8].
283 While this is only observed here, Asada (2011) 13-16 discusses this point in depth, again highlighting the lack of consensus in the NPT process, and lack of universal practice in adopting the Additional Protocol. See also Joyner (2011) 60-64; and Dupont (2012) who each make similar arguments.
284 It is interesting to note that in contrast to the approach taken within the NPT noted above, the Non-Aligned Movement did not collectively offer a statement or working paper discussing safeguards during the 2017 negotiating conference, instead leaving individual Non-Aligned Movement member states to voice opinion on the Additional Protocol separately.
285 Working paper submitted by Chile, Sweden and Uganda, 'Need for a Verification Mechanism at this Stage for a Treaty Prohibiting Nuclear Weapons' (10 May 2017) UN Doc A/CONF.229/2017/WP.6.
286 Carlson (2018) 2.
287 Casey-Maslen (2019) 185; and Nystuen, Egeland, and Graff Hugo (2018) 11. In addition, Giorgou (2018) also notes that a 'small minority' of participating states during the negotiations argued that safeguards were not required at all.

that the new Treaty does not strengthen the NPT *overlooks the fact the successive Review Conferences have not been able to require States Parties to the NPT go beyond the [CSA] as the safeguards baseline*'.[288]

Overall, considering the lack of universal support for the Additional Protocol within the NPT Review Process, the safeguard obligation standard incorporated within Article 3 reflects a praiseworthy compromise which nevertheless makes the Additional Protocol legally binding for some state parties.[289] Indeed, of the 56 states to have ratified or acceded to the TPNW as of 30 September 2021, 39 have an Additional Protocol in force and are now legally obligated to maintain this standard.[290] It is therefore difficult to comprehend arguments that suggest that the TPNW somehow weakens the NPT and IAEA safeguards standard by making the Additional Protocol mandatory for at the very least a significant proportion of its parties,[291] while encouraging the negotiation of further safeguards in a comparable manner to the 2010 NPT Review Conference Final Document noted above.[292]

Having said this, it is perhaps unfortunate that efforts to make the Additional Protocol mandatory for all NNWS failed given that higher safeguards would have constituted a major confidence-building step for NWPS as a means of verifying that NNWS are not proliferating in secret.[293] Even staunch TPNW proponents such as Nystuen, Egeland and Graff Hugo have acknowledged that CSA alone are 'not sufficient' to detect clandestine nuclear weapons-related activities, instead recognising that more expansive safeguards such as the Additional Protocol should 'be a goal for all those in favour of the creation of a world without nuclear weapons'.[294]

Consequently, the TPNW approach to safeguards verification leaves a little left to be desired.[295] Indeed, making the conclusion of the Additional Protocol mandatory – regardless of the lack of universal acceptance of this standard in the NPT process and the possibility of negative

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[288] Statement by Ambassador Higgie of New Zealand, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 24.
[289] Briefing Note, 'Safeguards and the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 3.
[290] These states are Antigua and Barbuda, Austria, Bangladesh, Benin, Botswana, Cambodia, Chile, Comoros, Costa Rica, Cuba, Ecuador, El Salvador, Fiji, Gambia, Holy See, Honduras, Ireland, Jamaica, Kazakhstan, Lesotho, Malta, Mexico, Namibia, New Zealand, Nicaragua, Nigeria, Palau, Panama, Paraguay, the Philippines, Saint Kitts and Nevis, Seychelles, South Africa, Thailand, Uruguay, Vanuatu, and Vietnam. The Cook Islands and Niue are also covered by New Zealand's Additional Protocol. See 'Status List: Conclusion of Additional Protocols' (*IAEA*, updated 1 June 2021) <https://www.iaea.org/sites/default/files/20/01/sg-ap-status.pdf>
[291] A conclusion shared by Casey-Maslen (2021) 396 ('The suggestion that the TPNW has weaker standards [of safeguards] than the NPT is thus demonstrably false') (bracketed text added).
[292] Although admittedly, the encouragement in the TPNW context is more implicit.
[293] A conclusion shared by Tim Caughley and Yasmin Afina, 'NATO and the Frameworks of Nuclear Non-Proliferation and Disarmament: Challenges for the 10th NPT Review Conference', *Chatham House: International Security Programme Research Paper*, May 2020, 22.
[294] Nystuen, Egeland, and Graff Hugo (2018) 12.
[295] Black-Branch (2021) 166-67 ('The TPNW could be criticized as a missed opportunity to have strengthened the existing safeguards with enhanced legal authority and regulatory frameworks regarding verification').

votes against the TPNW's adoption by Brazil and Egypt amongst others[296] – would have easily alleviated concerns from TPNW opponents. Thus, while the safeguard standard of Article 3 certainly does not undermine the existing NPT and IAEA framework in any sense, one cannot help but feel as though this represents a missed opportunity; one which prioritises the interests of a minority of reluctant anti-Additional Protocol NNWS over the broader objectives of TPNW in verifiably maintaining a nuclear weapons-free world through the development of an elaborate and effective safeguards standard.

ii. Discriminatory Safeguard Standards

A related criticism is that the TPNW establishes 'discriminatory' safeguards standards by requiring acceding NWPS to conclude more elaborate safeguards commitments under the 'destroy then join' and 'join then destroy' disarmament pathways of Article 4.[297] Both of these accession pathways require acceding NWPS to conclude safeguard agreements with the IAEA which are 'sufficient to provide *credible assurance* of the non-diversion of declared nuclear material from peaceful nuclear activities and of the absence of undeclared nuclear material or activities in that State Party as a whole'.[298] Highsmith and Stewart have since asserted that this language of credible assurance 'essentially requires states possessing nuclear weapons to adopt the Additional Protocol in addition to INFCIRC/153',[299] a view shared by Casey-Maslen,[300] and Carlson.[301] Conversely, Giorgou argues that the safeguard standard was left intentionally vague as a 'catch-all' provision in order to account for the vast differences in NWPS arsenals and possible developments to safeguards standards over time.[302]

Regardless of which interpretation is correct, it is clear that Article 4 imposes a more onerous safeguard standard for acceding NWPS when compared to the text of Article 3.[303] For Highsmith and Stewart, these differentiated legally binding standards are 'hypocritical', and would raise particular concerns for the NWPS which might potentially accede to the TPNW under Article 4 and disarm, while allowing potential proliferating NNWS the opportunity to develop a

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[296] Perhaps even reducing their likelihood of ratifying the TPNW in the future. Although it is worth noting that neither of these states has so far ratified the TPNW despite this lower safeguard standard being incorporated.
[297] Carlson (2017); and Highsmith and Stewart (2018) 136.
[298] Article 4(1) and (3), TPNW.
[299] Highsmith and Stewart (2018) 135.
[300] Casey-Maslen (2019) 196 argues that this 'strongly implies' that both a CSA and Additional Protocol must be concluded with the IAEA.
[301] Carlson (2018) 2 asserts that this 'formulation corresponds to the combination' of the CSA and Additional Protocol. See also Moffatt (2019) 46.
[302] Giorgou (2018).
[303] Notably, however, hosting states acceding subject to Article 4(4) are only required to apply the safeguard obligations under Article 3. Having said this, each of the five known hosting states – Germany, Italy, Belgium, the Netherlands, and Turkey – each have Additional Protocols in place with the IAEA, see 'Status List: Conclusion of Additional Protocols' (*IAEA*, updated 1 June 2021) <https://www.iaea.org/sites/default/files/20/01/sg-ap-status.pdf>

clandestine nuclear programme if subject solely to the CSA.[304] Carlson even suggests that the discriminatory standards established by Article 4 is 'counterproductive' to the TPNW's nuclear disarmament objectives.[305]

Yet despite the apparent 'unfairness' of establishing these differentiated standards,[306] Giorgou has persuasively argued that:

> '*differentiated Safeguard standards are warranted considering how much easier it would be for a state having possessed nuclear weapons to conceal or re-acquire nuclear weapon-grade material and relevant technology*, or to divert material to non-peaceful uses and/or to convert nuclear facilities, compared to a state that was not previously in possession of such weapons'.[307]

Simply put, it would be inappropriate and illogical for a NWPS disarming after 7 July 2017 to only have to conclude a more limited CSA when one considers that these states have the most extensive prior experience with nuclear weapons and greater technical knowhow to re-acquire nuclear weapons again more easily in the future.[308]

Furthermore, the safeguard obligations imposed by Articles 4(1) and (3) also extends considerably further in scope than Article III of the NPT, which only requires NNWS to accept safeguards with the IAEA without imposing any comparable obligation upon the NWS.[309] This broader application of IAEA safeguards to all TPNW parties undoubtedly strengthens the existing safeguards regime developed under the NPT and IAEA regime,[310] and even supports the universalisation of the Additional Protocol as encouraged within the Final Document of the 2010 NPT Review Conference discussed above.[311] Finally, it is worth recalling that six NWPS presently accept some limited safeguard commitments on their peaceful nuclear activities and facilities through 'voluntary offer agreements' with the IAEA, which incorporate certain aspects of both

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304 Highsmith and Stewart (2018) 135-36. A similar point is noted above by Carlson (2018) also.
305 Carlson (2018) 3.
306 Nystuen, Egeland, and Graff Hugo (2018) 12.
307 Giorgou (2018) (emphasis added).
308 It should be noted that for states that have disarmed prior to 7 July 2017 such as South Africa, the obligation under Article 3 remains applicable. This was decided due to the fact that the IAEA has already previously conducted extensive verification to confirm the completeness of its prior disarmament and subsequent non-diversion of nuclear materials. This point is similarly noted by Giorgou (2018).
309 Casey-Maslen (2018b); and Giorgou (2018). Though as noted above, the *de jure* NWS under the NPT have accepted some safeguards over their respective civilian nuclear programmes.
310 See Briefing Note, 'Safeguards and the Treaty on the Prohibition of Nuclear Weapons' (*ICRC*, 24 April 2019) <https://www.icrc.org/en/document/view-icrc-interpretation-treaty-prohibition-nuclear-weapons> 3; and Hajnoczi (2020) 90.
311 This would also mitigate concerns that the TPNW sets weakened standards by instead expanding the application of IAEA and NPT developed safeguards to further states.

the CSA and Additional Protocol.[312] As such, expanding the scope of existing NWPS safeguards to permit the full application of the Additional Protocol is less drastic than first appears.[313]

Overall, rather than being discriminatory or counterproductive, the safeguards standard imposed by Articles 4(1) and (3) brings suitable reassurance that those states most likely to rearm following accession to the TPNW are using their future nuclear materials solely for permitted peaceful purposes.[314] The safeguard standard concluded by acceding NWPS must logically be more rigorous, and in turn could even encourage the other NNWS to conclude an Additional Protocol in due course.[315] Indeed, a primary factor behind Brazil's unwillingness to accept further safeguarding obligations has been the inability of the NWS to make concurrent progress towards nuclear disarmament.[316] Consequently, the implementation of nuclear disarmament obligations under Article 4 and the conclusion of a higher standard of safeguards with the IAEA by acceding NWPS could – though not conclusively – make the negotiation of an Additional Protocol more palatable for currently reluctant NNWS.

iii. A Safeguards Gap?

A final criticism, again noted by Carlson, is that a 'safeguard gap' exists between the time in which the legally binding time-bound plan for nuclear disarmament is implemented under the 'join and destroy' approach of Article 4(2), and the point in which the 'credible assurance' safeguards with the IAEA under Article 4(3) enters into force.[317] Indeed, Article 4(3) makes clear that '[n]egotiation of such [safeguard] agreement shall commence no later than the date upon which implementation of the plan referred to in paragraph 2 is completed. The agreement shall enter into force no later than 18 months after the date of initiation of negotiations'.[318] With this provision in mind, Carlson takes the position that a NWPS:

> 'that joins the treaty while still possessing nuclear weapons *is not required to accept any safeguards until after it has eliminated its nuclear weapons*. This is a major weakness –

[312] For a useful overview of voluntary offer agreements, see John Carlson, 'Expanding Safeguards in Nuclear-Weapon-States' (*Paper Presented to the Annual Meeting of the Institute of Nuclear Materials Management*, 17-21 July 2011) <https://media.nti.org/pdfs/NWS_safeguards_carlson_fin.pdf>
[313] This mitigating concerns as to the 'fairness' of requiring the NWPS to accept more onerous safeguards compared to the NNWS, see Nystuen, Egeland, and Graff Hugo (2018) 12.
[314] That is, peaceful nuclear related activities not prohibited under Article 1, TPNW.
[315] This claim has similarly been made by Nystuen, Egeland, and Graff Hugo (2018) 12 ('Moreover, if the nuclear-armed states were to join the TPNW or disarm through another framework, it is highly likely that TPNW parties would be prepared to accept the [Additional Protocol] as mandatory for all').
[316] See e.g. Bandarra (2019).
[317] Carlson (2018) 2.
[318] Article 4(3), TPNW (bracketed text added).

elimination could take years during which time the state could be producing new weapons to replace those it is eliminating'.[319]

This also brings a potential vulnerability that nuclear materials used in nuclear weapons could be diverted or hidden during the disarmament process while free from IAEA safeguards,[320] thereby creating a potential future danger of swift proliferation by a former NWPS seeking to replace weapons that it has dismantled pursuant to the disarmament plan.[321]

This temporal gap, however, has been rebutted by various commentators. Firstly, Giorgou notes that this gap is not unique to the conclusion of safeguards under Article 4(2),[322] and observes that under Article 3(2), NNWS without a CSA shall negotiate such an agreement with the IAEA 'within 180 days', and the agreement should enter into force for the state in question 'no later than 18 months' from the time the TPNW enters into force for the state party in question.[323] The conclusion of safeguards pursuant to Article 4(1) under the 'destroy then join' pathway sets a similar timeframe too.[324] This temporal gap affords sufficient time for both the IAEA and the acceding state to conduct the necessary negotiations on the appropriate form of safeguards, both pursuant to Article 3(2) and Article 4(3).

Furthermore, it has also been persuasively noted that nothing in the text of Article 4(2) or (3) would prevent the acceding states under the 'join then destroy' approach to accept IAEA safeguards on its civilian nuclear facilities and materials as part of the 'legally binding, time-bound' disarmament plan negotiated with the competent international authority.[325] Although this is not made explicit, given that the IAEA was absent during the TPNW negotiations, the negotiating states felt it was preferable to leave room for such a possibility without directly conferring additional legal commitments or responsibility on either the IAEA itself, or the future 'competent international authority'.[326]

Moreover, and as noted above, the five *de jure* NWS have pre-existing voluntary offer agreements in place that incorporates certain aspects of both the CSA and Additional Protocol.[327]

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319 John Carlson, 'The Nuclear Weapon Ban Treaty is Significant by Flawed' (*The Interpreter*, 11 July 2017) <https://www.lowyinstitute.org/the-interpreter/nuclear-weapon-ban-treaty-significant-flawed> (emphasis added).
320 This danger has been noted by Nystuen, Egeland, and Graff Hugo (2018) 13.
321 Carlson (2018) 2.
322 Giorgou (2018).
323 Article 3(2), TPNW.
324 Article 4(1), TPNW requires that the 'Negotiation of such agreement shall commence within 180 days from the entry into force of this Treaty for that State Party. The agreement shall enter into force no later than 18 months from the entry into force of this Treaty for that State Party'.
325 Nystuen, Egeland, and Graff Hugo (2018) 13.
326 Indeed, Giorgou notes that it would be beyond the mandate of the negotiation conference to develop interim safeguards, nor was it politically viable given the non-participation of the IAEA, Giorgou (2018).
327 See also, Kelsey Davenport, 'IAEA Safeguards Agreements at a Glance' (*Arms Control Association*, updated June 2020) <https://www.armscontrol.org/factsheets/IAEASafeguards>

These agreements generally apply to civilian nuclear materials and sites that have been voluntarily offered to the IAEA.[328] Other NWPS including India, Pakistan, and Israel already permit IAEA safeguards on their respective civilian nuclear facilities too.[329] Consequently, to suggest that civilian nuclear facilitates and materials will not be safeguarded during the nuclear disarmament process pursuant to Article 3 fails to consider the presently ongoing application of these existing – albeit less extensive – safeguards arrangements, each of which afford the IAEA certain inspection rights and verification tools.

Overall, the TPNW leaves adequate room for solutions that can address the so called 'safeguard gap', which itself is rather overstated. Indeed, it is worth noting that this particular criticism has not in fact been mentioned by the NWPS themselves, which suggests that the NWPS do not perceive this to be overly problematic in contrast to their opposition to the supposed discrimination or weakened safeguards of the TPNW discussed previously.

4. The TPNW is Incompatible with Nuclear Deterrence that is Essential in the Current International Security Environment

A final criticism from both a legal and political/security perspective is that the prohibitions of the TPNW delegitimise and effectively ban nuclear deterrence policies that are presently endorsed by each of the NWPS and their military allies.[330] The UK, US and France have jointly maintained that '[a]ccession to the ban treaty *is incompatible with the policy of nuclear deterrence*, which has been essential to keeping the peace in Europe and North Asia for over 70 years'.[331] Comparable concerns have been raised by various states allied to the NWPS, particularly the NATO alliance collectively,[332] and the Netherlands individually, regarding the delegitimisation and incompatibility of 'extended' nuclear deterrence commitments of NNWS umbrella allies and the TPNW prohibitions under

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[328] 'Safeguards Agreements' (*IAEA*) <https://www.iaea.org/topics/safeguards-agreements>

[329] Kelsey Davenport, 'IAEA Safeguards Agreements at a Glance' (*Arms Control Association*, updated June 2020) <https://www.armscontrol.org/factsheets/IAEASafeguards>

[330] Ford (2017).

[331] Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[332] See most notably 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/en/natohq/news_146954.htm>

Article 1.[333] Even Switzerland, a country famous for its policy of neutrality,[334] suggests that the 'TPNW now also clearly prohibits military cooperation in the nuclear field, in particular deterrence cooperation', which would prevent Switzerland from relying upon military cooperation involving nuclear weapons in the 'extreme case of self-defence'.[335] Quite simply, for states under the extended nuclear umbrella of the US,[336] there is a genuine concern that the TPNW risks 'undermining the cohesion from the NATO alliance' and collective security arrangements generally by delegitimising nuclear deterrence.[337]

Finally, this section ends Chapter 5 by discussing perhaps the single most overarching criticism of TPNW opponents: that the treaty fails to address the existing international security challenges '*that continue to make nuclear deterrence necessary*'.[338] In other words, this argument criticises the abstract, idealistic approach of the TPNW, which fails to acknowledge the imperative need for international peace and security – and a stable non-proliferation outlook – as a pre-condition for further progress towards nuclear disarmament.[339] As will become apparent, the concerns over the impact of nuclear deterrence delegitimisation for both national and international security reflects

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[333] See the Netherlands, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Netherlands-EoV-Nuclear-Ban-Treaty.pdf>. While the Netherlands is likely to have been implicitly referring to the prohibition on stationing in Article 1(1)(g), this concern also extends to the inconsistency between extended nuclear deterrence with the prohibitions under Article 1(1)(d) and (e) on threats and assistance respectively. As noted in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 6, nuclear weapons stationing and installation is explicitly prohibited by Article 1(1)(g), TPNW. The Netherlands, in currently hosting US nuclear weapons on its territory, would thus be in violation of this provision. Other states under extended nuclear protection have raised similar concerns, see e.g. Ambassador John Quinn, Permanent Representative of Australia to the United Nations, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 16 ('A key problem for Australia is that the Treaty seeks to *delegitimize extended deterrence*. The Treaty will not advance nuclear disarmament or security').

[334] For a discussion of the history of Swiss neutrality, see Dietrich Schindler, 'Neutrality and Morality: Developments in Switzerland and in the International Community' (1998) 14(1) *American University International Law Review* 155.

[335] See Swiss Federal Department of Foreign Affairs, 'Report on the Working Group to analyse the Treaty on the Prohibition of Nuclear Weapons' (*Schweizerische Eidegenossenschaf*, 30 June 2018) <https://www.eda.admin.ch/dam/eda/en/documents/aussenpolitik/sicherheitspolitik/2018-bericht-arbeitsgruppe-uno-TPNW_en.pdf> 5 and 6-7.

[336] This includes all NATO members, Australia, South Korea, and Japan. See section 4.b.ii. below.

[337] As noted by Gibbons (2017). See also Gasser (2018) 126 ('If some NATO countries were to sign on to the TPNW, they would divide the nuclear alliance and decrease the credibility of the well-established nuclear deterrence'); and Matthew Harries, 'The Ban Treaty and the Future of US Extended Nuclear Deterrence Arrangement', in Shatabhisha Shetty and Denitsa Raynova (eds), *Breakthrough or Breakpoint? Global Perspectives on the Nuclear Ban Treaty* (European Leadership Network December 2017) 51, who notes that the adoption of the TPNW 'forces umbrella states to pick a side on an issue [extended nuclear deterrence] that they would prefer stayed under the radar'.

[338] Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[339] This point has also been noted by the UK, see statement by Matthew Rowland, UK Permanent Representative to the Conference on Disarmament, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 26. ('The [TPNW] fails to address the key issues that must first be overcome to achieve lasting global nuclear disarmament. It will not improve the international security environment or increase trust or transparency… We are working to address all of those issues, but the unpredictable international security environment we face today demands the maintenance of the [UK's] nuclear deterrent for the foreseeable future').

'one of the most fundamental points of divergence' and normative contest between TPNW opponents and supporters regarding the perceived utility, dangers and overall acceptability of nuclear weapons.[340]

a. What is Nuclear Deterrence?

Although deterrence has already been briefly discussed in this thesis,[341] the theory deserves greater attention here to fully situate and assess the above criticisms. Deterrence is a well-covered and theorised concept,[342] but can be defined as 'the act of *discouraging another act* through negative consequences in order to *induce compliance*, *thus changing potential behaviour towards a desired outcome*'.[343] Deterrence therefore seeks to prevent unwanted action, in contrast to compellence, which aims to persuade or coerce an actor to carry out an action that it would otherwise not do.[344] It does so in two ways: deterrence by denial, which lowers the likelihood of an adversary achieving its aims; and deterrence by punishment, which imposes heavy costs on the aggressor should the unwanted action occur.[345] In both cases, deterrence operates in the 'cognitive domain' by influencing the decision-making and cost-benefit calculus of adversaries.[346] 'Effective signalling' and communication is therefore fundamental to ensure an aggressor knows which actions are considered unwelcome,[347] and consequently it is the response, reaction, and perceptions of the targeted state that determine whether a deterrence policy has been effective.[348]

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340 Erästö (2019); and Nystuen, Egeland, and Graff Hugo (2018) 35 and see also 23 ('Where supporters and the critics of the TPNW disagree, is on the question of whether efforts aimed at undermining nuclear deterrence are good or bad'). A similar point is also made by Hamel-Green, who argues that current US and NATO responses to the TPNW reflect the traditional security-orientated perception of nuclear weapons in contrast to against the humanitarian objectives of the treaty, see Michael Hamel-Green, 'The Nuclear Ban Treaty and 2018 Disarmament Forums: An Initial Impact Assessment' (2018) 1(2) *Journal for Peace and Nuclear Disarmament* 436, 441-42.

341 See Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 2.b.

342 Michael Quinlan, *Thinking about Nuclear Weapons: Principles, Problems, Prospects* (Oxford University Press 2009) 21 ('Libraries-full of writing have accumulated about deterrence theory centred on nuclear weapons'). For the foremost discussion of the concept of deterrence, see Thomas Schelling, *Arms and Influence* (Yale University Press 2008 edn); Thomas Schelling and Morton H Halperin, *Strategy and Arms Control* (The Twentieth Century Fund 1961); and Lawrence Freedman, *The Evolution of Military Strategy* (3rd edn, Palgrave MacMillan 2003).

343 Jonathan L Black-Branch, 'Precarious Peace: Nuclear Deterrence and Defence Doctrines of Nuclear-Weapon States in the Post-Cold War Era', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020) 325 (emphasis added). See also Brian Drummond, 'UK Nuclear Deterrence Policy: An Unlawful Threat of Force' (2019) 6(2) *Journal on the Use of Force and International Law* 193, 196; and Jonathan Granoff, 'Nuclear Weapons, Ethics, Morals, and Law' (2000) (4) *Brigham Young University Law Review* 1413, 1433.

344 See e.g. Marco Roscini, 'Threats and Armed Force and Contemporary International Law' (2007) 54(2) *Netherlands International Law Review* 229, 235; Schelling (2008) 69-78; Peter Roberts and Andrew Hardie, 'The Validity of Deterrence in the Twenty-First Century', *Royal United Services Institute*, Occasional Paper, August 2015, 6; and Newell L Highsmith, 'On the Legality of Nuclear Deterrence', *Livermore Papers on Global Security No 6*, April 2019, 57-58.

345 Matthew Fuhrmann, 'On Extended Nuclear Deterrence' (2018) 29(1) *Diplomacy and Statecraft* 51, 52.

346 Roberts and Hardie (2015) 5; and Michael J Mazarr, 'Understanding Deterrence' (*RAND Corporation*, 2018) <https://www.rand.org/content/dam/rand/pubs/perspectives/PE200/PE295/RAND_PE295.pdf> 1 (hereafter Mazarr (2018)).

347 Roberts and Hardie (2015) 8-9.

348 Mazarr (2018) 1.

At the heart of the concept of nuclear deterrence is the idea of threatening to use nuclear weapons in certain, defined circumstances to dissuade unwanted behaviour and aggression.[349] Adopting Grimal's useful summary, '[i]n order to effectively deter your opponent from a particular course of action, *they have to feel threatened*. Deterrence is about the perception of the capabilities of your opponent. *Deterrence, by definition, is a threat and the enemy has to perceive it as such*'.[350] An effective deterrence policy therefore requires a credible threat that is sufficiently severe in order to successfully dissuade other states by raising the costs of non-compliance to unacceptably high levels,[351] coupled with a willingness to use nuclear weapons if needed.[352] And perhaps even more significantly, given the cognitive nature of deterrence, the adversary must perceive or believe in the existence of this capability for the deterrent posture to be credible and effective.[353]

The concept of deterrence has become somewhat 'synonymous' with the nuclear weapon age.[354] Rather than perceiving nuclear weapons to be a frequently employed means of warfare, the NWPS have generally maintained stockpiles of nuclear weapons in order to both deter another nuclear weapon use against it,[355] and to prevent any form of armed conflict between nuclear powers altogether.[356] In this regard, the threat of using nuclear weapons to deter aggressive behaviour is more akin to a 'political tool' as opposed to an instrument of warfare,[357] which arguably stabilised superpower relations during the Cold War.[358] Granoff similarly claims that '[t]he value of nuclear weapons is their ability *to influence conduct without being exploded*'.[359]

A final point worth emphasising is that a deterrence posture relying solely on nuclear weapons 'can *scarcely be credible*, and their deterrent power therefore *scarcely effective*, against *aggression*

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349 This has been described as a 'threat in general terms' by Drummond (2019) 209-13. See also Granoff (2000) 1435; Black-Branch (2020) 325; and Sue Wareham, 'Nuclear Deterrence Theory – A Threat to Inflict Terror' (2013) 15(2) *Flinders Law Journal* 257, 258.

350 Francis Grimal, *Threats of Force: International Law and Strategy* (Routledge 2013) 61 (emphasis added).

351 Grimal (2013) 90.

352 Ibid; and see also Quinlan (2009) 25-26; Black-Branch (2020) 325; Drummond (2019) 196; and Casey-Maslen (2018a) 35. Indeed, a state cannot credibly threaten to use nuclear weapons if it does not possess them, nor would the target of the threat in question perceive the threat as credible.

353 Quinlan (2009) 23; and Bruce M Russett, 'The Calculus of Deterrence' (1963) 7(2) *Journal of Conflict Resolution* 97, 98 who concludes that deterrence policies generally fail 'when the attacker decides that the defender's threat is not likely to be fulfilled'.

354 Black-Branch (2020) 325; and Quinlan (2009) 20 ('It is however only since the colossal shock of the nuclear revolution that deterrence has become so special and salient a concept in discourse about international security').

355 Christopher Vail, 'The Legality of Nuclear Weapons for Use and Deterrence' (2017) 48(3) *Georgetown Journal of International Law* 839, 852-53.

356 Drummond (2019) 196; and Quinlan (2009) 20. For a useful overview of the current endorsement of nuclear deterrence by the five *de jure* NWS under the NPT, see Black-Branch (2020) 329-40.

357 Casey-Maslen describes nuclear weapons as the 'ultimate insurance policy' to dissuade potential adversaries from carrying out aggressive acts, see Casey-Maslen (2018a) 25.

358 Nigel D White, 'Understanding Nuclear Deterrence Within the International Constitutional Architecture', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019) 250.

359 Granoff (2000) 1433-34 (emphasis added).

at much lower levels of force or of national interest engaged'.[360] To take just one example, although Israel is believed to have possessed nuclear weapons since the late 1960s,[361] these weapons did not prevent conventional conflicts including the 1973 Yom Kippur War, or even the continued launching of missiles from non-state actors such as Hezbollah and Hamas.[362] Accordingly, nuclear weapons strategies must be accompanied by conventional military capabilities in order to enhance the effectiveness and credibility of a state's *overall* deterrent and defence posture; nuclear weapons constitute just one (albeit an often vital) component of this broader capacity for the NPWS.[363]

With this in mind, efforts to delegitimise and thus remove the nuclear weapon 'limb' from a NWPS's deterrence posture will result in an uncertain 'knock-on' effect for a NWPS's broader strategic planning.[364] This could, for example, result in an increase in conventional military resources or additional investment into modern technologies including outer space weapons, hypersonic ballistic missiles, autonomous weapons systems, and increasingly advanced cyber capabilities. There is even the question of whether prohibiting and eliminating nuclear deterrence is in fact desirable: will a nuclear weapon-free world lead to reduced tensions and instability? Or will the absence of nuclear deterrence lower the initial threshold of resorting to force, thus resulting in additional armed conflicts between the present nuclear powers on a conventional level?[365] While these challenging questions do not necessarily impact the following discussion of the compatibility of deterrence with the TPNW prohibitions, it is essential to bear in mind that the debate over nuclear deterrence must not be considered in isolation from the possible broader implications for state security and strategic stability.

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[360] Quinlan (2009) 22 (emphasis added).

[361] See generally Hans M Kristensen and Robert S Norris, 'Israeli Nuclear Weapons, 2014' (2014) 70(6) *Bulletin of the Atomic Scientists* 97.

[362] Marco Roscini, 'International Law, Nuclear Weapon-Free Zones and the Proposed Zone Free of Weapons of Mass Destruction in the Middle East', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 324.

[363] Simond de Galbert and Jeffrey Rathke, 'NATO's Nuclear Policy as Part of a Revitalized Deterrence Strategy' (*Centre for Strategic and International Studies*, 27 January 2016) <https://www.csis.org/analysis/nato's-nuclear-policy-part-revitalized-deterrence-strategy>. See also 'Deterrence and Defence Posture Review' (*NATO Chicago Summit*, 20 May 2012) <https://www.nato.int/cps/en/natohq/official_texts_87597.htm> [31] which notes the need for NATO members to have the 'full range of capabilities necessary to deter and defend against threats'.

[364] My thanks go to Aurel Sari for noting this point during his supervision of this project.

[365] As discussed by Usman I Jadoon, 'The Security Impact of the Treaty on the Prohibition of Nuclear Weapons', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 378; and Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW and its Implications for Norway', *Norwegian Academy of International Law*, September 2018, 24.

b. Nuclear Deterrence and the TPNW

i. 'Primary' Nuclear Deterrence

With this understanding of both the purpose and characteristics of nuclear deterrence, one can immediately appreciate why the NWPS are concerned that the TPNW delegitimises and undermines nuclear deterrence. As already discussed, in terms of *primary* nuclear deterrence – that is the individual nuclear deterrence policies of each of the NWPS[366] – Article 1(1)(d) explicitly prohibits TPNW parties from both threatening and using nuclear weapons *under any circumstances*, whether for legitimate defensive purposes under the UN Charter, or as acts of aggression.[367] This prohibition envisages no exceptions,[368] and like the entire TPNW is not subject to reservations,[369] and therefore cannot be derogated from for any reason.[370] This conclusion is further supported by the prohibition on possession under Article 1(1)(a).[371] Indeed, for a nuclear deterrence posture to be credible, a NWPS must be able to possess nuclear weapons in order to subsequently threaten or use them if required.[372]

The prohibition of threatening to use nuclear weapons under Article 1(1)(d) therefore clearly delegitimises and challenges the permissibility of nuclear deterrence under international law.[373] Indeed, as demonstrated above,[374] at the very heart of nuclear deterrence is the idea of threatening to use nuclear weapons in order to deter aggression and conflict between NWPS in certain circumstances, even if this constitutes a threat in a general sense.[375] Consequently, although the notion of nuclear deterrence is not expressly prohibited by Article 1 of the TPNW, by explicitly prohibiting state parties from possessing and threatening to use nuclear weapons for any purpose, Article 1(1)(d) has the effect of banning a central characteristic inherent to nuclear deterrence

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366 In contrast to extended deterrence arrangements to be discussed below. This terminology of primary and extended deterrence is usefully explained by Terence Roehrig, 'The U.S. Nuclear Umbrella over South Korea: Nuclear Weapons and Extended Deterrence' (2017) 132(4) *Political Science Quarterly* 651, 654. Mazarr uses the phrase 'direct' deterrence, see Mazarr (2018) 3.
367 This has already been noted in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 2.b.
368 Casey-Maslen (2018a) 41.
369 As confirmed by Article 16, TPNW.
370 Including extreme circumstances of self-defence where the survival of the state may be at stake, thus contrary to the assertion of the ICJ in the Nuclear Weapons Advisory Opinion which could not 'conclude definitely whether the threat or use of nuclear weapons would be lawful or unlawful in extreme circumstance of self-defence, *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, [105(2)E].
371 Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 3.
372 This argument has been made by Kjølv Egeland, 'To Ban Nuclear Deterrence, Ban Possession, Not Threat of Use' (*Head of Mímir*, 22 May 2017) <https://headofmimirorg.wordpress.com/2017/05/22/to-ban-deterrence-ban-possession-not-threats-of-use/>
373 Noted by President Whyte Gómez who led the 2017 negotiations, <https://www.youtube.com/watch?v=lwTEx1jixSE>, quoted by Rietiker and Mohr (2018) 14-15; Harries (2017) 52; and Mukhatzhanova (2017) 15.
374 See section 4.a. above.
375 Casey-Maslen (2018a) 32.

policies.[376] This approach significantly departs from the NPT, which remains silent on the issue of nuclear deterrence due to its differentiated character.[377]

ii. 'Extended' Nuclear Deterrence

A more complex issue is the compatibility of *extended* nuclear deterrence with the TPNW prohibitions and, in turn, how existing multilateral security arrangements and commitments of NNWS allies may be affected by ratification of the TPNW by a state that is party to a nuclear security alliance.[378] Extended nuclear deterrence aims to dissuade attacks against third party allied states,[379] and seeks to ensure that 'any potential enemy attacks are deterred by the credible threat that a nuclear power would use its nuclear weapons in defence of its non-nuclear ally'.[380] In these arrangements, NNWS are protected by the 'nuclear umbrella' and deterrence posture of a NWPS, and thus consent or acquiesce to 'the potential use of nuclear weapons in their defence'.[381] Such arrangements are often more challenging to implement on a practical level, and equally give rise to concerns regarding the credibility of the extended protection supposedly afforded.[382]

The most prominent example of a nuclear umbrella arrangement is the protection afforded by the US to its NNWS NATO allies.[383] Indeed, US extended nuclear deterrence is considered a fundamental feature of NATO's collective security posture.[384] The 2010 NATO Strategic Concept, for example, confirms that the alliance's deterrence policy will be 'based on an appropriate mix of

[376] Mukhatzhanova (2017) 15.
[377] Nystuen, Egeland, and Graff Hugo (2018) 23.
[378] The complexity of this issue is reflected in the wider commentary on this subject, see e.g. Casey-Malsen (2018a) 42-50; Monique Cormier, 'Running Out of (Legal) Excuses: Extended Nuclear Deterrence in the Era of the Prohibition Treaty', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020); Nobuo Hayashi, 'Is the Nuclear Ban Treaty Accessible to Umbrella States?', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume IV: Human Perspectives on the Development and Use of Nuclear Energy* (Asser Press 2019); Harries (2017); and International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf>
[379] Mazarr (2018) 3.
[380] Cormier (2020) 272.
[381] International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 1.
[382] See usefully Mazarr (2018) 3 ('For obvious reasons, extended deterrence is more challenging than direct deterrence. This is partly true for military operational reasons: It is more difficult to deny an attack far from home, a mission that demands the projection of military force sometimes thousands of miles away and often much closer to the territory of the aggressor state. However, it is also true for reasons of credibility. An aggressor can almost always be certain a state will fight to defend itself, but it may doubt that a defender will fulfill a pledge to defend a third party. During the Cold War, for example, there were constant debates about the credibility of the U.S. promise to "sacrifice New York for Paris"').
[383] See Michael Rühle, 'NATO and Extended Deterrence in a Multinuclear World' (2009) 28(1) *Comparative Strategy* 10.
[384] And also the nuclear deterrent of the UK, see 'The UK's nuclear deterrent: the facts' (*United Kingdom Ministry of Defence*, 16 March 2021) <https://www.gov.uk/guidance/the-uks-nuclear-deterrent-the-facts> ('Our deterrent makes a key contribution to European and Euro-Atlantic security, and is a fundamental part of NATO's strategy').

nuclear and conventional capabilities… [a]s long as nuclear weapons exist, NATO *will remain a nuclear alliance*'.[385] In addition, the US has committed to bilateral extended deterrence arrangements with Australia,[386] Japan, and South Korea,[387] each of which likely include a nuclear dimension.[388] Moreover, Delpech has suggested that the former Secretary-General of the Collective Security Treaty Organization (CSTO) Nikolai Bordyuzha previously suggested in 2010 that Russia 'was ready to protect its allies [within the CSTO], *including with nuclear weapons*'.[389] Whether a nuclear umbrella presently exists between Russia and *all* other CSTO member states is subject to dispute, particularly as Kazakhstan (also now a TPNW party[390]), Tajikistan and Kyrgyzstan are parties to the Treaty of Semipalatinsk establishing a NWFZ in Central Asia.[391]

Given that nuclear umbrellas essentially have the same purpose as 'primary' nuclear deterrence in deterring unwanted behaviour against allies,[392] it is somewhat unsurprising that the TPNW's prohibitions are equally incompatible with and seek to delegitimise extended nuclear deterrence policies.[393] One may initially assume that this again is due to the prohibition of threatening to use nuclear weapons under Article 1(1)(d).[394] In essence, the issue here revolves around the following proposed question by Hayashi:

> 'Are non-nuclear states protected under the umbrella of their nuclear-armed allies to be considered threateners? In other words, can 'threatening to use force by

[385] 'Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization: Active Engagement, Modern Defence' (*NATO*, 19 November 2010) <https://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf> 14 (emphasis added) (hereafter Strategic Concept 2010). This view was confirmed in the Brussels Summit Communiqué (*NATO*, 14 June 2021) <https://www.nato.int/cps/en/natohq/news_185000.htm>

[386] For a useful discussion of Australia's reliance upon US nuclear weapons, see Monique Cormier and Anna Hood, 'Australia's Reliance on US Extended Nuclear Deterrence and International Law' (2017) 13(1) *Journal of International Law and International Relations* 3, particularly 8-25.

[387] 'Joint Statement Between the United States and the Republic of Korea' (30 June 2017) <https://kr.usembassy.gov/063017-joint-statement-united-states-republic-korea/>. A useful discussion of US extended nuclear deterrence in South Asia is offered by Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence after the Cold War* (Columbia University Press 2017).

[388] Although often this is not made explicit, but rather merely implied by the umbrella state, see e.g. Cormier and Hood (2017).

[389] Thérèse Delpech, *Nuclear Deterrence in the 21st Century: Lessons from the Cold War Era of Strategic Piracy* (RAND Corporation 2012) 132 (bracketed text added). These comments should not be considered legally binding. Rather they seem to reflect an interest in strengthening the CSTO.

[390] To be returned to further below.

[391] And, therefore, accept similar obligations and prohibited activities as the TPNW, which as discussed below, precludes its state parties from relying upon extended nuclear deterrence. See also Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 12, who notes that it is arguably only Belarus (and with less certainty Armenia) which may be protected by Russia's nuclear umbrella.

[392] In effect, to deter unwanted behaviour and aggression against NNWS allies.

[393] As claimed by states presently protected by nuclear umbrella's noted above.

[394] See section 4.b.i. above.

means of nuclear weapons' include 'threatening to have such force used by one's ally'?'[395]

In connection with the TPNW, Hayashi would seemingly suggest that the notion of threatening to use nuclear weapons under Article 1(1)(d) would encompass indirect threats issued by military aligned NNWS to have nuclear weapons used on its behalf.[396] Moreover, Hayashi argues that through membership and participation within a collective security alliance, and by '*placing themselves under nuclear umbrellas*, non-nuclear weapon States 'communicate' the intention of their nuclear-armed Allies to use nuclear weapons on their behalf'.[397]

By contrast, Casey-Maslen submits that the concept of threatening to use nuclear weapons under Article 1(1)(d) covers the 'act of the *state party itself*, *and not that of another state*, entity, or actors threating use against a designated target'.[398] In other words, the notion of 'threaten' in Article 1(1)(d) covers a state's *own* actions, not that of another state acting on its behalf. This author finds Casey-Maslen's position more persuasive. Indeed, under extended deterrence, it is not the NNWS that is threatening to use nuclear weapons *per se*: rather the NNWS is claiming – whether supported or unjustified – that a NWPS ally will use its nuclear weapons to protect the NNWS in question. Put differently, it remains the NWPS extending the umbrella that does the deterring and threatening: the NNWS by contrast merely relays and accepts this protection. Ultimately, therefore, whether a particular nuclear umbrella deterrence posture is credible depends largely upon the actions, capabilities and commitment provided by the NWPS offering the protection. This is similarly noted by Fuhrmann who suggests the 'defender [the state with nuclear weapons] must convince potential adversaries that it will come to the aid of its *protégé* [allies]'.[399] As such, a NNWS can assert as much as it likes that it is part of a nuclear alliance and accepts that nuclear weapons will be used on its behalf. However, such a 'threat' remains heavily dependent upon the credibility and actions of the NWPS offering the claim.[400] A NNWS may therefore advance a

395 Nobuo Hayashi, 'Legality Under *Jus ad Bellum* of the Threat of Use of Nuclear Weapons', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 49.
396 See generally, Hayashi (2019).
397 Hayashi (2019) 390-91. This echoes a similar position by Romana Sadurska, 'Threats of Force' (1988) 82(2) *American Journal of International Law* 239, 243. See also, International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 3.
398 Casey-Maslen (2019) 156 (emphasis added).
399 Fuhrmann (2018) 52.
400 This has come to light previously in relation to the credibility of the Trump Administration's commitment to NATO, and security partnerships in South Asia under President Trump, see e.g. Shingo Yoshida, 'Mixed Messages on Nuclear Deterrence' (*Japan Times*, 20 October 2019) <https://www.japantimes.co.jp/opinion/2019/10/20/commentary/japan-commentary/mixed-messages-nuclear-

'threat by proxy', so to speak, the overall effectiveness and credibility of which depends on its NWPS ally. This would in turn, suggest that membership of a collective security arrangement by a NNWS – such as NATO – would not *ipso facto* violate Article 1(1)(d).[401]

Despite this, the TPNW nonetheless excludes the possibility of NNWS enjoying the protection of an extended nuclear umbrella while becoming party to the treaty through the operation of Article 1(1)(e), which states:

> '1. Each State Party undertakes never under any circumstances to:
>
> > (e) Assist, *encourage* or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Treaty'.[402]

As discussed previously, the Article 1(1)(e) prohibition is broad both in terms of the actors that it covers through use of the word 'anyone', and that assistance, encouragement, or inducement should not be provided 'in any way'.[403] Of particular relevance here is the prohibition on 'encouragement', which means to 'attempt to persuade',[404] or 'to make something more likely to happen'.[405] This does not require the encouragement to be successful in altering the actions of another state through effective persuasion, but merely constitutes an attempt by one state to try and persuade another state to do something.[406]

Cormier, amongst others,[407] has taken the position that '[a]t a minimum, a State relying on extended nuclear deterrence could be *said to be encouraging a nuclear ally to maintain its nuclear arsenal for deterrence purposes*'.[408] Indeed, when entering into extended nuclear deterrence arrangements, a NNWS either explicitly or implicitly encourages the NWPS 'protector' to threaten to use and

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deterrence/>; and Alexandra Bell, 'The US Should be Strengthening Deterrence. The Opposite is Happening' (*Defense One*, 16 May 2019) <https://www.defenseone.com/ideas/2019/05/us-should-be-strengthening-deterrence-opposite-happening/157067/>

401 Casey-Maslen (2018a) 41.

402 Article 1(1)(e), TPNW (emphasis added).

403 See Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 7. And noted by Casey-Maslen (2018a) 43.

404 'Encourage', Definitions 1(b) (*Merriam-Webster Online Dictionary*) <https://www.merriam-webster.com/dictionary/encourage>

405 'Encourage', Definition 1 (*Cambridge Online Dictionary*) <https://dictionary.cambridge.org/dictionary/english/encourage>

406 Casey-Maslen (2019) 164.

407 See e.g. International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf>; Casey-Maslen (2018a) 42-50; Harries (2017) 53; and Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW and its Implications for Norway', *Norwegian Academy of International Law*, September 2018, 12.

408 Cormier (2020) 274 (emphasis added).

continue to possess nuclear weapons on its behalf;[409] activities prohibited by Article 1 of the TPNW. This becomes apparent when one considers the role of the NATO Nuclear Planning Group, through which all NATO members – apart from France – '*reviews and sets* the Alliance's nuclear policy', thereby demonstrating how NATO members support the retention and possible use of nuclear weapons as part of the alliance's broader strategic planning.[410] Moreover, the 2010 Strategic Concept notes that all NATO members '*will ensure* that NATO has the full range of capabilities necessary to deter and defend… Therefore, we will: … *maintain* an appropriate mix of nuclear and conventional forces'.[411]

With these policy statements in mind, Egeland has claimed that the UK and US have 'consistently justified' and 'framed spending on nuclear-weapon systems as *necessary to fulfil* '*extended deterrence commitments*''.[412] Wareham likewise observes that:

> 'Australia's willing and unquestioning support for nuclear deterrence *strengthens the claim of US officials that their nation has a responsibility to its allies to maintain, strengthen and modernise its nuclear arsenal.* President Obama's 2010 Nuclear Posture Review (NPR) again reinforced the need for US nuclear weapons to protect not only itself but also its allies'.[413]

In light of this assessment, it seems apparent that a nuclear umbrella state that accedes to the TPNW would be in violation of Article 1(1)(e) should it continue to accept extended nuclear deterrence protection by implicitly encouraging its NWPS ally to maintain and even modernise its nuclear forces, activities prohibited under Article 1.[414]

Clearly, therefore, the TPNW effectively makes it 'unlawful for a state party to benefit from the protection of a nuclear umbrella arrangement' while remaining party to the treaty,[415] thus

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409 As noted by International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 2.

410 'Topics: Nuclear Planning Group' (*NATO*, 27 May 2020) <https://www.nato.int/cps/ro/natohq/topics_50069.htm> (emphasis added).

411 Strategic Concept 2010, 15.

412 Kjølv Egeland, 'Arms, Influence and the Treaty on the Prohibition of Nuclear Weapons' (2019) 61(3) *Survival: Global Politics and Strategy* 57, 69 (emphasis added). A similar point has been made by Egeland elsewhere, see Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW and its Implications for Norway', *Norwegian Academy of International Law*, September 2018, 26.

413 Wareham (2013) 267.

414 Casey-Maslen (2019) 165.

415 International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 5. See a similar conclusion by Anna Hood and Monique Cormier, 'Can Australia Join the Nuclear Ban Treaty Without Undermining ANZUS?'

reinforcing the delegitimisation of nuclear deterrence and nuclear weapons generally. This conclusion, however, raises important subsequent questions: firstly, is accession to the TPNW legally compatible with existing collective security arrangements commitments, such as those assumed by the Netherlands in NATO, due to this delegitimisation effect? And furthermore, can NATO members and other NNWS that shelter under the nuclear umbrella of the US join the TPNW in the future as a practical matter? Some commentators, including Hayashi, are of the opinion that collective security arrangements and TPNW commitments are simply contradictory, and thus cannot be reconciled.[416] Harries takes a similar position, and suggests that if an umbrella state were to join the TPNW, the present construction of extended deterrence under NATO would either have to 'denuclearise' and rely solely on conventional deterrence capabilities, or would otherwise require the NNWS in question to 'fully break from military cooperation with a nuclear power'.[417]

However, with respect, these arguments fail to recognise two significant points. First, it is widely acknowledged that both the 2010 Strategic Concept, and the 2012 Deterrence and Defence Posture Review[418] are political documents reflecting current NATO policy and non-binding commitments on collective self-defence and its present conventional and nuclear deterrence strategy.[419] Undoubtedly these policy documents and commitments represent significant influences on state participation within the NATO alliance. But as a strictly legal matter, NATO members are under no obligation to accept every line of strategic language promoted within alliance policy documents, and instead can distance themselves from certain policy decisions through 'footnoting'.[420] Moreover, although the North Atlantic Treaty obligates its parties to 'separately and jointly… maintain and develop their individual and collective capacity to resist armed attack',[421]

(2020) 44(1) *Melbourne University Law Review* 132, 138 who generally conclude that Australia will need to give up its nuclear weapons-related activities with the US if it decides to join the TPNW.

416 See Hayashi (2019) generally; and Black-Branch (2021) 177-83.

417 Harries (2017) 54.

418 See 'Deterrence and Defence Posture Review' (*NATO Chicago Summit*, 20 May 2012) <https://www.nato.int/cps/en/natohq/official_texts_87597.htm>

419 For support of this position, see Casey-Maslen (2019) 165, who refers to the strategic concept as a political declaration; and International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 3-4.

420 Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 51. Although admittedly no state has done so in relation to extended nuclear deterrence.

421 Article 3, North Atlantic Treaty (adopted 4 April 1949, entered into force 24 August 1949) 34 UNTS 243 (hereafter NAT).

and endorses the principle of collective self-defence within Article 5,[422] nowhere in the treaty are nuclear weapons explicitly referenced.[423]

With the non-binding nature of extended nuclear deterrence commitments in mind, Casey-Maslen suggests that it would be 'sufficient legally – and straightforward practically – for a nuclear umbrella state to *disavow* all support for the possession or use of nuclear weapons in a declaration appended to its instrument of ratification or accession and then to comply with the rest of the 2017 Treaty'.[424] The latter assertion is perhaps a stretch. Nevertheless, in theory, any present nuclear umbrella state acceding to the TPNW could distance itself from statements and practices endorsing the potential use of, role for, or reliance upon nuclear weapon protection,[425] while remaining a member of a defensive alliance and even participate in military training exercises and activities that are purely non-nuclear weapons-related in nature.[426]

Second, state practice in connection with other disarmament instruments seems to demonstrate that accession to the TPNW *is* possible while remaining a member of a security alliance. Casey-Maslen, for instance, notes that the issue of interoperability arose in the context of the APMBC,[427] where the Czech Republic, amongst other states, declared upon ratification in 1999 that the:

> 'mere participation in the planning or execution of operations, exercises or other military activities by the Armed Forces of the Czech Republic, or individual Czech Republic nationals, conducted in combination with the armed forces of States not party to the [Convention], which engage in activities prohibited under the Convention, *is not, by itself*, assistance, encouragement or inducement for the purposes of Article 1, paragraph 1 (c) of the Convention'.[428]

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422 Article 5, NAT.

423 See also Grace Castro, 'This Ain't a Scene, It's an Arms Race: NATO and the Use of Nuclear Weapons to Maintain the Commitment to Collective Self Defense' (2018) 50(2) *George Washington International Law Review* 421, who suggests that Article 5 should be amended to explicitly permit nuclear sharing and a greater reliance upon nuclear weapons within NATO. The same could be said in relation to the Security Treaty between Australia, New Zealand and the United States of America (adopted 1 September 1951, entered into force 29 April 1952) 131 UNTS 83, although Australia has interpreted this agreement as having a nuclear component, see Cormier and Hood (2017) 8-25.

424 Casey-Maslen (2019) 165 (emphasis added).

425 Egeland (2019) 69; and Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 51.

426 Provided that nuclear weapons are not involved in the exercise in any way, see Casey-Maslen (2019) 166.

427 Casey-Maslen (2019) 165.

428 See Declaration of the Czech Republic, <https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVI-5&chapter=26&clang=_en> (emphasis added). See also the declarations of Canada, Australia, Montenegro, Poland, Serbia, and the UK which each made comparable statements to this effect. See also similar memorandum by Sweden in relation to Article 1(c), 'Swedish Position on the Significance of Article 1(c) of the Ottawa Convention as regards Participation in International Peace Operations', Memorandum, Ministry of Foreign Affairs of Sweden, 1 September 2001, quoted by Stuart Casey-

Austria has reportedly endorsed this position in the TPNW context, with Ambassador Hajnoczi stating that the 'mere fact of belonging to a military alliance together with nuclear weapon states or of participating in military manoeuvres with such states *without actively assisting in, encouraging or inducing the deployment of nuclear weapons does not fall under the prohibition of Article 1(1)(e)*'.[429] This position is worth giving considerable interpretative weight as subsequent practice pursuant to Article 31(3)(b) of the VCLT in light of Austria's leading role in the negotiation process of the TPNW and Humanitarian Initiative.[430]

Furthermore, Kazakhstan's ratification of the TPNW on 29 August 2019 may offer a 'test' case as to whether a state party to a collective security alliance can join the TPNW.[431] Since renouncing the approximately 1,410 nuclear weapons that it inherited following the dissolution of the former Soviet Union,[432] Kazakhstan has been a prominent supporter of nuclear disarmament. Kazakhstan dismantled its Semipalatinsk nuclear test site in 2000, and has ratified the NPT, the CTBT, and entered into an Additional Protocol with the IAEA in 2004.[433] Kazakhstan has also seemingly renounced extended nuclear deterrence protection from Russia by ratifying the Treaty on Semipalatinsk establishing the Central Asian-NWFZ.[434] This, coupled with Kazakhstan's ratification of the TPNW, suggests that Kazakhstan believes that it can remain a member of the CSTO and thus accept Russian collective security assurances without violating Article 1(1)(e) and the prohibition on encouragement. Thus, while outwardly renouncing extended nuclear deterrence by ratifying both the Treaty on Semipalatinsk and TPNW, Kazakhstan has not rejected broader military cooperation with Russia entirely.[435]

Having said this, Kazakhstan still permits Russia to conduct missile defence testing at the Kapustin Yar site located in both Russia and Kazakh territory, and the Sary Shagan test site located

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Maslen, *Commentaries on Arms Control Treaties Volume 1: The Convention on the Prohibition of Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction* (Oxford University Press 2005) 99.

429 See Casey-Maslen (2019) 165 (emphasis added) quoting an email exchange with Ambassador Thomas Hajnoczi, Former Head of the Disarmament Department of the Ministry of Foreign Affairs, Austria. Elsewhere, Casey-Maslen (2018a) 48 argues that Sweden could continue to participate in military exercises *not* involving nuclear weapons such as Aurora 17.

430 Article 31(3)(b), VCLT.

431 Kazakhstan ratified the TPNW on 29 August 2019, for details of the signature and ratification status of the TPNW, <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26&clang=_en>

432 See Kingston Reif, 'The Lisbon Protocol at a Glance' (*Arms Control Association*, updated December 2020) <https://www.armscontrol.org/node/3289>

433 See for an overview of Kazakhstan's nuclear weapons history, 'Kazakhstan: Nuclear' (*Nuclear Threat Initiative*, updated April 2018) <https://www.nti.org/learn/countries/kazakhstan/nuclear/>

434 Treaty on a Nuclear-Weapon-Free Zone in Central Asia (adopted 8 September 2006, entered into force 21 March 2009) 2970 UNTS.

435 It must be noted that some have questioned this conclusion, and argue that the language of 'all means available' in the Article 4 collective defence clause of the Treaty on Collective Security, could include nuclear weapons use, see Ulrich Kühn, 'Kazakhstan – Once More a Testing Ground?' (*Carnegie Endowment for International Peace*, 12 July 2019) <https://carnegieendowment.org/2019/07/12/kazakhstan-once-more-testing-ground-pub-79510>

exclusively within Kazakhstan's territory, and also leases territory to Russia for ICBM testing purposes.[436] A similar concern has been highlighted in relation to the Marshall Islands, which – although it has not yet ratified the TPNW – continues to allow the US to carry out ICBM testing on Kwajalein Atoll.[437] While this may not necessarily amount to encouragement to maintain nuclear weapons given both the Kazakhstan's and Marshall Islands' renunciation of nuclear deterrence for security *per se*, these actions could be interpreted as prohibited assistance as defined under Article 1(1)(e) by helping Russia and the US develop ICBM delivery systems for their respective nuclear arsenals.[438]

Nevertheless, the example of Kazakhstan demonstrates that while it is certainly possible for current nuclear umbrella NNWS to renounce reliance upon extended nuclear deterrence and join the TPNW from a legal perspective, such a decision undoubtedly raises complex security, political and implementation choices that must be diligently addressed in order to become compliant with the Article 1 prohibitions.[439] Many current umbrella NNWS would have to accept and implement drastic changes to their existing military commitments and arrangements with NATO, and individually assess whether abandoning extended nuclear deterrence would unfavourably impact their respective security interests.[440] With this in mind, it appears conceivable that Kazakhstan may be required to end its leasing arrangements with Russia as an expression of its good faith compliance with the TPNW.[441] Further interpretation and commentary from other state parties regarding this issue would therefore be welcome, and may be provided following the TPNW's entry into force, perhaps within the institutional settings of the TPNW established pursuant to Article 8.

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436 Ibid.

437 Casey-Maslen (2018a) 45. See 'Marshall Islands' (*ICAN: State Profiles*) <https://www.icanw.org/marshall_islands>. Interestingly, ICAN does not comment on Kazakhstan permitting of Russian ICBM tests as a possible source or evidence of violation of Article 1(1)(e), TPNW.

438 As concluded by Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 5.

439 This is noted also by Hans M Kristensen and Matt Korda, 'Russian Nuclear Forces, 2020' (2020) 76(2) *Bulletin of the Atomic Scientists* 102, 108-09 ('This means that upon entry into force [of the TPNW], Kazakhstan will face a tough decision over whether to fully comply with the treaty and risk souring relations with Russia, or whether to dilute its compliance').

440 Harries (2017) 55 makes a similar point ('A NATO signatory to the ban treaty would be faced with an onerous series of steps to given even a basic appearance of compliance [with the TPNW]. It would have to leave the Nuclear Planning Group. It would have to declare that it rejected any use or threat of use of nuclear weapons in its defence by the Alliance. It would have to explicitly disassociate itself with current NATO declaratory policy, and lobby to either to remove all references to nuclear weapons in future consensus NATO statements, or caveat them to exclude itself').

441 Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 50.

But, even if these changes were implemented, this would not wholly prevent a nuclear umbrella state from 'benefitting' from the protection of extended nuclear deterrence indirectly. Egeland makes this point through the following hypothetical scenario:

> 'accession to the TPNW by Denmark would prohibit Copenhagen from assisting, encouraging or inducing the United States to use nuclear weapons – for example by hosting US tactical nuclear munitions on Danish territory – *but would not prevent the United States from using nuclear weapons against a common enemy*'.[442]

Put differently, even if Denmark did not explicitly or implicitly encourage or assist the US in either using or threatening to use of nuclear weapons in any way – thereby remaining in strict compliance with its various undertakings under Article 1(1)(e) of the TPNW – Denmark may nonetheless still receive the same strategic benefits afforded by extended nuclear deterrence protection incidentally.

Consequently, whether a NNWS could as a practical matter disavow support for, and completely separate itself from the future protection of extended nuclear deterrence while remaining a member of the collective security alliance remains unclear.[443] Although it may be relatively straightforward legally to renounce support for nuclear umbrella protection while maintaining membership of NATO from a declaratory perspective, such distancing on a practical level will likely prove incredibly challenging. In the end, therefore, it may be that complete dissociation from a collective security alliance premised on nuclear deterrence may be necessary by any acceding umbrella state in order to foreclose extended nuclear protection altogether from an operational perspective.

c. The TPNW Fails to Consider the Existing Security Challenges that makes Nuclear Deterrence Necessary

In light of the above discussion, the criticisms raised by both the NWPS, umbrella allies and commentators are entirely accurate:[444] the TPNW prohibitions – particularly those established under Article 1(1)(d) and (e) – are clearly incompatible with, and therefore both challenge and delegitimise, nuclear deterrence policies and practices. Yet surely such a conclusion is unsurprising in light of the TPNW's fundamental object and purpose in seeking to advance the elimination of nuclear weapons as a step towards the achievement and maintenance of a nuclear weapon-free

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[442] Egeland (2019) 70.
[443] Casey-Maslen (2018) 48; and Harries (2017).
[444] As outlined in the introduction of section 4 above.

world?[445] As Nystuen, Egeland and Graff Hugo suggest, if the TPNW negotiators 'permitted states to continue to explicitly endorse the potential use of nuclear weapons, the treaty drafters would have failed in their mission'.[446] Quite simply, efforts to delegitimise nuclear deterrence by prohibiting the central characteristics and elements inherent within an effective and credible deterrence policy therefore conforms to the broader objectives of the TPNW as a whole.

Instead, criticism highlighting the incompatibility of nuclear deterrence with Article 1 reflects a broader concern by opponents that the TPNW fails to address – or at least acknowledge – the 'security threat[s] that motivates states to possess nuclear weapons in the first place'.[447] The joint statement released by the US, UK, and France on 7 July 2017 following the TPNW's adoption argued that:

> 'The [TPNW] clearly *disregards the realities of the international security environment*… A purported ban on nuclear weapons *that does not address the security concerns that continue to make nuclear deterrence necessary* cannot result in the elimination of a single nuclear *weapon and will not enhance any country's security*, nor international peace and security'.[448]

As a result, the NWPS and their allies claim that the TPNW presents a threat to strategic stability through its attempts to delegitimise nuclear deterrence,[449] while simultaneously criticising the treaty for failing to take into account the condition of the broader security international environment that continues to deteriorate.[450] The TPNW and its supporters are subsequently typified as unrealistic,[451] and '*fundamentally unserious about addressing the real challenges of maintaining peace and security* in a complicated and dangerous world, and unserious about trying to make that world a genuinely

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[445] International Human Rights Clinic, 'Nuclear Umbrella Arrangements and the Treaty on the Prohibition of Nuclear Weapons' (*Human Rights Programme at Harvard Law School*, June 2018) <http://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf> 2, similarly noting that nuclear umbrella arrangements, extended nuclear deterrence and even the existence of nuclear weapons is 'inherently inconsistent with the TPNW's object and purpose'.
[446] Nystuen, Egeland, and Graff Hugo (2018) 23.
[447] Van (2018) (bracketed text added).
[448] Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption', (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/> (emphasis added, bracketed text added).
[449] As summarised by Nystuen, Egeland, and Graff Hugo (2018) 24.
[450] 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/en/natohq/news_146954.htm>
[451] As noted by Japanese Prime Minister Shinzo Abe, who is also quoted as saying '[t]he Treaty on the Prohibition of Nuclear Weapons was adopted without taking into consideration the reality of the harsh national security environment', by Mari Yamaguchi, 'Nagasaki urges nuke ban on 75th anniversary of US atomic bombings' (*Times of Israel*, 9 August 2020) <https://www.timesofisrael.com/nagasaki-urges-nuke-ban-on-75th-anniversary-of-us-atomic-bombing/>

safer place'.[452] Ford likewise concludes that given the 'threats that the United States, its extended deterrence allies, and its security partners face right now, *it would be extraordinarily foolish and dangerous to undercut these deterrent relationships*' by ratifying the TPNW.[453]

Yet rather than a further legal criticism of the TPNW, this concern is predominantly policy and strategy-orientated on two related grounds.[454] First, this final criticism acutely masks the underlying normative contest at the heart of the TPNW – and the debate over nuclear weapons generally; 'that is, *whether the perceived benefits of nuclear deterrence on national security and strategic stability justify risking the catastrophic consequences of nuclear weapons use*'.[455] In other words, disagreement over the TPNW reflects the broader divergence and polarisation of opinion amongst states – particularly the NWPS and allies on the one hand, and TPNW supporters on the other – regarding the strategic utility, value,[456] and overall acceptability of nuclear weapons weighed against the evident humanitarian costs that would stem from their future use. Indeed, Nystuen, Egeland, and Graff Hugo have similarly observed that 'where the supporters and the critics of the TPNW disagree, *is on the question of whether efforts at undermining nuclear deterrence are good or bad*'.[457]

Relatedly, however, this emphasis on security considerations by NWPS also reflects broader disagreement as to precisely how nuclear disarmament should be achieved: that is, how should states go about proceeding towards nuclear 'zero'.[458] These contrasting views on this matter amongst TPNW opponents and supporters are usefully summarised by Dhanapala:

> 'Broadly speaking, the debate between NWS and their allies, on the one hand, and the [NNWS], on the other, centres on whether their seemingly common objective for the elimination of nuclear weapons and general and complete disarmament *should be reached by first achieving security and then nuclear disarmament or by agreeing on a nuclear weapon ban, followed by its gradual implementation*'.[459]

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452 Ford (2017) (emphasis added).
453 Ibid (emphasis added).
454 Though such policy and strategic considerations undoubtedly come into play within the other criticisms discussed in this Chapter, for instance concerning withdrawal.
455 Erästö (2019) (emphasis added).
456 Particularly the supposed prestigious and symbolic representation of power and influence that is often associated with nuclear weapons possession, see Scott D Sagan, 'Why do States Build Nuclear Weapons?' (1994) 21(3) *International Security* 54.
457 Nystuen, Egeland, and Graff Hugo (2018) 23 (emphasis added).
458 Ibid, 24.
459 Jayantha Dhanapala, 'Finally, Nuclear Weapons are Outlawed' (*UNIDIR*, 12 August 2020) <https://www.unidir.org/commentary/finally-nuclear-weapons-are-outlawed> (emphasis added, bracketed text added).

The contest over the TPNW, nuclear weapons, and nuclear disarmament progression generally reflects these polarised positions, particularly the contrasting levels of priority given to state-based security considerations. For the NWPS, including the UK, nuclear weapons and deterrence continues to remain a valuable, necessary element of strategic planning and 'exists *to deter the most extreme threats to our national security and way of life*, which cannot be deterred by other means'.[460] In a similar vein, the 2018 US Nuclear Posture Review highlights that '[t]he current threat environment and future uncertainties now *necessitate a national commitment to maintain modern and effective nuclear forces*'.[461] Quite simply, the NWPS identify an intrinsic link between the condition of the international security environment and the continued necessity and justification for relying upon nuclear deterrence postures.[462]

This recognition of the security-driven necessity of nuclear deterrence is epitomised by the US-led 'Creating an Environment for Nuclear Disarmament' (CEND) initiative,[463] which recalls that '[a]ny viable path towards disarmament therefore must take into consideration, *and try to ameliorate*, the problems of the security environment that presently impede progress towards this shared goal'.[464] Both the CEND initiative, and NWPS opposition to the TPNW generally, therefore emphasises first, that security interests remain of paramount importance for NWPS and allies; second, security considerations and nuclear weapons are intrinsically connected; and accordingly, third, advancing nuclear disarmament and reducing the role of nuclear deterrence is dependent entirely upon reducing existing security threats and instability that presently make nuclear deterrence necessary.[465] As such, the TPNW – which, from the view of the NWPS

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460 'The UK's Nuclear Deterrent: What You Need to Know' (*Ministry of Defence*, *United Kingdom*, updated 21 April 2021) <https://www.gov.uk/government/publications/uk-nuclear-deterrence-factsheet/uk-nuclear-deterrence-what-you-need-to-know> (emphasis added).

461 'Nuclear Posture Review' (*US Department of Defense*, February 2018) <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> 3.

462 As noted by Jayantha Dhanapala, 'Finally Nuclear Weapons are Outlawed' (*UNIDIR*, 12 August 2020) <https://www.unidir.org/commentary/finally-nuclear-weapons-are-outlawed>

463 Working paper submitted by the United States of America, 'Operationalizing the Creating an Environment for Nuclear Disarmament (CEND) Initiative' (26 April 2019) NPT/CONF.2020/PC.III/WP.43. The initiative provides an informal platform for dialogue among both NWPS and NNWS to address the challenges facing the international security environment that presently impede negotiations and efforts towards on nuclear disarmament, see Christopher P Evans, 'Creating an Environment for Nuclear Disarmament (CEND): a Good Faith Effective Measure Pursuant to Article VI NPT or Empty Gesturing?' (2020) 9(2) *Cambridge International Law Journal* 201. See also Assistant Secretary for the Bureau of International Security and Nonproliferation Christopher A Ford, 'Creating the Conditions for Nuclear Disarmament: A New Approach' (*Centre for Nonproliferation Studies*, 17 March 2018) <https://2017-2021.state.gov/remarks-and-releases-bureau-of-international-security-and-nonproliferation/creating-the-conditions-for-nuclear-disarmament-a-new-approach/index.html>; and Heather Williams, 'CEND and a Changing Global Nuclear Order' (*European Leadership Network,* 18 February 2020) <https://www.europeanleadershipnetwork.org/commentary/cend-and-a-changing-global-nuclear-order/>

464 Working paper submitted by the United States of America, 'Operationalizing the Creating an Environment for Nuclear Disarmament (CEND) Initiative' (26 April 2019) NPT/CONF.2020/PC.III/WP.43, 2.

465 A similar rationale has been invoked by the US and Israel in connection to the proposed Middle East nuclear weapon/WMD free-zone, whereby Israel claims that such a zone can only be created as a result of peace in the region.

supposedly seeks to eliminate nuclear weapons in isolation from the realities of the security environment – is conceptually flawed and will ultimately prove unsuccessful in contributing towards nuclear disarmament.[466]

By contrast, the TPNW and its supporters categorically reject the supposed logic and traditionally perceived the security-enhancing value associated with nuclear weapons, and instead point to the 'effects on human survival, the environment, socioeconomic development, the global economy, food security and the health of current and future generations' as sufficient justification to delegitimise, prohibit, and ultimately abolish nuclear weapons.[467] By applying 'normative pressure' on NWPS, 'closing the legal gap' by establishing extensive prohibitions on nuclear weapons under international law, and reshaping how nuclear weapons are perceived and discussed by the NWPS, TPNW supporters intend for the NWPS and umbrella states to question the underlying rationality of relying on nuclear deterrence through the delegitimisation process imbedded within the TPNW.[468] Consequently, while appreciating that the TPNW will not lead to nuclear disarmament in the near future,[469] supporters ultimately claim that the treaty 'directly challenges the acceptability of nuclear-weapon use and possession by any state under any circumstances'.[470] This approach reflects a constructivist understanding of how international agreements such as the TPNW can influence the norms, behaviour and attitudes of states by altering perceptions of the strategic value of nuclear weapons.[471]

Moreover, it is also inaccurate to suggest that state-centred security considerations did not play any role in the thought process of the non-aligned NNWS that instigated the TPNW and Humanitarian Initiative since 2010. On the contrary, engaged NNWS were undeniably driven by the awareness of the dangers posed by nuclear weapons, not only to humankind but also to state security too. Furthermore, TPNW supporters are acutely aware that it is the growing instability of

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See for a useful discussion of the history and proposals for the Middle East Nuclear-Weapon-Free-Zone, Marco Roscini, 'International Law, Nuclear Weapon-Free Zones and the Proposed Zone Free of Weapons of Mass Destruction in the Middle East', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014).

[466] A position which underlies the Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[467] Erästö (2019).

[468] See Considine (2019) who discusses this objective at length; Beatrice Fihn, 'The Logic of Banning Nuclear Weapons' (2017) 59(1) *Survival: Global Politics and Strategy* 43; and Merav Datan and Jürgen Scheffran, 'The Treaty is Out of the Bottle: The Power and Logic of Nuclear Disarmament' (2019) 2(1) *Journal for Peace and Nuclear Disarmament* 114.

[469] Fihn (2017) 45.

[470] Ibid; and Considine (2019) 1076.

[471] See e.g. Jutta Brunnée and Stephen J Toope, 'Constructivism and International Law', in Jeffrey L Dunoff and Mark A Pollack (eds), *Interdisciplinary Perspectives on International Law and International Relations* (Cambridge University Press 2013); and Jutta Brunnée and Stephen J Toope, 'International Law and Constructivism: Elements of an International Theory of International Law' (2000) 39(1) *Columbia Journal of Transnational Law* 16.

NWPS relations that has contributed to the overall deteriorating security environment over the past decade or so, a condition that in turn makes nuclear weapons elimination essential for global security. From this perspective, the TPNW is *both* a humanitarian-inspired and a security-driven development, fully cognisant of the threat posed by nuclear weapons in conjunction with a deteriorating security.[472]

TPNW opponents, by contrast, have been keen to stress that the TPNW's normative agenda will not have its desired effect upon all states equally,[473] and consequently, the TPNW will not lead to the 'elimination of a single nuclear weapon' at present.[474] At the same time, however, the very raising of the discussed criticisms in this section by the NWPS and sceptical commentators, particularly the concern that the TPNW undermines the existing international nuclear non-proliferation and disarmament regime, arguably demonstrates that the NWPS believe that there is a possibility that the TPNW may, over time, facilitate a change in nuclear weapons perceptions and disarmament discussions.[475]

Accordingly, the underlying challenge becomes one of analysing whether the TPNW's human-centred, normative agenda *has* had, or perhaps more appropriately, *is* currently having any impact in revitalising nuclear disarmament negotiations and influencing states' position *vis-à-vis* the TPNW on a practical level. Are the NWPS and umbrella allies acknowledging the humanitarian-based arguments underpinning the TPNW and taking a less hostile stance towards the treaty generally? Has the TPNW managed to reinvigorate nuclear disarmament efforts, be that directly, or even incidentally since its adoption? How has the TPNW influenced recent discourse surrounding nuclear weapons and nuclear disarmament generally within multilateral disarmament forums? And has there been any noteworthy disruption of existing nuclear non-proliferation and disarmament treaties or negotiations such as the NPT Review Process? In other words, what visible, or 'practical' impact and influence can the TPNW be seen as having in revitalising interest in, and progress towards, nuclear disarmament negotiations and legal developments thus far? These questions, amongst others, will now be explored in Part III.

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[472] See this author's discussion of precisely this point elsewhere, Christopher P Evans, 'Questioning the Status of the Treaty on the Prohibition of Nuclear Weapons as a 'Humanitarian Disarmament' Agreement' (2021) 36(1) *Utrecht Journal of International and European Law* 52.

[473] A particular concern is that democratic, 'Western' states may be more effected by the normative discourse of the TPNW, see Rühle (2017).

[474] Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[475] Nystuen, Egeland, and Graff Hugo (2018) 35.

Part III – Assessing the Impact and Influence of the TPNW

Having provided an extensive analysis of the TPNW's nuclear disarmament-related provisions in Part II, as well as assessing the validity of common criticisms raised against the treaty, Part III now intends to highlight what impact and influence the TPNW can be seen as having on an observable, or practical level since 2017. In recalling the brief overview of the methodology to be adopted in Part III as outlined in the introduction to this thesis, the discussion below does not intend to employ any specific methodological or theoretical approach to determine how the TPNW, as an instrument of international law, has or may influence state behaviour and actions.[1] Accordingly, constructivist perspectives that analyse the influence and role of law in social situations and in shaping state preferences and attitudes,[2] or economic accounts that assess how law can influence the cost-benefit calculus of actors to influence decision-making are not adopted here.[3]

Instead, Part III examines the TPNW's influence 'in practice' by analysing the various ways in that the treaty can be seen as impacting existing discourse surrounding nuclear disarmament on the international plane. To quote briefly from the methodology section in the introduction of this thesis, Part III:

> 'remains both descriptive and analytical in order to highlight and ultimately examine the current practical operation and influence of the TPNW on the 'international plane' so far. *It therefore enquires as to how states have engaged with the treaty, whether it has encouraged further discourse on nuclear disarmament, and examines other developments alluding to the TPNW's broader influence on state actions in a more general sense*'.[4]

Consequently, by employing this less 'theory-heavy' lens, the discussion below intends to assess whether there have been any noteworthy shifts in state position towards the TPNW or its humanitarian-inspired motivations amongst the NWPS and umbrella allies, and considers whether the TPNW has impacted current negotiations, discussion or wider efforts and progress towards nuclear disarmament on a more general level within multilateral disarmament forums.

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[1] See Chapter 1: Introduction, section 2.

[2] For significant constructivist approaches to international law, see Jutta Brunnée and Stephen J Toope, 'Constructivism and International Law', in Jeffrey L Dunoff and Mark A Pollack (eds), *Interdisciplinary Perspectives on International Law and International Relations* (Cambridge University Press 2013); Martha Finnemore, *National Interests in International Society* (Cornell University Press 1996); and Friedrich Kratochwil and John G Ruggie, 'International Organization: A State of the Art on an Art of the State' (1986) 40(4) *International Organization* 753.

[3] Jack L Goldsmith and Eric A Posner, *The Limits of International Law* (Oxford University Press 2005); and Andrew Guzman, *How International Law Works: A Rational Choice Theory* (Oxford University Press 2008).

[4] Chapter 1: Introduction, section 4, 15 (emphasis added).

There are currently few accounts assessing what impact the TPNW can be seen as having on nuclear disarmament efforts over the past couple of years. One notable exception is an article by Hamel-Green from 2018 who highlights developments connected to the TPNW among different categories of states, with the aim of 'assess[ing] initial potential impacts of the new treaty with the NPT and related disarmament forums'.[5] Other commentators have offered more speculative assessments of how the TPNW has, or may in the future have, an impact on nuclear disarmament discourse, negotiations and efforts generally over time.[6]

Part III aims to expand upon these existing, preliminary analyses by exploring and detailing the various influences and impact of the TPNW on nuclear disarmament discussions generally, alongside other connected legal developments and initiatives. First, Chapter 6 seeks to determine what impact (if any) the TPNW is having so far on nuclear disarmament efforts and discourse on the 'international plane' within multilateral disarmament forums – principally the UNGA First Committee and NPT Review Process. Here, the discussion intends to examine the behaviour and positions of NWPS and nuclear umbrella allies *vis-à-vis* both the TPNW and the 'humanitarian' approach to nuclear disarmament, particularly by determining whether their opposition to the treaty remains as vocal compared to their initially hostile response. This will also reveal whether the adoption and pressure of the TPNW process has refocused NWPS attention towards nuclear disarmament, and considers whether the treaty has, in practice, proved disruptive to the current NPT Review Cycle as so feared by some commentators and states.[7] Chapter 6 ends by examining the trend of financial 'divestment' away from nuclear weapons-producing practices, explores how this development is related to the TPNW's adoption, and considers whether divestment can in practice prove particularly impactful in disrupting nuclear weapons planning, maintenance, and modernisation programmes of the NWPS.[8]

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[5] Michael Hamel-Green, 'The Nuclear Ban Treaty and 2018 Disarmament Forums: An Initial Impact Assessment' (2018) 1(2) *Journal for Peace and Nuclear Disarmament* 436, 438.
[6] See e.g. Bonnie Docherty, 'The Legal Content and Impact of the Treaty on the Prohibition of Nuclear Weapons' (*Speech delivered to the Legal Education Center, Norwegian Red Cross, and No to Nuclear Weapons*, 11 December 2017) <http://hrp.law.harvard.edu/wp-content/uploads/2017/12/Impact-of-TPNW-Nobel-presentation-Dec-2017.pdf>; Gail Lythgoe, 'Nuclear Weapons and International Law: The Impact of the Treaty on the Prohibition of Nuclear Weapons' (*EJIL: Talk!*, 2 December 2020) <https://www.ejiltalk.org/nuclear-weapons-and-international-law-the-impact-of-the-treaty-on-the-prohibition-of-nuclear-weapons/>; Luisa Rodriguez, 'Will the Treaty on the Prohibition of Nuclear Weapons affect nuclear deprolfieration through legal channels?' (*Rethink Priorities*, 6 December 2019) <https://www.rethinkpriorities.org/blog/2019/12/6/will-the-treaty-on-the-prohibition-of-nuclear-weapons-affect-nuclear-deproliferation-through-legal-channels>; Ray Acheson, 'Impacts of the Nuclear Ban: How Outlawing Nuclear Weapons is Changing the World' (2018) 30(2) *Global Change, Peace and Security* 243; and Tom Sauer and Claire Nardon, 'The Softening Rhetoric by Nuclear-Armed States and NATO Allies on the Treaty on the Prohibition of Nuclear Weapons' (*War on the Rocks*, 7 December 2020) <https://warontherocks.com/2020/12/the-softening-rhetoric-by-nuclear-armed-states-and-nato-allies-on-the-treaty-on-the-prohibition-of-nuclear-weapons/>
[7] This final point builds on and offers further evidence for the assessment undertaken in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1.
[8] See section 2.

Following this overview of current influence of the TPNW within multilateral disarmament forums, Chapter 7 then proceeds to examine whether the adoption, and now entry into force of the TPNW contributes towards, and may help facilitate the development of any parallel customary international law prohibitions.[9] Specifically, this explores the possible emergence of a customary prohibition on the use of nuclear weapons as established within Article 1(1)(d) of the TPNW,[10] applicable *prima facie* to all states equally, regardless of whether such states have ratified the TPNW.[11] As will become apparent, however, it is almost impossible to conclude that any such customary prohibition on the use of nuclear weapons has crystalised thus far, despite the adoption of the TPNW.

Part III ultimately seeks to highlight and explore the various ways that the TPNW can be seen as revitalising or influencing nuclear disarmament discussions and legal developments on a more practical level on the international playing field. This analysis will therefore serve an expositive function on the one hand, and offers a complementary discussion to the more 'theoretically' natured assessment of the TPNW's nuclear disarmament-related provisions and potential undertaken within Part II on the other.

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[9] The two-element test for the formation of customary international law will also be recalled, although it will be discussed more extensively in Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 2 in connection with the possible existence of a customary prohibition on all forms of nuclear weapons test explosions.

[10] This issue of the TPNW's contribution towards the formation of customary international law has been touched upon briefly by Stuart Casey-Maslen, 'The Impact of the TPNW on the Nuclear Non-Proliferation Regime', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 396-404; and Daniel Rietiker, 'New Hope for Nuclear Disarmament or "Much Ado About Nothing?": Legal Assessment of the New "Treaty on the Prohibition of Nuclear Weapons" and the Joint Statement by the USA, UK, and France Following its Adoption' (2017) 59(Online) *Harvard International Law Journal* 22, 25-88 who suggests this may be a possibility. See also Jonathan L Black-Branch, *The Treaty on the Prohibition of Nuclear Weapons: Legal Challenges for Military Doctrines and Deterrence Policies* (Cambridge University Press 2021) 116-27; and Newell Highsmith and Mallory Stewart, 'The Nuclear Ban Treaty: A Legal Analysis' (2018) 60(1) *Survival: Global Politics and Strategy* 129, 138-40, who reject the possibility of the ban treaty contributing to the emergence of customary international law.

[11] Subject to any successfully invoked claims of persistent objection.

Chapter 6: The Influence of the TPNW Internationally since 2017

1. Analysing the Impact of the TPNW within Existing Disarmament Forums

This first section of Chapter 6 examines how the TPNW has so far been received by states and influenced recent nuclear weapons-related and disarmament discourse within international multilateral disarmament forums between September 2017 and December 2020.[1] Specifically, this discussion focuses predominantly on discourse within the UNGA First Committee and the current NPT Review Process cycle in the build-up to the postponed tenth Review Conference presently scheduled to take place in January 2022.[2]

This analysis proceeds under five organisational themes. First, Chapter 6 examines whether the hostile rhetoric of the NWPS and umbrella allies towards the TPNW has changed and perhaps reduced in intensity since July 2017.[3] Second, it determines whether the TPNW's underlying human-centred agenda and perception of nuclear weapons-related issues has received any greater attention in statements delivered by NWPS and umbrella allies within the UNGA First Committee or NPT Review Process.[4] Third, the Chapter explores whether the NWPS have expressed or indicated a renewed sense of interest or attention towards the objective of nuclear disarmament pursuant to Article VI of the NPT following the adoption of the TPNW.[5] Fourth, it considers whether the states which voted in favour of the TPNW's adoption – hereafter referred to as the 'TPNW supporting states'[6] – remain supportive of the treaty, or alternatively whether such support has dissipated at all.[7] And finally, Chapter 6 examines whether the adoption of the TPNW has, in practice, detrimentally affected or disrupted the current NPT Review Process cycle – as feared by some critics of the treaty.[8]

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[1] This cut-off point has been selected based upon the intended submission date of this thesis prior to the 2021 UNGA First Committee session, and with an awareness of the fact that the tenth NPT Review Conference has now been rescheduled to take place in January 2022, as noted in due course.

[2] See Letter from Gustavo Zlauvinen, President-designate of the Tenth NPT Review Conference (21 July 2021) <https://www.un.org/sites/un2.un.org/files/letter_from_president-designate_21072021.pdf> which confirmed this new schedule for 4-28 January 2022. As, the Conference on Disarmament continues to experience deadlock, and much of the rhetoric and positions of states advanced within the Conference are similarly reflected in the NPT and UNGA First Committee forums, discussion of this forum will be less extensive for want of repetition.

[3] Section 1.a.

[4] Section 1.b.

[5] Section 1.c.

[6] The term 'TPNW supporting state' is used here to describe those states which initially voted in favour of the treaty's adoption in July 2017, even if this initial support has since waned.

[7] Section 1.d.

[8] Section 1.e. This criticism that the TPNW undermines and creates a competing regime to the NPT was explored in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1.

a. NWPS and Umbrella Allies Positions on the TPNW

A first question concerning the TPNW's possible impact concerns whether those states most stringently opposed to the treaty – the NWPS and their military allies under extended nuclear protection – have noticeably softened their stance toward the TPNW since its adoption, thereby indicating a more amicable perspective of the treaty. It has been previously mentioned in this thesis that on 7 July 2017 – the day of the TPNW's adoption – the UK, US, and France jointly expressed unequivocal opposition to the TPNW:

> 'France, the United Kingdom and the United States have not taken part in the negotiation of the [TPNW]. We do not intend to sign, ratify or ever become party to it. Therefore, there will be no change in the legal obligations on our countries with respect to nuclear weapons'.[9]

This statement was later repeated on 24 October 2018, with both Russia and China joining to 'reiterate our [the *de jure* NWS] opposition to the [TPNW]'.[10] Such statements indicate a firm, and rather rare instance of solidarity amongst the NPT-recognised NWS standing in opposition to the TPNW, while explicitly restating that none of the NPT-recognised NWS will ratify the treaty, or even constructively engage with the instrument in the near future.

Moreover, early statements released by the NWPS individually have further reaffirmed this opposed stance towards the TPNW. During the UNGA First Committee 2017, held less than a month after the TPNW's opening for signature, the US,[11] France,[12] UK,[13] and Russia put forward separate statements explaining their respective positions, opposition, and concerns regarding the TPNW.[14] Interestingly, however, China took a comparatively less hostile posture, merely recalling that the TPNW:

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[9] 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

[10] 'P5 Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons' (*United Kingdom Mission to UN in New York*, 24 October 2018) <https://www.gov.uk/government/news/p5-joint-statement-on-the-treaty-on-the-non-proliferation-of-nuclear-weapons> (bracketed text added).

[11] Anita E Friedt, Acting Assistance Secretary of State, Bureau of Arms Control Verification and Compliance United States of America, UNGA First Committee (72nd Session, 3 October 2017) UN Doc A/C.1/72/PV.3, 6-7.

[12] Alice Guitton, Ambassador and Permanent Representative of France, UNGA First Committee (72nd Session, 16 October 2017) UN Doc A/C.1/72/PV.14, 3-4.

[13] Matthew Rowland, UK Permanent Representative to the Conference on Disarmament, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 26.

[14] Ambassador Mikhail Ulyanov, Director of Non-Proliferation and Arms Control Department of the MFA of Russia, UNGA First Committee (72nd Session, 4 October 2017) UN Doc A/C.1/72/PV.4, 2.

> 'was pushed to a vote outside the framework of the Conference on Disarmament. The existing international non-proliferation regime, with the Treaty on the Non-Proliferation of Nuclear Weapons as a cornerstone, suffered new setbacks, while already subjected to negative effects of unilateralism and double standards'.[15]

The *de facto* NWPS also generally reaffirmed their disapproval of the TPNW during the 2017 UNGA First Committee, albeit to differing extents. Whereas India acknowledged its non-participation in the TPNW negotiations and commented that it will 'not be bound by any of the obligations that may arise from [the TPNW]',[16] both Pakistan[17] and Israel[18] criticised the divisive nature of the TPNW and the failure of its negotiators to consider the realities of the international security environment.[19]

Given this consistent early opposition, the question becomes whether these same NWPS have since lessened their opposition towards the TPNW. A first observation, similarly noted by Geyer within the UNGA First Committee since 2019, is that the majority of the NWPS have either minimised their discussion of, or alternatively chosen not to provide any explicit reference to the TPNW in their pre-prepared statements.[20] China, for instance, did not expressly mention or oppose the TPNW in its numerous statements delivered to the general debate of the 2018, 2019 or the 2020 UNGA First Committee sessions. Furthermore, and in contrast to previous statements of opposition noted previously, the joint statement of the *de jure* NWS during both the 2019,[21] and 2020 UNGA First Committee sessions did not explicitly reference the TPNW.[22] In fact, this gradual shift towards avoiding any mentioning of the TPNW peaked during the 2020 UNGA First

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[15] Ambassador Wang Qun, Director-General of the Arms Control Department of the Ministry of Foreign Affairs of China, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 7.

[16] Ambassador Singh Gill, Permanent Representative of India to the Conference on Disarmament, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 17 (bracketed text added).

[17] Ambassador Farukh Amil, Permanent Representative of Pakistan to the United Nations, UNGA First Committee (72nd Session, 10 October 2017) UN Doc A/C.1/72/PV.8, 13.

[18] Statement by Mr Eran Yuvan, Israel Ministry of Foreign Affairs, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 6-7.

[19] A common consideration raised by NWPS in opposing the humanitarian agenda of the TPNW, discussed in section 1.b below.

[20] Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 17(3)*, 21 October 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM19/FCM-2019-No3.pdf> 3. As will be noted below, this general absence of opposition in the First Committee does not mean that such anti-TPNW rhetoric has been non-existent altogether.

[21] See generally, Aidan Liddle, Permanent Representative to the Conference on Disarmament, United Kingdom, on behalf of the five nuclear weapon states recognised by the Nuclear Non-Proliferation Treaty, UNGA First Committee (74th Session, 10 October 2019) UN Doc A/C.1/74/PV.3, 24-25.

[22] Statement by France on Behalf of the P5 Countries, UNGA First Committee (75th Session, 19 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/19Oct_P5.pdf>

Committee. At this session, none of the NWPS – with the exception of Israel[23] – explicitly referred to the TPNW within their pre-prepared statements delivered to the general debate.[24] This represents an interesting shift in rhetoric and noticeable change in approach from earlier statements in which the NWPS regularly and openly expressed clear opposition towards, and dismissal of, the TPNW.[25]

But what does this shift away from vocal opposition by the NWPS within the UNGA First Committee indicate? From one viewpoint, this altered rhetoric and limited referencing by NWPS could arguably be interpreted as a conscious, though admittedly slight, warming or 'softening' of stance towards the TPNW by its primary state opponents.[26] Russia, for example, during the 2020 UNGA First Committee expressly demonstrated this change in tact, stating '[w]e respect the views of the supporters of the [TPNW].[27] Moreover, this 'softening' of stance is also observable outside of disarmament forums. China, following the TPNW's fiftieth ratification on 25 October 2020, noted via an official Twitter account that it 'has always been advocating complete prohibition and thorough destruction of nuclear weapons, *that is fundamentally in line with purposes of #TPNW*'.[28] This warming could be explained by the fact that the TPNW was entering, and has now entered into force on 22 January 2021 following the fiftieth ratification by Honduras,[29] thereby indicating from the perspective of NWPS that 'their previous strategies towards the treaty – neglecting or speaking with contempt – had not worked'.[30] Yet regardless of why this change has occurred, these

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[23] Statement by Ben Bourgel, Minister Counsellor of Israel to the United Nations, UNGA First Committee (75th Session, 19 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/19Oct_Israel.pdf> 6, following its explicit rejection at the 2019 First Committee, see Ambassador Noa Furman, Permanent Representative of Israel to the United Nations, UNGA First Committee (74th Session, 17 October 2019) UN Doc A/C.1/74/PV.9, 6.

[24] It has been observed, however, that Russia remained critical of the TPNW during an interactive dialogue with High Representative for Disarmament Affairs Izumi Nakamitsu, see Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 18(2)*, 18 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM20/FCM-2020-No2.pdf> 6. Moreover, certain NWPS explained their reasons for voting against resolutions welcoming the adoption of the TPNW, highlighting their concerns and opposition to the treaty in the respect.

[25] India, for example, during either the 2019 or 2020 UNGA First Committee did not reference the TPNW expressly in comparison to both 2017 and 2018.

[26] This has also been noted generally by Tom Sauer and Claire Nardon, 'The Softening Rhetoric by Nuclear-Armed States and NATO Allies on the Treaty on the Prohibition of Nuclear Weapons' (*War on the Rocks*, 7 December 2020) <https://warontherocks.com/2020/12/the-softening-rhetoric-by-nuclear-armed-states-and-nato-allies-on-the-treaty-on-the-prohibition-of-nuclear-weapons/>

[27] As translated via 'First Committee, 11th meeting – General Assembly, 75th Session' (*UN Web TV*, 3 November 2020) <https://media.un.org/en/asset/k1z/k1zlzf7zdm> between 29:30-29:50.

[28] Tweet by Chinese Mission to UN, @Chinamission2un (*Twitter*, dated 25 October 2020) <https://twitter.com/Chinamission2un/status/1320178238069624832> (emphasis added).

[29] 'UN treaty banning nuclear weapons set to enter into force in January' (*UN News*, 25 October 2020) <https://news.un.org/en/story/2020/10/1076082>

[30] Tom Sauer and Claire Nardon, 'The Softening Rhetoric by Nuclear-Armed States and NATO Allies on the Treaty on the Prohibition of Nuclear Weapons' (*War on the Rocks*, 7 December 2020) <https://warontherocks.com/2020/12/the-softening-rhetoric-by-nuclear-armed-states-and-nato-allies-on-the-treaty-on-the-prohibition-of-nuclear-weapons/>

developments and the notably less hostile language employed arguably reflect a more reconciliatory position from both China and Russia *vis-à-vis* the TPNW, even if not taking the form of express support or validation of the treaty *per se*.

However, while this conclusion would certainly constitute a welcome alteration of NWPS perspectives and positions towards the TPNW, regrettably this seems to be an unsupportable interpretation of the aforementioned changed rhetoric. To begin, the 'softened' statements of both China and Russia should be taken with a hefty 'pinch of salt'. Although the above statements arguably reflect a less dismissive approach towards the TPNW, this should not be equated as a move towards gradual acceptance. One could therefore see these statements as 'empty gesturing' – both China and Russia cannot try and advance a more reconciliatory position *vis-à-vis* the TPNW in comparison to the UK, US, and France while concurrently refusing to engage with or support the TPNW in any meaningful way. Moreover, instances in which the NWPS have omitted any reference to the TPNW also likely reflect a shared desire amongst the NWPS to minimise the discussion and elaboration of the TPNW's objectives and provisions to reduce its overall influence within the UNGA First Committee and NPT Review Process.[31] This interpretation of the value to be attached to the reduced or omitted references towards the TPNW becomes particularly persuasive when one considers that the NWPS have continued to directly oppose the TPNW in explicit terms on a regular basis elsewhere.

For instance, during the 2018 UNGA First Committee, France expressed its clear opposition to the treaty, claiming that '[i]t would be dangerous to believe that it is possible to separate the issue of nuclear disarmament from consideration of the security context. That is why France is opposed to the [TPNW]…. the [TPNW] is in danger of tearing down much more than it claims to achieve'.[32] Russia expressly restated its opposition to the TPNW during the 2019 NPT Preparatory Committee (PrepCom).[33] Indeed, even Russia's abovementioned softened language during the 2020 UNGA First Committee was immediately followed by a rejection of the approach taken by the TPNW and its supporters.[34] Despite seeking to avoid referencing the TPNW in later

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[31] As will be noted in section 1.e below, the lack of discussion and engagement with the TPNW in the NPT Review Process could be taken as an indication of the reluctance of participating states to raise a controversial subject due to concern that this could increase division and reduce the likelihood of the Review Conference from achieving consensus.

[32] Ambassador Yann Hwang, Permanent Representative of France to the Conference on Disarmament, UNGA First Committee (73rd Session, 22 October 2018) UN Doc A/C.1/73/PV.13, 4. See also Ambassador Yann Hwang, Permanent Representative of France to the Conference on Disarmament (*Third Preparatory Committee of the 2020 NPT Review Conference*, 2 May 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/2May_France.pdf> 2.

[33] Statement by the Delegation of the Russian Federation (*Third Preparatory Committee of the 2020 NPT Review Conference*, 2 May 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/2May_Russia.pdf> 5.

[34] 'First Committee, 11th meeting – General Assembly, 75th Session' (*UN Web TV*, 3 November 2020) <https://media.un.org/en/asset/k1z/k1zlzf7zdm> at 29:50-30:05.

statements, the US has criticised the unrealistic approach of the treaty during 2018 UNGA First Committee, arguing that it 'jumps straight to the solution of total nuclear disarmament, without the hard work necessary to achieve this outcome'.[35] Other NWPS simply reaffirmed their opposition to the TPNW in general terms. At the 2019 NPT PrepCom, the UK restated how it:

> 'will not support, sign or ratify the [TPNW]. *We continue to judge that the treaty will do nothing to advance disarmament*, and risks undermining the international consensus that the NPT has achieved'.[36]

To some extent, Australia,[37] Hungary,[38] Bulgaria,[39] and Belgium,[40] amongst other umbrella states have mirrored the approach of the NWPS, expressing clear disapproval of the TPNW immediately during the October 2017 UNGA First Committee session. Likewise, NATO members have collectively issued statements rejecting the TPNW and criticising its detrimental effect on nuclear non-proliferation and disarmament efforts, both in 2017 after the TPNW's opening for signature,[41] and in December 2020.[42]

Other collective statements by the nuclear umbrella states at the 2018 NPT PrepCom have additionally noted that '[n]o progress on nuclear disarmament is possible without the direct involvement of those possessing nuclear weapons',[43] thereby implicitly rejecting the TPNW which

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[35] Ambassador Robert A Wood, US Permanent Representative to the Conference on Disarmament, UNGA First Committee (73rd Session, 19 October 2018) UN Doc A/C.1/73/PV.12, 8. See also similar rejection from Israel, statement by Ben Bourgel, Minister Counsellor of Israel to the United Nations, UNGA First Committee (75th Session, 19 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/19Oct_Israel.pdf> 6.

[36] Statement by the United Kingdom (*Third Preparatory Committee of the 2020 NPT Review Conference*, 2 May 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/2May_UK.pdf> 2 (emphasis added); and similarly statement by the United Kingdom (*Second Preparatory Committee of the 2020 NPT Review Conference*, 24 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/24April_UK.pdf> 2.

[37] Ambassador John Quinn, Permanent Representative of Australia to the United Nations, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 16-17.

[38] Ambassador György Molnár, Representative of the Minister of Foreign Affairs and Trade for Arms Control, Disarmament and Non-Proliferation of Hungary, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 17.

[39] Lachezara Stoeva, Deputy Permanent Representative of Bulgaria to the United Nations, UNGA First Committee (72nd Session, 16 October 2017) UN Doc A/C.1/72/PV.14, 15.

[40] Statement of Belgium, UNGA First Committee (72nd Session, 5 October 2017) UN Doc A/C.1/72/PV.5, 8.

[41] 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/ua/natohq/news_146954.htm>

[42] 'North Atlantic Council Statement as the Treaty on the Prohibition of Nuclear Weapons Enters into Force' (*NATO*, 15 December 2020) <https://www.nato.int/cps/en/natohq/news_180087.htm?utm_source=twitter&utm_medium=natopress&utm_campaign=20201215_nac>

[43] Group Statement on the Progressive Approach (*Second Preparatory Committee of the 2020 NPT Review Conference*, 24 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/24April_Group.pdf> [8].

was negotiated solely by the non-aligned NNWS.[44] Many other umbrella states have individually endorsed this general line of reasoning, choosing to omit any reference to the TPNW, while at the same time implicitly opposing the approach taken by TPNW proponents in favour of the progressive, or incremental 'step-by-step' approach to nuclear disarmament.[45] Consequently, as Acheson similarly observed during the 2019 UNGA First Committee:

> 'While their oppositional rhetoric to the TPNW seems to have softened, these states continue to promote a "step-by-step," "progressive," "stepping stone," or "building block" approach— which they assert is more pragmatic, realistic, and practical despite the lack of tangible progress on this agenda for more than twenty years'.[46]

Finally, alongside statements that expressly oppose the treaty, the NWPS and umbrella allies have consistently voted against resolutions welcoming the TPNW's adoption, such as UNGA Resolution 74/41 of 19 December 2019.[47] This clearly reaffirms the broadly shared opposition towards the TPNW amongst umbrella allies, despite a coinciding pattern whereby the umbrella states have generally advanced fewer explicit references of opposition within pre-prepared statements as noted above.

However, for the most part,[48] the umbrella allies have taken a far more reserved stance in relation to the TPNW in recent years – at least in comparison to the NWPS – preferring to carefully express concerns relating to the treaty while offering implicit reservations of the overall approach to nuclear disarmament taken by TPNW supporters.[49] A notable example is a joint statement

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[44] However, while the nine NWPS each chose not to participate in the TPNW negotiation process, their attendance was not in fact prohibited.

[45] See e.g. Robbert Gabriëlse, Permanent Representative to the Conference on Disarmament, the Netherlands, UNGA First Committee (73rd Session, 12 October 2018) UN Doc A/C.1/73/PV.6, 4-6.

[46] Ray Acheson, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 17(2)*, 14 October 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM19/FCM-2019-No2.pdf> 3.

[47] UNGA Res 74/41 (19 December 2019) UN Doc A/RES/74/41. For the voting record, see UN Doc A/74/PV.46 (12 December 2019) 20. Only the DPRK abstained on this vote.

[48] There are of course, some umbrella allies that have expressed clear opposition to the TPNW, see statement by Hani Stolina of the Czech Republic, UNGA First Committee (74th Session, 22 October 2019) UN Doc A/C.1/74/PV.12, 23 ('The Czech Republic does not support the Treaty on the Prohibition of Nuclear Weapons, as it does not reflect the security situation in its complexity, has substantial technical and procedural shortcomings and risks undermining the NPT'); and Ambassador Yurii Klymenko, Permanent Representative of Ukraine to the United Nations Office and other International Organizations in Geneva (*Second Preparatory Committee of the 2020 NPT Review Conference*, 25 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/25April_Ukraine.pdf> 2.

[49] Geyer makes a similar observation during the 2018 First Committee, Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 16(3)*, 22 October 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM18/FCM-2018-No3.pdf> 4.

delivered by Australia on behalf of 28 states – all nuclear umbrella allies of the US[50] – to the 2018 UNGA First Committee, that simply acknowledged that 'there are differences of opinion across a range of multilateral forums about how best to advance nuclear disarmament',[51] and emphasised the need to narrow such differences in order to achieve a nuclear weapon-free world.[52]

In addition, some allied states have individually adopted a less dismissive approach towards the TPNW in recent years. One such example of a noteworthy, though somewhat minor deviation in terms of response to the TPNW has been advanced by Belgium on 7 December 2020. In explaining its negative vote on UNGA Resolution 75/40 which welcomed the entry into force of the TPNW,[53] Belgium recognised that the treaty 'could give new impetus to multilateral nuclear disarmament', before concluding nonetheless that the TPNW 'is not the right tool to achieve our objectives of initiating global, reciprocal and gradual efforts'.[54] A similarly subtle shift in policy is observable in a Canadian statement on 30 October 2020,[55] in that the Canadian Ministry of Foreign Affairs stated '[w]e *acknowledge* the widespread frustration with the pace of global efforts toward nuclear disarmament, that clearly motivated the negotiations of the TPNW'.[56] Although these constitute relatively minor developments, such statements allude to a limited softening of stance and shift from a position of opposition to one of acknowledgement and potential engagement with the TPNW by Belgium, an umbrella state which hosts US nuclear weapons at the Kleine Brogel Air Base,[57] and Canada towards the TPNW compared to their earlier rhetoric.[58]

Overall, however, it seems uncontroversial to suggest that at present, the NWPS have generally continued to voice their opposition against the TPNW on an often basis across different international disarmament forums.[59] A similar conclusion can be made in connection with

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[50] These states are Albania, Australia, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, Hungary, Iceland, Italy, Japan, Latvia, Lithuania, Luxembourg, Montenegro, the Netherlands, Norway, Poland, Portugal, Republic of Korea, Romania, Slovakia, Slovenia, Spain, and Turkey.
[51] Statement on the Progressive Approach, delivered by Australia, UNGA First Committee (73rd Session, 18 October 2018) UN Doc A/C.1/73/PV.11, 14.
[52] Ibid, 13.
[53] UNGA Res 75/40 (16 December 2020) UN Doc A/RES/75/40, [3].
[54] 'Belgium Committed to Non-Proliferation and Nuclear Disarmament' (*Foreign Affairs, Foreign Trade and Development Cooperation, Kingdom of* Belgium, 7 December 2020) <https://diplomatie.belgium.be/en/newsroom/news/2020/belgium_committed_non_proliferation_and_nuclear_disarmament>
[55] Following the achievement of the 50th ratification of the TPNW.
[56] Quoted in Douglas Roche, 'In Subtle Diplomatic Move, Canada Ceases its Opposition to Nuclear Weapons Prohibition Treaty' (*The Hill Times*, 30 October 2020) <https://www.hilltimes.com/2020/10/30/269583/269583> (emphasis added).
[57] See 'Nuclear Disarmament – Belgium' (*Nuclear Threat Initiative*, updated 2 January 2019) <https://www.nti.org/analysis/articles/belgium-nuclear-disarmament/>
[58] Indeed, as noted above as Belgium's previous view of the TPNW was largely negative during the 2017 UNGA First Committee. See also, Ambassador Rosemary McCarney of Canada, UNGA First Committee (72nd Session, 12 October 2017) UN Doc A/C.1/72/PV.12, 18 who labelled the TPNW as a divisive instrument but was not entirely dismissive.
[59] A conclusion similarly reached by Hamel-Green (2018) 457.

umbrella allies, which, although taking a comparatively less hostile and dismissive stance, have continued to distance themselves from, and implicitly reject the approach taken by the TPNW. Although one can possibly observe a slight softening of tone towards the TPNW from a purely 'negative' to a more 'negative-neutral' tone[60]– a development that is undoubtedly welcome – one could equally interpret this scaled-back rhetoric as reflecting a politically-motivated choice of the NWPS and allies to reduce the level of opposition towards a treaty that has attracted significant attention and gradually creeped towards, and now achieved, entry into force. Put differently, the shift from express opposition to a minimalist engagement and reference to the TPNW should not be overly emphasised as evidence of a marked shift in position towards the treaty by the NWPS and allies. Instead, a considerably broader, more explicit modification of rhetoric is needed in order to reveal convincingly a substantial change in position towards the TPNW from NWPS and umbrella allies beyond these relatively minor and infrequent 'cracks'.

b. Increased Support for the Humanitarian Imperative of Nuclear Disarmament that informed the TPNW Process

A connected issue is whether the NWPS and nuclear umbrella allies have either recognised, or at least afforded greater attention to, the humanitarian-centred motivations that informed the adoption of the TPNW over the past three-years in their statements and discussions on nuclear disarmament within different forums.[61] Put differently, even if opposed to the TPNW on a general level, are the NWPS and umbrella allies more receptive, or at least more tolerant of the humanitarian arguments and imperative of achieving nuclear disarmament that informed the TPNW's negotiation? If this question can be answered affirmatively, then one could reasonably argue that the humanitarian-driven normative agenda behind the TPNW process could be seen as having a normative influence on how the NWPS and umbrella allies discuss nuclear weapons and disarmament-related issues in their international relations.

In terms of state practice demonstrating a greater appreciation or acknowledgement of the humanitarian imperative of achieving nuclear disarmament, certain statements delivered by China

[60] To borrow descriptors used by Tom Sauer and Claire Nardon, 'The Softening Rhetoric by Nuclear-Armed States and NATO Allies on the Treaty on the Prohibition of Nuclear Weapons' (*War on the Rocks*, 7 December 2020) <https://warontherocks.com/2020/12/the-softening-rhetoric-by-nuclear-armed-states-and-nato-allies-on-the-treaty-on-the-prohibition-of-nuclear-weapons/>

[61] These humanitarian motivations are noted in Chapter 1: Introduction, section 6; and elsewhere, see e.g. Rebecca Davis Gibbons, 'The Humanitarian Turn in Nuclear Disarmament and the Treaty on the Prohibition of Nuclear Weapons' (2018) 25(1) *The Nonproliferation Review* 11; and Bonnie Docherty, 'A 'Light for all Humanity': The Treaty on the Prohibition of Nuclear Weapons and the Progress of Humanitarian Disarmament' (2018) 30(2) *Global Change, Peace and Security* 163.

stand out. Having adopted arguably the least hostile position *vis-à-vis* the TPNW,[62] at the 2018 NPT PrepCom, the Chinese delegation emphasised how '[t]he complete prohibition and thorough destruction of nuclear weapons and the ultimate attainment of a nuclear-weapon-free world, *serve the common interests of mankind* and constitute a shared aspiration of all countries'.[63] China further reiterated during the 2019 NPT PrepCom that '[t]he complete prohibition and thorough destruction of nuclear weapons *is in the interest of all humanity*'.[64] Each of these statements seemingly allude to – even if minimally – the humanitarian imperative of achieving nuclear disarmament, references which were noticeably absent from China's pre-prepared statements concerning nuclear disarmament issues delivered to NPT PrepComs in years preceding the adoption of the TPNW. Though for similar reasons noted in the preceding section, these references should be taken with a degree of caution and suspicion as to the sincerity and genuine desire by China to engage with the humanitarian arguments advanced by TPNW supporters.[65]

In addition, some nuclear umbrella states have equally expressed an awareness of the humanitarian necessity of advancing nuclear disarmament. A notable example is the statement issued by the Group of Nordic Countries[66] during the 2018 NPT PrepCom:

> 'We the Nordic countries, had different perspectives on the negotiations of the Prohibition Treaty. *But we are united in our concern*, "*at the continued risk for humanity represented by the possibility that nuclear weapons could be used and the catastrophic humanitarian consequences that would result from the use of these weapons*" – to quote the 2010 Final Document'.[67]

While on the one hand, this statement highlights the contrasting positions amongst the Nordic Group towards to the TPNW, it equally demonstrates a mutually shared understanding and

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[62] See section 1.a; and Ambassador Wang Qun, Director-General of the Arms Control Department of the Ministry of Foreign Affairs of China, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 7.

[63] Statement by Chinese Delegation (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_China-1.pdf> 1 (emphasis added).

[64] Statement by Fu Cong, Head of the Chinese Delegation (*Third Preparatory Committee of the 2020 NPT Review Conference*, 29 April 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/29April_China.pdf> 2 (emphasis added).

[65] See section 1.a.

[66] The Group of Nordic states consists of NATO members such as Denmark, Iceland and Norway, alongside Finland and Sweden, which have signed a non-binding political agreement increasing the national security relationship between these two countries and the US, see Aaron Mehta, 'Finland, Sweden and US Sign Trilateral Agreement, With Eye on Increased Exercises' (*Defense News*, 9 May 2018) <https://www.defensenews.com/training-sim/2018/05/09/finland-sweden-and-us-sign-trilateral-agreement-with-eye-on-increased-exercises/>

[67] General Statement by the Nordic Countries (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_NordicGroup.pdf> 2-3 (emphasis added).

appreciation of the humanitarian necessity of achieving nuclear disarmament by both TPNW proponents and sceptics alike.[68]

Likewise, during the 2017 UNGA First Committee, Portugal, while remaining generally critical of the TPNW, congratulated ICAN for its awarding of the Nobel Peace Prize and recognised the '*well-documented catastrophic humanitarian consequences* of the use of nuclear weapons should remind us all that we must remain steadfast in pursuing the goal of a world free of nuclear weapons. In our view, that is a *moral imperative*'.[69] Italy, in less explicit terms, suggested in 2019 that its 'efforts to effectively advance nuclear disarmament *are underpinned by our deep concern for the catastrophic consequences of the use of nuclear weapons*'.[70] These allusions to the 'moral imperative' of abolishing nuclear weapons and fears over the consequences of nuclear weapons use clearly conform with the altruistic, human-centred ideals of the TPNW and Humanitarian Initiative, and moves beyond debating nuclear weapons from a purely state-orientated security perspective. One may therefore suggest that the human-centred, normative influence central to the TPNW's objectives are trickling – albeit with the force of a stream rather than a river – into the argumentative rhetoric of some NWPS and umbrella allies.

Unfortunately, however, these humanitarian references would seem to constitute the exception rather than the norm amongst NWPS and umbrella states. Rather, the vast majority of statements issued since 2017 by NWPS or umbrella allies including the UK,[71] the US,[72] and Belgium[73] amongst others have consistently stressed the overarching importance of accounting for security-driven considerations in connection with nuclear disarmament deliberations.[74] This

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[68] This point is similarly observed by Hamel-Green (2018) 457 and also 446 who notes that a similar statement delivered by the Nordic Group to the 2018 NPT PrepCom 'suggests that, at least among the Nordic countries, the TPNW focus on the humanitarian impacts of any nuclear use, resonated strongly amongst these states'.

[69] Cristina Pucarinho, Deputy Permanent Representative of Portugal to the United Nations, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 22 (emphasis added).

[70] Ambassador Gianfranco Incarnato, Permanent Representative of Italy to the Conference on Disarmament, UNGA First Committee (74th Session, 14 October 2019) UN Doc A/C.1/74/PV.5, 27 (emphasis added).

[71] See e.g. statement by the United Kingdom (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_UK.pdf> 2 ('The UK remains determined to make progress against Article VI of the NPT despite the actions of States such as Russia and DPRK. But we must maintain our capability to deter the most extreme threats to our way of life'); and statement by United Kingdom, Ambassador Aidan Little, UNGA First Committee (74th Session, 21 October 2019) UN Doc A/C.1/74/PV.11, 22.

[72] Statement by Christopher Ford, Representative of the United States (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_US.pdf> 3 ('We must also recognize that the ultimate goal of nuclear disarmament can only feasibly be addressed as a real-world policy problem in the context of the overall security environment. Unfortunately, deteriorating security conditions have made near-term prospects for progress on disarmament bleak').

[73] Statement of Belgium, UNGA First Committee (72nd Session, 5 October 2017) UN Doc A/C.1/72/PV.5, 8. ('We all have our role to play in fostering the conditions conducive to effective progress towards disarmament. Creating an appropriate security environment is one element; building trust and confidence another').

[74] See for example, a collective Group Statement on the Progressive Approach (*Second Preparatory Committee of the 2020 NPT Review Conference*, 24 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-

conclusion was observed by the Chair's factual summary of the 2018 NPT PrepCom, in which the Chair, representative Adam Bugaiski of Poland, commented how many states in opposing the TPNW continued to emphasise 'the crucial link between progress on disarmament and the international security environment'.[75] Hamel-Green reaches a similar conclusion in relation to the 2018 NPT PrepCom:

> 'Notably absent in the statements of the nuclear-weapon-states at the 2018 PrepCom *was any serious willingness to engage with the wider humanitarian impacts of nuclear weapon use* and the continuing risks of accidental or miscalculated nuclear war that deterrence doctrines do not appear to be adequately addressing. In the case of security, *there continues to be a focus on the claimed role of nuclear weapons as part of individual national security arrangements* without adequate consideration of transboundary threats to global security posed by either deliberate, miscalculated or accidental nuclear war'.[76]

This persistent identification of a link between nuclear disarmament progress and security-centred interests has formed the basis of certain nuclear disarmament-related initiatives introduced within the NPT Review Process.[77] Perhaps most notably, since 2018 the US has promoted the 'Creating an Environment for Nuclear Disarmament' (CEND) initiative[78] briefly considered in Chapter 5.[79] The CEND initiative, which seeks to provide a new multilateral setting for states to identify and resolve challenges facing international security and stability which currently impede progress towards nuclear disarmament, is supposedly inspired by the premise that the post-Cold War reductions in nuclear weapon stockpiles '*did not bring about* the end of Cold War tensions, but *rather*

fora/npt/prepcom18/statements/24April_Group.pdf> 1, which notes that progress towards nuclear disarmament and global zero 'requires consideration of the international security environment on prospects for progress, without losing sight of the broader concerns about the risks by nuclear weapons'.

[75] Chair's Factual Summary (Working Paper) (16 May 2018) NPT/CONF.2020/PC.II/WP.41, [41].

[76] Hamel-Green (2018) 458 (emphasis added).

[77] See e.g. working paper submitted by the Russian Federation, 'Nuclear Disarmament' (15 March 2019) NPT/CONF.2020/PC.III/WP.6, 1 ('Consistent efforts are needed to lay the groundwork for progress towards nuclear disarmament. *First and foremost, this means improving the strategic situation in certain regions and in the world as a whole*') (emphasis added).

[78] Working paper submitted by the United States of America, 'Operationalizing the Creating an Environment for Nuclear Disarmament (CEND) Initiative' (26 April 2019) NPT/CONF.2020/PC.III/WP.43. For a discussion of the Creating an Environment for Nuclear Disarmament' initiative as an effective measure under Article VI of the NPT, see Christopher P Evans, 'Creating an Environment for Nuclear Disarmament (CEND): a Good Faith Effective Measure Pursuant to Article VI NPT or Empty Gesturing?' (2020) 9(2) *Cambridge International Law Journal* 201.

[79] Part II: Chapter 5: Addressing the Criticisms of the TPNW, section 4.c.

instead resulted from the easing of those tensions'.[80] In essence, it would appear that for the US,[81] nuclear disarmament negotiations and progress is directly related to, and thus conditional and dependent upon, the status of the broader international security environment.

Furthermore, even those statements recognising humanitarian concerns discussed above subsequently seem to offset such considerations against predominant security-interests. While China's aforementioned statement arguably suggests some support for the humanitarian need to achieve nuclear disarmament, it proceeds to argue that by '[f]ollowing the principles of maintaining *global strategic stability and undiminished security for all*, nuclear disarmament should take a step-by-step approach'.[82] Similarly the Portuguese statement mentioned above, having acknowledged the catastrophic consequences of any use of nuclear weapons, similarly went on to endorse 'a process of gradual reduction of nuclear weapons, *taking into account legitimate national and international security concerns*' as the 'best approach' to progress nuclear disarmament negotiations.[83] This tension between humanitarian and security-driven considerations was perhaps most clearly reflected by Japan during the 2018 NPT PrepCom:

> 'Once nuclear weapons are used, they would cause tremendous devastation. As the only country that experienced nuclear devastation during war, *Japan knows how catastrophic the consequences would be*. Thus, Japan has responsibility to lead international efforts towards the elimination of nuclear weapons. Threats of nuclear weapons still exist, however and the security environment is deteriorating. A sovereign State must protect lives and properties of her people. *We need to seek security and nuclear disarmament simultaneously. We need to avoid the humanitarian consequences of the use of nuclear weapons and to deal with real security threats. We need to strike a balance of these two viewpoints…*'[84]

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[80] Christopher A Ford, Assistant Secretary for the Bureau of International Security and Nonproliferation, 'Our Vision for a Constructive, Collaborative Disarmament Discourse' (*US Department of State*, 26 March 2019) <https://2017-2021.state.gov/our-vision-for-a-constructive-collaborative-disarmament-discourse/index.html>

[81] And more broadly, for virtually all NWPS and umbrella allies for that matter.

[82] Statement by Chinese Delegation (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_China-1.pdf> 3 (emphasis added).

[83] Cristina Pucarinho, Deputy Permanent Representative of Portugal to the United Nations, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 22 (emphasis added). Italy's aforementioned statement also takes a similar approach here. Moreover, according to Geyer, Germany reportedly acknowledged the humanitarian impetus of the TPNW 'but stated that it would "run the risk of furthering gaps where rapprochement is needed"', Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 16(3)*, 22 October 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM18/FCM-2018-No3.pdf> 4.

[84] Statement by Taro Kono, Minister for Foreign Affairs of Japan (*Second Preparatory Committee of the 2020 NPT Review Conference*, 24 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/24April_Japan.pdf> 1 (emphasis added).

These statements closely resemble the rhetoric adopted within the 'alternative' joint statements on the humanitarian consequences of nuclear weapons delivered by Australia in 2013 prior to the TPNW's negotiation, which sought to recognise '*both the security and humanitarian dimensions* of the nuclear weapons debate'.[85] In effect, both the Australian joint statements – and subsequent statements delivered by umbrella allies and NWPS since the TPNW's adoption – may indicate one of two outcomes: 1) either that human-centred considerations remain of secondary importance against the more pressing, dominant security-centred concerns and interests of the NWPS and umbrella allies; or 2) represent mere lip-service attempts to acknowledge, though without engaging with, the humanitarian concerns that inspired the negotiation of the TPNW in the first place. Indeed, it is telling that comparable references to the humanitarian consequences resulting from the use of nuclear weapon were omitted from Japan's statement delivered to the 2020 UNGA First Committee, delivered shortly after commemorations marking the 75th anniversary of the Hiroshima and Nagasaki bombings.[86]

Finally, while most NWPS and umbrella allies have simply omitted any reference to the humanitarian consequences of nuclear weapon use, France has gone somewhat further by expressly trivialising the humanitarian-based normative agenda of the TPNW. Most notably, at the 2019 UNGA First Committee, France expressed its clear opposition to the TPNW, before proceeding to note how:

> 'In the past few years disarmament has too often been approached separately, disconnected from the security environment. *It was precisely that ignorance of the current context that led to the conclusion of the [TPNW]through the so-called humanitarian approach to nuclear disarmament*'.[87]

To summarise, both the NWPS and umbrella states have generally been reluctant to explicitly acknowledge or engage with the humanitarian consequences of nuclear weapon use at length

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[85] See e.g. Joint Statement on the Humanitarian Consequences of Nuclear Weapons, delivered by Australian Ambassador Woolcott of Australia on behalf of 17 states, UNGA First Committee (68th Session, 21 October 2013) UN Doc A/C.1/68/PV.13, 24-25.

[86] Statement by Ichiro Ogasawara, Ambassador of Japan to the Conference on Disarmament, UNGA First Committee (75th Session, 16 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/16Oct_Japan.pdf> 1 ('This year marks the 75th year since the first use of nuclear weapons. As Prime Minister Mr. SUGA stated in his address at the UNGA, Hiroshima and Nagasaki must never be repeated. With this resolve, as the only country to have ever suffered atomic bombings during war, Japan will spare no effort in order to realize a world without nuclear weapons'). Interestingly, however, this statement does emphasise the threat to human security posed by cluster munitions, see 5.

[87] Ambassador Yann Hwang, Permanent Representative of France to the Conference on Disarmament, UNGA First Committee (74th Session, 14 October 2019) UN Doc A/C.1/74/PV.5, 4 (emphasis added).

following the TPNW's adoption. Although this does not necessarily imply that humanitarian considerations are not acknowledged or considered in the policy choices and decisions of the NWPS and umbrella allies whatsoever, this suggests that security-orientated interests continue to govern NWPS and umbrella allied states thinking about nuclear weapons and disarmament for the most part. Indeed, even if the infrequent allusion to the humanitarian imperative of nuclear disarmament could perhaps reflect the TPNW's normative influence in changing how states perceive nuclear weapons and disarmament-related issues,[88] these limited references remain overshadowed against the predominant security-orientated interests of the NWPS that have driven current nuclear disarmament efforts previously.[89]

c. A Renewed Interest in Nuclear Disarmament

A further means of determining whether the TPNW has had any observable influence in revitalising interest in, and negotiations towards, nuclear disarmament is by analysing whether the NWPS, specifically the five NPT-recognised NWS,[90] have demonstrated a renewed sense of urgency towards actually engaging in negotiations and thus implementing the objective nuclear disarmament pursuant to Article VI of the NPT. According to Joyner, and as previously noted in Part I of this thesis,[91] the NWS – particularly the US – have tended to advance a 'common template' that first reaffirms a general commitment to Article VI and the objective of nuclear disarmament

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[88] Particularly in statements by the Nordic Group, in which certain states have been more open to accepting the Humanitarian Initiative behind the TPNW, particularly Sweden.

[89] A similar observation has been noted in connection with substantive discussions held within the Conference on Disarmament, 'Subsidiary Body 1: Cessation of the Nuclear Arms Race and Nuclear Disarmament, Report' (11 September 2018) CD/2138, 4 ('Some delegations, whilst acknowledging the importance of the humanitarian dimension, highlighted the primary importance of security considerations, and underlined the need to foster international conditions in which the possession of nuclear weapons would no longer be seen as necessary for the preservation of national and global security').

[90] The five NWS are discussed here since each of these states are directly obligated by Article VI of the NPT to pursue disarmament negotiations. The remaining *de facto* NWPS, i.e. India, Pakistan, Israel and the DPRK are under no such treaty-based obligation, and it is unclear whether Article VI, NPT could be considered customary international law. See for an excellent exchange of blog posts at Arms Control Law, Daniel H Joyner, 'Is the NPT Customary International Law?: A Question Central to the Marshall Islands ICJ Case' (*Arms Control Law*, 7 May 2014) <https://armscontrollaw.com/2014/05/07/is-the-npt-customary-international-law-a-question-central-to-the-marshall-islands-icj-case/#:~:text=I%20would%20conclude%20that%20there,to%20establish%20the%20Article%20VI>; Marco Roscini, 'My thoughts on the Customary Status of Article VI of the NPT' (*Arms Control Law*, 27 May 2014) <https://armscontrollaw.com/2014/05/27/my-thoughts-on-the-customary-status-of-article-vi-of-the-npt/>; Daniel Joyner, 'Can Five Treaty Violators and Two Non-Parties keep a Treaty Rule from Becoming Custom?: A Reply to Roscini' (*Arms Control Law*, 27 May 2014) <https://armscontrollaw.com/2014/05/27/can-five-treaty-violators-and-two-non-parties-keep-a-treaty-rule-from-becoming-custom-a-reply-to-roscini/>; Marco Roscini, 'On the Alleged Customary Nature of Article VI of the NPT – A Rejoinder to Joyner and Zanders' (*Arms Control Law*, 5 June 2014) <https://armscontrollaw.com/2014/06/05/on-the-alleged-customary-nature-of-article-vi-of-the-npt-a-rejoinder-to-joyner-and-zanders/>; Daniel Rietiker, 'Some Thoughts on Article VI NPT and its Customary Nature' (*Arms Control Law*, 10 June 2014) <https://armscontrollaw.com/2014/06/10/some-thoughts-on-article-vi-npt-and-its-customary-nature/>; along with James A Green, 'India's Status as a Nuclear Weapons Power under Customary International Law' (2012) 24(1) *National Law School of India Review* 125, 130.

[91] See Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 1.b.

specifically, before 'explicitly *marginaliz*[ing] *the disarmament pillar of the NPT in prioritization and importance as compared to the non-proliferation pillar* of the NPT'.[92] To offer just one example, during the 2010 NPT Review Conference, US Ambassador Laura Kennedy reaffirmed that:

> 'The nonproliferation undertakings by non-nuclear-weapon states help create a stable and secure international environment that makes it possible to work confidently toward the goal of nuclear disarmament… *To put it simply, nonproliferation is one of the essential conditions for the achievement of nuclear disarmament*'.[93]

With this previous side-lining of nuclear disarmament in mind, this section assesses whether the NPT-recognised NWS have demonstrated a renewed focus of attention towards the objective of nuclear disarmament pursuant to Article VI since the adoption of the TPNW, or instead whether sustaining nuclear non-proliferation remains prioritised.[94] In addition, this section notes certain nuclear disarmament-related initiatives or developments that could be regarded as a response to, or even indirectly triggered by the adoption of the TPNW – thereby indicating a causal, as opposed to a merely correlative, link to the treaty.

As a starting point, each of the five NWS have continued to reiterate and provide evidence supposedly exhibiting their apparent compliance and implementation of nuclear disarmament pursuant to Article VI of the NPT since the TPNW's adoption. During the 2019 NPT PrepCom, for example, Russia circulated a working paper that acknowledged how '[t]oday the issue of nuclear disarmament is a *central focus* of the review process of the Treaty on the Non-Proliferation of Nuclear Weapons: there is an *urgent need* to consider possible future steps in this area'.[95] Although the Russian working paper restated the need for nuclear disarmament to occur 'incrementally' through progressive measures based on 'realism and pragmatism',[96] it is somewhat novel in

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[92] Daniel H Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011) 69-70 (bracketed text added). See also, Daniel H Joyner, 'The Legal Meaning and Implications of Article VI of the Non-Proliferation Treaty', in Gro Nystuen, Stuart Casey-Maslen, and Annie Golden Bersagel (eds), *Nuclear Weapons Under International Law* (Cambridge University Press 2014) 401 where Joyner has suggested that since 2000, the NWS have 'simultaneously brush[ed] aside allegations of their failure to comply with Article VI as a diversion from more critical concerns regarding nuclear proliferation'.

[93] Ambassador Laura Kennedy of the US (*2010 NPT Review Conference*, 7 May 2010) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/npt/revcon2010/statements/7May_United%20States.pdf> 2-3.

[94] This section generally focuses upon the statements of NPT-recognised NWS as these states are under the directly binding conventional-based obligation to pursue nuclear disarmament negotiations under Article VI of the NPT, in contrast to the *de facto* NWPS that are not parties to the treaty.

[95] Working paper submitted by the Russian Federation, 'Nuclear Disarmament' (15 March 2019) NPT/CONF.2020/PC.III/WP.6, [2] (emphasis added).

[96] Ibid, [3]-[4], thus reflecting NWPS statements referenced in section 1.b above that distance the NWPS from the humanitarian approach to nuclear disarmament.

recognising the growing sense of urgency shared by many states surrounding the goal of achieving further progress towards nuclear disarmament.

Other examples of this 'commitment rhetoric' are observable. During the 2018 NPT PrepCom, the UK restated its firm commitment to 'the achievement of Article VI under the NPT', and proceeded to highlight its recent efforts in playing a 'leading role on nuclear disarmament verification', notably through its involvement in the IPNDV.[97] France equally reiterated its commitment to Article VI, while noting the 'tangible and substantial nuclear disarmament measures' that it has taken.[98] Similarly, when explaining the premise behind CEND, the US explicitly described the initiative as an 'illustration of its commitment to pursuing "effective measures" on disarmament within the meaning of Article VI of the NPT'.[99] Finally, and typically for NWS nuclear disarmament-related statements shared in multilateral forums, both Russia[100] and the US continue to highlight their respective reductions in nuclear arsenals since the end of the Cold War.[101] In many ways, therefore, current statements by the NWS have continued to follow the 'template' described previously by Joyner: recalling their commitment to pursuing nuclear disarmament under Article VI, while exemplifying the supposed progress which each NWS has individually made towards this objective.[102]

However, an important question arises as to whether these nuclear disarmament-related initiatives, for instance CEND, have emerged as a consequence of the TPNW's adoption. As noted

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[97] Statement by the United Kingdom (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_UK.pdf> 1-2. See also Matthew Rowland, UK Permanent Representative to the Conference on Disarmament, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 25-26 ('The UK has a strong record on nuclear disarmament. We have reduced our own nuclear weapons capabilities, and continue to do so. Of the recognized nuclear-weapon States, we possess only approximately 1 per cent of the global stockpile of nuclear weapons. The United Kingdom initiated the permanent five process to bring together nuclear-weapon States to build trust and confidence to help develop the conditions that, we believe, will ultimately lead us to our shared goal of a world without nuclear weapons').

[98] Ambassador Yann Hwang of France, UNGA First Committee (73rd Session, 10 October 2018) UN Doc A/C.1/73/PV.4, 11.

[99] Working paper submitted by the United States of America, 'Operationalizing the Creating an Environment for Nuclear Disarmament (CEND) Initiative' (26 April 2019) NPT/CONF.2020/PC.III/WP.43, 2. I have directly questioned the legitimacy of this claim elsewhere, see Evans (2020).

[100] Vadim Smirnov, Deputy Director of the Department for Nonproliferation and Arms Control of the Russian Federation (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_Russian-Federation.pdf> 1 ('Our country is committed to building a world free of nuclear weapons. Russia has already made an unprecedented contribution to nuclear disarmament by having decreased its nuclear arsenal by more than 85%').

[101] Christopher A Ford, Assistant Secretary for International Security and Nonproliferation, US Department of State (*Second Preparatory Committee of the 2020 NPT Review Conference*, 25 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/25April_US.pdf> 3 ('Similarly, halting the further increase in nuclear arsenals of all states that possess such weapons would serve to create confidence that could lead to progress on the reduction of nuclear arsenals. Although the United States has reduced its nuclear arsenal by 88 percent since its Cold War peak, others have moved in the opposite direction').

[102] Joyner (2011) 69-70.

previously,[103] the CEND initiative is premised on the idea that nuclear disarmament progress is directly connected to the status of the international security environment. From one perspective, therefore, CEND and the TPNW are diametrically opposed initiatives, grounded in different normative frameworks founded upon security and humanitarian considerations respectively. But despite this dichotomy, the adoption of the TPNW could nevertheless be envisaged as the 'catalyst' event that gave rise to the subsequent introduction of the CEND initiative by the US in early 2018. Put differently, although not directly connected to the TPNW *per se*, the CEND initiative was ultimately adopted to provide a conceptually different path and approach towards nuclear disarmament by the US and could therefore be viewed as a *response* or *reaction* to the TPNW. Under this view, the introduction of CEND by the US, and subsequently endorsed by other NWS (specifically the UK), is arguably attributable to, and a direct consequence of, the negotiation and adoption of the TPNW.

This conclusion becomes even more persuasive when one considers that the first official working paper discussing CEND was released just a few months after the TPNW was opened for signature in September 2017,[104] but also preceding the now postponed tenth NPT Review Conference.[105] Indeed, Landau and Stein have similarly observed that CEND should be viewed as an attempt by the US to '*counter the momentum* created in the past two years by the [TPNW] and as an effort to alleviate the pressures and criticism that will accompany the 2020 Review Conference of the [NPT]'.[106] Consequently, rather than reflecting an inventive, good faith revitalisation of nuclear disarmament by the US, CEND could be considered both an effort to undermine and disrupt support for the TPNW, while offering a 'lip-service attempt to demonstrate compliance with Article VI'.[107]

There is also some evidence which suggests that the NWS have been more open and willing to engage in nuclear disarmament discussions outside of the NPT Review Process and UNGA First Committee. For this, one must (surprisingly) turn to the Conference on Disarmament.[108] On 16 February 2018, the Conference decided to begin a new programme of substantive work – the first programme adopted since May 2009 – and included devoted

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[103] See section 1.b above.
[104] Working paper submitted by the United States of America, 'Creating the Conditions for Nuclear Disarmament' (18 April 2018) NPT/CONF.2020/PC.II/WP.30.
[105] Both of these points are alluded to by Brad Roberts, 'On Creating the Conditions for Nuclear Disarmament: Past Lessons, Future Prospects' (2019) 42(2) *The Washington Quarterly* 7.
[106] Emily B Landau and Shimon Stein, 'New US Initiative: Creating an Environment for Nuclear Disarmament (CEND)' (*Institute for National Security Studies*, 13 June 2019) <https://www.inss.org.il/publication/new-us-initiative-creating-environment-nuclear-disarmament-cend/> (emphasis added).
[107] Evans (2020) 223.
[108] Surprising in the sense that the Conference on Disarmament has been gridlocked for the past 20 years since the negotiation of the CTBT in 1996.

discussions to be held on four nuclear weapons-related subsidiary bodies,[109] three of which eventually adopted reports on substantive discussions held in September 2018.[110] These developments are even more remarkable when one recalls that the Conference operates on the basis of consensus, indicating that the participating NWPS members agreed to actively and constructively participate in the substantive programme of work adopted.[111] Indeed, Finaud stated that the adoption of a programme of work marked an 'unexpected achievement' for the Conference,[112] and could inform the basis for further substantive work in later sessions.

Can this development be attributed to the TPNW? Although Finaud advises caution in suggesting that this consensus decision to support the subsidiary bodies was a direct consequence of the TPNW and Humanitarian Initiative's normative pressure,[113] Hamel-Green argues that the adoption of the TPNW 'served as a *catalyst* for nuclear weapons states at the Conference to agree, for the first time in over two decades, to engage with NNWS on ways forward through the relevant newly-formed subsidiary bodies'.[114] Again, although it is difficult to definitively conclude that this development was a direct result of the TPNW's adoption, the coincidental timing of the decision to create subsidiary bodies – which like CEND, occurred just a few months following the TPNW's opening for signature – is noteworthy, and may indicate a renewed openness amongst the NWS to engage in substantive and formal nuclear disarmament discussions.[115]

However, although these developments are possibly 'indirectly' attributable to the adoption of the TPNW, and perhaps suggestive of a renewed attention to nuclear disarmament, there are various indications that the NWS generally continue to prioritise nuclear non-

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[109] See Conference on Disarmament, 'Decision' (19 February 2018) CD/2119. These four subsidiary bodies covered the topics on the cessation of the nuclear arms race and nuclear disarmament; prevention of nuclear war; prevention of an arms race in outer space; and effective international arrangement to assure non-nuclear weapon states against the use or threat of use of nuclear weapons. Additional subsidiary bodies focused on radiological weapons and new types of weapons of mass destruction.

[110] These reports can be accessed online, see 'Subsidiary Body 1: Cessation of the Nuclear Arms Race and Nuclear Disarmament', CD/2138; 'Subsidiary Body 2: Prevention of nuclear war, including all related matters', CD/2139; and 'Subsidiary Body 3: Prevention of an arms race in outer space', CD/2140 (all adopted on 5 September 2018) <https://www.un.org/disarmament/publications/library/conference-on-disarmament/>

[111] For the participants in the 2018 session, see Report of the Conference on Disarmament to the General Assembly of the United Nations (14 September 2018) CD/2149, [8].

[112] Marc Finaud, 'The Geneva-based Conference on Disarmament (CD) Recently Decided to Start Substantive Work After Failing to Adopt a Programme of Work for Two Decades' (*Geneva Centre For Security Policy*, 20 February 2018) <https://www.gcsp.ch/global-insights/conference-disarmament-agrees-start-working-wake-call-sleeping-beauty>

[113] Ibid.

[114] Hamel-Green (2018) 458 (emphasis added).

[115] Disappointingly, however, the UK Delegation which assumed presidency of the Conference in February 2019 failed to gather consensus to continue the subsidiary body process and carry through the momentum built in 2018, see Aidan Little, UK Ambassador and Permanent Representative to the Conference on Disarmament, 'Disarmament Blog: Looking Back at the UK's Conference on Disarmament Presidency' (*Foreign, Commonwealth & Development Office*, 22 March 2019) <https://blogs.fcdo.gov.uk/aidanliddle/2019/03/22/disarmament-blog-looking-back-at-the-uks-conference-on-disarmament-presidency/>

proliferation goals above advancing progress in the direction of nuclear disarmament. During the 2018 NPT PrepCom, the US restated that the meeting:

> 'provides an opportunity to recall the *central role of non-proliferation* in achieving the full benefits of the [NPT]. *An effective nonproliferation regime is a key element in building security conditions conducive to progress on nuclear disarmament*'.[116]

Furthermore, while highlighting their progress on nuclear disarmament in a rather abstract manner,[117] the majority of the NWS have devoted considerably more time in discussing the threat stemming from the proliferation of nuclear weapons, the DPRK's recent nuclear weapons-related activities,[118] and the dangers posed by Iran's enrichment activities following the US withdrawal from the JCPOA in May 2018.[119] Statements also continue to highlight the importance of negotiating a nuclear weapon, or weapons of mass destruction-free zone in the Middle East,[120] alongside the need to consolidate and strengthen IAEA safeguards standards to reinforce the broader nuclear non-proliferation regime.[121]

Relatedly, in contrast to emphasising existing non-proliferation dangers as a more immediate, worrisome threat to international peace and security, certain NWS continue to describe nuclear disarmament as a longer-term ambition. China, for example, has reiterated that '[t]he goal of nuclear disarmament *cannot be achieved overnight*',[122] while the US has also consistently reaffirmed that it remains 'committed to the *long-term* goal of achieving a world without nuclear weapons'.[123]

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[116] Statement by Christopher Ford, Representative of the United States (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_US.pdf>1 (emphasis added, bracketed text inserted) Similar remarks were made in the working paper submitted by the United States of America, 'The U.S. Approach to the 2019 NPT Preparatory Committee Meeting' (26 April 2019) NPT/CONF.2020/PC.III/W.41, 1.

[117] A trend noted above.

[118] See e.g. Alice Guitton, Permanent Representative of France to the Conference on Disarmament (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_France.pdf> 6-7.

[119] Working paper submitted by the United States of America, 'The U.S. Approach to the 2019 NPT Preparatory Committee Meeting' (26 April 2019) NPT/CONF.2020/PC.III/W.41, 2.

[120] See e.g. Yladimir I Yermakov, Head of Delegation of the Russian to the First Committee, UNGA First Committee (73rd Session, 9 October 2018) UN Doc A/C.1/73/PV.3, 24.

[121] See e.g. Robert A Wood, Permanent Representative of the United States to the Conference on Disarmament (*Second Preparatory Committee of the 2020 NPT Review Conference*, 27 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/27April_US.pdf> 1-2.

[122] Statement by Chinese Delegation (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_China-1.pdf> 3 (emphasis added).

[123] See for one such example, Robert A Wood, Permanent Representative of the United States to the Conference on Disarmament (*Second Preparatory Committee of the 2020 NPT Review Conference*, 26 April 2018)

Such references are supplemented by the extensive modernisation programmes of each of the NWS, demonstrating their respective long-term commitments to retaining nuclear weapons as opposed to moving in the direction of nuclear disarmament.[124] This further feeds the overall prioritisation and urgency of non-proliferation challenges, while setting aside the importance and necessity of nuclear disarmament.

Overall, although some of the nuclear disarmament developments mentioned above could be seen as indirectly attributable to the momentum and pressure generated by the TPNW, it seems that each of the NWS, for the most part, have continued to prioritise nuclear non-proliferation objectives as a more important short-term objective in comparison to nuclear disarmament.[125] This conclusion would ultimately suggest that the impetus and urgency surrounding the TPNW process has not instigated a revitalised interest and renewed attention on nuclear disarmament amongst the NWS at present. Rather, for the NWS at least, nuclear disarmament remains a neglected, somewhat secondary objective on the international plane – one which is conditional upon a stable non-proliferation regime and security environment.

d. Persistent Backing from TPNW Supporting States

For the most part, the conclusions reached in the three preceding sections above have been somewhat disappointing and underwhelming, and indicate that there have been few substantive changes in NWPS and umbrella allies attitudes towards either the TPNW, the human-centred approach to nuclear disarmament, or nuclear disarmament negotiations generally.[126] Yet despite this rather pessimistic assessment, it remains important to analyse how the 'TPNW supporting states' have subsequently referenced and engaged with the treaty and its objectives since 2017.[127] Do these states still express strong support for the TPNW? Or, conversely, have they distanced themselves from the treaty and its humanitarian-orientated approach to nuclear disarmament since its adoption at all? In effect, this section intends to determine whether the momentum and impetus behind the TPNW is continuing within and through the discourse and statements of TPNW

<https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/26April_US.pdf> 3 (emphasis added).

124 'Assuring Destruction Forever: 2020' (*Reaching Critical Will, Women's International League for Peace and Freedom*, June 2020) <https://www.reachingcriticalwill.org/images/documents/Publications/modernization/assuring-destruction-forever-2020v2.pdf>

125 In fact, and as noted in section 1.b above, this is also now conditioned upon the status of the international security environment too.

126 Though as discussed in sections 1.a, 1.b, and 1.c above, there are some notable positive developments, though these are generally outnumbered by the overall lack of normative influence on NWPS and allied states behaviour on the international level.

127 As noted above, 'TPNW supporting states' is used here to encompass those states that voted in favour of the treaty's adoption during the 2017 negotiating conference. This simple definition helps identify whether any initially supporting states have since changed its position *vis-à-vis* the TPNW since 2017, as this section seeks to discuss.

supporting states. If this can be demonstrated, it suggests that although the NWPS and allies have so far been reluctant to engage with the TPNW or humanitarian approach, supporting states continue to keep the treaty on the broader nuclear disarmament agenda within the UNGA First Committee and NPT Review Process.

Amongst the non-aligned NNWS that initially supported the TPNW's adoption, there is an observable trend of continued, explicit endorsement of both the treaty itself and the humanitarian disarmament approach within the UNGA First Committee and NPT Review Process. Indeed, many of the non-aligned NNWS that voted in favour of the TPNW welcomed the adoption of the treaty at the 2017 UNGA First Committee,[128] while others highlighted the humanitarian imperative of avoiding the future use of nuclear weapons as informing their decision to support the treaty.[129] The African Group of states, for example, commented in its pre-prepared statement that the adoption of the TPNW 'marks a watershed given the slow progress and frustrations that had characterised nuclear disarmament for so many years'.[130]

Importantly, this express, vocal support for the TPNW has been regularly repeated in recent years – thus standing in contrast to the rhetoric of the NWPS which have often omitted or minimised their discussion of the TPNW in successive statements.[131] Geyer, for instance, observes how this express support for the TPNW from non-aligned NNWS supporters was not limited to the UNGA First Committee, but was also advanced extensively within the 2018 NPT PrepCom.[132] In fact, given this broad endorsement of the TPNW, South Africa expressed concern with the 2018 NPT PrepCom Chair's draft factual summary of the meeting,[133] arguing that it did 'not factually depict the *overwhelming support* expressed towards [the TPNW] and emphasis placed on it by such a large number of states'.[134]

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[128] See e.g. Dian Triansyah Djani, Permanent Representative of the Republic of Indonesia to the United Nations, UNGA First Committee (72nd Session, 4 October 2017) UN Doc A/C.1/72/PV.4, 8; Dell Higgie, Ambassador for Disarmament of New Zealand, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 21; and Ambassador Penelope Beckles, Representative of Trinidad and Tobago on behalf of the Caribbean Community, UNGA First Committee (72nd Session, 2 October 2017) UN Doc A/C.1/72/PV.2, 14.

[129] See e.g. Mauro Viera, Permanent Representative of Brazil, UNGA First Committee (72nd Session, 3 October 2017) UN Doc A/C.1/72/PV.3, 4; and Ambassador Juan Sandoval Mediolea of Mexico, on behalf of the New Agenda Coalition, UNGA First Committee (72nd Session, 2 October 2017) UN Doc A/C.1/72/PV.2, 19.

[130] Tijjani Muhhammad-Bande, Ambassador of Nigeria to the United Nations on behalf of the African Group, UNGA First Committee (72nd Session, 2 October 2017) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com17/statements/2Oct_AfricanGroup.pdf> 3-4. See also Ambassador Virachai Plasai, Representative of Thailand on behalf of ASEAN, UNGA First Committee (72nd Session, 2 October 2017) UN Doc A/C.1/72/PV.2, 8-9 noting the potential contribution of the TPNW for future nuclear disarmament efforts.

[131] As discussed in section 1.a above.

[132] Katrin Geyer, 'News in Brief' (2018) 15(2) *NPT News in Review* 4, 5.

[133] See Draft Chair's factual summary (3 May 2018) NPT/CONF.2020/PC.II/CRP.3, [40] which merely 'noted' the adoption of the TPNW.

[134] Statement by South Africa on the Draft Chair's Summary of the NPT Second PrepCom (*Second Preparatory Committee of the 2020 NPT Review* Conference, 4 May 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-

Moreover, while reporting on the general debate during the 2019 UNGA First Committee, Acheson observed that 'the majority of states speaking during the opening days of general debate reiterated their support for the [TPNW] adopted by the UN General Assembly in July 2017'.[135] This 'majority' support was also noted by Geyer during the 2020 UNGA First Committee, who commented that '[d]uring the final day of the general debate, the *vast majority* of participants continued to express support for the TPNW… Many of the states expressing their support for the Treaty also said that they are in the final stages of joining it'.[136] A comparable report from the 2019 NPT PrepCom likewise highlights how '[m]ore than 50 delegations positively referenced the 2017 adoption of the TPNW and the majority of these encouraged states to sign and ratify it'.[137]

In addition, certain non-aligned supporting states have provided elaborate defences of the TPNW by refuting common criticisms frequently raised by opponents.[138] At the 2018 UNGA First Committee, for example, Ireland went to great lengths to 'address some of these issues [i.e. criticisms and concerns raised] and highlight positive aspects of the Treaty',[139] reiterating the complementary nature of the TPNW and NPT, expanded safeguards of Article 3,[140] and explaining the rationale behind the treaty's attempts to delegitimise nuclear deterrence postures.[141] Austria advanced an equally defensive analysis of the TPNW – focusing largely on the safeguards standard incorporated within the treaty – during the 2018 UNGA First Committee.[142] Moreover, Geyer observes from the 2019 UNGA First Committee that the human-centred normative approach of the TPNW informed many of these supportive statements: 'Most delegations based this opposition [towards nuclear weapons] *on the grave humanitarian and environmental consequences* of these

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fora/npt/prepcom18/statements/4May_South-Africa.pdf> 2-3 (emphasis added). South Africa preceded to note that the report actually paid greater notice to the opposition towards the TPNW, thereby showing a clear imbalance.

135 Ray Acheson, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 17(2)*, 14 October 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM19/FCM-2019-No2.pdf> 3 (bracketed text added).

136 Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 18(3)*, 25 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM20/FCM-2020-No3.pdf> 6 (emphasis added).

137 See Allison Pytlak, Katrin Geyer, and Alicia Sanders-Zakre, 'News in Not-so-Brief' (2019) 16(2) NPT News in Review 4, 6.

138 As noted also by Ray Acheson, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 15(3*), 15 October 2017) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM17/FCM-2017-No3.pdf> 5. See for an early example, Ambassador Higgie of New Zealand, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 23-24.

139 Jamie Walsh, Deputy Director, Disarmament Division, Department of Foreign Affairs and Trade of Ireland, UNGA First Committee (73rd Session, 19 October 2018) UN Doc A/C.1/73/PV.12, 22.

140 Ibid, and as discussed at length previously, see Part II: Chapter 5: Addressing Criticisms of the TPNW, section 3.

141 Jamie Walsh, Deputy Director, Disarmament Division, Department of Foreign Affairs and Trade of Ireland, UNGA First Committee (73rd Session, 19 October 2018) UN Doc A/C.1/73/PV.12, 22.

142 Ms Tichy-Fisslberger of Austria, UNGA First Committee (73rd Session, 22 October 2018) UN Doc A/C.1/73/PV.13, 5-6.

weapons'.[143] This signifies that the humanitarian impact of nuclear weapons continues to inform and underlie the positions of TPNW supporting states towards nuclear weapons and the necessity of disarmament.

Finally, this steadfast backing by TPNW supporting states is further reflected by the consistent level of support from 126, 123, and 130 states in 2018,[144] 2019,[145] and 2020 respectively, which voted in favour of UNGA resolutions welcoming the TPNW's adoption and contribution to nuclear disarmament law.[146] And perhaps most significantly of all, many TPNW supporting states continue to pursue ratification of the treaty domestically,[147] with Honduras becoming the fiftieth state to ratify the treaty on 24 October 2020, triggering entry into force in January 2021.[148]

While these are all positive developments that demonstrate how the majority of TPNW supporting states have continued to generate momentum behind the treaty, certain *initially* supportive NNWS have reduced their level of support for the TPNW within disarmament forums. Two such examples come to mind in particular: Sweden and Switzerland. Both states voted in favour of the TPNW text's adoption,[149] and initially expressed some degree of support for the treaty, particularly during the 2017 UNGA First Committee.[150] However, following internal inquiries by Sweden and Switzerland examining the consequences of ratifying the TPNW,[151] both

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[143] Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 17(3)*, 21 October 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM19/FCM-2019-No3.pdf> 2 (emphasis added, bracketed text added).

[144] UNGA Res 73/48 (12 December 2018) UN Doc A/RES/73/48. For the voting record, see UN Doc A/73/PV.45 (5 December 2018) 21.

[145] UNGA Res 74/41 (19 December 2019) UN Doc A/RES/74/41. For the voting record, see UN Doc A/74/PV.46 (12 December 2019 20.

[146] UNGA Res 75/40 (16 December 2020) UN Doc A/RES/75/40. For the voting record, see UN Doc A/75/PV.37 (7 December 2020) 17.

[147] Indonesia, Myanmar and Côte d'Ivoire reported to the 2020 First Committee that they are also close to ratifying the TPNW, as reported by Katrin Geyer, 'Nuclear Weapons' (*Reaching Critical Will, First Committee Monitor Vol 18(3)*, 25 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/FCM20/FCM-2020-No3.pdf> 6.

[148] 'UN treaty banning nuclear weapons set to enter into force in January' (*UN News*, 25 October 2020) <https://news.un.org/en/story/2020/10/1076082>

[149] Albeit with some expressed reservations in their respective explanations of vote, see Sweden, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons*, *Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/170707-EoV-Sweden.pdf>; and Switzerland, Explanation of Vote (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons*, *Leading Towards Their Total Elimination*, 7 July 2017) <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Swiss-Explanation-of-Vote2.pdf>

[150] See e.g. Eva Walder, Ambassador for Disarmament of Sweden, UNGA First Committee (72nd Session, 3 October 2017) UN Doc A/C.1/72/PV.3, 9; and Sabrina Dallafior, Permanent Representative of Switzerland to the Conference of Disarmament, UNGA First Committee (72nd Session, 5 October 2017) UN Doc A/C.1/72.PV.5, 16.

[151] Lars-Erik Lundin, 'Utredning av konsekvenserna av ett svenskt tillträde till konventionen om förbudmot kärnvapen, Inquiry into the consequences of a Swedish accession to the Treaty on the Prohibition of Nuclear Weapons' (*Regeringskansliet Utrikesdepartementet*, 18 January 2019) <https://www.regeringen.se/48f047/contentassets/55e89d0a4d8c4768a0cabf4c3314aab3/rapport_l-e_lundin_webb.pdf>; and Swiss Federal Department of Foreign Affairs, 'Report on the Working Group to analyse the Treaty on the Prohibition of Nuclear Weapons' (*Schweizerische Eidegenossenschaft*, 30 June 2018) <https://www.eda.admin.ch/dam/eda/en/documents/aussenpolitik/sicherheitspolitik/2018-bericht-arbeitsgruppe-uno-TPNW_en.pdf>. For a useful discussion of these inquiries, see Andrea Berger, 'Swiss and Swedish

states have taken deliberately calculated steps to distance themselves from the broader group of 'TPNW supporting states', and have ultimately decided against ratifying the treaty in its present form.[152] At the 2019 UNGA First Committee, for example, Sweden stated the following:

> 'Sweden participated actively in the 2017 negotiations that led to the adoption of the [TPNW]. At that time, we voiced our concerns about certain shortcomings in the draft. In July of this year, the Government announced that Sweden will refrain from signing or seeking to ratify the TPNW in its current form, largely due to those same shortcomings'.[153]

Switzerland has adopted a comparable stance, and commented on 19 October 2018 during the UNGA First Committee that '[w]hile Switzerland acknowledges that the instrument is certainly valuable, we have decided not to join it at this juncture. We have a number of outstanding questions regarding some of its provisions'.[154]

However, despite this disappointing change in stance towards the TPNW, both Sweden and Switzerland have indicated that they will 'seek to become an observer state once the treaty enters into force',[155] a possibility envisaged by Article 8(5).[156] By attending meetings of states parties and review conferences as observers, both Sweden and Switzerland would have the opportunity 'to engage with the TPNW and its supporters and work to promote complementary disarmament measures in order to act as disarmament bridge-builders'.[157] As observers, both states would be able to maintain a connection with the treaty and would be 'better positioned to address some of

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Inquiries into the Nuclear Ban Treaty' (*Arms Control Wonk*, 22 January 2019) <https://www.armscontrolwonk.com/archive/1206723/swiss-and-swedish-inquiries-on-the-nuclear-ban-treaty/>

152 Jans M Olsen, 'Sweden says it won't sign UN nuclear ban treaty' (*Associated Press*, 12 July 2019) <https://apnews.com/article/40a5b0e8d19d415f942786b0c8d647d7>

153 Ann-Sofie Nilsson, Ambassador for Disarmament and Non-Proliferation of Sweden, UNGA First Committee (74th Session, 14 October 2019) UN Doc A/C.1/74/PV.5, 30.

154 Sabrina Dallafior, Permanent Representative of Switzerland to the Conference of Disarmament, UNGA First Committee (73rd Session, 19 October 2018) UN Doc A/C.1/73/PV.12, 10.

155 Ann-Sofie Nilsson, Ambassador for Disarmament and Non-Proliferation of Sweden, UNGA First Committee (74th Session, 14 October 2019) UN Doc A/C.1/74/PV.5, 30; and Sabrina Dallafior, Permanent Representative of Switzerland to the Conference of Disarmament, UNGA First Committee (73rd Session, 19 October 2018) UN Doc A/C.1/73/PV.12, 10. It must be noted however, that Switzerland did not reconfirm this position at the 2019 UNGA First Committee sessions, although it has since confirmed its intention to attend as observers via social media, see Swiss Security Policy, @SecurityPolCH (*Twitter*, dated 20 April 2021) <https://twitter.com/SecurityPolCH/status/1384532395085471744>

156 Article 8(5), TPNW '[s]tates not party to this Treaty, as well as relevant entities of the United Nations systems, other relevant international organizations or institutions… *shall be invited to attend the meetings of States Parties and the review conferences as observers*' (emphasis added). For a useful overview of observer status under international law, see Thilo Rensmann, 'International Organizations or Institutions, Observer Status' (2007) *Max Planck Encyclopaedia of International Law*.

157 Alicia Sanders-Zakre, 'How Can Norway, Sweden and Switzerland Stay Engaged with the TPNW?' (*Arms Control Now*, 1 February 2019) <https://www.armscontrol.org/blog/2019-02-01/norway-sweden-switzerland-stay-engaged-tpnw>

the concerns about the TPNW identified in their inquires'.[158] In essence, Sweden and Switzerland's participation as observers during the first meeting of state parties in March 2022 would undoubtedly prove a desirable and constructive outcome for the TPNW's subsequent development and implementation. Indeed, surely participating as observer states is more constructive than flatly rejecting the TPNW entirely?[159]

And importantly, such a course of engagement with the treaty through observer status participation could even set an example for the NWPS of how to interact with the TPNW and its supporters diplomatically and constructively for the benefit of nuclear disarmament generally. Indeed, the option to attend the first meeting as an observer demonstrates that a 'middle-ground' approach does exist between categorically rejecting the TPNW on the one hand, and ratifying the agreement on the other. Observer status therefore provides an opening for fruitful engagement amongst TPNW supporters and opponents alike, and creates an opportunity for bridge-building to overcome existing polarisation of the two camps. Consequently, the fact that a delegation of the European Parliament has, in September 2021, decided to attend the first meeting as observers should be welcomed.[160]

Overall, the majority of TPNW supporting states have continued to positively reference both the treaty itself, and the humanitarian imperative of achieving nuclear disarmament. This constitutes an encouraging reaffirmation of the possible benefits and contributions of the TPNW, builds further momentum for the treaty's entry into force, and reflects an ongoing commitment amongst non-aligned NNWS to nuclear disarmament efforts generally. Although this sustained backing by initially supportive states is not wholly uniform, those states which have sought to partially distance themselves from the TPNW – specifically Sweden and Switzerland – have done so in a less dismissive manner than opponent states by seeking future engagement with the TPNW's institutional forums established pursuant to Article 8.[161]

e. Impact on the NPT Review Process

As discussed in Chapter 5, a primary concern expressed by NWPS and critics of the TPNW related to the potentially negative impact of the treaty on the existing nuclear non-proliferation and disarmament legal regime, specifically the NPT.[162] This concern has been expressed both in

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158 Ibid.

159 In other words, the stance taken by the NWPS and most umbrella allies.

160 See the tweet by MEP Mounir Satouri, @Mounir Satouri (*Twitter*, 7 September 2021) <https://twitter.com/MounirSatouri/status/1435273050245697538>

161 For discussion of the institutional settings established under Article 8, see Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019) 225-30.

162 See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1.

connection with the practical operation of Article 18 which regulates the relationship of the TPNW to earlier agreements of the same subject matter – particularly the NPT, CTBT, and NWFZs[163] – and related concerns of 'forum-shopping', which suggest that the TPNW creates a 'competitor regime to the NPT'.[164] While these concerns have already been examined in detail previously,[165] the following section seeks to assess whether the adoption, subsequent mentioning of, and references to, the TPNW has disrupted the current NPT Review Cycle in practice as so feared.[166]

To start with, from a purely numerical, quantitative perspective, participation by NPT state parties during the three Preparatory Committees for the rescheduled tenth NPT Review Conference has remained consistently high, and has even witnessed an *increase* in participation by NPT state parties at each comparable stage of the review process and preparations for the 2015 Conference. At the first NPT PrepCom held in May 2017 (in between the March and June-July negotiation sessions of the TPNW) 114 states attended the session.[167] 112 states participated in the second PrepCom following the TPNW's negotiation and adoption,[168] while the third PrepCom in May 2019 attracted the participation of 143 state delegations.[169] This contrasts with the 2012, 2013, and 2014 NPT PrepComs which saw 109,[170] 106,[171] and 124 states attend respectively.[172] At a somewhat simplistic level, this clearly demonstrates that the adoption of the TPNW has not resulted in a decrease in attendance and interest by NPT state parties during the present review cycle.[173] In fact, the reverse is arguably true. Indeed, Nystuen, Egeland and Graff Hugo argue that

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[163] See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1.a.

[164] Ibid, section 1.b; and Assistant Secretary, Bureau of International Security and Nonproliferation Christopher Ford, 'Briefing on the Nuclear Ban Treaty' (*Carnegie Endowment for International Peace*, 22 August 2017) <https://carnegieendowment.org/2017/08/22/briefing-on-nuclear-ban-treaty-by-nsc-senior-director-christopher-ford-event-5675>

[165] See generally the discussion and conclusions reached previously in Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1.

[166] This possible concern has been noted by Stefan Kadelbach, 'Possible Means to Overcome Tendencies of the Nuclear Weapons Ban Treaty to Erode the NPT', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020) 314 ('Some observers therefore anticipate that dissent over the Ban Treaty between proponents and NWS might dominate the 2020 Review Conference').

[167] List of Participants (19 May 2017) NPT/CONF.2020/PC.I/INF/7.

[168] List of Participants (18 May 2018) NPT/CONF.2020/PC.II/INF/6.

[169] List of Participants (23 May 2019) NPT/CONF.2020/PC.III/INF/6.

[170] List of Participants (8 May 2012) NPT/CONF.2015/PC.I/INF/7*.

[171] List of Participants (2 May 2013) NPT/CONF.2015/PC.II/INF/7.

[172] List of Participants (13 May 2014) NPT/CONF.2015/PC.III/INF/5/Rev.1.

[173] A further observation of interest would be to compare the number of participating states at the 2015 and 2020 Review Conferences respectively. However, while participation tends to be high at Review Conference generally, with 161 states participating in the 2015 Review Conferences, the number of attending states attending the tenth Review Conference will likely be influenced due to the ongoing COVID-19 pandemic. As one commentator has observed, 'At most, States could be asked for an expression of interest and an intention to be present in advance in the preparation of the conference this year or next year. On the other hand, a reduction in the size of delegations is no doubt conceivable, if necessary, in a conference space that would be constrained by specific health security measures. Finally, another option for reducing the size could impact on the representation and activity of civil society at the event, a risk which is not well regarded by many States Parties and is unlikely to be endorsed by the Presidency…Theoretically, health circumstances could push the presidency to make a first attempt at reduction, on

'[t]hese numbers are consistent with the hypothesis that far from undermining the NPT, the humanitarian initiative and negotiation of the TPNW have served to *increase* overall interest in nuclear non-proliferation and disarmament issues'.[174]

Alongside this consistent, and in some cases increased, participation and representation of states in the NPT Review Process, as of September 2021, not a single TPNW supporting state has expressed an intention to withdraw from the NPT in favour of acceding solely to the TPNW.[175] Furthermore, it is equally worth recalling that many TPNW supporting states have repeatedly reiterated during both the 2018,[176] and 2019 NPT PrepComs that the TPNW complements and strengthens the NPT and contributes towards the implementation of Article VI of the latter agreement.[177] Other statements have sought to minimise potential scope for disagreement over the TPNW within the NPT process. At the 2018 NPT PrepCom, for example, the New Agenda Coalition noted:

> 'NPT States Parties also differ in their views on the recently adopted [TPNW]. Some, including the members of the New Agenda Coalition, see it as a contribution to the nuclear disarmament and non-proliferation regime, complementing and strengthening the obligations contained within the NPT and contributing to the implementation of Article VI. Others do not.

an exceptional or pilot basis', Benjamin Hautecouverture, 'Nuclear Planet: the NPT and Covid-19' (*Foundation pour la Recherche Stratégique*, 2 June 2020) <https://www.frstrategie.org/en/publications/notes/nuclear-planet-npt-and-covid-19-2020>

[174] Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law,* October 2018, 28.

[175] See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1.b. The discussion here further notes that various TPNW supporting states have individually and collectively confirmed the importance of the NPT.

[176] See e.g. statement by Austria (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_Austria.pdf> 1-2; statement by the African Group (*Second Preparatory Committee of the 2020 NPT Review Conference*, 24 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/24April_African-Group.pdf> 1; and statement of Thailand (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_Thailand.pdf> 2 ('Thailand recognizes 2017 as a year of historic success as the Treaty on the Prohibition of Nuclear Weapons (TPNW) was adopted on July 7th. The TPNW reflects our determination to fulfil the NPT's Article VI in good faith. It is purposefully designed to complement the NPT. As a Ratifying State to the TPNW, Thailand wishes to encourage our partners to consider our views on the TPNW and engage constructively in the dialogue and decisions toward its entry into force. Just as disarmament and non-proliferation are mutually reinforcing, the NPT and the TPNW can both prosper working together hand in hand').

[177] As discussed in section 1.d. Pytlak and Geyer observed at the 2019 NPT PrepCom that The African Group, Association of Southeast Asian Nations (ASEAN), the New Agenda Coalitions, Malaysia, South Africa, Thailand, Lao PDR, Brazil, Cambodia, Guatemala, Liechtenstein, Jamaica, Brunei, Algeria, Cuba, Chile, Moldova, Indonesia, Ghana, Trinidad and Tobago, and Cote d'Ivoire, among others, emphasised how the TPNW complements and strengthens the NPT and non-proliferation regime', see Allison Pytlak, Katrin Geyer, and Alicia Sanders-Zakre, 'News in Not-so-Brief' (2019) 16(2) *NPT News in Review* 4, 6.

This is not a disagreement needing resolution at this meeting. What is needed is a focus on the fulfilment by States Parties of their obligations and commitments under the NPT'.[178]

In effect, while acknowledging the divergent positions over the TPNW amongst NPT members, this statement reflects a broader interest amongst the New Agenda Coalition[179] to avoid making the TPNW the 'focal point'[180] of discussions for risk of increasing division and being seen as unwittingly 'hijacking' the NPT Review Process.[181]

Finally, it is also worth appreciating that TPNW state parties have taken the decision to postpone the first meeting of state parties of the treaty initially scheduled for 12-14 January 2022 to avoid a potential clash of institutional forums with the rescheduled tenth NPT Review Conference now due to take place between 4-28 January 2022.[182] In his letter announcing this decision, President Designate Kmentt stated:

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[178] Statement by Ambassador Higgie, Ambassador for Disarmament and Permanent Representative of New Zealand to the Conference on Disarmament, on behalf of the New Agenda Coalition (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_NAC.pdf> 2-3 (emphasis added, bracketed text added). The New Agenda Coalition adopted a similar line of reasoning at the 2019 NPT PrepCom, statement by the New Agenda Coalition (*Third Preparatory Committee of the 2020 NPT Review Conference*, 29 April 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/29April_NAC.pdf> 2 ('States Parties currently differ on a number of key issues, including the approach to and pace of disarmament, the emphasis to be given to the humanitarian consequences of a nuclear weapon detonation, and the Treaty on the Prohibition of Nuclear Weapons. While it is necessary to acknowledge the differing and sometimes competing views on these and other issues, they must not prevent us from working together to make progress and reach agreements on all issues').

[179] A group that consists of arguably the most active and prominent supporters of the TPNW both during its negotiation and since its subsequent adoption, such as New Zealand, Ireland, and South Africa.

[180] This was reportedly emphasised by Ambassador Higgie of New Zealand (who delivered the above passage) in the lead up to the 2018 NPT PrepCom, as reported by Alicia Sanders-Zakre, 'Reporting on the 2018 NPT PrepCom: What to Expect as the 2018 NPT PrepCom Begins April 20, 2018' (*Arms Control Now*, 7 May 2018) <https://www.armscontrol.org/blog/2018/reporting-2018-npt-prepcom> ('At the Arms Control Association Annual Meeting on April 19, New Zealand Conference on Disarmament Permanent Representative Dell Higgie and U.S. National Security Council Senior Director Andrea Hall discussed the Treaty on the Prohibition of Nuclear Weapons (TPNW) and the NPT PrepCom. Both agreed that it should not be the focal point of the NPT PrepCom. Dell Higgie stated that she was not worried about TPNW supporters focusing too heavily on the treaty at the PrepCom, instead expressing concern that nuclear weapons states would overly focus on criticizing it').

[181] This point has equally been observed by Tariq Rauf, 'Postponement of the 2020 NPT Review Conference: Possible Implications' (*Vienna Center for Disarmament and Non-Proliferation and the Center for Nonproliferation Studies*, 25 May 2020) <https://nonproliferation.org/wp-content/uploads/2020/05/postponement_2020_npt_reviewcon.pdf> in which the author notes that TPNW supporters 'maintain that they have been careful not to be perceived to "hijack" the NPT review process over the TPNW, they have shown good will by participating in the US led CEND and in the Swedish "stepping stones" initiative' but have nonetheless generally not seen a similar degree of concession on the part of the NWPS and umbrella allies.

[182] See tweet by Alexander Kmentt, @alexanderkmentt (*Twitter*, 10 August 2021) <https://twitter.com/alexanderkmentt/status/1425080719571918849>; and more extensively Letter by the President-Designate Alexander Kmentt (*Treaty on the Prohibition of Nuclear Weapons – Meeting of States Parties*, 10 August 2021) <https://documents.unoda.org/wp-content/uploads/2021/08/2021-08-10-Letter-on-postponement-silence-procedure-final.pdf>

'This decision *demonstrates the flexible and supportive approach of TPNW* States Parties and Signatories towards the entire nuclear disarmament and nonproliferation regime. The additional time will allow us to deal with the global health challenges and, thus, facilitate more inclusive participation at the 1MSP'.[183]

Simply put, the decision to instead hold the first meeting in March 2022 clearly reflects a desire amongst state parties to mitigate insofar as possible any criticism that the TPNW institutional settings will compete with and disrupt the NPT Review Process.[184] It avoids any potential need for state parties to both treaties to have to divide their delegations, personnel, and financial resources between meetings, and thus demonstrates a desire of TPNW parties to complement and operate in tandem with the NPT regime.

In light of these aforementioned developments, it is difficult to conclude that the TPNW has proved disruptive to the present NPT review cycle as was feared by NWPS opponents. Indeed, as Sanders-Zakre observed at the 2018 NPT PrepCom:

'What was notably absent from this PrepCom *was a tense exchange among those that support the* [TPNW] *and those that oppose it*. While the treaty was mentioned by both camps, on the one hand to welcome its adoption and on the other in passing critical references, neither side devoted lengthy paragraphs to condone or condemn the new treaty'.[185]

Tzinieris has similarly concluded in her observations of the 2018 NPT PrepCom that 'it is difficult to argue that the new ban treaty *dominated debate or even disrupted the proceedings*'.[186] This adds further

183 Letter by the President-Designate Alexander Kmentt (*Treaty on the Prohibition of Nuclear Weapons – Meeting of States Parties*, 10 August 2021) <https://documents.unoda.org/wp-content/uploads/2021/08/2021-08-10-Letter-on-postponement-silence-procedure-final.pdf> (emphasis added).

184 See tweet by Oliver Meier, @meier_oliver (*Twitter*, dated 10 August 2021) https://twitter.com/meier_oliver/status/1425102191895924751> who notes that this will 'deconflict' the TPNW and NPT.

185 Alicia Sanders-Zakre, 'Reporting on the 2018 NPT PrepCom: General Debate Reveals P5 Discord, Points of Agreement Among Other April 25, 2018' (*Arms Control Now*, 7 May 2018) <https://www.armscontrol.org/blog/2018/reporting-2018-npt-prepcom> (emphasis added, bracketed text inserted).

186 Written evidence submitted by Sarah Tzinieris, 'The Impact of the Treaty on the Prohibition of Nuclear Weapons on Non-Proliferation and Disarmament' (*House of Lords Select Committee on International Relations, Rising Nuclear Risk, Disarmament and the Nuclear Non-Proliferation Treaty Inquiry*, 26 February 2019) <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/international-relations-committee/the-nuclear-nonproliferation-treaty-and-nuclear-disarmament/written/95206.html#_ftnref26> (emphasis added).

support to conclusions reached in Chapter 5 that the TPNW is not perceived by supporters to be a competitor regime to the NPT when analysing its actual impact on the NPT Review Process. Accordingly, it seems that the previously discussed concerns that the adoption of the TPNW may, in *both* theory and practice, prove disruptive and undermine the NPT Review Process seem to be somewhat overstated.[187]

Nevertheless, despite this positive assessment, it is not wholly unreasonable to suggest that TPNW supporters would want the achievement of the treaty's entry into force to be positively referenced in any proposed Final Document to be adopted at the tenth NPT Review Conference.[188] Conversely, opponents of the TPNW – particularly the NWS – would almost certainly oppose such a recommendation.[189] Indeed debates among NPT parties concerning the inclusion of a reference to the TPNW within the draft recommendations to be adopted at the 2019 NPT PrepCom demonstrates this very division.[190] However, if TPNW supporting states attempt to force this issue by requesting acknowledgement of the treaty's adoption or imminent entry into force within a proposed Final Document,[191] or even use recognition of the TPNW as a bargaining chip in exchange for other concessions,[192] this may potentially create a significant point of tension and a stumbling block in achieving consensus amongst NPT members. And perhaps more disconcertingly, this could further feed the narrative of opponents that the TPNW risks hindering progress on nuclear disarmament within the NPT Review Process.

At the same time, it is entirely misleading to claim that the TPNW constitutes the only potential disruptive factor that may impede consensus at the tenth NPT Review Conference. Many statements issued by both TPNW supporters and opponents drew attention to additional nuclear

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[187] As noted also by Hamel-Green (2018) 458; and Michael Onderco, 'Likely Impact of the Ban Treaty on the NPT Review Process', *Peace Research Center Prague: Policy Brief 002,* June 2018, 1, who also suggests that while 'it is likely that the ban treaty will appear on the NPT agenda, […] it is highly unlikely to become a major sticking point'.

[188] Interestingly, however, although the Group of Non-Aligned States took note of the TPNW and expressed hope that it 'would contribute to furthering the objective of nuclear disarmament' see working paper submitted by the Group of Non-Aligned States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 'Nuclear Disarmament' (21 March 2019) NPT/CONF.2020/PC.III/WP.12, [38]. The Group did not expressly endorse the inclusion of a reference to the TPNW in its recommendations on the proposed Final Document, see working paper submitted by the Group of Non-Aligned States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 'Substantive recommendations for incorporation into the Final Document of the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons' (21 March 2019) NPT/CONF.2020/PC.III/WP.11.

[189] Onderco (2018) 1 ('The proponents of the TPNW would like the TPNW to be recognized as an important development in the NPT Review Process (although they differ strongly in regards to whether they see it as a future yardstick of success, or simply an expression of will towards nuclear disarmament). The opponents of the TPNW would like the NPT Review Process to ignore the conclusion of the TPNW, its opening for signature, and ratification by a dozen countries (at the time of writing of the present paper)').

[190] See usefully Allison Pytlak and Katrin Geyer, 'NPT News in Brief' (2019) 16(5) *NPT News in Review*, 8-9.

[191] As suggested by Robert Einhorn, 'COVID-19 has given the 2020 NPT Review Conference a reprieve. Let's take advantage of it' (*Bulletin of the Atomic Scientists*, 13 May 2020) <https://thebulletin.org/2020/05/covid-19-has-given-the-2020-npt-review-conference-a-reprieve-lets-take-advantage-of-it/>

[192] A possibility noted by Onderco (2018) 1-2.

weapons-related concerns including the US withdrawal from the JCPOA in May 2018,[193] attributing blame for the demise of INF Treaty in August 2019,[194] and the ongoing lack of progress and contrasting views regarding the proposed Middle East WMDFZ.[195] Other states continued to highlight the limited progress towards nuclear disarmament more generally, expressing dissatisfaction with NWS efforts to modernise existing arsenals,[196] alongside tit-for-tat, 'blame-game' rhetoric amongst the NWS when discussing the deteriorating security environment.[197] The continued attention towards these co-existing, and persisting issues – many of which precede the TPNW and prevented consensus during the 2015 NPT Review Conference[198] – suggest that the treaty is not the only, or even most divisive issue at stake during the current NPT review cycle.

Overall, it is very difficult to argue that both the adoption and subsequent endorsement of the TPNW by supporting states has significantly disrupted the present NPT Review Cycle.[199] Participation by states, including TPNW parties within the NPT PrepComs remained high, engaging, and accompanied by repeated positive references and commitment to the NPT generally. Consequently, and with the lack of current disruption resulting from the TPNW or its proponents within the current Review Cycle thus far in mind, the TPNW should not be used a 'scapegoat' for

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[193] Contrasting positions towards the JCPOA during the 2019 NPT PrepCom are noted by Allison Pytlak and Katrin Geyer, 'News in Brief' (2019) 16(4) *NPT News in Review* 5, 7.

[194] Russia, for example, argued that the US withdrawal from the INF Treaty conformed to its recent trend of renouncing arms control agreements, statement by the Delegation of the Russian Federation (*Third Preparatory Committee of the 2020 NPT Review Conference*, 29 April 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/29April_Russia.pdf> 3. Austria also expressed concern over the INF Treaty's imminent demise, see Ambassador Thomas Hajnoczi, Federal Ministry for Europe, Integration and Foreign Affairs of Austria (*Third Preparatory Committee of the 2020 NPT Review Conference*, 29 April 2019) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom19/statements/29April_Austria.pdf> 1. Other states including Spain, Malaysia and Kazakhstan expressed similar concerns, Allison Pytlak, Katrin Geyer, and Alicia Sanders-Zakre, 'News in Not-so-Brief' (2019) 16(3) *NPT News in Review* 5, 11.

[195] The proposed Middle East WMDFZ was of particular interest during the 2019 NPT PrepCom following the decision of the UNGA to hold a 'Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction' in November 2019, see Resolutions and Decisions adopted by the General Assembly during its 70th Session (22 December 2018) UN Doc A/73/49, Vol II, Decision 73/546. The references to, and positions on the Middle East WMDFZ and the November 2019 Conference at the 2019 PrepCom are numerous, but have been collated usefully by Allison Pytlak and Katrin Geyer, 'News in Brief' (2019) 16(4) *NPT News in Review* 5, 5-6.

[196] Including the Non-Aligned Movement, South Africa, Brazil, Nigeria, Cuba, Switzerland, and Kazakhstan, as noted by Allison Pytlak, Katrin Geyer, and Alicia Sanders-Zakre, 'News in Not-so-Brief' (2019) 16(3) *NPT News in Review* 5, 6.

[197] Particularly the US towards Russia and China, for one such example see, statement by Christopher Ford, Representative of the United States (*Second Preparatory Committee of the 2020 NPT Review Conference*, 23 April 2018) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom18/statements/23April_US.pdf> 3 ('We cannot overlook the actions of those states that are expanding and modernizing their nuclear stockpiles, threatening their neighbors, like the Russian Government, and violating their arms control obligations').

[198] See for a useful summary Tariq Rauf, 'The 2015 NPT Review Conference: Setting the Record Straight' (*Stockholm International Peace Research Institute*, 24 June 2015) <https://www.sipri.org/node/384>

[199] It of course remains to be seen how the TPNW, particularly its promotion and opposition, will actually affect the tenth NPT Review Conference currently scheduled for January 2022.

any potential failure to achieve a consensus outcome document at the tenth Review Conference given the co-existence of other substantive points of disagreement amongst NPT members.[200]

2. The TPNW and Divestment

A further indication of the TPNW's observable impact concerns how the treaty has stigmatised nuclear weapons-producing and connected practices. Specifically, the following section examines whether the TPNW has influenced recent decisions of both nuclear umbrella states and financial institutions to 'divest' their respective monetary assets and resources from nuclear weapons-producing industries and practices.[201] Ordinarily understood, 'divestment' is essentially 'the act of selling off a business or businesses, or of no longer investing money in something'.[202] Applied to the present context, divestment amounts to the decision of either a state or other financial entity to no longer invest in corporations or industries that contribute towards the production or maintenance of nuclear weapons.

The issue of whether the TPNW prohibits the financing of nuclear weapons-related activities under Article 1 has already been examined.[203] It will be recalled that while efforts to establish a distinct prohibition failed, certain financial activities may nonetheless be captured by the undertaking never to 'assist, encourage or induce' under Article 1(1)(e) of the TPNW.[204] Indeed, Krutzsch has adopted a similar interpretation accepted by this author in relation to the 'assistance' prohibition of the CWC.[205] As determined previously, while a 'blanket' prohibition on all forms of investment into companies that may partly finance nuclear weapons-producing practices is not contained within the TPNW prohibitions, 'provided that a direct 'causal link' and a sufficient degree of knowledge can be established between the provided financial assistance and the prohibited activity undertaken by the receiving state, certain financing arrangements would be caught by Article 1(1)(e)'.[206] Equally, the assistance provided must have has a 'significant' contribution to the performance of the prohibited activity in question. This essentially has the

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[200] And particularly given that TPNW proponents within the NPT Review Process have sought to ensure the treaty has not become a significant point of tension.

[201] This topic of divestment formed the basis of discussions held at the *International Conference: Move the Nuclear Weapons Money* (Basel, 12-13 April 2019) <http://www.nuclearweaponsmoney.org/basel-conference-2019/>. I was fortunate enough to stumble across, and briefly attend the public sessions held on 12 April 2019 at Basel Town Hall in the Marktplatz while attending a wedding in Basel.

[202] 'Divestment' (*Cambridge Online Dictionary*) <https://dictionary.cambridge.org/dictionary/english/divestment>

[203] See Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 8.2.

[204] Ibid.

[205] Walter Krutzsch, 'Art. I General Obligations', in Walter Krutzsch, Eric Myjer, and Ralf Trapp, *The Chemical Weapons Convention: A Commentary* (Oxford University Press 2014) 67.

[206] As noted in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 8.2. (footnote omitted).

effect of distinguishing between general financial investment into nuclear weapons producing companies, and the direct financing of a specific nuclear weapons-related programme or activity.[207]

It is, of course, correct that the prohibition of assistance under Article 1(1)(e) remains solely applicable to TPNW parties.[208] Nevertheless, a report edited by Acosta from 2016 highlights how various states, including *both* TPNW supporters for example Ireland, New Zealand and Liechtenstein, and even certain umbrella allies such as Belgium and the Netherlands, have previously adopted domestic legislation and penal measures prohibiting companies registered in their respective jurisdiction from investing in certain 'controversial' weapons-producing practices, some of which cover nuclear weapons activities.[209] Switzerland, for example, has previously adopted the 'War Material Act' in December 1996, which prohibits the direct financing of certain defined 'prohibited war materials' including nuclear, biological and chemical weapons.[210]

Naturally, as TPNW parties (and for that matter non-parties and umbrella states)[211] continue to adopt legislation that prohibits and penalises the *direct*, intentional financing of nuclear weapons-producing activities in accordance with the prohibition established by Article 1(1)(e),[212] this may demonstrate how the formal (or informal) implementation of the TPNW prohibitions domestically could impact and disrupt the nuclear weapons-related operational practices and modernisation efforts of the NWPS.[213] Indeed, as noted by the civil society group *PAX* during the TPNW negotiations, although the NNWS 'cannot eliminate weapons they themselves do not possess', prohibiting the financing of nuclear weapons-producing practices offers one means in

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[207] See again the useful distinction between general investment and specific financing by Casey-Maslen (2019) 167 (emphasis added).

[208] Article 34, VCLT. Many of the current TPNW parties have comparatively smaller economies too thug limiting the extent of their investment capacities, although this is not exclusively the case, as parties are economically larger, including Mexico, Nigeria, and Austria.

[209] Luis Acosta (ed), 'Laws Prohibiting Investments in Controversial Weapons' (*The Law Library of Congress*, *Global Legal Research Center*, November 2016) <https://www.loc.gov/law/help/controversial-weapons/investments-controversial-weapons.pdf>

[210] Articles 7 and 8, Bundesgesetz über das Kriegsmaterial (Kriegsmaterialgesetz, KMG) (War Material Act), Dec. 13, 1996, SYSTEMATISCHE RECHTSSAMMLUNG [SR] (SYSTEMATIC COLLECTION OF LAWS) 514.51, unofficial English translation <https://www.admin.ch/opc/en/classified-compilation/19960753/201302010000/514.51.pdf>

[211] In this instance, these states may, although not party to the TPNW, decide to nonetheless adopt domestic legislation prohibiting direct financing of nuclear weapons companies in line with the Article 1(1)(e) prohibition. This idea of 'informal' compliance with treaty norms, in this case prohibiting illegal financial assistance, is discussed by Adam Bower, 'Norms Without the Great Powers: International Law, Nested Social Structures, and the Ban on Antipersonnel Mines' (2005) 17(3) *International Studies Review* 347, 349 and 353-54.

[212] For TPNW parties, such domestic implementation legislation may be required under Article 5, TPNW.

[213] This possible influence is noted generally by 'Ban treaty opens the door to global divestment campaign' (*UNFOLD ZERO*) <https://www.unfoldzero.org/ban-treaty-opens-the-door-to-global-nuclear-divestment-campaign/>; and 'Divestment and Nuclear Weapons' (*ICAN*, April 2020) <https://www.icanw.org/divestment_and_nuclear_weapons>

which NNWS parties can make the retention of nuclear weapons and deterrence policies more challenging.[214]

An additional point is also worth mentioning here. Although not expressly required by the interpretation of Article 1(1)(e) and 'assistance' reached previously, TPNW parties could, in theory, go an additional step further by prohibiting *any* financial investment into companies which have links or relationships with nuclear weapons-producing practices in their domestic legislation.[215] In other words, state parties could adopt and implement a 'blanket' prohibition of investment domestically without requiring any causal *nexus* or requirement that such assistance makes a 'significant' contribution to the prohibited act of the receiving NWPS. While this would go beyond the obligations of the TPNW, state parties may be tempted to implement this more far-reaching option in order to increase their impact and burden upon the NWPS and the broader nuclear weapons-related industry.[216]

Perhaps more significantly, however, private financial institutions may individually seek to change their investment policies away from 'controversial weapons' – generally understood to mean weapons prohibited under international law.[217] Such divestment by private financial institutions may occur either to comply with legislation adopted by state parties domestically as required by Article 5 of the TPNW in order to implement the Article 1(1)(e) prohibition of assistance.[218] Or alternatively, an alteration in investment policy may arise in response to public pressure campaigns that highlight the irresponsible nature of investing into nuclear weapons-producing companies in light of the catastrophic humanitarian consequences of nuclear weapons made more visible by the TPNW and Humanitarian Initiative process.[219] In either case, this move towards divestment in the private sphere is indicative of the TPNW's broader normative influence and impact beyond the 'state unit' and into the financial sector in two interconnected ways.

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[214] Working paper submitted by PAX, 'Banning Investment: An Explicit Prohibition on the Financing of Nuclear Weapons' (17 March 2017) UN Doc A/CONF.229/2017/NGO/WP.5, 1.

[215] A possibility noted also by James Revill, Renata H Dalaqua, and Wilfred Wan, 'The TPNW in Practice: Elements for Effective National Implementation' (2021) 4(1) *Journal for Peace and Nuclear Disarmament* 13.

[216] A similar point was raised in connection with the idea of prohibiting 'transit', see Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 8.1.

[217] Controversial weapons are generally understood to mean weapons prohibited by international law, see Dora Cristian and Anne Schoemaker, 'Controversial Weapons: Regulatory Landscape and Best Practices' (*Sustainalytics*, 5 June 2019) <https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/controversial-weapons-regulatory-landscape-and-best-practices>

[218] As alluded to above, Article 5(1), TPNW requires state parties to adopt measures to implement the TPNW, while Article 5(2) 'take all appropriate legal, administrative and other measures, including the imposition of penal sanctions, to prevent and suppress any activity prohibited to a State Party under this Treaty undertaken by persons or on territory under its jurisdiction or control'.

[219] Ray Acheson, 'Impacts of the Nuclear Ban: How Outlawing Nuclear Weapons is Changing the World' (2018) 30(2) *Global Change, Peace and Security* 243, 246.

First, rather than 'tacitly approving' nuclear weapons through investment into the wider nuclear weapons-producing industries,[220] the adoption of divestment policies contributes to the stigmatisation objectives of the TPNW and 'sends a strong signal of disapproval to the offending company and other investors'.[221] Indeed, Sauer and Reveraert suggest that '[s]ince the TPNW will further change the connotation of nuclear weapons, financial institutions may well be more *hesitant to invest in nuclear-weapons-related companies out of reputational concerns*'.[222] Hence by electing to divest from nuclear weapons-producing companies, often through directly referencing the TPNW's normative influence, financial institutions contribute toward the treaty's stigmatisation of nuclear weapons practices. And second, the decision to divest ultimately brings the potential for tangible, observable impact by imposing some degree of financial strain on the nuclear weapons manufacturing and production industry, which in turn creates pressure and may disrupt the nuclear weapons postures and modernisation efforts of the NWPS – at least to some extent.[223] In the end, 'money-talks', and accordingly divestment practices allow both the NNWS and interested financial institutions to hit both the NWPS and 'nuclear weapons producers where it hurts – their wallets'.[224]

Importantly, there is precedent that suggests that investing financial institutions are susceptible to social, normative pressures and are generally receptive to the idea of 'responsible investment' practices.[225] Indeed, many financial institutions have already adopted strategies of refraining from investing in 'controversial' weapons due to their disproportionate and indiscriminate effects. This is particularly evident in relation with cluster munitions divestment efforts connected to the normative agenda of the CCM.[226] Indeed, *PAX* has noted how:

> 'Stopping the financial flow to weapons producing companies has proven to have a real impact on those companies. For example, citing pressure from financial institutions, several producers of cluster munitions have stopped their production,

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[220] This tacit approval is noted by 'A City Guide to Divestment' (*PAX: Don't Bank on the Bomb*) <https://www.dontbankonthebomb.com/city-guide/> ('Any financial support delivered by an investor to a company demonstrates tacit approval of what that company does, including producing controversial weapons').

[221] See 'Divestment and Nuclear Weapons' (*ICAN*, April 2020) <https://www.icanw.org/divestment_and_nuclear_weapons>

[222] Tom Sauer and Mathias Reveraert, 'The Potential Stigmatizing Effect of the Treaty on the Prohibition of Nuclear Weapons' (2018) 24(5) *The Nonproliferation Review* 437, 453 (emphasis added).

[223] 'Divestment and Nuclear Weapons' (*ICAN*, April 2020) <https://www.icanw.org/divestment_and_nuclear_weapons>

[224] Ibid.

[225] 'An introduction to responsible investment' (*United Nations Principles for Responsible Investment*) <*https://www.unpri.org/investment-tools/an-introduction-to-responsible-investment*> which defines responsible investment as 'a strategy and practice to incorporate environmental, social and governance (ESG) factors in investment decisions and active ownership'.

[226] Which like the TPNW, does not directly prohibit financing, but such activities may similarly be captured by the prohibition of assistance in Article 1(1)(c), CCM.

> including Textron, Lockheed Martin, Orbital ATK and Singapore Technologies Engineering – *despite the fact that they are all from states not party to the Convention on Cluster Munitions*'.[227]

Returning to the nuclear weapons context, there is some evidence which indicates a growing trend towards divestment by financial institutions from nuclear weapons-producing companies in recent years,[228] many of which explicitly or implicitly refer to the normative impact of the TPNW as a leading factor behind the decision to divest.[229] In the Netherlands, for example, one of the world's biggest civil servants pension fund Stichting Pensioenfonds ABP (ABP) – which reportedly had investment assets totalling €465 billion as of 31 December 2019[230] – ended its previous investment into nuclear weapons-producing companies in January 2018. Beenes has suggested that the adoption of the TPNW 'was decisive in ABP's decision'.[231] When announcing this change in strategy, Chair of the ABP Trustee Commission Erik van Houwelingen stated:

> 'Societal changes, also *internationally*, were the reason for ABP to put the topic on the agenda again. Members, employers and other stakeholders indicate an increasing discomfort with investments in tobacco and nuclear weapons. *Legal developments also played a role*. All these developments, input and perspectives have been taken into account'.[232]

This reference to 'legal developments' is very likely an implicit reference to the adoption of the TPNW just a couple of months beforehand.[233] Moreover, in the English press release of ABP's

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[227] Maaike Beenes, 'Divestment as Humanitarian Disarmament' (*PAX*) <https://stopexplosiveinvestments.org/wp-content/uploads/FINAL-Divestment-in-humanitarian-disarmament.pdf> (emphasis added).

[228] Acheson (2018) 246 ('Many investment firms and pension funds are already divesting from nuclear weapons – including in those countries that have not yet joined the TPNW').

[229] Nystuen, Egeland, and Graff Hugo (2018) 31 suggest that the TPNW has 'energized the nuclear divestment campaign'. Grethe Laughlo Østern, 'Nuclear Weapons Ban Monitor' (*Norwegian's People Aid*, October 2019) <https://banmonitor.org/files/Nuclear_Weapons_Ban_Monitor_2019.pdf> 49 ('[w]hile the mere purchase of shares in a company that is engaged in nuclear-weapon activities is not per se a wrongful act under the TPNW, divestment from such companies is a growing trend').

[230] See 'Investments: Investment Results' (*Stichting Pensioenfonds ABP*) <https://www.abp.nl/english/investments/>

[231] Maaike Beenes, 'Largest Dutch Pension Fund to Divest From Nuclear Weapons' (*Don't Bank on the Bomb*, 11 January 2018) <https://www.dontbankonthebomb.com/largest-dutch-pension-fund-to-divest-from-nuclear-weapons/>. See also 'Beyond the Bomb: Global Exclusion of Nuclear Weapon Producers' (*Don't Bank on the Bomb*, October 2019) <https://www.dontbankonthebomb.com/wp-content/uploads/2019/10/201910_Beyond-the-bomb_final.pdf> 18, which makes a similar observation.

[232] Quoted by Tineke de Vries, 'ABP to stop investing in tobacco and nuclear weapons' (*European Pensions*, 12 January 2018) <https://www.europeanpensions.net/ep/ABP-to-stop-investing-in-tobacco-and-nuclear-weapons.php> (emphasis added).

[233] As noted by Maaike Beenes, 'Largest Dutch Pension Fund to Divest From Nuclear Weapons' (*Don't Bank on the Bomb*, 11 January 2018) <https://www.dontbankonthebomb.com/largest-dutch-pension-fund-to-divest-from-nuclear-weapons/>

announcement of this decision, the firm noted that its new assessment framework to review its investments now includes a list of four 'product exclusion' criteria, one of which is whether 'a worldwide treaty exists for the purpose of eliminating the product'.[234] Accordingly, while the press release itself did not expressly refer to the TPNW, given the assessment framework employed, it seems likely that the TPNW contributed heavily towards ABP's decision to divest approximately €3.3 billion[235] from nuclear weapons-producing companies.[236]

Other prominent examples exist. Deutsche Bank similarly announced in May 2018 that it had expanded its policy of not investing in 'controversial weapons' producing companies as now covering nuclear weapons-related industries.[237] According to Beenes, Deustche Bank acknowledged that discussions with ICAN representatives and the humanitarian approach of the TPNW informed its decision to alter its investment policy.[238] Belgian bank KBC likewise declared in June 2018 that its policy of not investing in 'arms-related activities' will now include nuclear weapons, stating explicitly that 'KBC is thereby following the line of the United Nations Treaty on the Prohibition of Nuclear Weapons'.[239] KBC has since confirmed its support for the TPNW and change in investment policy upon the treaty's entry into force.[240] Moreover, certain religious groups have called for 'church-related funds' to be divested, thereby 'ending existing financing relationships' with nuclear weapons producing companies.[241]

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[234] 'ABP Pension Fund excludes tobacco and nuclear weapons' (*ABP: Press Release*, 11 January 2018) <https://www.abp.nl/images/eng_persbericht_productuitsluiting.pdf>

[235] This figure was reported by Tineke de Vries, 'ABP to stop investing in tobacco and nuclear weapons' (*European Pensions*, 12 January 2018) <https://www.europeanpensions.net/ep/ABP-to-stop-investing-in-tobacco-and-nuclear-weapons.php>

[236] 'ABP Pension Fund excludes tobacco and nuclear weapons' (*ABP: Press Release*, 11 January 2018) <https://www.abp.nl/images/eng_persbericht_productuitsluiting.pdf> ('based on this new assessment framework, ABP decided to exclude manufacturers of tobacco and nuclear weapons. This implies that ABP is selling its existing investments in manufacturing companies, associates, and producers elsewhere in the same chain. The fund will also refrain from investing in such products and companies in the future. In the past, healthy returns were achieved on tobacco and nuclear weapons. However, ABP believes that the outlook has changed').

[237] 'Deutsche Bank upgrades its Policy on Controversial Weapons' (*Deutsche Bank*, 23 May 2018) <https://www.db.com/newsroom_news/2018/deutsche-bank-upgrades-its-policy-on-controversial-weapons-en-11582.htm>

[238] Maaike Beenes, 'New Deutsche Bank policy expands exclusion nuclear weapons producers' (*Pressenza*, 23 May 2018) <https://www.pressenza.com/2018/05/new-deutsche-bank-policy-expands-exclusion-nuclear-weapons-producers/>

[239] See 'KBC raises the bar for its sustainability policy' (*KBC Press Release*, 8 June 2018) <https://www.kbc.com/content/dam/kbccom/doc/newsroom/pressreleases/2018/20180608_PB_policies_ENG.pdf>

[240] 'KBC nuclear arms policy fully in line with UN Treaty on Prohibition of Nuclear Weapons' (*KBC Press Release*, 22 January 2021) <https://www.kbc.com/content/dam/kbccom/doc/newsroom/pressreleases/2021/20210122_PB_VNverdrag_Kernwapens_ENG.pdf?fbclid=IwAR310l3vmdVLa9ROnhlS-MEjBCScdWmqpMURs-WIZgXYmtQ98RREqNAdr60>

[241] See e.g. 'Catholic church leaders' statement welcoming the new UN treaty to ban nuclear weapons' (*PAX Christi International*, 22 January 2021) <https://paxchristi.net/wp-content/uploads/2021/01/210121-Catholic-church-leaders-TPNW-statement-final-version-with-signatories-.pdf> 2; and Liz Dodd, 'Religious Lead the Way on Nuclear Divestment' (*The Tablet*, 4 June 2020) <https://www.thetablet.co.uk/news/13014/religious-lead-the-way-on-nuclear-divestment>

This increasing trend towards divestment by financial institutions has been most comprehensively captured by civil society groups. A 2019 report by *Don't Bank on the Bomb* – a joint venture by *ICAN* and *PAX* which monitors both investment into and divestment from nuclear weapons programmes – profiles 77 financial institutions that are known to have implemented policies that restrict investment in nuclear weapon-producing companies, an increase of 42 institutions from the 2014 report.[242] This constitutes a significant rise in the number of financial institutions choosing to divest from nuclear weapons industries in both the years preceding the adoption of the TPNW[243] – though during the Humanitarian Initiative process that informed the treaty – and immediately following the TPNW's negotiation and adoption.[244] One can imagine that the entry into force of the TPNW will 'spur additional divestment' by financial institutions that have shown a tendency to distance their investment strategies from controversial weapons in the past.[245]

However, while this clearly demonstrates a further example of the TPNW's normative, practical impact in changing the policies of non-state institutions located in NNWS opposed to the treaty,[246] it seems that much more work has to be done – particularly in financial institutions registered within the NWPS. Indeed, although the number of institutions investing in nuclear weapons-producing practices has decreased, the overall amount of capital invested has significantly increased in recent years, fuelled by a renewed nuclear weapons modernisation arms race.[247] According to research by *Don't Bank on the Bomb*, the overall investment in the top 18 nuclear weapons-producing companies by the largest financial investors examined increased to $748 billion amongst 325 institutions in 2019.[248] The Vanguard Group alone saw a rise from approximately $35.267 billion in 2018 to $66.048 billion in 2019.[249] Moreover, the top 10 investors

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[242] 'Beyond the Bomb: Global Exclusion of Nuclear Weapon Producers' (*Don't Bank on the Bomb*, October 2019) <https://www.dontbankonthebomb.com/wp-content/uploads/2019/10/201910_Beyond-the-bomb_final.pdf>. See also 'Sixteen Japanese Lenders don't invest in firms linked to nuclear arms' (*The Japan Times*, 3 May 2020) <https://www.japantimes.co.jp/news/2020/05/03/business/corporate-business/many-japanese-lenders-refuse-invest-companies-linked-nuclear-arms/>; and Susi Snyder, 'Swedish Pension Fund AP4 & AP1 Announce Change in Policy' (*Don't Bank on the Bomb*) <https://www.dontbankonthebomb.com/swedish-pension-fund-ap4-announces-change-in-policy/>

[243] Though during the Humanitarian Initiative process that informed the treaty.

[244] Leading corporate governance research group *Sustainalytics* to suggest that nuclear weapons may become the latest 'no-go' area for investors, Terence Berkleef, 'Nuclear Weapons: The Next "No-Go" Area for Investors?' (*Sustainalytics*, 14 March 2018) <https://www.sustainalytics.com/esg-blog/nuclear-weapons-divestment/>

[245] Alicia Sanders-Zakre, 'Nuclear Weapons Ban Treaty to Enter Into Force: What's Next?' (2020) 50(9) *Arms Control Today* 6, 9.

[246] Not to mention divestment and national legislation prohibiting investment into nuclear weapons practices adopted within TPNW supporting states.

[247] A similar observation is made by Susi Snyder, 'Side Event Report: Don't Bank on the Bomb' (2018) 15(2) *NPT News in Review* 2, 2 ('However, fewer companies investing does not equal less money invested. The remaining companies have fully embraced the new arms racing efforts as a signal to increase investment in nuclear weapons').

[248] 'Shorting our Security – Financing the Companies that Make Nuclear Weapons' (*Don't Bank on the Bomb*, June 2019) <https://www.dontbankonthebomb.com/wp-content/uploads/2019/06/2019_HOS_web.pdf> 6.

[249] Ibid, 7.

in 2019 were all US-based corporations,[250] while the top 10 investors in the UK invested approximately £31.573 billion in the nuclear weapons industry.[251] This more than compensates for the loss suffered by divestment efforts thus far.

Simply put, while the divestment practices of financial institutions located in umbrella allies are positive developments that reflect the internal impact of the TPNW – particularly if referencing the influence of the TPNW as informing their respective policy changes – these institutions make up only a small percentage of overall investment into nuclear weapons-producing practices. Indeed, the divestment of ABP totalling €3.3 billion (or approximately $3.98 billion based on the exchange rate on 1 March 2021) represents roughly 0.5% of the $748 billion invested in nuclear weapons producing companies in 2019.[252] Although there are some exceptions in terms of NWPS-located institutions choosing to divest – for example, the Co-Operative Bank in the UK whose ethical policy states that it will no longer invest in any institution that '[m]anufactures or transfers indiscriminate weapons'[253] – these remain few and far between at present.

Consequently, it seems apparent that the current impact and disruption caused by recent divestment efforts away from nuclear weapons-producing practices by financial institutions is somewhat limited and offset by the increased investment by NWPS and other major corporations. Although the practical impact of divestment stemming from the TPNW's normative agenda has the potential to significantly disrupt existing nuclear weapons-related practices of the NWPS, this has not yet been realised so far.

[250] Ibid.

[251] As noted by 'UK banks invest billions in nuclear weapons' (*Campaign for Nuclear Disarmament*, 6 June 2019) <https://cnduk.org/uk-financial-institutions-invest-31-573-billion-in-the-nuclear-weapons-industry/> drawing on Don't Bank on the Bomb's June 2019 report.

[252] Discussed above.

[253] 'Ethical Policy' (*The Co-Operative Bank*) <https://www.co-operativebank.co.uk/assets/pdf/bank/aboutus/ethicalpolicy/ethical-policy.pdf> 11. According to Don't Bank on the Bomb, this commitment includes "products or services classed as strategic to nuclear weapons', see 'Beyond the Bomb: Global Exclusion of Nuclear Weapon Producers' (*Don't Bank on the Bomb*, October 2019) <https://www.dontbankonthebomb.com/wp-content/uploads/2019/10/201910_Beyond-the-bomb_final.pdf> 22.

Chapter 7: The TPNW and Customary International Law

Another significant indication of the TPNW's possible influence and contribution to nuclear disarmament in practice is through the current normative potential of the treaty, whereby ratification by states 'could help build a stronger norm against nuclear weapons and help foster disarmament in the long-term'.[1] Indeed, much of the alleged value of the TPNW – and the Humanitarian Initiative before it – stems from its possible stigmatising and delegitimising effect, reinforcing the normative taboo[2] surrounding the use of nuclear weapons and creating political normative pressure as a key component of the treaty's success.[3] Indeed, UN Secretary-General António Guterres, to take just one high-profile example, suggested in August 2018 that the TPNW adds '*useful pressure* for effective, positive measures in disarmament'.[4]

Other commentators, however, are less optimistic about the potential normative impact stemming from the TPNW. Vilmer, for instance, has suggested that the norm-building and stigmatising objectives of the TPNW will have a disproportionate impact on democratic, 'Western' states rather than autocratic governments such as Russia and China.[5] Rühle raises a similar

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[1] Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law,* October 2018, 32.

[2] Nina Tannenwald, 'The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use' (1999) 53(3) *International Organization* 433. Tannenwald later revisits the nuclear taboo and suggests that it has since become weakened, see Nina Tannenwald, 'How Strong is the Nuclear Taboo Today?' (2018) 41(3) *The Washington Quarterly* 89.

[3] See generally Beatrice Fihn, 'The Logic of Banning Nuclear Weapons' (2017) 59(1) *Survival: Global Politics and Strategy* 43; Laura Considine, 'Contests of Legitimacy and Value: The Treaty on the Prohibition of Nuclear Weapons and the Logic of Prohibition' (2019) 95(5) *International Affairs* 1075, 1075; Tom Sauer and Mathias Reveraert, 'The Potential Stigmatizing Effect of the Treaty on the Prohibition of Nuclear Weapons' (2018) 24(5) *The Nonproliferation Review* 437. Others who emphasis the norm building capacity of the TPNW include Rebecca Davis Gibbons, 'The Nuclear Ban Treaty and Competing Nuclear Norms' (*Bulletin of the Atomic Scientists*, 30 October 2020) <https://thebulletin.org/2020/10/the-nuclear-ban-treaty-and-competing-nuclear-norms/>; Daryl G Kimball, 'A Turning Point in the Struggle Against the Bomb: the Nuclear Ban Treaty Ready to Go Into Effect' (*Just Security*, 27 October 2020) <https://www.justsecurity.org/73050/a-turning-point-in-the-struggle-against-the-bomb-the-nuclear-ban-treaty-ready-to-go-into-effect/>; and Daniel Rietiker and Manfred Mohr, 'Treaty on the Prohibition of Nuclear Weapons: A Short Commentary Article by Article' (*IALANA, Swiss Lawyers for Nuclear Disarmament*, April 2018) <https://www.ialana.info/wp-content/uploads/2018/04/Ban-Treaty-Commentary_April-2018.pdf> 4 ('Once in force, it will reinforce the norm against nuclear weapons, create new momentum for nuclear disarmament, give civil society a new tool in its fight for a world free from nuclear weapons, and put more pressure on Nuclear Weapons States (NWS) and their allies').

[4] 'U.N. chief calls for concrete steps toward nuke disarmament' (*Kyodo News*, 9 August 2018) <https://english.kyodonews.net/news/2018/08/39db093d43e9-un-chief-calls-for-concrete-steps-toward-nuke-disarmament.html>. In a similar vein, Izumi Nakamitsu, Under-Secretary-General and High Representative for Disarmament Affairs has emphasised the 'moral pressure' on the NWPS created by the TPNW and supporters, quoted in Fumihiko Yoshida, 'UN on Nuclear Disarmament and the Ban Treaty: An Interview with Izumi Nakamitsu' (2018) 1(1) *Journal for Peace and Nuclear Disarmament* 93, 99.

[5] Jean-Baptiste Jeangene Vilmer, 'The Forever-Emerging Norm of Banning Nuclear Weapons' (2020) *Journal of Strategic Studies*, DOI: https://doi.org/10.1080/01402390.2020.1770732, 19. See also Matthew Harries, 'The Real Problem with a Nuclear Ban Treaty' (*Carnegie Endowment for International Peace*, 15 March 2017) <https://carnegieendowment.org/2017/03/15/real-problem-with-nuclear-ban-treaty-pub-68286> ('[t]he problem is that, when one moves past abstract principles to what the ban will actually do in practice, the target of the treaty is clear: intentionally or not, it is an attack on the nuclear-armed democracies—the United States, in particular—and their allies to the near-exclusive benefit of Russia and China').

concern.[6] These misgivings are admittedly valid to some extent when one considers that the political pressure brought upon states internally from public and civil society-led activism is undoubtedly more visible within democratic, open societies in contrast to autocratic governments.[7]

However, although the politically charged normative pressure of the TPNW may not materialise in the short-term,[8] this, in a more general sense, remains a predominantly extra-legal question. Instead, this Chapter focuses on the distinct issue as to whether the TPNW can contribute to the emergence of parallel customary international law prohibitions on the use of nuclear weapons as enshrined by Article 1(1)(d). Indeed, while it is generally the case that treaties do not create obligations or rights for a third state without its consent,[9] it remains possible that customary international law prohibitions can develop from treaty commitments – such as those assumed under Article 1(1) of the TPNW[10] – establishing legally binding customary international law-based commitments capable *prima facie* of binding third states, specifically the NWPS, which have not ratified the TPNW.[11] Thus while the TPNW under Article 12[12] 'strive[s] for universality' in terms of state accession – an unlikely prospect given the current stance of NWPS towards the treaty – the prospects and associated benefits of achieving the crystallisation of parallel customary prohibitions can help expedite this objective beyond the terms of the treaty itself.[13]

Consequently, this Chapter explores whether a co-existing customary international law prohibition on the use of nuclear weapons has begun to emerge following the TPNW's adoption.[14] As discussed previously, customary international law is defined by Article 38(1) of the Statute of

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[6] Michael Rühle, 'The Nuclear Weapons Ban Treaty: Reasons for Scepticism' (*NATO Review*, 19 May 2017) <https://www.nato.int/docu/review/articles/2017/05/19/the-nuclear-weapons-ban-treaty-reasons-for-scepticism/index.html>

[7] Although see Alicia Sanders-Zakre, 'Five Common Mistakes on the Treaty on the Prohibition of Nuclear Weapons' (*War on the Rocks*, 16 November 2020) <https://warontherocks.com/2020/11/five-common-mistakes-on-the-treaty-on-the-prohibition-of-nuclear-weapons/> who suggests that all states may nonetheless feel some pressure by the normative element of the TPNW, regardless of whether they are perceived as democratic or authoritarian. ('So far, the record shows that Western democracies are not necessarily more susceptible to pressure to support the treaty or to join it').

[8] Indeed, as the aforementioned discussion above noted, both the NWP and umbrella allies have been generally reluctant to engage with the TPNW or the humanitarian imperative of nuclear disarmament within existing disarmament forums.

[9] Article 34, VCLT.

[10] 'Conclusions on Identification of Customary International Law and Commentaries thereto', *Report of the International Law Commission on the Work of its Seventieth Session* (2018) UN Doc A/73/10, 117, Conclusion 11 (hereafter *ILC Draft Conclusions*).

[11] As discussed further below, this is not withstanding the possibility of persistent objection claims, section 4.

[12] Article 12, TPNW ('Each State Party shall encourage States not party to this Treaty to sign, ratify, accept, approve or accede to the Treaty, with the goal of universal adherence of all States to the Treaty').

[13] Jonathan L Black-Branch, *The Treaty on the Prohibition of Nuclear Weapons: Legal Challenges for Military Doctrines and Deterrence Policies* (Cambridge University Press 2021) 105.

[14] This specific focus on use stands in contrast to an assessment by Casey-Maslen who examines briefly whether customary prohibitions on a number of activities listed in Article 1, TPNW exist *lex lata*, see Stuart Casey-Maslen, 'The Impact of the TPNW on the Nuclear Non-Proliferation Regime', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 396-404.

the International Court of Justice as 'evidence of a general practice accepted as law'.[15] This reflects the orthodox view that customary international law consists of two separate, though connected elements: first, the general – that is widespread, representative and consistent – practice of states;[16] and second, the 'belief' or requirement that the practice is permitted, required or prohibited out of a sense of legal right or obligation (*opinio juris*).[17] These secondary rules have been explored in Part I when assessing whether a comprehensive nuclear weapons test-ban exists in parallel to the CTBT under customary international law.[18]

The Chapter begins by revisiting the ICJ's discussion in the *Nuclear Weapons Advisory Opinion* examining whether a conventional or customary international law prohibition on nuclear weapons existed in 1996. Next, the analysis assesses whether the ICJ's conclusion that '[t]here is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons' remains accurate today through a re-examination of the Court's evidentiary standard employed in the *Nuclear Weapons Advisory Opinion*.[19] Finally, the remainder of the Chapter examines whether the adoption and now entry into force of the TPNW significantly contributes towards the development of a customary prohibition on the use of nuclear weapons, while also discussing the implications of NWPS opposition towards the treaty on this crystallisation process too.

Before proceeding, it must first be emphasised precisely which customary prohibition is under assessment here: is this a prohibition of nuclear weapons *in toto*, or rather, a specific prohibition of the use of nuclear weapons?[20] This discussion focuses on the latter prohibition on use in order to build upon the analysis previously undertaken by the ICJ during the *Nuclear Weapons Advisory Opinion*.[21] Rather than determining whether nuclear weapons were prohibited completely – a course of action that would be entirely fruitless given the continued possession of nuclear weapon by the *de jure* NWS – the Court focused its discussion on whether identifiable conventional

[15] Article 38(b), Statute of the International Court of Justice (adopted 24 October 1945, entered into force 18 April 1946) 33 UNTS 993. The ICJ has confirmed this test in the *North Sea Continental Shelf Cases* (*Federal Republic of Germany v Denmark; Federal Republic of Germany v Netherlands*) [1969] ICJ Rep 39, [77] (hereafter *North Sea Continental Shelf*).
[16] See particularly, *ILC Draft Conclusions* 4, 5, 6, 7, and 8, and the accompanying commentaries for further discussion of general practice.
[17] See particularly, *ILC Draft Conclusions* 9 and 10, and the accompanying commentaries.
[18] The author encourages you to return to Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 2.d.i. and accompanying footnotes for an overview of the criteria of customary international law.
[19] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, [105(2)(B)] (hereafter *Nuclear Weapons Advisory Opinion*).
[20] Interestingly, Black-Branch (2021) 116-19 focuses upon a prohibition of nuclear weapons possession under customary law, despite observing that a possible customary prohibition on the use of anti-personnel mines and cluster munitions may have emerged from the APMBC and CCM.
[21] Moreover, a prohibition on use of nuclear weapon would certainly constitute a provision of a 'fundamentally norm creating character such as could be regarded as forming the basis of a general rule of law', *North Sea Continental Shelf*, [72] and [74].

or customary rules prohibited the use of nuclear weapons under international law in 1996. This section takes the same approach, focusing specifically on whether a customary prohibition on the use of nuclear weapons – now enshrined within Article 1(1)(d)[22] – has since emerged following the adoption of the TPNW. Indeed, the possibility that a customary international law ban on nuclear weapons *in toto* exists is even more unlikely given the ongoing possession of nuclear weapons. By contrast, however, the non-utilisation of nuclear weapons – despite this continued possession – raises important questions as to *why* nuclear weapons have not been used since 1945.

1. The *Nuclear Weapons Advisory Opinion*

In December 1994, the UNGA through Resolution 49/75K asked the Court to render its opinion on the following question '[i]s the threat or use of nuclear weapons in any circumstances permitted under international law?'[23] Although a thorough appraisal of the *Advisory Opinion* is beyond the scope of this section,[24] the most relevant element of the Opinion for present purposes concerns the Court's analysis of whether the use of nuclear weapons is – or perhaps more accurately *was* in 1996 – prohibited by any conventional or customary international law prohibition.[25]

First, in terms of conventional law, the Court concluded that instruments prohibiting the use of poisonous or asphyxiating gases – notably the Second Hague Declaration 1899, Article 23(a) of the Regulation attached to the fourth Hague Convention 1907, and the Geneva Protocol 1925 – have not been treated by states in their practice as covering or referring to nuclear weapons.[26] Rather, the Court interpreted these instruments as 'disclos[ing] a pattern of prohibition by specific instruments'.[27] Consequently, the Court turned to examine specific nuclear weapons-related

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[22] The prohibition on use under Article 1(1)(e), TPNW is explored in Part II: Chapter 3: Scope of the Article 1 Prohibitions, section 2.

[23] UNGA Res 49/75K (9 January 1995) UN Doc A/RES/49/75K, [11].

[24] For a selection of detailed discussions of the Advisory Opinion, see Dapo Akande, 'Nuclear Weapons, Unclear Law? Deciphering the Nuclear Weapons Advisory Opinion of the International Court' (1997) 68(1) *British Yearbook of International Law* 165; Michael N Schmitt, 'The International Court of Justice and the Use of Nuclear Weapons' (1998) LI (2) *Naval College War Review* 92; Stefaan Smis and Kim Van der Borght, 'The Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons' (1999) 27(2) *Georgia Journal of International and Comparative Law* 345; Michael J Matheson, 'The Opinions of the International Court of Justice on the Threat or Use of Nuclear Weapons' (1997) 91(3) *American Journal of International Law* 417; and the collective contributions in Laurence Boisson de Charzournes and Philippe Sands (eds), *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge University Press 1999).

[25] See in particular the discussion of the *Nuclear Weapons Advisory Opinion*, [52]-[73].

[26] *Nuclear Weapons Advisory Opinion*, [55]-[56]. Indeed, as Matheson (1997) 425 notes ('[c]learly, the Court could not have held otherwise without disregarding decades of arms control negotiations in which nuclear weapons have consistently been treated as a category separate from chemical weapons'). Christopher Greenwood, 'Jus ad Bellum and Jus in Bello in the Nuclear Weapons Advisory Opinion', in Laurence Boisson de Charzournes and Philippe Sands (eds), *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge University Press 1999) 260-61, argues that this was a correct interpretation by the Court.

[27] As described by Simon Chesterman, 'The International Court of Justice, Nuclear Weapons and the Law' (1997) 44(2) *Netherlands International Law Review* 149, 154. However, Judge Koroma rejected this position, thus explaining his negative vote on [105(2)(B)], see Dissenting Opinion of Judge Koroma, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 556, 580-81. Judge Weeramantry takes a similar literal interpretation of the relevant provisions of the Hague

treaties establishing limitations on possession and testing, including the PTBT, the NPT, regional NWFZ and their accompanying 'negative security assurances' Protocols in order to determine whether these various limitations considered collectively gave rise 'to the emergence of a rule of complete legal prohibition on all uses of nuclear weapons'.[28] The Court rejected this argument in siding with the rationale of the NWPS,[29] and concluded that while these treaties:

> 'certainly point to an increasing concern in the international community with these weapons; the Court concludes … that these treaties could therefore be seen as *foreshadowing a future general prohibition of the use of such weapons, but they do not constitute such a prohibition by themselves*'.[30]

This conclusion is strengthened by the absence of an explicit comprehensive and universal prohibition on nuclear weapons comparable to that of chemical and biological weapons in conventional international law in 1996.[31]

Next, the Court assessed whether nuclear weapons were prohibited under customary international law. Here, the Court's discussion focused narrowly on three specific elements as evidence of state practice and *opinio juris*:[32] first, the non-utilisation of nuclear weapons since 1945;[33] second, continued reliance upon nuclear deterrence postures;[34] and third, UNGA resolutions proclaiming the illegality of nuclear weapons.

The Court faced 'profound disagreement' amongst states regarding how to interpret the practice of non-utilisation.[35] On the one hand, those states advocating for the illegality of nuclear weapons suggested that the 'consistent practice of non-utilization' since 1945 could be taken as an expression of *opinio juris* by the NWPS regarding the illegality of nuclear weapon use.[36] Conversely, however, the Court acknowledged that NWS and umbrella allies asserting the legality of nuclear weapons:

Regulations, see Dissenting Opinion of Judge Weeramantry, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 429, 508-12.

[28] *Nuclear Weapons Advisory Opinion*, [58]-[61].

[29] Ibid, [61].

[30] Ibid, [62] (emphasis added). See also Matheson (1997) 425 ('On the contrary, as the nuclear weapon states had argued, these agreements tend to confirm that there is no total prohibition on the use of nuclear weapons, since in that event the partial measures would make no sense').

[31] As noted by Akande (1997) 195.

[32] Later referring to this as the ICJ's 'evidentiary standard' employed in the *Nuclear Weapons Advisory Opinion*.

[33] Specifically, in situations of armed conflicts, as opposed to testing usage.

[34] Though the Court was unwilling to discuss the legality of such policies in its opinion, see *Nuclear Weapons Advisory Opinion*, [67].

[35] Chesterman (1997) 156.

[36] *Nuclear Weapons Advisory Opinion*, [65].

> ‘invoked the doctrine and practice of deterrence in support of their argument. They recall that they have always… *reserved the right to use those weapons* in the exercise of the right of self-defence against an armed attack threatening their vital security interests’.[37]

From this perspective, the reliance upon nuclear deterrence by both the NWS and a significant number of military allies arguably infers a ‘presumption that at least some uses of nuclear weapons would be lawful’.[38] Consequently, the NWS argued that the non-utilisation of nuclear weapons had not occurred out of a sense of legal obligation (i.e. *opinio juris*), but rather that the circumstances giving rise to the use of nuclear weapons had ‘fortunately not arisen’.[39] This conclusion was further evidenced through the acceptance of ‘negative security assurances’ by the international community enshrined in UNSC Resolutions 255 and 984, which effectively affirmed the possible use of nuclear weapons in certain limited circumstances.[40] Facing these contrasting interpretations and positions, the Court observed that:

> ‘members of the international community are profoundly divided on the matter of whether non-recourse to nuclear weapons over the past 50 years constitutes the expression of an *opinio juris*. Under these circumstances the Court does not consider itself able to find that there is such an *opinio juris*’.[41]

The Court then turned to analyse the effect of UNGA resolutions alluding to the illegality of nuclear weapon use and calling for their elimination as evidence of *opinio juris*,[42] beginning with

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[37] Ibid, [66] (emphasis added).
[38] See Dissenting Opinion of Vice-President Schwebel, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 311, 314.
[39] *Nuclear Weapons Advisory Opinion*, [66]; and Matheson (1997) 426. In fact, Dino Kritsiotis, ‘The Fate of Nuclear Weapons After the 1996 Advisory Opinions of the World Court’ (1996) 1(2) *Journal of Conflict and Security Law* 95, 100 notes that this may even indicate the success of deterrence (‘The evident and undisputed non-utilisation of nuclear weapons proved, however, to be a double-edged sword in that the self-same non-utilisation was used to explain and rationalise the practice and policy of deterrence – that is to say that abstinence from use by nuclear states proved and confirmed the success of the policy of deterrence in the form of nuclear stand-off’).
[40] Kritsiotis (1996) 100 (‘[b]y signalling its unanimous approbation of this set of assurances, and by reaffirming the inherent right of all states to self-defence, the Security Council has given its blessing to the positions held by nuclear states that in certain, limited circumstances (i.e. those not covered by the assurances), it is possible that the threat or use of nuclear weapons could be regarded as lawful’). See also Schmitt (1998) 101-02; and Durward Johnson and Heather Tregle, ‘The Treaty on the Prohibition of Nuclear Weapons and its Limited Impact on the Illegality of their Use’ (*Just Security*, 7 December 2020) <https://www.justsecurity.org/73711/the-treaty-on-the-prohibition-of-nuclear-weapons-and-its-limited-impact-on-the-legality-of-their-use/> (‘the resulting no-use commitments by the five nuclear powers evince that at least as late as 1995 there was no customary norm prohibiting the use of nuclear weapons’).
[41] *Nuclear Weapons Advisory Opinion*, [67].
[42] See *Nuclear Weapons Advisory Opinion*, [68]-[73].

Resolution 1653(XVI) in November 1961.[43] Although the ICJ acknowledged the view advanced by the US that UNGA resolutions cannot create legal obligations themselves,[44] it equally recognised that UNGA resolutions can be declaratory of pre-existing customary law, or may constitute further evidence of state practice and *opinio juris* when looking 'at its content and conditions of its adoption'.[45] However, while the voting record of the cited UNGA resolutions numerically favoured those states claiming the illegality of nuclear weapons,[46] the Court noted that:

> 'several of the resolutions under consideration in the present case have been adopted with *substantial numbers of negative votes and abstentions*; thus, although those resolutions are a clear sign of deep concern regarding the problem of nuclear weapons, they still fall short of establishing the existence of an *opinio juris* on the illegality of the use of such weapons'.[47]

Furthermore, Judge Schwebel persuasively argued that '[t]he continuing opposition, consisting as it does of States that bring together much of the world's military and economic power and a significant percentage of its population, *more than suffices* to deprive the resolutions in question of legal authority'.[48] Quite simply, any evidence of acceptance of law in support of a prohibition of nuclear weapons found in UNGA resolutions is ultimately matched by negative *opinio juris* by the opposing NWS and allies.[49] With this in mind, the Court determined that:

> 'The emergence, as *lex lata*, of a customary rule specifically prohibiting the use of nuclear weapons as such is hampered by the continuing tensions between the nascent *opinio juris* on the one hand, and the still strong adherence to the practice of deterrence on the other'.[50]

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[43] UNGA Res 1653(XVI) (24 November 1961) UN Doc A/RES/1653(XVI), [1(a)]. This reportedly gave rise to extensive debates between the NWS and NNWS as to the value of UNGA resolutions as indicative of customary rules, see Roger S Clark, 'Treaty and Custom', in Laurence Boisson de Charzournes and Philippe Sands (eds), *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge University Press 1999) 176-78.
[44] *Nuclear Weapons Advisory Opinion*, [68].
[45] *Nuclear Weapons Advisory Opinion*, [70]. This has been considered a 'welcome clarification' of the effect of resolutions on customary international law, see Shabtai Rosenne, 'The Nuclear Weapons Advisory Opinion of 8 July 1996' (1997) 27(1) *Israel Yearbook on Human Rights* 263, 293.
[46] Indeed, Smis and Borght (1997) 376 suggest that the numerical supremacy should be more significant than the number of negative votes cast.
[47] *Nuclear Weapons Advisory Opinion*, [71] (emphasis added).
[48] Dissenting Opinion of Vice-President Schwebel, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 311, 319.
[49] Both Akande and Kritsiotis suggest that the Court correctly determined that the resolutions highlighted the contrasting *opinio juris* of states as to the illegality of nuclear weapons at the time, see Akande (1997) 196; and Kritsiotis (1996) 102 respectively.
[50] *Nuclear Weapons Advisory Opinion*, [73].

Following its analysis undertaken within paragraphs 53-73, and in what was arguably one of the least controversial conclusions of the *Advisory Opinion*,[51] the Court ultimately determined by eleven votes to three that '[t]here is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such'.[52]

2. The Link Between Treaties and the Subsequent Emergence of Customary International Law

With the ICJ's conclusion reached in the *Nuclear Weapons Advisory Opinion* discussed above as a foundation, the following discussion seeks to determine whether the adoption of the TPNW – alongside any changes in state practice or *opinio juris* since 1996 – have changed the ICJ's conclusion by facilitating the creation of a customary prohibition of nuclear weapon use. To some extent, the adoption of the TPNW certainly *does* alter part of the ICJ's conclusion reached in paragraph 105(2)(B) as to whether a conventional, comprehensive, and universal prohibition of nuclear weapons exists in contemporary international law. Indeed, the TPNW should be perceived as a comprehensive attempt to prohibit nuclear weapons under treaty law in a similar vein to other globally applicable instruments addressing weapons of mass destruction such as the BWC, and the CWC. In theory, therefore, the TPNW has the *potential* to establish a comprehensive and universal conventional international law prohibition on use – though of course, the rights and obligations established by the treaty will not bind non-consenting third states.[53] Considerably less clear is the TPNW's potential influence in connection with the development of parallel customary international law prohibitions on nuclear weapon use.

The relationship between treaties and customary international law is varied and often complex,[54] though as the ICJ has noted, it is apparent that treaties 'may have an important role to play in recording and defining rules deriving from custom, or indeed in developing them'.[55] Indeed,

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[51] Greater controversy existed around whether nuclear weapons were prohibited under international human right law, international humanitarian law, the Courts conclusion in [105(2)(E)] 'that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law; However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake'. In addition, further controversy exists in connection with the Court's assessment of the obligation imposed by Article VI of the NPT, as discussed in Part I of this thesis. Falk similarly argues that these aspects where significantly more contentious than [105(2)(B)], see generally Richard Falk, 'Nuclear Weapons, International Law and the World Court: A Historic Encounter' (1997) 91(1) *American Journal of International Law* 64.

[52] *Nuclear Weapons Advisory Opinion*, [105(2)(B)], with Judges Shahabudden, Weeramantry, and Koroma dissenting.

[53] Article 34, VCLT.

[54] Richard B Bilder, Oscar Schachter, Jonathan I Charney, and Maurice Mendelson, 'Disentangling Treaty and Customary International Law: Remarks' (1987) 81 *Proceedings of the Annual Meeting* (*American Society of International Law*) 157, 157.

[55] *Case Concerning the Continental Shelf* (*Libyan Arab Jamahiriya/Malta*) [1985] ICJ Rep 13, [27]. See also Rosalyn Higgins, *Problems and Process: International Law and How We Use* It (Claredon Press 1994) 28 who similarly notes that where a

Article 38 of the VCLT confirms the possibility of 'a rule set forth in a treaty… becoming binding upon a third State as a customary rule of international law, recognized as such'.[56] In discussing the significance of treaties as part of the identification of customary international law, the ILC *Draft Conclusions*, in Conclusion 11(1), confirmed that:

> 'A rule set forth in a treaty may reflect a rule of customary international law if it is established that the treaty rule:
>
> a) *codified* a rule of customary international law existing at the time when the treaty was concluded;
> b) has led to the crystallization of a rule of customary international law that had *started to emerge* prior to the conclusion of the treaty;
> c) has given rise to a general practice that is accepted as law (*opinio juris*), thus *generating a new rule* of customary international law'.[57]

Returning to the present discussion, it is highly unlikely that the TPNW codified any pre-existing customary norm prohibiting the use of nuclear weapons – that is Draft Conclusion 11(1)(a) above – particularly in light of decisions reached in the *Nuclear Weapons Advisory Opinion*.[58] In fact, many states during the 2017 negotiations,[59] and certain commentators discussing the impetus behind the TPNW have pointed to the need to close a 'legal gap',[60] thereby implicitly acknowledging that

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treaty embodies a new norm, 'customary international law then develops in such a way as to embrace those new norms'.

[56] Article 38, VCLT.

[57] *ILC Draft Conclusions*, Conclusion 11(1) (emphasis added).

[58] As discussed in Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, section 2.a.

[59] Ireland noted that the mandate provided by UNGA Res 71/258 which decided to convene the 2017 negotiating conference confirmed that 'The core objective is the prohibition of the weapons, the first time these weapons of mass destruction will be clearly and unambiguously prohibited, addressing the current legal gap' (emphasis added), see Ambassador Patricia O'Brien, Permanent Representative of Ireland to the United Nations and other international organisations at Geneva (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 27 March 2017) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/27March_Ireland.pdf> 6. See also, statement by Ambassador Jerry Matjila, Permanent Representative of the Republic of South Africa to the United Nations (*United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 27 March 2017) <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/nuclear-weapon-ban/statements/27March_SouthAfrica.pdf> 2 ('We therefore welcome this Conference as a significant step towards subjecting nuclear weapons to the same international norms as the other categories of weapons of mass destruction. In South Africa's view, such a treaty is both a practical and achievable step towards filling a glaring gap in the international legal architecture pertaining to the legality of nuclear weapons').

[60] See e.g. John Borrie, Tim Caughley, Torbjørn Graff Hugo, Magnus Løvold, Gro Nystuen, and Camilla Waszink, *A Prohibition on Nuclear Weapons: A Guide to the Issues* (UNIDIR 2016) 10; and Gro Nystuen and Kjølv Egeland, 'A 'Legal Gap'? Nuclear Weapons Under International Law' (2016) 46(2) *Arms Control Today* 8.

nuclear weapons were not subject to a comprehensive legal prohibition in contrast to other weapons of mass destruction at the time of the negotiation of the TPNW.[61]

Equally, the suggestion that the adoption of the TPNW itself has crystallised an already emerging customary prohibition on use[62] seems unlikely, particularly given the conclusions of the ICJ that only a 'nascent *opinio juris*' as to the illegality of nuclear weapons exists.[63] As such, the real question becomes whether the codification of the prohibition of use under Article 1(1)(d) of the TPNW can serve as the basis for subsequent practice and *opinio juris* alluding to the possible creation of a new customary international law based prohibition on the use of nuclear weapons in the future.[64] This, as both the ICJ[65] and the ILC have commented, 'is not lightly to be regarded as having occurred',[66] and requires a detailed examination of both state parties practice in connection with the TPNW, and importantly the practice and *opinio juris* of non-parties. However, if it can be reasonably determined that Article 1(1)(d) has helped generate a new customary prohibition on use, one could point to the immediate impact and influence of the TPNW on the wider international nuclear disarmament law framework.[67]

3. Revisiting the ICJ's Evidentiary Standard Today

Before analysing the contribution of the TPNW to the formation of any customary international law prohibition on the use of nuclear weapons, it is necessary to re-visit the ICJ's 'evidentiary standard'[68] to determine whether state practice and *opinio juris* has substantially changed over the past 24 years. Indeed, the influence of the TPNW should not be examined in isolation from other noteworthy developments in state practice and *opinio juris* concerning the permissibility of nuclear weapon use under customary international law.

First, and most obviously, while there has continued to be a consistent practice of non-utilisation of nuclear weapons since the *Nuclear Weapons Advisory Opinion*,[69] it remains the case that the NPT-recognised NWS continue to rely upon nuclear deterrence in their respective security strategies, thereby essentially reserving the right to use nuclear weapons in certain, albeit limited

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[61] As noted previously, the adoption of the TPNW would require an amendment to this conclusion, at least in respect to conventional law.
[62] As per *ILC Draft Conclusions*, Conclusion 11(1)(b).
[63] *Nuclear Weapons Advisory Opinion*, [73].
[64] As per *ILC Draft Conclusions*, Conclusion 11(1)(c).
[65] *North Sea Continental Shelf*, [71].
[66] *ILC Draft Conclusions*, 146.
[67] As will be noted, there is the strong possibility that some states, generally the NWPS, may consider themselves as persistent objectors to any emerging customary international law norm.
[68] That is, the Court's reference to non-utilisation of nuclear weapons, policies of nuclear deterrence and UNGA resolutions discussed in Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, section 2.a.
[69] Coupled with a significant reduction in the number of nuclear weapons tests too, see Daryl Kimball, 'The Nuclear Testing Tally' (*Arms Control Association: Fact Sheets and Briefs*, updated July 2020) <https://www.armscontrol.org/factsheets/nucleartesttally>

circumstances. The 2018 US Nuclear Posture Review, for example, notes that the US has essentially sought to reserve the possibility of using nuclear weapons in 'extreme circumstances to defend the vital interests of the United States, its allies, and partners'.[70] The UK has likewise stated that it retains its nuclear weapons solely for deterrent purposes, and maintains a degree of ambiguity as to 'when, how and at what scale we [the UK] would contemplate use of our nuclear deterrent'.[71] China, France, and Russia have adopted similar postures.[72] Moreover, ongoing efforts by each of the NWS to modernise their respective nuclear capabilities indicates that support for nuclear deterrence postures is likely to continue for the foreseeable future.[73]

Perhaps even more significantly, both the practice of, and support for nuclear deterrence postures has not diminished since the *Nuclear Weapons Advisory Opinion*. On the contrary, more states adhere to either 'primary' or 'extended' nuclear deterrence strategies in 2021 compared to 1996.[74] First, the number of *de facto* NWPS has expanded to nine states following the nuclear tests of Pakistan in 1998, and the DPRK in 2006.[75] Each of these states have emphasised that their acquisition of nuclear weapons was driven primarily for deterrence-related purposes, and envisage the potential use of nuclear weapons in self-defence against unwanted aggression.[76] Furthermore, the number of NNWS that rely upon the extended nuclear protection of the US has also increased.

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[70] US Nuclear Posture Review 2018, which outlines in detail the continued importance of nuclear capabilities as part of the security doctrine of the US and even NATO allies, <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> 21 ('The United States would only consider the employment of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its allies, and partners. Extreme circumstances could include significant non-nuclear strategic attacks. Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allied, or partner civilian population or infrastructure, and attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities').

[71] National Security Strategy and Strategic Defence and Security Review (*Prime Minister's Office of the United Kingdom*, November 2015) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478933/52309_Cm_9161_NSS_SD_Review_web_only.pdf> [4.68]. A useful overview and analysis of the UK's nuclear deterrent posture is provided by Brian Drummond, 'UK Nuclear Deterrence Policy: An Unlawful Threat of Force' (2019) 6(2) *Journal on the Use of Force and International Law* 193, 196-98.

[72] For a useful summary of the deterrence postures of the *de jure* NWS, see Jonathan L Black-Branch, 'Precarious Peace Nuclear Deterrence and Defence Doctrines of Nuclear-Weapon States in the Post-Cold War Era', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume V: Legal Challenges for Nuclear Security and Deterrence* (Asser Press 2020) 329-40; and Isha Jain and Bhavesh Seth, 'India's Nuclear Force Doctrine: Through the Lens of Jus ad Bellum' (2019) 32(1) *Leiden Journal of International Law* 111, 112-20.

[73] For an overview of the current status of the number of nuclear weapons and each NWPS modernisation efforts, see 'Assuring Destruction Forever: 2020' (*Reaching Critical Will, Women's International League for Peace and Freedom*, June 2020) <https://www.reachingcriticalwill.org/images/documents/Publications/modernization/assuring-destruction-forever-2020v2.pdf>

[74] This language of 'primary' and 'extended' deterrence has been used previously in Part II, see Terence Roehrig, 'The U.S. Nuclear Umbrella over South Korea: Nuclear Weapons and Extended Deterrence' (2017) 132(4) *Political Science Quarterly* 651, 654.

[75] While India conducted its first explicit nuclear weapons tests in 1998, it is considered to be a nuclear power since 1974 after conducting its supposed 'peaceful' nuclear explosive test, see 'India: Nuclear' (*Nuclear Threat Initiative*, updated November 2019) <https://www.nti.org/learn/countries/india/nuclear/>

[76] Jain and Seth (2019) 112-13 and 116-17 for a discussion of Pakistan and the DPRK's nuclear weapons development respectively.

NATO, for instance, has witnessed the accession of 14 new member states since the 1996 *Nuclear Weapons Advisory Opinion*,[77] each of which, by adhering to the 2010 Strategic Concept, either expressly or tacitly support the possible use of nuclear weapons in certain circumstances by the US on their behalf as part of the NATO 'nuclear alliance'. This has led Jadoon to conclude that the 'value attached to nuclear deterrence is *increasing* worldwide', rather than decreasing.[78]

Consequently, and repeating the Court's conclusions in the *Nuclear Weapons Advisory Opinion*, the continual acceptance of nuclear deterrence by the *de jure* NWS, additional *de facto* NWPS that have emerged since 1996, and an increased number of NNWS umbrella allies suggests that the continued non-utilisation of nuclear weapons does not stem from a sense of legal commitment, but rather because the circumstances giving rise to the use of nuclear weapons have not arisen.[79] While perfectly uniform practice is not a necessary condition for the formation of customary international law,[80] the increased support for nuclear deterrence since 1996 currently reflects the practice of approximately 41 deterrence-reliant states across different geographical regions.[81] This is clearly contrary practice and *opinio juris* by a significant proportion of the international community, indicating that for many states, the possible use of nuclear weapons is not prohibited under international law.

Moreover, there remains an absence of consensus concerning the illegality of nuclear weapon use, arguably to an even greater extent than before the *Nuclear Weapons Advisory Opinion*. This, again, is observable through voting patterns on recent UNGA resolutions referring to the illegality of nuclear weapons under international law.[82] Take, for example, Resolution 74/68 adopted in the UNGA in 2019, which, amongst other things, reaffirms 'that the use of nuclear weapons would be a violation of the Charter of the United Nations and a crime against humanity'.[83] Although this resolution received 118 positive votes – comparable to resolutions issued in the years preceding the *Nuclear Weapons Advisory Opinion* – it also received 50 negative votes and 15

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[77] As of 20 September 2021. These new members since 1996 are Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Montenegro, North Macedonia, Poland, Romania, Slovakia, and Slovenia.

[78] Usman I Jadoon, 'The Security Impact of the Treaty on the Prohibition of Nuclear Weapons', in Jonathan L Black-Branch and Dieter Fleck (eds), *Nuclear Non-Proliferation in International Law – Volume VI: Nuclear Disarmament and Security at Risk – Legal Challenges in a Shifting Nuclear World* (Asser Press 2021) 380 (emphasis in the original).

[79] Which arguably even suggests that the policy of nuclear deterrence has operated effectively in practice by deterring the use of nuclear weapons, thus giving deterrence an identifiable rather than abstract value.

[80] As noted by the ICJ in the *Case Concerning Military and Paramilitary Activities in and Against Nicaragua* (*Nicaragua v United States of America*) [1986] ICJ Rep 14, [186].

[81] This includes the nine NWPS and 32 states under extended nuclear protection, including Albania, Armenia, Australia, Belarus, Belgium, Bulgaria, Canada, Croatia, Czechia, Denmark, Estonia, Germany, Greece, Hungary, Iceland, Italy, Japan, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, and Turkey.

[82] Indeed, the ICJ in *Nicaragua*, [188] observed that state voting patterns on UNGA resolutions can constitute expressions of *opinio juris*.

[83] UNGA Res 74/68 (23 December 2019) UN Doc A/RES/74/68, preambular paragraph [6].

abstentions, representing a substantial increase on pre-1996 voting patterns.[84] This reflects similar voting records on both Resolution 72/59 in 2017,[85] and Resolution 73/74 in 2018,[86] thereby indicating a comparable absence of *consensus* on the illegality of nuclear weapons use, as opposed to an absence of *opinio juris* altogether.[87] As a result, it seems that an examination of the ICJ's 'evidentiary standard' today reveals that very little has changed over the past 25 years as to whether the international community of states regards the use of nuclear weapons to be contrary to international law.

4. The Impact of the TPNW on the Development of Customary International Law

While it is reasonable to conclude that the Court's invoked evidence of state practice and *opinio juris* remains largely unchanged since 1996, the question remains to what extent the adoption, and now entry into force of the TPNW contributes towards the future development of a customary international law prohibition on the use of nuclear weapons.

As a starting point, the number of ratifications and signatures of the TPNW since 2017 offers the most immediate evidence in support of the customary nature of the prohibition on the use of nuclear weapons.[88] Indeed, the act of ratification can, to some degree, be taken as evidence of *both* state practice and *opinio juris*. In terms of state practice, D'Amato argues that through the act of ratification or accession, 'the parties to the treaty have entered into a binding commitment to act in accordance with its terms… The commitment itself, then, is the 'state practice' component of custom'.[89] Moreover, the act of ratification can also constitute some indication of *opinio juris*.[90] This possibility was noted by the *International Criminal Tribunal for the former Yugoslavia*:

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[84] UN Doc A/74/PV.46 (12 December 2019) 55-56. See for example a resolution noted by the ICJ in the *Nuclear Weapons Advisory Opinion*, UNGA Res 47/53C (9 December 1992) UN Doc A/RES/47/53C, preambular paragraph [7], which recalled the conclusions as to the illegality of nuclear weapons reached in Resolution 1653 (XVI), received noticeably more support with 126 votes in favour, 21 against, and 21 abstentions, UN Doc A/47/PV.81 (9 December 1992).

[85] UNGA Res 72/59 (13 December 2017) UN Doc A/RES/72/59. For the voting record see, UN Doc A/72/PV.62 (4 December 2017) 35.

[86] UNGA Res 73/74 (14 December 2018) UN Doc A/RES/73/74. For the voting record, see UN Doc A/73/PV.45 (5 December 2018) 53-54.

[87] Thereby matching the views expressed in the Dissenting Opinion of Judge Weeramantry, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 429, 533 ('In the face of such a preponderant majority of States' opinions, it is difficult to say there is no *opinio juris* against the use or threat of use of nuclear weapons').

[88] See Robert Cryer, 'Of Custom, Treaties, Scholars and the Gavel: The Influence of International Criminal Tribunals on the ICRC Customary Law Study' (2006) 11(2) *Journal of Conflict and Security Law* 239, 244 ('A widely ratified treaty has a considerable 'pull' towards acceptance, as there is a feeling that if a treaty is very broadly ratified, it represents the general expectations of those states').

[89] Anthony D'Amato, 'Custom and Treaty: A Response to Professor Weisburg' (1988) 21(3) *Vanderbilt Journal of Transnational Law* 459, 462.

[90] As discussed by Brian Lepard, *Customary International Law: A New Theory with Practical Applications* (Cambridge University Press 2010) 193-95.

> 'The ratification of the Geneva Conventions by 188 States can be considered as reflecting the *opinio juris* of these State Parties, which, in addition to the general practice of States in relation to the ICRC as described above, leads the Trial Chamber to conclude that the ICRC has a right under customary international law to non-disclosure of the Information'.[91]

In the present context, therefore, each instance of TPNW ratification arguably provides some evidence of both state practice and an underlying belief that the use (and for that matter testing, possession, development, transfer, and so forth) of nuclear weapons should be prohibited under international law.[92]

Naturally, the number of ratifications remains significant 'in determining whether particular rules set forth therein reflect customary international law; treaties that have obtained *near-universal acceptance* may be seen as particularly indicative in this respect'.[93] Accordingly, obtaining a sufficiently high number of ratifications, coupled with the consistent application and implementation of the treaty by states in practice, can provide support as evidence of *opinio juris* that certain actions or practices are subject to prohibition, reflecting 'the "norm-building capacity" of international treaties'.[94] As of 30 September 2021, the TPNW has been signed by 86 states, 56 of which have proceeded to ratify the treaty too.[95] Each of these instances of ratification can arguably be attributable indications of practice by national governments that have 'scrutinised' the TPNW at length,[96] and ultimately determined that ratification is desirable.[97]

However, although this is certainly a 'respectable' number of ratifications,[98] this figure can hardly be considered as reflecting the 'general' practice of states. As Lythgoe comments

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[91] This point is noted by Lisa Tabassi, 'The Nuclear Test Ban: *Lex Lata* or *de Lege Ferenda*?' (2009) 14(2) *Journal of Conflict and Security Law* 309, 333; and see *Prosecutor v Simić et al*, ICTY Trial Chamber Decision on the Prosecution Motion under Rule 73 for a Ruling Concerning Testimony of a Witness [1999] Case No IT-95-9-PT, [74].

[92] See for further discussion of ratification as *opinio juris*, Lepard (2010) 194. For a more cautious approach towards ratifications as evidence of state practice and *opinio juris*, see Maurice H Mendelson, 'The Formation of Customary International Law' (1998) 272 *Recueil de Cours* 165.

[93] *ILC Draft Conclusions*, 143-44 (emphasis added); *Case Concerning the Continental Shelf* (*Libyan Arab Jamahiriya/Malta*) [1985] ICJ Rep 13, [27]; and Cryer (2006) 244.

[94] Daniel Rietiker, 'Illegality of Nuclear Weapons under International Law, and its Relevance for the Divestment Debate' (*Association of Swiss Lawyers for Nuclear Disarmament*, 19 April 2019) <https://safna.org/2019/04/19/illegality-of-nuclear-weapons-under-international-law-and-its-relevance-for-the-divestment-debate/>

[95] See 'Status of the Treaty on the Prohibition of Nuclear Weapons' (*United Nations Treaty Collection*) <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26>

[96] See for example Lepard (2010) 191 ('First, treaties are acts, and therefore express the views, of heads of state or government and parliaments in one of their areas of competence, foreign affairs. Second, these officials or bodies are often elected, in which case we should give their views greater weight. Furthermore, the ratification of treaties is usually the result of some degree of open-minded consultation, both among members of parliaments that must approve a treaty and between parliaments and heads of state or government').

[97] Tabassi (2009) 333 makes a similar point in connection with the CTBT.

[98] To borrow the language of the ICJ in the *North Sea Continental Shelf*, [73].

'"one in four states" ratifying the [TPNW] is never going to count as practice that can create custom. Practice is generally required to be 'widespread and representative'… if this were to be the case. Patently fifty states ratifying the treaty meets neither of these criteria'.[99]

This is almost certainly a correct assessment of the *status quo*. However, as the number of ratifications of the TPNW gradually increases over time, the evidence of state practice and *opinio juris* that a possible customary prohibition on the use of nuclear weapons has crystallised from the TPNW framework will equally increase. Indeed, ratification can be a lengthy process dependent upon the internal procedures of each individual state, while one would also expect ratification procedures to be delayed further given the present COVID-19 pandemic.[100]

A related argument may be that because the TPNW has been concluded fairly recently, insufficient time has passed in order for the prohibitions of the treaty to develop into parallel customary norms. While time for customary rules to crystallise is generally needed, this shorter temporal aspect, however, is not necessarily an issue.[101] Rather the duration of time required during the crystallisation process of customary international law is 'context specific'.[102] Indeed, the ICJ has noted that while short durations do not necessarily bar the development of customary international norms from conventional obligations, 'an indispensable requirement would be that with the period in question, short though it might be, State practice… should have been both extensive and virtually uniform in the sense of the precision invoked'.[103] As will become apparent, given the general opposition of NWPS and umbrella allies to the TPNW,[104] coupled with the

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[99] Gail Lythgoe, 'Nuclear Weapons and International Law: The Impact of the Treaty on the Prohibition of Nuclear Weapons' (*EJIL: Talk!*, 2 December 2020) <https://www.ejiltalk.org/nuclear-weapons-and-international-law-the-impact-of-the-treaty-on-the-prohibition-of-nuclear-weapons/>
[100] Indeed, many states will likely have more immediate and pressing concerns relating to healthcare and economic considerations, meaning the ratification of the TPNW by supporting states may be delayed. A similar point has been raised by Grethe Laughlo Østern (ed), 'Nuclear Weapons Ban Monitor 2020', *Norwegian's People Aid*, January 2021, 21 ('According to ICAN, which works directly with states on their plans for signature and ratification of and accession to the TPNW, the COVID-19 pandemic has certainly caused delays in adherence in some states. Indeed, for a few months, signature of the Treaty was not possible due to COVID-19 restrictions at UN Headquarters. Consideration of the Treaty by cabinets of ministers and by legislatures has, in many cases, been put on hold while the impacts of the pandemic are addressed').
[101] In theory, it may be possible for customary international law to emerge instantaneously, see Bin Cheng, 'United Nations Resolutions on Outer Space: "Instant" International Customary Law?' (1965) 5(1) *Indian Journal of International Law* 23; although *the ILC Draft Conclusions*, 138 rejects the possibility of instant custom. See also Michael P Scharf, 'Accelerated Formation of Customary International Law' (2014) 20(2) *ISLA Journal of International and Comparative Law* 305, 324-26, who discusses certain issues with instant custom in connection with UNGA resolutions.
[102] James A Green, 'India and a Customary Comprehensive Nuclear Test-Ban: Persistent Objection, Peremptory Norms and the 123 Agreement' (2011) 51(1) *Indian Journal of International Law* 3, 12.
[103] *North Sea Continental Shelf*, [74].
[104] See Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, section 1.a. The consequences of this opposition will be explored in greater depth below.

increased reliance upon nuclear deterrence,[105] it is extremely difficult to conclude that current state practice is both extensive and 'virtually uniform' in support of a customary prohibition on the use of nuclear weapons.

Finally, it can be argued that reaching agreement on and approval of the TPNW text demonstrates at least some evidence of state practice and *opinio juris* in support of possible customary international law development.[106] This could therefore be seen as positive evidence of 'conduct in connection with treaties' by 122 states.[107] Admittedly, however, and in contrast to the act of ratification,[108] significantly less weight should be attributed to the approval of a treaty text. Indeed, as Lepard suggests, 'approval is "costless" to states and may be the product of mere political posturing'.[109] Overall, given the comparatively limited number of ratifications of the TPNW so far,[110] one must look beyond the numbers of ratifications to assess whether states believe a customary prohibition on use stemming from the TPNW exists.[111]

Of particular relevance is the practice and 'beliefs' of states that have not ratified[112] the TPNW: notably the NWPS and umbrella allies. To begin with, there have been explicit statements, both individually and collectively, by the NWPS that have opposed the idea that the TPNW contributes to the development of customary international law norms. Certainly, the most prominent and frequently referenced statement by commentators,[113] is the Joint Statement of the US, UK, and France issued on 7 July 2017, which states:

> 'We do not intend to sign, ratify or ever become party to [the TPNW]. Therefore, there will be no change in the legal obligations on our countries with respect to

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[105] Discussed above.
[106] Lepard (2010) 193.
[107] *ILC Draft Conclusions*, Conclusion 6(2), and 134 'The words "conduct in connection with treaties" cover acts related to the negotiation and conclusion of treaties, as well as their implementation; by concluding a treaty a State may be engaging in practice in the domain to which the treaty relates'.
[108] Which as noted above, can be evidence of both state practice and *opinio juris*.
[109] Lepard (2010) 193.
[110] Particularly compared to the broadly ratified NPT, which has 190 parties, and even the CTBT, which presently has 168 parties.
[111] See Green (2011) 11, who notes that even in the case of a widely ratified treaty such as the CTBT, 'treaty signature or ratification alone is perhaps not entirely sufficient in terms of identifying opinion juris supporting the emergence of a customary rules'.
[112] Or equally signed.
[113] See notably, Jain and Seth (2019) 121; Stuart Casey-Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (Oxford University Press 2019) 52 and 53-58; Daniel Rietiker, 'New Hope for Nuclear Disarmament or "Much Ado About Nothing?": Legal Assessment of the New "Treaty on the Prohibition of Nuclear Weapons" and the Joint Statement by the USA, UK, and France Following its Adoption' (2017) 59(Online) *Harvard International Law Journal* 22, 25-28; and Julia Kapelańska-Pręgowska, 'Freedom from Nuclear Weapons? IHRL and IHL Perspective vs The State-Centred Approach' (2020) 14(1) *The Age of Human Rights Journal* 137, 140-42.

nuclear weapons. *For example, we would not accept any claim that this treaty reflects or in any way contributes to the development of customary international law*'.[114]

This claim was repeated in October 2018 with Russia and China joining the statement asserting 'we [the P5 UNSC members/*de jure* NWS] do not accept any claim that it [the TPNW] contributes to the development of customary international law; nor does it set any new standards or norms'.[115] Alongside the NPT-recognised NWS, India,[116] Pakistan,[117] and Israel have similarly challenged the custom-making power of the TPNW.[118] The possible implications of these express statements for the development of customary international law prohibitions stemming from the TPNW can be interpreted in two ways.

a. Specially-Affected States

From one perspective, the explicit opposition by the NWPS may reflect the *opinio juris* by states that are 'specially-affected' by any developing customary international law prohibition on the use of nuclear weapons.[119] As Jain and Seth argue:

> 'More importantly, the strong opposition to the TPNW prevents it from contributing to the development of customary international law on the legality of

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[114] 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/> (emphasis added, bracketed text inserted).

[115] 'P5 Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons' (*UK Mission to the United Nations*, 24 October 2018) <https://www.gov.uk/government/news/p5-joint-statement-on-the-treaty-on-the-non-proliferation-of-nuclear-weapons> (bracketed text inserted).

[116] 'Nuclear Ban Treaty Doesn't Contribute to Customary International Law: India' (*The Wire*, 18 July 2017) <https://thewire.in/diplomacy/nuclear-ban-treaty-customary-law>; and statement by Pankaj Sharma, Joint Secretary Ministry of External Affairs of India, UNGA First Committee (73rd Session, 11 October 2018) UN Doc A/C.1/73/PV.5, 1 ('India believes that this Treaty, in no way constitutes or contributes to the development of any customary international law').

[117] 'Pakistan says Not Bound by Treaty on Prohibition of Nuclear Weapons' (*The Economic Times*, 7 August 2017) <https://economictimes.indiatimes.com/news/defence/pakistan-says-not-bound-by-treaty-on-prohibition-of-nuclear-weapons/articleshow/59955068.cms?from=mdr>

[118] Statement by Ambassador Alon-Roth-Snir, Deputy Director General for Strategic Affairs, Ministry of Foreign Affairs of Israel, UNGA First Committee (72nd Session, 3 October 2017) UN Doc A/C.1/72/PV.3, 12 ('On the topic of the Treaty on the Prohibition of Nuclear Weapons, Israel wishes to emphasize its view that the Treaty does not create, contribute to the development of, or indicate the existence of customary international law related to the subject of the content of the Treaty'); Ambassador Noa Furman, Permanent Representative of Israel to the United Nations, UNGA First Committee (74th Session, 17 October 2019) UN Doc A/C.1/74/PV.9, 6; repeated again in 2020, see statement by Ben Bourgel, Minister Counsellor of Israel to the United Nations, UNGA First Committee (75th Session, 19 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/19Oct_Israel.pdf> 6.

[119] Tim Caughley and Yasmin Afina, 'NATO and the Frameworks of Nuclear Non-Proliferation and Disarmament: Challenges for the 10th NPT Review Conference', *Chatham House: International Security Programme Research Paper*, May 2020, 21.

> the threat or use of nuclear weapons. Custom emerges from the widespread and near uniform practice of states that are *'specially affected'. Naturally, the prohibition on the possession or use of nuclear weapons would be especially relevant to nuclear weapon possessing states or states that are protected under the nuclear umbrellas of their allies…* Along with the US, UK, and France, India has also taken the position that the TPNW does not contribute in any way to the formation of customary international law. This position reflects the *consensus among states that rely on the nuclear deterrence* as a crucial component of their military strategies. Consequently, the TPNW lacks the requisite support to affect customary international law'.[120]

The concept of 'specially-affected states' remains somewhat controversial within international law,[121] and the ICJ has only expressly discussed the doctrine once in the *North Sea Continental Shelf* cases. Here the Court stated that:

> 'Although the passage of only a short period of time is not necessarily, or of itself, a bar to the formation of a new rule of customary international law on the basis of what was originally a purely conventional rule, an indispensable requirement would be that within the period in question, short though it might be, State practice, *including that of States whose interests are specially affected, should have been both extensive and virtually uniform in the sense of the provision invoked*'.[122]

The doctrine has not since been explicitly mentioned by the Court,[123] but was implicitly alluded to during the 2016 *Marshall Islands* cases.[124] Although the three cases were dismissed on jurisdictional grounds that there was an absence of awareness of the legal dispute claimed,[125] the ICJ nonetheless commented in its *Preliminary Objections* that 'the Marshall Islands, by virtue of the suffering which

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[120] Jain and Seth (2019) 121 (emphasis added).
[121] As noted by Anthea Roberts and Sandesh Sivakumaran, 'The Theory and Reality of the Sources of International Law', in Malcolm D Evans (ed), *International Law* (5th edn, Oxford University Press 2018) 93. For an elaborate discussion of the doctrine of specially-affected states, see Kevin J Heller, 'Specially-Affected States and the Formation of Custom' (2018) 112(2) *American Journal of International Law* 192.
[122] *North Sea Continental Shelf*, [74] (emphasis added). See also [73] ('very widespread and representative participation in the convention might suffice of itself [in creating a customary international law rule], provided it included that of States whose interests were specially affected') (bracketed text added).
[123] Though separate and dissenting opinions of sitting judges have discussed the doctrine, as noted by Heller (2018) 196, and discussed below somewhat.
[124] As noted by Heller (2018) 198-99.
[125] See generally Jonathan L Black-Branch, 'International Obligations Concerning Disarmament and the Cessation of the Nuclear Arms Race: Justiciability over Justice in the Marshall Islands Cases at the International Court of Justice' (2019) 24(3) *Journal of Conflict and Security Law* 449.

its people endured as a result of it being used as a site for extensive nuclear testing programmes, has *special reasons* for concern about nuclear disarmament'.[126]

In effect, and as described by Yeini, in the development of customary international law rules, '[a]cceptance by specially-affected states is, in other words, necessary but not sufficient for a rule of custom to emerge'.[127] The doctrine does not require that *only* the practice of specially-affected states must be considered, but rather that their practice *has* to be included.[128] Consequently, analysing the practice of states is not solely a quantitative assessment, but rather has a qualitative criteria that should determine 'whether those States that are particularly involved in the relevant activity or are most likely to be concerned with the alleged rule ("specially affected States") have participated in the practice'.[129] Conversely, the absence or contrary practice of specially-affected states can prevent an emerging rule or norm from crystallising into customary international law altogether.[130]

There are many controversies with the specially-affected states doctrine,[131] so much so that reference to the concept was included only within the commentary to the ILC *Draft Conclusions* concerning the generality of practice, rather than forming a specific, independent rule.[132] Although this is not the place to explore these issues at length,[133] a particularly pressing matter in the current context concerns precisely which states should be considered specially-affected by a customary

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[126] *Obligations Concerning Negotiations Relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament* (*Marshall Islands v United Kingdom*) (Preliminary Objections) [2016] ICJ Rep 833, [44] (emphasis added).
[127] Shelly Aviv Yeini, 'The Specially-Affecting States Doctrine' (2018) 112(2) *American Journal of International Law* 244, 244.
[128] See Sir Michael Wood, 'The Evolution and Identification of the Customary International Law of Armed Conflict' (2018) 51(3) *Vanderbilt Journal of Transnational Law* 727, 734. See also Charles De Visscher, *Theory and Reality in Public International Law* (Princeton University Press 1968) 149, who has analogised the concept of specially-affected states to the wearing of a footpath; '[a]mong the users are some who mark the soil more deeply with their footprints than others, either because of their weight, which is to say their power in the world, or because their interests bring them more frequently this way'.
[129] *ILC Draft Conclusions*, 136.
[130] Scharf (2014) 316. The International Law Association has described this as the positive and negative aspects of the specially-affected states doctrine, see *Committee on the Formation of Customary International Law*, International Law Association, Final Report (London 2000) 26.
[131] A notable concern by Danilenko is that the emphasis on heavier practice may effectively act as a guise affording greater value to the practice of powerful states that are always likely to be affected or impacted to a greater extent than less active states, see Gennady Danilenko, *Law-Making in the International Community* (Martinus Nijhoff 1993) 96.
[132] The notion of specially-affected states was discussed briefly in connection with Draft Conclusion 8 concerning the generality of state practice, *ILC Draft Conclusions*, 136-37, in a single paragraph. This contrasts with earlier reports where the doctrine was given significantly more attention, see Special Rapporteur Sir Michael Wood, 'Fifth Report on Identification of Customary International Law', *International Law Commission* (14 March 2018) UN Doc A/CN.4/717, 29-31 in particular, where various States had called for the inclusion of explicit reference to the doctrine as a separate draft conclusion. See also Georg Nolte, 'How to Identify Customary International Law? On the Final Outcome of the Work of the International Law Commission (2018)' (*KFG Working Paper Series No 37*, June 2019) <https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/43588/file/kfg_wp37.pdf> 17-18, who notes that efforts to include the specially-affected states doctrine in the ILC Conclusion 'gave rise to a debate where an impassioned plea was made, in the name of the sovereign equality of States, not to recognize the concept and the role of "specially affected States" and thereby to privilege "great powers".
[133] See generally Heller (2018).

law prohibition on the use of nuclear weapons.[134] While determining which states are specially-affected by a particular customary rule is largely circumstantial,[135] Jain and Seth argue that those states specially-affected by a customary prohibition on the use of nuclear weapons would principally be those states that currently possess such weapons, and states that endorse the policy of nuclear deterrence, i.e. NWPS and certain military allies.[136] This position was similarly advanced by the US in its written evidence to the *Nuclear Weapons Advisory Opinion*.[137] Black-Branch likewise argues that:

> 'Nuclear-weapon states would be specially affected by this change in practice and accordingly, before they would be required to acquiesce to such new norms, they would have to demonstrate uniform and consistent practice as well as hold the belief that their practice amounts to a binding legal obligation to be bound by it'.[138]

However, this application of the specially-affected states doctrine applied in the present context neglects the 'Janus-faced' nature of the doctrine, in which two categories of states can be considered specially-affected by a particular customary rule:[139] first, states which *engage* in a particular practice (often more frequently than other states); and second, other states 'that are *affected* by a practice in a distinctive manner' too.[140] While the NWPS would undeniably be specially-affected by the normative consequences of a prohibition on using nuclear weapons – by essentially restricting their forms of permissible conduct and practice under international law[141] – it remains

[134] This is discussed at length by Heller (2018) 207-27.
[135] In the *North Sea Continental Shelf Cases* for instance, it is not unreasonable to assert that coastal states have a special interest in rules concerning the delimitation of coastal waters. See also Wood (2018) 734 ('Whether there are specially affected states depends upon the specific rules in question, not the branch of international law concerned. For some rules, there are likely to be no states that are specially affected—all states may be equally affected').
[136] Jain and Seth (2019) 121. See also Durward Johnson and Heather Tregle, 'The Treaty on the Prohibition of Nuclear Weapons and its Limited Impact on the Illegality of their Use' (*Just Security*, 7 December 2020) <https://www.justsecurity.org/73711/the-treaty-on-the-prohibition-of-nuclear-weapons-and-its-limited-impact-on-the-legality-of-their-use/> who suggest that specially-affected states are 'those with nuclear capabilities and, thus, most likely to have nuclear weapons used against them'. A similar position has been noted in a more theoretical sense by Hugh Thirlway, *The Law and Procedure of the International Court of Justice: Fifty Years of Jurisprudence – Volume II* (Oxford University Press 2013) 1195 ('While this is true in the sense that nuclear weapons can cause injury to all States, it remains true that the adoption by the international community of a ban on the possession and use of all nuclear weapons would impinge particularly, first on those States who have, 'with vast effort and expense' as Judge Schwebel recalled, constructed and maintained a nuclear armoury, and secondly on those States (including the nuclear States) who have based substantial aspects of their foreign policy on the retention of nuclear weapons and the 'policy of deterrence').
[137] *Nuclear Weapons Advisory Opinion*, Written Statement of the Government of the United States of America, 20 June 1995, 9 ('with respect to the use of nuclear weapons, customary law could not be created over the objection of the nuclear-weapon States, which are the States whose interests are most specially affected').
[138] Black-Branch (2021) 131 and see generally 129-31.
[139] Heller (2018) 207.
[140] Ibid, 220 (emphasis added).
[141] As suggested by Black-Branch (2021) 131.

the case that many, if not virtually all states would be affected and suffer from the severe consequences caused by any future nuclear weapons use,[142] specifically the catastrophic health and environmental harms stemming from radioactive fallout.[143] Indeed, Judge Shahabudden has argued similarly that:

> 'Where what is in issue is the lawfulness of the use of a weapon which could annihilate mankind and so destroy all States, the test of which States are specially affected turns not on the ownership of the weapon, but on the consequences of its use. From this point of view, *all States are equally affected*, for, like the people who inhabit them, they all have an equal right to exist'.[144]

Rietiker advances a similar position when criticising the invocation of the specially-affected states doctrine in connection with the possible emergence of customary prohibitions from the TPNW:

> 'From our point of view, it would be too easy to argue that the particularly interested States are necessarily the States possessing nuclear weapons. On the contrary, *it may be argued that States not possessing nuclear weapons have a particular interest in creating the rule because their populations have been facing the risk and threat of nuclear weapons for decades to date*'.[145]

Ultimately, rather than leaving the ability to create customary prohibitory norms on nuclear weapons in the hands of states that favour these weapons, consideration of the views of states that may potentially be affected by the use of nuclear weapons must likewise be considered as having an equal weight of opinion. Like the TPNW itself,[146] this interpretation of the specially-affected

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142 And testing also. Wood also seems to accept this later point, Wood (2018) 734 ('It is perhaps difficult to say in all cases that only those states that are fighting are specially affected; again, depending on the specifics, other involved states may also be affected, for example, by a use of nuclear weapons').

143 As made evident throughout the Humanitarian Initiative, see Chapter 1: Introduction, section 6 and accompanying footnotes.

144 Dissenting Opinion of Judge Shahabuddeen, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 374, 414 (emphasis added); and similarly, Dissenting Opinion of Judge Weeramantry, *Nuclear Weapons Advisory Opinion*, 8 July 1996, 429, 535. See also B S Chimni, 'Customary International Law: A Third World Perspective' (2018) 112(1) *American Journal of International Law* 1, 39, who explores Judge Cançado Trindade's concept of *opinio juris communis*, in which doctrines prioritising the interests of one group of states in matters of fundamentally shared importance such as nuclear disarmament weapons should not take effect. Instead, the common concerns of humanity should take priority, though this is notably a minority position. Judge Cançado Trindade's Dissenting Opinion is available at <http://www.icj-cij.org/files/case-related/158/19146.pdf>

145 Rietiker (2017, Online) 26 (emphasis added).

146 Which has been perceived as a challenge to the existing nuclear hegemony by Nick Ritchie, 'A Hegemonic Nuclear Order: Understanding the Ban Treaty and the Power Politics of Nuclear Weapons' (2019) 40(4) *Contemporary Security Policy* 409.

states doctrine affords greater promotion of 'Global South' states' interests by accounting for the *effects* of state practice – in the case of the actual use of nuclear weapons – not just the ability to conduct the practice originally.[147] This seems a defensible position – particularly given the gravity of harm and effects connected with nuclear weapons detonations generally – and takes into consideration the concerns raised by Danilenko that the specially-affected states doctrine can be subject to exploitation by powerful states to assert or contradict the existence of specific customary international law rules.[148] Consequently, it may therefore be that either *all* states are specially-affected by a customary prohibition on the use of nuclear weapons, or alternatively that *no* specific group of states are specially-affected above others.

b. Persistent Objectors

From an alternative perspective, however, the express opposition raised by the NWPS above has been interpreted by certain commentators to represent the beginning of a 'persistent objection' claim by the NWPS.[149] The persistent objector rule has been discussed in Part I of this thesis concerning the possible existence of a customary nuclear test-ban,[150] and holds that '[w]here a State has objected to a rule of customary international law while that rule was in the process of formation, the rule is not opposable to the State concerned for so long as it maintains its objection'.[151] A state must demonstrate its objection openly, as early as possible during the formation of the customary rule in question,[152] and be repeated on a 'persistent' basis as opposed to sporadic or singular objections.[153] Crucially, a successful persistent objector claim will not prevent the emergence of a customary international law rule from being generally applicable, but rather exempts the objecting state(s) from the application of the rule in question.[154]

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[147] Heller (2018) 221.
[148] Danilenko (1993) 96.
[149] This is the position advanced by Rietiker (2017, Online) 26-28; Black-Branch (2021) 119-27; Kapelańska-Pręgowska (2020) 141; and Nystuen, Egeland, and Graff Hugo (2018) 32.
[150] For a detailed discussion of the persistent objector rule, see generally James A Green, *The Persistent Objector Rule in International Law* (Oxford University Press 2016); *ILC Draft Conclusions*, Conclusion 15 and associated commentary; *Committee on the Formation of Customary International Law*, International Law Association, Final Report (London 2000) section 15; and Patrick Dumberry, 'Incoherent and Ineffective: The Concept of Persistent Objector Revisited' (2010) 59(3) *International and Comparative Law Quarterly* 779.
[151] *ILC Draft Conclusions*, Conclusion 15(1).
[152] Indeed, subsequent objection is not possible, see Olufemi Elias, 'Some Remarks on the Persistent Objector Rule in Customary International Law' (1996) 6(1) *Denning Law Journal* 37, 38.
[153] *ILC Draft Conclusions*, Conclusion 15(2). This basic formula is of course more complex but represents the essential elements of any persistent objection claim, see Adam Steinfeld, 'Nuclear Objections: The Persistent Objector and the Legality of the Use of Nuclear Weapons' (1996) 62(4) *Brooklyn Law Review* 1635, 1647. See also Green (2016) 59-188, who discusses the criteria of persistent objection in significant depth.
[154] Olufemi Elias, 'Persistent Objector' (2006) *Max Planck Encyclopedia of International Law*, [1]; Green (2016) 2 ('the rule allows states to elude the otherwise inescapable reach of customary international law'); and as noted in the TPNW context by Rietiker (2017, Online) 27.

There is certainly a strong case in support of those commentators who suggest that statements denying the possibility of customary international law emerging from the TPNW amount to claims of persistent objection. First, most of the statements by the NWPS have been made at an early stage, either shortly following the TPNW's adoption in July 2017,[155] or alternatively in the subsequent months thereafter.[156] Second, these statements have been openly and regularly repeated in multilateral settings. The NPT-recognised NWS confirmed their view that the TPNW will not develop customary international law prohibitions in October 2018, while numerous NWPS have done so individually since 2017.[157] In other words, these possible claims of persistent objection have occurred during the possible formation of the customary prohibition on the use of nuclear weapons, and on a persistent basis by the NWPS. On face value, therefore, these claims of persistent objection could seemingly be upheld should a customary prohibition on the use of nuclear weapons emerge in parallel to the TPNW,[158] rendering any customary prohibition on use as inapplicable to these persistent objector NWPS.

Significantly, however, it has been suggested by Nystuen, Egeland and Graff Hugo that these persistent objection claims by NWPS may implicitly acknowledge that the TPNW prohibitions have the potential to facilitate the formation of customary international law-based prohibitory norms:

> 'Regardless of how the persistent objector rule is interpreted, however, the fact that the nuclear-armed states feel obliged to denounce the existence of a customary norm against the use and possession of nuclear weapons is, if nothing else, a testament to the relevance of the TPNW. *It would have been pointless to declare the non-existence of such a customary norm if it were obvious to everyone that the TPNW could not have an impact on how states interpret the legality of nuclear weapons*'.[159]

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155 Specifically, in the case of in the case of the UK, US, France, India, and Pakistan, all of which objected expressly by August 2017, as noted above.

156 Israel, for instance, stated its view that the TPNW will not contribute towards customary international law at the 2017 First Committee, statement by Mr Eran Yuvan, Israel Ministry of Foreign Affairs, UNGA First Committee (72nd Session, 13 October 2017) UN Doc A/C.1/72/PV.13, 6-7.

157 See e.g. Ambassador Noa Furman, Permanent Representative of Israel to the United Nations, UNGA First Committee (74th Session, 17 October 2019) UN Doc A/C.1/74/PV.9, 6; and statement by Pankaj Sharma, Joint Secretary Ministry of External Affairs of India, UNGA First Committee (73rd Session, 11 October 2018) UN Doc A/C.1/73/PV.5, 1.

158 An interesting question subsequently arises as to whether persistent objection to the emergence of a customary prohibition on nuclear weapon use is compatible with NWS obligations to pursue nuclear disarmament under Article VI of the NPT. This is not explored in the present is not an aspect explored here for want of space, but it worthy of further attention.

159 Nystuen, Egeland, and Graff Hugo (2018) 32 (emphasis added).

Put differently, these commentators argue that by advancing a claim of persistent objection, the NWPS recognise, albeit indirectly, the possibility that customary international law may emerge from the TPNW at some point in time, and are therefore instead seeking to ensure that any such developing customary norms are not applicable to them.

However, an important question must be addressed here; at what point does explicit opposition by a considerable group of states to an emerging customary norm go beyond persistent objection, and instead is so frequent and widespread that it prevents the emergence of a customary international prohibition in the first place? Indeed, as Green usefully observes 'persistent objection is necessarily a relatively solitary exercise: if there were a *notable number of states objecting to the evolution of a new customary international law norm*, then this would likely mean that the emerging norm will fail to crystallize at all'.[160] Consequently, although the development of customary international law can rarely be settled in neatly quantifiable terms,[161] instances of singular objection – which may amount to persistent objection – must be distinguished from evidence of broadly shared contrary practice and *opinio juris* amongst a significant number of states.[162]

Returning to the issue at hand, it is important to observe that objection to the claim that the TPNW may lead to the emergence of parallel customary prohibitions has not been made by just one or two states, but rather has been advanced by virtually all of the NWPS,[163] and more significantly, by numerous NNWS under the nuclear umbrella of the US. In September 2017, for example, NATO released an official statement to that effect in rejecting the TPNW:

> 'Therefore, there will be no change in the legal obligations on our countries with respect to nuclear weapons. Thus, we would not accept any argument that this treaty reflects or in any way contributes to the development of customary international law'.[164]

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[160] Green (2016) 2 (emphasis added). See also *ILC Draft Conclusions*, 150 ('The persistent objector is to be distinguished from a situation where the objection of a significant number of States to the emergence of a new rule of customary international law prevents its crystallization altogether (because there is no general practice accepted as law').

[161] A point noted by Sir Michael Wood, 'Second Report on Identification of Customary International Law', International Law Commission (22 May 2014) UN Doc A/CN.4/672, 37.

[162] Black-Branch (2021) 127 makes a similar observation.

[163] As discussed above. The DPRK has been more reserved *vis-à-vis* the TPNW, see e.g. statement by Democratic People's Republic of Korea, Ambassador Song Nam Ja, UNGA First Committee (72nd Session, 6 October 2017) UN Doc A/C.1/72/PV.6, 27.

[164] 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/ua/natohq/news_146954.htm>

This statement, which was repeated in December 2020,[165] and during the organisation's June 2021 Brussels Summit,[166] demonstrates that both the NWPS and nuclear umbrella allies have expressly challenged the possibility of customary international law norms developing from the TPNW from the outset, and on a repeated basis. This express, 'active objection'[167] by a significant number of NWPS and umbrella allies constitutes 'negative' *opinio juris* which ultimately prevents the emergence of customary international law prohibitions on the use of nuclear weapons since the adoption of the TPNW.[168] Indeed, such explicit evidence of *opinio juris* is more noteworthy on an evidential level by providing a firm indication of the NWPS and umbrella allies' 'beliefs' as to whether the TPNW has or may facilitate the creation of customary prohibitions.

Finally, this negative *opinio juris* of the NWPS and umbrella allies is not matched by assertions amongst TPNW supporting states that the treaty may facilitate the creation of customary international law norms. Indeed, apart from *opinio juris* implied within UNGA resolutions and voting patterns endorsing the generally illegality of nuclear weapons,[169] there is little suggestion that TPNW supporters have expressly challenged the above claims by NWPS directly. Rather, and as already discussed in Chapter 6, TPNW supporting states continue to simply express their continuing support for the treaty, while emphasising the compatibility of the TPNW with existing instruments.[170] Furthermore, other statements – notably by the New Agenda Coalition – advance the view that rather than being subject to a specific customary-based prohibition, nuclear weapons use is instead 'contrary to the principles and rules of international humanitarian law',[171] a position reflected in preambular paragraph 10 of the TPNW[172] – though contrary to the conclusions reached in the *Nuclear Weapons Advisory Opinion*.[173] In fact, only Austria during the 2020 UNGA First Committee has suggested briefly that the TPNW 'strengthens… the norm against the use of nuclear weapons'.[174] Yet even this statement does not explicitly suggest that the 'norm' against

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165 'North Atlantic Council Statement as the Treaty on the Prohibition of Nuclear Weapons Enters into Force' (*NATO*, 15 December 2020) <https://www.nato.int/cps/en/natohq/news_180087.htm?utm_source=twitter&utm_medium=natopress&utm_campaign=20201215_nac>

166 Brussels Summit Communiqué (*NATO*, 14 June 2021) <https://www.nato.int/cps/en/natohq/news_185000.htm> [47].

167 As termed by Caughley and Afina (2020) 21, specifically fn 103.

168 A point noted also by Edward M Ifft and David A Koplow, 'Legal and Political Myths of the Treaty on the Prohibition of Nuclear Weapons' (2021) 77(3) *Bulletin of the Atomic Scientists* 134, 136.

169 As discussed previously, see section 3.

170 Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, sections 1.d and 1.e.

171 Statement by Jerry Matjila, Permanent Representative of the Republic of South Africa on behalf of the New Agenda Coalition, UNGA First Committee (73rd Session, 8 October 2018) UN Doc A/C.1/73/PV.2, 11.

172 Preambular paragraph 10, TPNW.

173 *Nuclear Weapons Advisory Opinion,* [105(2)E].

174 Ambassador Alexander Marschik, Permanent Representative of Austria to the United Nations, UNGA First Committee (75th Session, 12 October 2020) <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/12Oct_Austria.pdf> 2.

nuclear weapons is embedded within international law, leaving open the question as to whether the normative potential of the TPNW will be solely political, or moral in nature.[175]

5. Summary

Overall, given the explicit opposition of the NWPS and NATO nuclear umbrella NNWS that have rejected claims that the TPNW contributes to the development of customary international law,[176] coupled with the maintained practice of nuclear deterrence,[177] it is not credible to suggest that sufficiently widespread, representative, and consistent practice and *opinio juris* exists to support the existence of a customary international law prohibition on the use of nuclear weapons stemming from the TPNW at present.[178] This point is further stressed in the brief discussion raised by Jain and Seth noted previously, who, regardless of the validity of their specially-affected states claims, are ultimately correct in observing that the current 'strong opposition to the TPNW prevents it from contributing to the development of customary international law on the legality of the threat or use of nuclear weapons'.[179]

At the same time, however, this conclusion does not aim to deprive the TPNW of all its law-making and normative potential entirely. To start with, the TPNW entails more than simply a prohibition on use, and its explicit prohibition on nuclear weapon testing under Article 1(1)(a) discussed previously certainly adds additional evidentiary weight to the view that all forms of nuclear weapons test explosions are prohibited under customary international law.[180] Equally, the obligation not to manufacture or develop nuclear weapons further strengthens the possibly already

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[175] See by contrast, a statement by Norwegian Prime Minister Gro Harlem Brundtland during the negotiation of the CTBT, 'Thanks to the United Nations, the norm of non-testing has been galvanized. It is today part and parcel of international law. In the future, no country, whether it has signed that treaty or not, will be able to break that norm', UN Doc A/51/PV.5 (23 September 1996), 8, quoted by Green (2011) 11.

[176] See notably, 'North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons' (*NATO*, 20 September 2017) <https://www.nato.int/cps/ua/natohq/news_146954.htm>

[177] See Durward Johnson and Heather Tregle, 'The Treaty on the Prohibition of Nuclear Weapons and its Limited Impact on the Illegality of their Use' (*Just Security*, 7 December 2020) <https://www.justsecurity.org/73711/the-treaty-on-the-prohibition-of-nuclear-weapons-and-its-limited-impact-on-the-legality-of-their-use/> who note that by reserving the right to use nuclear weapons in extreme circumstances of self-defence as part of nuclear deterrence postures, the NWPS *opinio juris* 'stands in the way of a customary norm prohibiting use'.

[178] This seems to be a position also shared prior to the TPNW achievement of 50 ratifications, see Casey-Maslen (2019) 58; Daniel Rietiker, 'Illegality of Nuclear Weapons under International Law, and its Relevance for the Divestment Debate' (*Association of Swiss Lawyers for Nuclear Disarmament*, 19 April 2019) <https://safna.org/2019/04/19/illegality-of-nuclear-weapons-under-international-law-and-its-relevance-for-the-divestment-debate/> ('But unfortunately, we are not there yet. The TPNW has not yet entered into force and is therefore not yet binding on States. As a result, it is difficult to argue that there is a general norm prohibiting nuclear weapons under international law').

[179] Jain and Seth (2019) 121 (emphasis added).

[180] See Part I: Chapter 2: Existing Nuclear Weapons-related Instruments, section 2.d.ii; and Casey-Maslen (2021) 398-400, who concludes that the TPNW has made a 'small but significant; contribution to the crystallisation of a customary nuclear testing prohibition.

existing customary norm prohibiting the acquisition of nuclear weapons by NNWS.[181] Similarly, Casey-Maslen suggests that the prohibition on transferring nuclear weapons under Article 1(1)(b) may also be considered to reflect either existing, or near emerging customary international law.[182]

Consequently, the claim advanced by the US, UK, and France that the TPNW does not '*in any way contribute[s] to the development of customary international law*',[183] is not entirely accurate.[184] Instead, although the treaty's contribution *today* may be limited in respect to a prohibition on use, it may nonetheless help facilitate the generation of custom *in the future* should support for the TPNW grow. This author therefore shares the conclusions reached in 2019 by Casey-Maslen that although the TPNW:

> '*in toto*, does not reflect customary international law, *but its provisions may contribute to the further development of custom.* The adoption of the Treaty itself reflects state practice, and widespread adherence to it and respect for its provisions will confirm this…
>
> The 2017 Treaty is, though, *still a clear expression of state practice indicating where international law may be expected to travel in the future*'.[185]

This represents a positive conclusion contrary to existing claims that the TPNW's normative effect cannot facilitate the emergence of customary international law. Instead, such a possibility is certainly plausible, but nonetheless remains challenging to achieve in the absence of a sufficient change in state practice amongst the NWPS and umbrella allies.

Nevertheless, as ratifications of the TPNW increase over time, coupled perhaps with a noticeable change in the views and positions of NWPS or umbrella allies towards the treaty, the presently reached conclusion on the status of a customary international law prohibition on the use of nuclear weapons is certainly capable of changing over time following a sufficient – though admittedly a currently unlikely – alteration in state practice and *opinio juris* towards the TPNW. This

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181 Ibid, 400-01. See for a discussion of the existence of such a norm already, James A Green, 'India's Status as a Nuclear Weapons Power under Customary International Law' (2012) 24 *National Law School of India Review* 125; and David A Koplow, 'Parsing Good Faith: Has the United States Violated Article VI of the Nuclear Non-Proliferation Treaty?' (1993) (2) *Wisconsin Law Review* 301, 390.

182 Casey-Maslen (2019) 58.

183 'Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption' (*United States Mission to the United Nations*, 7 July 2017) <https://usun.usmission.gov/joint-press-statement-from-the-permanent-representatives-to-the-united-nations-of-the-united-states-united-kingdom-and-france-following-the-adoption/>

184 An opinion shared by Casey-Maslen (2019) 53.

185 Ibid, 58.

assessment, even if unforeseeable at present, highlights the *potential* practical significance and impact of the TPNW on the international plane at some undefined future point in time. Indeed, the development and crystallisation of customary international law rules and norms is a complex journey: the adoption, entry into force, and subsequent implementation of the TPNW are but further steps towards the eventual destination of realising a customary prohibition on the use of nuclear weapons.

And finally, the above conclusions on the current customary international law impact of the TPNW do not detract from the normative pressure and potential of the treaty from a political and moral perspective. Indeed, the growing support for the TPNW amongst states, civil society, activists, politicians, and other bodies, organisations, and individuals undoubtedly strengthens the normative taboo against nuclear weapons, resulting in further stigmatisation and delegitimisation of nuclear weapons practices.[186] Consequently, while the NWPS will not be legally prohibited from using nuclear weapons given the lack of a customary international law prohibition at this time,[187] they may nonetheless face considerable political, public, and moral pressure to abstain from using nuclear weapons as a result of humanitarian inspired motivations of the TPNW.[188]

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[186] This has even led Nystuen, Egeland and Graff Hugo to suggest that the success of the TPNW is therefore not contingent on the development of customary rules, see Nystuen, Egeland, and Graff Hugo (2018) 33.

[187] Though nonetheless remaining limited by obligations under international humanitarian law and international human rights law, and other accepted restrictions under international law obligations generally.

[188] Another possibility worth noting is the possibility that regional or local customary international law prohibitors on the use of nuclear weapons may emerge amongst TPNW parties. This possibility could arise within regions which have a particular strong presence of ratification, such as the Pacific. The possibility that regional customary law can emerge has been confirmed in numerous judgments by the ICJ, see e.g. *Case Concerning the Frontier Dispute* (*Burkina Faso v Republic of Mali*) [1986] ICJ Rep 554, [21]; *Asylum Case* (*Columbia v Peru*) [1950] ICJ Rep 266, 276; and generally *Case Concerning the Right of Passage over Indian Territory* [1960] ICJ Rep 6. See also ILC Draft Conclusions, Conclusions 16(1) and 154-56. However, the relevance of this particular point would principally only arise if a TPNW party wished to exercise its right of withdrawal from the treaty.

Chapter 8: Concluding Remarks

This thesis began with a rather simple, though fundamental observation: the TPNW, the Humanitarian Initiative which informed the development of the treaty itself, and the whole premise of prohibiting nuclear weapons based on the humanitarian consequences that would result from their use, is a highly controversial development – one that has exacerbated pre-existing divisions amongst the international community of states regarding the importance, urgency and manner in which nuclear disarmament should be pursued.[1] This controversy, marked most notably by the continued absence and opposition of NWPS to the wider TPNW process, has in turn raised numerous questions and concerns from both states and commentators as to the treaty's possible impact and broader contribution towards the objective of nuclear disarmament pursuant to Article VI of the NPT.[2]

But despite its provocative, decisive nature, the TPNW's entry into force on 22 January 2021 constitutes an important, and welcome addition to the international nuclear non-proliferation and disarmament legal framework. Indeed, with additional progress towards nuclear disarmament or even more limited partial nuclear arms control agreements unlikely to be concluded over the coming years from the NWPS themselves,[3] the conclusion of the TPNW represents a symbol of hope, and a representation of both frustration and resistance to the nuclear weapons hegemony maintained by the NWPS, specifically the five NPT-recognised NWS that remain under the Article VI commitment to pursue negotiations towards nuclear disarmament.[4] Indeed, Egeland has argued a similar point:

> 'Perhaps the most central reason why the nuclear-armed states and many of their allies have opposed the TPNW is precisely that it punctures the nominal "consensus" on nuclear disarmament, making it more difficult for the managers of the status quo to combine business-as-usual nuclear deterrence practices with a halfway convincing façade of abolitionism'.[5]

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[1] Chapter 1: Introduction, sections 1.b. and 1.c.
[2] Ibid.
[3] Particularly in light of the renewed sense of rivalry between the NWPS, specifically the US-China, US-Russia, and US-DPRK.
[4] See generally Nick Ritchie, 'A Hegemonic Nuclear Order: Understanding the Ban Treaty and the Power Politics of Nuclear Weapons' (2019) 40(4) *Contemporary Security Policy* 409; and Nick Ritchie and Kjølv Egeland, 'The Diplomacy of Resistance: Power, Hegemony and Nuclear Disarmament' (2018) 30(2) *Global Change, Peace and Security* 121.
[5] Kjølv Egeland, 'Nuclear Weapons and Adversarial Politics: Bursting the Abolitionist "Consensus"' (2021) 4(1) *Journal for Peace and Nuclear Disarmament* 107, 111.

This 'puncturing' process, which seeks to 'mix-up' and ultimately bring fresh perspectives to stagnated nuclear disarmament discussions and negotiations, is reflected in the underlying stigmatising objectives of the TPNW and its supporters that aim to delegitimise both nuclear weapon possession and use, alongside extended nuclear weapons-related practices such as deterrence structures. It is this highly novel, dynamic approach towards nuclear weapons generally, whereby the non-aligned NNWS are no longer willing to simply 'roll-over' and accept insufficient progress towards Article VI, which symbolises the TPNW process.

At the same time, however, this thesis has also demonstrated that the TPNW is something more than simply a new perspective and symbolic stance of resistance to the NWPS and present nuclear disarmament dialogue embodied within the NPT, UNGA First Committee, and Conference on Disarmament. To begin with, Part II has demonstrated that the TPNW's nuclear disarmament-related provisions can both reinforce and develop the existing nuclear non-proliferation and disarmament legal regime in a number of respects. Indeed, the discussion has shown how the comprehensive Article 1 prohibitions remedy existing gaps and loopholes within the existing international nuclear non-proliferation and disarmament legal infrastructure and in many ways actually reinforce and strengthen existing non-proliferation obligations accepted by the vast majority of states.[6] Moreover, this thesis has explored how the nuclear disarmament 'pathways' established by Article 4 create a useful guideline – while retaining a certain degree of flexibility – through which nuclear disarmament and the complex dismantlement process could proceed in practice if the NWPS (or 'hosting states') were ever to accede to the treaty – an unlikely, but not entirely unforeseeable possibility.[7]

This does not mean that the TPNW in its current incarnation is the perfect multilateral disarmament instrument.[8] Indeed, at times the discussion here has highlighted certain aspects of the TPNW that could be considered disappointing in terms of their content and practical implications. For instance, in this author's view, the safeguards standard of the TPNW under Article 3, although reinforcing the minimal standard set by the NPT, could have gone a step further by making the negotiation and conclusion of the Additional Protocol INCIRC/540 with the IAEA mandatory for all parties.[9] Obviously, this was unacceptable to some delegations, largely reflecting a reluctance amongst certain non-aligned NNWS to accept further non-proliferation commitments in the absence of nuclear disarmament progress by the NWS.[10] Nevertheless, the failure to make

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[6] Part II: Chapter 3: Scope of the Article 1 Prohibitions
[7] Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions.
[8] To say this about any instrument from any field of international law would admittedly be challenging.
[9] See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 3.b.
[10] Ibid.

the Additional Protocol the minimum safeguard standard under the TPNW effectively created an open door for criticism of the TPNW that could have been avoided.

Moreover, there are many components, provisions and operational questions regarding the treaty that will require much elaboration, discussion and implementation in due course, corresponding to the TPNW's nature as a 'hybrid' ban/framework disarmament agreement.[11] Indeed, the TPNW's negotiating states and civil society participants at the 2017 negotiation conference ultimately demonstrated an awareness and appreciation of the need to leave the complex question of nuclear disarmament verification to a later date in order to consolidate insights and expertise both from civil society and scientific experts, but also from the NWPS themselves. Although this may seem to detract from the treaty's robustness and strength as a disarmament instrument at face value – as critics of the TPNW claim[12] – leaving room for further engagement and elaboration in conjunction with the NWPS arguably demonstrates the potential seriousness of its contribution to nuclear disarmament law. At the same time, this also reflects a simple truth; without the participation of the NWPS or umbrella allies, negotiating and adopting extensive nuclear disarmament steps and verification within the TPNW itself was, and to some extent remains, impossible.

In the end, when one examines the TPNW's nuclear disarmament-related provisions in depth as this thesis does throughout Part II, it would be reasonable to argue that the treaty *does* reinforce existing restrictions on nuclear weapons-related activities and provides a useful, and rather unique framework through which states could feasibly advance nuclear disarmament. Further negotiations on issues such as disarmament verification, the mandate of the 'competent international authority', and the content of the legally binding disarmament plan must, of course, still take place.[13] Nevertheless, in contrast to the wider, stagnant nuclear disarmament legal regime, the TPNW at the very least attempts to create solutions and a framework towards the goal of attaining a nuclear weapons-free world. And importantly, the TPNW achieves this in a way that both complements and builds upon the existing international nuclear non-proliferation disarmament law framework of treaties through the operation of Article 18.[14]

Consequently, although many aspects of the treaty require further elaboration, its potential, or 'theoretical' contribution to advancing nuclear non-proliferation and disarmament law should

[11] Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions, section 2.
[12] See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 3.a.
[13] Perhaps at future meetings of state parties which, as discussed below are given a broad mandate by Article 8 to take decisions relating to the implementation of the treaty, including 'Measures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes, including additional protocols to this Treaty', see Article 8(1)(b), TPNW.
[14] See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 1; and also Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, section 1.e.

generally be seen in a positive light. Indeed, TPNW supporting commentators have consistently emphasised that the treaty is not the final word on nuclear disarmament, but rather constitutes a necessary kick-start to reinvigorate nuclear disarmament efforts generally.[15] In this respect, the adoption and entry into force of the TPNW and the prohibition of nuclear weapons enshrined by Article 1 is merely the 'beginning' and constitutes a first – though important – step in the direction of a nuclear weapons-free world,[16] which undoubtedly requires additional input and actions from all states and engaged groups including, of course, the NWPS.

However, despite offering a *theoretically* sound contribution and a starting point of reference for possible nuclear disarmament and dismantlement through its novel provisions, the TPNW's current impact and influence in revitalising nuclear disarmament *in practice*, so far at least, remains quite limited. Indeed, as Part III demonstrated, broad opposition towards the TPNW continues to be expressed by the majority of NWPS and their nuclear umbrella allies within both the UNGA First Committee and NPT Review Process, even if a subtle shift towards a tactic of minimalizing reference to the TPNW can be observed.[17] Equally, the humanitarian motivations of the TPNW are not displacing, or at least proving as influential as predominant underlying security-orientated interests of the NWPS in their decision-making and discussions of nuclear weapons, deterrence strategies, and broader perspectives to nuclear disarmament.[18] Nor has the adoption of the TPNW instigated a renewed interest generally amongst the NWPS in revitalising discussions and initiatives concerning nuclear disarmament negotiations to any noticeable extent, beyond indirect, incidental developments that could arguably be seen as causally connected to the TPNW's adoption – such as the aforementioned CEND initiative.[19] Finally, states' reaction and practice in connection with the TPNW since its adoption in 2017 has not, so far, facilitated the crystallisation of any customary international law prohibitions on nuclear weapons activities – specifically the norm prohibiting the use of nuclear weapons.[20]

Nevertheless, it is hoped that the assessment of the TPNW's current impact in practice in revitalising and renewing interest in nuclear disarmament efforts within Part III is not entirely pessimistic in its conclusions. Indeed, the simple fact that the TPNW has been negotiated and has

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[15] See e.g. Gro Nystuen, Kjølv Egeland, and Torbjørn Graff Hugo, 'The TPNW: Setting the Record Straight', *Norwegian Academy of International Law*, October 2018, 21; and Daryl G Kimball, 'The Nuclear Ban Treaty: A Much-Needed Wake-Up Call' (2020) 50(9) *Arms Control Today* 3.

[16] 'Statement by ICRC President Peter Maurer on the entry into force of the Treaty on the Prohibition of Nuclear Weapons (TPNW)' (*ICRC*, 25 October 2020) <https://www.icrc.org/en/document/we-must-not-forget-prohibiting-nuclear-weapons-beginning-not-end-our-efforts-0> ('So, while we celebrate the entry into force of the Treaty on the Prohibition of Nuclear Weapons, we must not forget that prohibiting nuclear weapons is the beginning – not the end – of our efforts').

[17] Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, section 1.a.

[18] Ibid, section 1.b.

[19] Ibid, section 1.c.

[20] Part III: Chapter 7: The TPNW and Customary International Law.

since attracted sufficient support to enter into force means that it is a legal development worthy of consideration, debate and further elaboration by states and commentators alike. Moreover, supporting states and civil society groups will continue to promote the underlying stigmatising objectives of the TPNW and Humanitarian Initiative. But ultimately, whether this normative pressure against NWPS will result in a changed stance *vis-à-vis* the TPNW, or even revitalise nuclear disarmament efforts more broadly, remains to be seen.

In truth, arguably the most important factor needed to determine the actual extent of the TPNW's impact and contribution to revitalising nuclear disarmament efforts is that of *time*. Indeed, the TPNW remains a relatively new instrument, having only entered into force in January 2021. Consequently, the operative provisions of the TPNW, including its negative obligations contained within the Article 1 prohibitions to refraining from engaging in prohibited activity, the undertaking to maintain existing IAEA safeguards in place,[21] and the positive obligations relating to the provision of victim assistance and environmental remediation under Article 6,[22] have only just become legally binding upon state parties.[23]

Perhaps even more importantly, however, the TPNW's institutional forums and settings have not even been established, and it is these bodies that can elaborate upon and facilitate the development and implementation of the treaty's operative provisions even further. In fact, the TPNW is yet to host its first meeting of states parties which, pursuant to Article 8(2) 'shall be convened by the Secretary-General of the United Nations within one year of the entry into force of this Treaty'[24] – in other words by 21 January 2022. Following its initial offer on the day of the TPNW's adoption,[25] Austria has since confirmed that it will host the first meeting of states parties at the UN Offices in Vienna, with Alexander Kmentt – a prominent figure throughout the Humanitarian Initiative and negotiations of the TPNW – serving as president-designate.[26] As noted

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[21] Which as noted previously would in many cases mean the maintenance of the Additional Protocol.

[22] This thesis, for want of space, has not engaged with these provisions. For a useful overview and discussion, see Nidhi Singh, 'Victim Assistance under the Treaty on the Prohibition of Nuclear Weapons: An Analysis' (2020) 3(2) *Journal for Peace and Nuclear Disarmament* 265; Bonnie Docherty, 'From Obligation to Action: Advancing Victim Assistance and Environment Remediation at the First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons' (2020) 3(2) *Journal for Peace and Nuclear Disarmament* 253; and 'Victim Assistance and Environmental Remediation in the Treaty on the Prohibition of Nuclear Weapons: Myths and Realities' (*International Human Rights Clinic, Harvard Law School*, April 2019) <https://hrp.law.harvard.edu/wp-content/uploads/2019/05/TPNW_Myths_Realities_April2019.pdf>

[23] Although prior to entry into force, signatory and ratifier states were under an obligation not to defeat the object and purpose of the TPNW subject to Article 18, VCLT.

[24] Article 8(2), TPNW.

[25] Conference to Negotiate Legally Binding Instrument Banning Nuclear Weapons Adopts Treaty by 122 Votes in Favour, 1 against, 1 Abstention', UN Meetings Coverage, DC/3723, 7 July 2017.

[26] See 'TPNW: First Meeting of States Parties to take place in Vienna, January 2022' (*ICAN: News*, 16 April 2021) <https://www.icanw.org/tpnw_first_meeting_of_states_parties_vienna_january_2022>; and note verbale by the Executive Office of the United Nations Secretary-General António Guterres (27 April 2021) <https://documents.unoda.org/wp-content/uploads/2021/04/EOSG-2021-02942_NV-TNTW-ENGLISH-FINAL_27Apr21.pdf>

previously, however, on 10 August 2021, it was announced that the first meeting would be postponed until 22-24 March 2022 in order to avoid a clash with the rescheduled tenth NPT Review Conference.[27]

Pursuant to Article 8(1), the first meeting of states parties is given a broad and flexible mandate, allowing participants:

> 'to consider and, where necessary, take decisions in respect of *any matter with regard to the* application or implementation of this Treaty in accordance with its relevant provisions, and on further measures for nuclear disarmament, including:
>
> (a) The implementation and status of this Treaty;
> (b) Measures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes, including additional protocols to this Treaty;
> (c) Any other matters pursuant to and consistent with the provisions of this Treaty'.[28]

While Article 8(1) identifies some topics that may be subject to discussion – specifically Article 8(1)(b) alluding to the conclusion of additional disarmament protocols, likely the time-bound disarmament plans envisaged under Article 4 – this is done in a non-exhaustive fashion thereby reflecting the approach taken by the APMBC and CCM.[29]

Consequently, virtually any issue relating to the 'implementation or status' of the TPNW can be discussed at these meetings, providing participating state parties with sufficient discretion to identify and resolve any interpretative issues and inconsistencies highlighted in this thesis. For instance, attending states may wish to discuss whether Kazakhstan's leasing of the Sary-Shagan missile testing-range to Russia for the purposes of conducting ICBM and anti-ballistic missile tests constitutes prohibited assistance under Article 1(1)(e).[30] Equally, Sweden and Switzerland's attendance as observer states can allow their respective voices to be heard within the TPNW's institutional settings in order to help identify and resolve outstanding issues relating to the IAEA

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[27] See tweet by Alexander Kmentt, @alexanderkmentt (*Twitter*, 10 August 2021) <https://twitter.com/alexanderkmentt/status/1425080719571918849>; and Letter by the President-Designate Alexander Kmentt (*Treaty on the Prohibition of Nuclear Weapons – Meeting of States Parties*, 10 August 2021) <https://documents.unoda.org/wp-content/uploads/2021/08/2021-08-10-Letter-on-postponement-silence-procedure-final.pdf>
[28] Article 8(1), TPNW (emphasis added).
[29] Casey-Maslen and Vestner (2020) 462-63.
[30] See Part II: Chapter 5: Addressing Criticisms of the TPNW, section 4.b.ii.

safeguards under Article 3, alongside concerns relating to membership in collective military alliances and the TPNW.[31]

But importantly, the first meeting of states parties constitutes a significant event in the future implementation and development of the TPNW and presents an opportunity for state parties to begin operationalising and expanding upon key aspects of the treaty.[32] As discussed previously, the first meeting is designated by Articles 4(2) and 4(4) to determine the 'deadlines' by which nuclear weapons shall either be irreversibly eliminated or removed from a host states territory respectively.[33] Some preliminary discussions may also be held regarding the designation of the competent international authority to verify disarmament under Article 4 – although this is perhaps of less urgency for the first meeting.[34] Moreover, and an aspect of the TPNW not examined within this thesis, the first meeting presents an opportunity for attending state parties and civil society organisations to begin implementing the positive obligations concerning victim assistance, environmental remediation and international cooperation under Articles 6 and 7 to both individuals and areas affected by past (and future) use and testing of nuclear weapons.[35]

Furthermore, state parties may also seek to establish specific working groups or sub-committees within the meetings of state parties and review conference settings in order to advance these various implementation objectives. In addition, there is a strong possibility that final documents taking the form of 'action plans', 'declarations' or 'guiding principles' may be concluded in a similar manner to the CCM context,[36] setting specific goals and standards through which the subsequent implementation of the TPNW will proceed.[37] Quite simply, while the foundational provisions of the TPNW are clearly a promising starting point, the future operationalisation of the treaty in the coming years – through its institutional setting established pursuant to Article 8[38] – can build upon this firm template.

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[31] Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, section 1.d.

[32] I have, elsewhere, elaborated in greater detail on the first meeting of state parties, particularly its procedural rules and issues that will likely be discussed, see Christopher P Evans, 'From New York to Vienna: Advancing the Nuclear Ban Treaty at the First Meeting of States Parties' (2021) (under review, on file with author).

[33] Part II: Chapter 4: Analysing the Nuclear Disarmament Provisions, section 5.b.

[34] Indeed, Article 4(6), TPNW foresees the UN Secretary General holding an extraordinary meeting of state parties to take any decisions to designate the competent authority.

[35] See usefully Docherty (2020); 'Panel Discussion 1: National Implementation, Victim Assistance and Environmental Remediation, Implementation of the Treaty on the Prohibition of Nuclear Weapons' (*UNIDIR*, 18 January 2021) <https://unidir.org/events/implementation-treaty-prohibition-nuclear-weapons>; and the special edition articles in Volume 12(1) *Global Policy* published in February 2021.

[36] Final Document, Convention on Cluster Munitions First Meeting of States Parties (9-12 November 2010) CCM/MSP/2010/5, Annex II, Vientiane Action Plan, adopted at the final plenary meeting on 12 November 2010 (hereafter Vientiane Action Plan).

[37] See Docherty (2020); Alicia Sanders-Zakre, 'Nuclear Weapons Ban Treaty to Enter Into Force: What Next?' (2020) 50(9) *Arms Control Today* 6, 11.

[38] Article 8 also envisages six-yearly review conferences too, the first of which will take place five-years following entry-into force. Like the NPT, these review conferences have the purpose of 'review[ing] the operation of the Treaty and the progress in achieving the purposes of the Treaty, Article 8(4), TPNW.

The first meeting of states parties remains a few months away, and much work will need to be done in preparation for this meeting by both the UN Secretary General and Austria as the host state.[39] While the rules of procedure have already been determined by Article 8(2),[40] a provisional agenda and recommendations would prove advantageous in guiding the initial discussions to take place.[41] Nevertheless, what this point demonstrates is that because of the relative 'newness' of the TPNW, the treaty has barely got its feet off the ground. In this sense, the first meeting therefore provides an important opportunity and 'starting point for further action to bring the treaty to life',[42] and will set the tone for the future cooperation and discussions to be held within the TPNW's institutional settings. And additionally, even without the participation of the NWPS, these institutional meetings will take place and persist over time. Clearly, therefore, the TPNW is 'here to stay',[43] and constitutes a new, permanent fixture of the international nuclear non-proliferation and disarmament law regime both normatively – and in time – institutionally.

Moreover, there is also some indication that support for the TPNW is gradually building within the NWPS and umbrella allies too, thereby demonstrating the incremental penetration of the TPNW's normative agenda within the political and public discourse surrounding nuclear weapons-related issues within the state 'unit'. For example, in cities across the world, including the UK, local authorities have expressed support for the TPNW either by adopting specific resolutions in support of the treaty – as has occurred in Manchester and Leeds[44] – or by joining ICAN's 'Cities Appeal'.[45] Although this is obviously a low-level example of political support for the TPNW, it

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[39] There have already been some informal discussions hosted by non-proliferation and disarmament civil society groups discussing aspects of the TPNW likely to be discussed or expanded upon at the first meeting of states parties, see e.g. 'Implementation of the Treaty on the Prohibition of Nuclear Weapons' (*UNIDIR*) <https://unidir.org/events/implementation-treaty-prohibition-nuclear-weapons>; 'The Treaty on the Prohibition of Nuclear Weapons – What's Next?' (*Vienna Centre for Disarmament and Non-Proliferation*, 2 February 2021) <https://vcdnp.org/the-treaty-on-the-prohibition-of-nuclear-weapons-whats-next-2/>

[40] Article 8(2), TPNW 'The first meeting of States Parties shall be convened by the Secretary- General of the United Nations within one year of the entry into force of this Treaty. Further meetings of States Parties shall be convened by the Secretary-General of the United Nations on a biennial basis, unless otherwise agreed by the States Parties. The meeting of States Parties shall adopt its rules of procedure at its first session. *Pending their adoption, the rules of procedure of the United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination, shall apply*'.

[41] The *International Physicians for the Prevention of Nuclear War* has observed that preliminary consultative meetings for the first preparatory meeting are already underway, see 'IPPNW recommendations for the First meeting of States Parties to the TPNW' (*International Physicians for the Prevention of Nuclear War*, 17 May 2021) <https://peaceandhealthblog.com/2021/05/17/ippnw-recommendations-for-the-first-meeting-of-states-parties-to-the-tpnw/>, recommendation 4.2.

[42] Sanders-Zakre (2020) 11.

[43] Steven Hill, 'NATO and the Treaty on the Prohibition of Nuclear Weapons', *Chatham House International Security Programme Research Paper*, January 2021, 4.

[44] 'Motion – International Treaty to Prohibit Nuclear Weapons' (*Manchester City Council*, 12 December 2018) <https://democracy.manchester.gov.uk/mgDecisionDetails.aspx?IId=2069&Opt=1>; and Cllr David Blackburn, 'White Paper WP2' (*Leeds City Council*, 13 January 2021) <https://democracy.leeds.gov.uk/documents/s213389/WEB%20WP2%20-%20ICAN%20Resolution%20-%20Cllr%20David%20Blackburn.pdf>

[45] See generally 'ICAN Cities Appeal' (*ICAN*) <https://cities.icanw.org/list_of_cities>

nonetheless demonstrates how local and regional authorities can voice their disapproval at their government's continued pro-nuclear weapons and anti-TPNW stance.

In addition, several political parties within nuclear umbrella states have either expressed support for the TPNW, or have at the very least adopted a more amicable position towards the treaty, thereby standing in contrast to their current governments which – as noted previously – have taken a largely dismissive approach thus far.[46] Various 'Green-centred' ideological political parties across a range of NWPS and nuclear umbrella states have, rather unsurprisingly, adopted a supportive stance *vis-à-vis* the TPNW.[47] The Australian Labor Party (ALP) adopted a policy commitment instigated by MP Anthony Albanese – and now leader of the ALP – during the ALP national conference in December 2018 in which a Labor government would sign and ratify the TPNW should the ALP form a government.[48] Although the ALP subsequently lost the 2019 Australian Federal Elections,[49] ALP spokesperson Penny Wong welcomed the entry into force of TPNW in January 2021, and noted that the party would seek future ratification of the treaty if elected to government 'after taking into account the need to ensure an effective verification and enforcement architecture, the interaction of the treaty with the Nuclear Non-Proliferation Treaty, and achieve universal support'.[50]

Similarly, the new coalition government in Belgium under the leadership of Prime Minister De Croo has taken a noticeably more conciliatory stance towards the TPNW in the 30 September 2020 coalition agreement:

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[46] Part III: Chapter 6: The Influence of the TPNW Internationally since 2017, sections 1.a. and 1.b. in particular.

[47] See e.g. in Germany, 'Grundsatzprogrammentwurf' (*Bündnis 90 Die Grünen*, 26 June 2020) <https://cms.gruene.de/uploads/documents/202006_B90Gruene_Grundsatzprogramm_Entwurf.pdf> [343] (emphasis added) roughly translated as follows 'Disarmament, arms control and the non-proliferation of weapons are and will remain essential pillars of any peace policy involving disarmament and arms control. In the end, more global security for everyone. A strict set of rules is needed for disarmament and for the prohibition of chemical, biological, radiological and nuclear weapons of mass destruction. *This includes support for the UN Treaty on Nuclear Weapons*. Our aim is nothing less than a world free of nuclear weapon' (emphasis added); the UK, see 'Green Party Celebrates New UN Nuclear Weapons Treaty' (*Green Party*, 26 October 2020) <https://www.greenparty.org.uk/news/2020/10/26/green-party-celebrates-new-un-nuclear-weapons-treaty/>; and in Belgium, 'Belgium must support UN Treaty on the Prohibition of Nuclear Weapons' (*ICAN: News*, 20 November 2020) <https://www.icanw.org/belgium_coalition_tpnw> noting that 'in January 2019 a proposed parliamentary motion asking the government to "sign and ratify the TPNW" – which was ultimately rejected by the then coalition parties – was supported by both social-democrat (PS and sp.a) and Green (Ecolo and Groen) parties, who are now all in government'.

[48] 'Australian Labor Party commits to joining Nuclear Ban Treaty' (*ICAN: News*, 18 December 2018) <https://www.icanw.org/australian_labor_party_commits_to_joining_nuclear_ban_treaty>

[49] This loss came as a surprise after polls indicated significant support for the ALP, see 'Australia's Labor party weighs up future after shock election defeat' (*The Guardian*, 19 May 2019) <https://www.theguardian.com/australia-news/2019/may/19/australias-labor-party-weighs-up-future-after-shock-election-defeat>

[50] Quoted in Anthony Galloway, 'New nuclear treaty will be 'ineffective': DFAT' (*The Sydney Morning Herald*, 21 January 2021) <https://www.smh.com.au/politics/federal/new-nuclear-treaty-will-be-ineffective-dfat-20210121-p56vst.html>

> ‘België zal een proactieve rol spelen in de NPV-Toetsingsconferentie in 2021 en samen met de Europese NAVO bondgenoten nagaan hoe het multilaterale non-proliferatie kader te versterken en hoe het VN Verdrag op het Verbod op Nucleaire Wapens een nieuwe impuls kan geven aan multilaterale nucleaire ontwapening’.[51]

Moreover, the new Foreign Minister[52] Sophie Wilmès has since reaffirmed that Belgium will adopt a proactive role in relation to nuclear disarmament discussions that will take into account ‘développements récents, notamment la conclusion d’un Traité d’interdiction des armes nucléaires des Nations unies’.[53] Precisely how this commitment by the new Belgian Coalition Government to engage with the TPNW, its supporters, and nuclear disarmament negotiations generally will play out remains to be seen.[54] Nevertheless, this plainly constitutes a measured shift in stance by the new Government compared to the repeated opposition towards the TPNW displayed previously in the UNGA First Committee and NPT Review Process.[55]

Alongside political developments in favour of the TPNW, there is also a sense of growing support for nuclear disarmament generally and even explicit support for the TPNW itself amongst public opinion in many states.[56] For example, an April 2019 collection of polls co-ordinated by ICAN surveying public opinion across current nuclear weapon-hosting states[57] found that a clear majority of respondents were in favour of Belgium, Germany, Italy and the Netherlands signing the TPNW (65%; 68%; 70%; and 62% respectively).[58] This corresponds somewhat with the evident public support for the removal of US nuclear weapons stationed at military bases across Europe assessed in the same poll. Polling also demonstrates that the Japanese public have

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[51] Paul Magnetter and Alexander De Croos, ‘Verslag van de Formateurs’ (30 September 2020) <https://www.demorgen.be/redactie/2020/verslagformateurs.pdf?referrer=https%3A%2F%2Fwww.google.com%2F> 66, unofficially translated as ‘Belgium will play a proactive role in the 2021 NPT Review Conference and, together with the European NATO allies, will explore how to strengthen the multilateral non-proliferation framework and *how the UN Treaty on the Prohibition of Nuclear Weapons can give new impetus to multilateral nuclear disarmament*’ (emphasis added).

[52] And former Belgian Prime Minister.

[53] Chambre des Représentants de Belgique, Note de Politique Générale, Affaires Étrangères, Affairs Européennes et Commerce Extérieur, 6 November 2020, Doc 55 1580/020, 11.

[54] The aforementioned statement by Sophie Wilmès was given before Belgium subsequently proceeded to vote against – rather than abstained – a UNGA Res 75/40 in December 2020 that welcomed the adoption and imminent entry into force of the TPNW.

[55] See Jorge Hersschens, ‘The Nuclear Ban Treaty is a Fact’, *Toda Peace Institute*, Policy Brief No 99, January 2021, 2, who notes this statement ‘makes Belgium the only NATO member state to recognise this treaty, even though the federal government’s policy statement that was delivered about a month later failed to repeat the vow’.

[56] ICAN, for instance, regularly coordinates opinion polls on public perspectives on nuclear weapons and the TPNW. Their website constitutes a useful collation of such polls, see e.g. ‘Polling on the TPNW’ (*ICAN*) <https://pledge.icanw.org/polling_on_the_tpnw>

[57] With the exception of Turkey.

[58] ‘Polls: Public opinion in EU host states firmly opposes nuclear weapons’ (*ICAN: News*, 24 April 2019) <https://www.icanw.org/polls_public_opinion_in_eu_host_states_firmly_opposes_nuclear_weapons>. An earlier 2017 poll commissioned by ICAN found that 71% of German respondents supported ratifying of the TPNW, see ICAN: Atomwaffen (*YouGov*, poll conducted 21-23 August 2017) <https://www.icanw.de/wp-content/uploads/2017/09/yougov-atomwaffen-bundestagswahl-pdf.pdf>

maintained a 'nuclear allergy' reflecting a broadly shared desire to dissociate Japan from nuclear weapons practices.[59] For example, in a study by Baron, Gibbons and Herzog, '75% of the Japanese public wants the Prime Minister to sign and the Diet [Parliament of Japan] to ratify the Treaty, with only 17.7% opposed and 7.3% undecided'.[60]

These are, of course, relatively modest developments, and their overall importance should not be overemphasised.[61] Indeed, the growing support for the TPNW internally within many states, particularly those under the US nuclear umbrella, has not facilitated a noticeable change in rhetoric internationally with multilateral disarmament fora such as the UNGA First Committee or NPT Review Process so far. Nor have there been positive developments of this kind across all TPNW sceptic states. In the UK, for instance, the TPNW has received only marginal attention in Parliamentary debates, and for the most part, current Conservative government officials have generally dismissed discussion of the TPNW in rather brief, unequivocal terms.[62] And in South Korea, support for the TPNW is almost non-existent:[63] on the contrary, support for nuclear deterrence remains very high in light of the regional threat posed by the DPRK's nuclear and missile testing over the Korean Peninsula.[64]

Nevertheless, these minor 'cracks' and modest gains in support for the TPNW and its humanitarian approach to nuclear disarmament will likely continue to develop over time, and generate further debate and discussion within states.[65] The underlying stigmatisation and delegitimisation of nuclear weapons embedded within the TPNW agenda and Humanitarian Initiative, and heavily fuelled by civil society activism under the auspices of ICAN will also

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[59] Thomas E Doyle, 'Hiroshima and Two Paradoxes of Japanese Nuclear Perplexity' (2015) 1(2) *Critical Military Studies* 160; and Jonathon Baron, Rebecca Davis Gibbons, and Stephen Herzog, 'Japanese Public Opinion, Political Persuasion, and the Treaty on the Prohibition of Nuclear Weapons' (2020) 3(2) *Journal for Peace and Nuclear Disarmament* 299, 300.

[60] Baron, Gibbons and Herzog (2020) 301.

[61] Beatrice Fihn and Daniel Högsta, 'Nuclear Prohibition: Changing Europe's Calculations' (*European Leadership Network*, 25 November 2020) <https://www.europeanleadershipnetwork.org/commentary/nuclear-prohibition-changing-europes-calculations/> who make a similar point.

[62] See e.g. HC Deb 1 February 2021, vol 688, in which Secretary of state for Defence Ben Wallace MP engaged in very limited discussion of the TPNW with other MPs during a parliamentary debate specifically dedicated to questions and answers concerning the treaty itself.

[63] See generally Eunjung Lim, 'South Korea's Nuclear Dilemmas' (2019) 2(1) *Journal for Peace and Nuclear Disarmament* 297.

[64] Toby Dalton and Ain Han, 'Elections, Nukes, and the Future of the South Korea-U.S. Alliance' (*Carnegie Endowment for International Peace*, 26 October 2020) <https://carnegieendowment.org/2020/10/26/elections-nukes-and-future-of-south-korea-u.s.-alliance-pub-83044> where the authors proceed to note that '[t]he level of support has varied over the years and according to the question, timing, and polling methodology, but most polls place support between 50 and 70 percent'; and Lim (2019) 299.

[65] To use the language adopted by Tom Sauer and Claire Nardon, 'The Softening Rhetoric by Nuclear-Armed States and NATO Allies on the Treaty on the Prohibition of Nuclear Weapons' (*War on the Rocks*, 7 December 2020) <https://warontherocks.com/2020/12/the-softening-rhetoric-by-nuclear-armed-states-and-nato-allies-on-the-treaty-on-the-prohibition-of-nuclear-weapons/>

continue to penetrate existing discourse surrounding nuclear weapons, both on the international level in the UNGA First Committee and NPT Review Process, but also domestically too.

But the broader point emphasised here, however, is that it may simply be too early to determine whether the TPNW constitutes an 'effective measure' towards nuclear disarmament – to use the language of Article VI of the NPT. Indeed, it must be emphasised that it is often difficult to determine the 'effectiveness' of a particular nuclear disarmament measure without the benefit of hindsight in many instances.[66] Of course, wholly 'symbolic' steps or mere empty gesturing would clearly 'not discharge the NPT obligations' as they would not be purposively designed to facilitate nuclear disarmament as so required by Article VI.[67] But the TPNW is *not* an empty gesture or a mere symbolic statement – as the above summary and this thesis has argued. Rather, the TPNW constitutes a novel, unique disarmament instrument designed to facilitate and contribute towards the goal of delegitimising nuclear weapons and eventually achieving a nuclear weapons-free world, negotiated in good faith by most of the world's NNWS.

In many ways, therefore, the conclusions reached in this thesis overall regarding the TPNW's present impact in revitalising nuclear disarmament efforts and negotiations on a practical level are necessarily a time-specific 'snapshot' reached during the period in which this thesis has been researched and written. Indeed, the assessment undertaken in Part III outlining what impact the TPNW has had *today* may not necessarily be the same as its long-term influence on nuclear weapons and disarmament-related discussions and negotiations with multilateral forums over the next 10, 20, or even 30 years.

Consequently, it is perhaps more fitting at this stage in the TPNW's existence, pending implementation, and development by state parties to suggest that the treaty has the 'potential' to constitute an effective measure towards nuclear disarmament for the purposes of Article VI of the NPT, while leaving a more conclusive examination of its practical impact to be made at a later point in time. This is somewhat, though necessarily, speculative to a degree. But when facing an otherwise pessimistic outlook for nuclear disarmament and arms control prospects over the coming years, this cautious optimism, and the broader potential contribution of the TPNW generally, should be seriously welcomed and engaged with by states and commentators alike.

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[66] The present author has made a similar point elsewhere in connection with the CEND initiative, see Christopher P Evans, 'Creating an Environment for Nuclear Disarmament (CEND): a Good Faith Effective Measure Pursuant to Article VI NPT or Empty Gesturing?' (2020) 9(2) *Cambridge International Law Journal* 201, 211.

[67] David A Koplow, 'Parsing Good Faith: Has the United States Violated Article VI of the Nuclear Non-Proliferation Treaty?' (1993) (2) *Wisconsin Law Review* 301, 378 (see especially fn 327), who argues that both the Threshold Test-Ban and Peaceful Nuclear Explosion Treaties were 'so permissive that they did not rise to the level of "effective measure" of nuclear arms control as mandated by article VI'.

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