

International Legal Obligations Related to Nuclear Disarmament and Nuclear Testing

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1 Introduction

The present Chapter discusses and analyses the effectiveness of existing legal obligations related to nuclear disarmament and testing, starting with an overview of treaty obligations and then moving to and concluding with some reflections on the possibility that customary rules have evolved in *subiecta materia*. It will first present the current state of play on these issues in order to narrow down the main research questions; it then analyses the main legal issues arising from the two general international treaties on disarmament: the Non-Proliferation Treaty (NPT)¹ and the recent Treaty on the Prohibition of Nuclear Weapons (TPNW).² The analysis of treaty obligations then concludes with an overview of particular and bilateral treaty regimes, such as those establishing Nuclear Weapons Free Zones (NWFZ). In the concluding paragraph of the chapter, the possible evolution of a customary regime on disarmament will be addressed, with a view to offering some remarks *de lege ferenda*.

2 Nuclear Disarmament and Testing: Framing the Research Question(s)

There is no technical or normative definition of 'disarmament'. As we will see in this chapter, none of the relevant international treaties help in this regard. It is possibly in the light of this that scholars have elaborated their definition of disarmament, which can be found in the Encyclopaedia of Public International Law:

1 Treaty on the Non-Proliferation of Nuclear Weapons (1968).

2 Treaty on the Prohibition of Nuclear Weapons (2017).

[t]he term disarmament embraces a variety of measures designed to limit or reduce, both quantitatively and qualitatively, eliminate, and cease the production of means of warfare.³

From the same encyclopaedia, it is possible to infer a more precise definition of 'disarmament' by reference to the definition of 'arms control'. The difference between the two terms is spelled out as follows:

whereas disarmament seeks to reduce military capacity of all States – eventually to zero – arms control is primarily concerned with curbing the build-up of arms by introducing quantitative or qualitative ceilings for weapon systems, arms, and manpower.⁴

When it comes to nuclear disarmament, the absence of a normative definition is more sensitive. Despite some differences, scholars maintain that nuclear disarmament means that all nuclear arsenals must be dismantled.⁵ Admittedly, such a view inspired the drafting of the NPT, which mentions in the Preamble, among its purposes, 'the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery.'⁶

So, if 'disarmament' means nothing but ... disarmament, what is the state of play on the dismantling of nuclear arsenals?

According to the most recent report published by the Stockholm International Peace Research Institute (SIPRI), at the beginning of 2020, the nine nuclear-weapons possessing States (NWS) – the United States, Russia, the United Kingdom, France, China, India, Pakistan, Israel and the Democratic People's Republic of Korea (North Korea) – could count on an arsenal of 13,400 nuclear weapons. Around 3,720 of those nuclear weapons are currently deployed with operational forces and nearly 1,800 of these are kept in a state of high operational alert.⁷

3 B Tuzmukhamedov, 'Disarmament', *EPIL* (May 2011), para 1.

4 A Loets, 'Arms Control', *EPIL* (July 2013), para 2.

5 See, for example, DH Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press 2009) 64; see also and accordingly M Roscini, 'On certain legal issues arising from Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons' in I Caracciolo, M Pedrazzi, T Vassalli di Dachenhausen (eds), *Nuclear Weapons: Strengthening the International Legal Regime* (eleven publishing 2016) 17.

6 Treaty on the Non-Proliferation of Nuclear Weapons (n 1), Preamble.

7 SIPRI, *Armaments, Disarmament and International Security*, Yearbook 2020, Summary (OUP 2020) see <<https://www.sipri.org/yearbook/2020> 14-15> (all links were last accessed on 31 May 2021).

The above numbers confirm a decreasing trend in the overall number of nuclear weapons, which can be explained by the reductions implemented by the USA and Russia, who still possess 90 per cent of nuclear weapons in the world, in execution of the 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START). The recent administration change in the USA, and the consequent renewal of New START, which is now extended until 2026,⁸ is surely a promising sign that channels of communication between the two Countries that possess the vast majority of nuclear weapons will be re-opened after a deadlock in the negotiations, reflecting the relationship between Russia and the previous USA administration.

However, that is the only good news about nuclear disarmament. The decision of the previous USA Administration to withdraw from the Joint Comprehensive Plan of Action (JCPOA)⁹ that has curtailed Iran's ambition to become a NWS for years, weakens the ambition of the international community to avoid this scenario, which – according to some commentators – could push Saudi Arabia and Turkey to develop nuclear technologies for defending their national security interests in a geographical area (Middle East) that is not covered by any Nuclear Weapons Free Zone (NWFZ) treaty.¹⁰

Another reason for concern is the modernisation of NWS' arsenals. It is reported that China is in the middle of a significant transformation of its nuclear arsenal. Furthermore, India and Pakistan are slowly increasing the size and diversity of their nuclear forces, while North Korea continues to prioritise its military nuclear programme as a central element of its national security strategy and, in 2020, it conducted multiple flight tests of shorter-range ballistic missiles, including several new types of system, although it has since self-imposed a moratorium on testing.¹¹

In the light of the above overview of the state of play, it appears immediately that, despite the slow decrease in the number of overall nuclear weapons, there are at least two reasons for concern: first, NWS are not abandoning the 'nuclear option' as they are modernising their arsenals and, at the same time, they are not speeding up the disarmament process; second, some non-nuclear weapons possessing States (NNWS) are developing plans to have their own nuclear weapons.

8 See New Start Treaty, <<https://www.state.gov/new-start/>>.

9 Remarks by President Trump on the Joint Comprehensive Plan of Action (8 May 2018), see <<https://www.whitehouse.gov/briefings-statements/remarks-president-trump-joint-comprehensive-plan-action/>>.

10 See *infra*, para 6.

11 SIPRI (n 7) 15.

From the viewpoint of international law, the above scenario demonstrates that the existing legal framework concerning disarmament can be questioned and its effectiveness can be the object of a critical scrutiny. In the most recent report of the Committee on Nuclear Weapons, Non-Proliferation and Contemporary International Law, the International Law Association (ILA) bluntly affirmed that '[e]fforts towards global and regional Nuclear Disarmament are still characterized by a lack of progress.'¹²

Evidence of a stalemate regarding the disarmament process can be found in the troublesome path leading up to the next NPT review conference, which is now postponed until 2022:¹³ it is well known that NPT States Parties did not agree on the substance of a final document of the last review conference that took place in 2015.¹⁴ Furthermore, the recent TPNW, despite its humanitarian aim, attracted much criticism from NWS and their allies.¹⁵

The stalemate is probably explained by the reliance of NWS on the doctrine of nuclear deterrence.¹⁶ Just to give a few examples, in the 2018 Nuclear Posture Review of the USA, it is affirmed that '[t]he highest U.S. nuclear policy and strategy priority is to deter potential adversaries from nuclear attack of any scale.'¹⁷ At NATO level, the 2010 Strategic Concept still considers deterrence as a 'core element'¹⁸ of its overall strategy; more generally, NATO still regards itself as a nuclear alliance.¹⁹

12 Committee on Nuclear Weapons, Non-Proliferation and Contemporary International Law, 'Legal Challenges for Nuclear Deterrence and Security – Fifth Report' in International Law Association Report of the Seventy-Ninth Conference (Kyoto 2020) (International Law Association, Kyoto 2020) 4.

13 See Letter from the President-designate to all States Parties regarding the postponement of the NPT Review Conference (21 July 2021) <https://www.un.org/sites/un2.un.org/files/letter_from_president-designate_21072021.pdf>.

14 Ibid 8, para 8.

15 See *infra*, para 4.

16 On which, see ND White, 'Understanding Nuclear Deterrence Within the International Constitutional Architecture', in JL Black-Branch, D Fleck (eds), *Nuclear Non-Proliferation in International Law: Vol. V Legal Challenges for Nuclear Deterrence and Security* (Springer/Asser Press 2020) 254–258.

17 US Department of Defence, *Nuclear Posture Review 2018* (February 2018) <<https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>> 19.

18 NATO, *Active Engagement, Modern Force. Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization* (2010) <https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf>, para 17.

19 Ibid.

In the light of this, it is plausible to identify some research questions that might help with building a research agenda: what are the main obstacles to a full implementation of the duties enshrined in the NPT? Is the TPNW going to change the current legal framework on disarmament? Does the whole set of international treaty and non-treaty rules suggest that, at least, there is room to argue for the evolution of a customary regime on disarmament?

3 The Legal Regime Envisaged by the 1968 Non-Proliferation Treaty

The governance of nuclear weapons has been the object of an intensive normative regulation through international treaties. Consequently, the analysis of existing treaty regulations is essential, beginning with the foundational text of the NPT. In the context of that treaty, it will be interesting to offer an analysis of the duty enshrined in Article VI to negotiate the cessation of the nuclear arms race.

Indeed, the NPT is still nowadays considered the cornerstone of the whole international legal nuclear non-proliferation regime.²⁰ The legal architecture envisaged by the NPT rests on three pillars and on a classification of States Parties into two categories: NWS and NNWS.²¹

The three pillars of the NPT are: civilian use of nuclear energy, non-proliferation of nuclear weapons, and disarmament of nuclear weapons.²² As noted, there is no hierarchy between them and all of them, together, contribute to clarifying the object and purpose of the treaty.²³

The structure of the NPT is reflected in the existence of two different prongs of obligations: on one side NWS are bound not to transfer to NNWS – or otherwise contribute or assist them to gain possess of – nuclear weapons (see Article I); on the other side, NNWS have the duty to refuse any such transfer or any other actions that might enable them to manufacture any nuclear weapons (Article III).

20 See *ex multis* I Caracciolo, 'The Limitations of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons: International Law in Support of Nuclear Disarmament', in I Caracciolo, M Pedrazzi, T Vassalli di Dachenhausen (eds) (n 5) 6.

21 It must be noted, however, that not all the NWS States are Parties to the NPT. India and Israel never ratified the treaty and North Korea withdrew from it in 1993.

22 DH Joyner, *Interpreting the Nuclear Non-Proliferation Treaty* (Oxford University Press 2011) 75–76.

23 *Ibid.* See also ND White, 'Interpretation of Non-Proliferation Treaties', in DH Joyner, M Roscini (eds), *Non-Proliferation Law as a Special Regime* (Cambridge University Press 2012) 113.

Notwithstanding the above binary legal commitments, the NPT also contains provisions that bind at the same time both NWS and NNWS, namely Articles IV and V and Article VI. The first two articles set forth the inalienable right of all States to benefit from the development of nuclear energy when it is aimed at peaceful purposes. The most critical provision is surely Article VI, which states that:

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.

Article VI is crucial as it binds NPT Parties to achieve three results: the cessation of the nuclear arms race; nuclear disarmament; and the conclusion of a treaty on general and complete disarmament. Article VI obliges the Parties to pursue negotiations in good faith on effective measures to achieve these aims. Despite some critical voices, there is agreement in legal scholarship that the text of Article VI suggests neither any prioritisation of the three results, nor any particular relationship between them.²⁴

The interpretation of this provision is subject to a fierce debate among scholars and, primarily, between NWS and NNWS; therefore, its application is not univocal. The main contentions concern whether Article VI envisages a *pactum de negotiando* or a *pactum de contrahendo*;²⁵ what does the expression 'effective measures' mean; and, last but not least, whether the adoption of the TPNW might constitute a fulfilment of the obligation to conclude a general treaty on disarmament.

In this context, NWS have always maintained the position that the term 'pursue negotiations' means nothing but a good faith effort towards negotiations, hence an obligation 'of means'.²⁶ As a consequence, a failure to achieve a concrete result must not be attributed to any State in terms of international responsibility.

24 See again M Roscini (n 5) 16; DH Joyner (n 22) 101–102. For a contrary voice, see CA Ford, 'Debating Disarmament: Interpreting Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,' 14(3) *Non-proliferation Review* (November 2007) 404.

25 See specifically on the difference between *pactum de negotiando* and *pactum de contrahendo*, L Magi, 'L'obbligo di disarmo nucleare quale obbligo a realizzazione progressiva' (2018) 101 *RivDirInt* 58 ff.

26 See, for example, CA Ford (n 24) 403.

The ICJ had the occasion to pronounce itself on that provision in an *obiter dictum* in the Advisory Opinion on the *Legality of the Threat of Nuclear Weapons*.²⁷ The Court affirmed that:

The legal import of that obligation goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result – nuclear disarmament in all its aspects – by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith.²⁸

The ICJ consequently stated that Article VI contains a ‘twofold obligation to pursue and to conclude negotiations.’²⁹ Although it appears that the ICJ interpreted Article VI as entailing an obligation *of result*, doubts have been raised as to the weight that can be accorded to the Court’s pronouncement. As Ford notes,³⁰ the ICJ might have acted *ultra vires* in offering its interpretation of Article VI of the NPT, because it was not asked by the General Assembly to deliver an opinion on the NPT. Such a view can be justified also by the fact that the Court placed the above statements at the end of the Advisory Opinion, in a sort of *obiter dictum*³¹ and by the debate among judges.³²

Despite the disagreement on the interpretation of Article VI offered by the ICJ, it is important to look briefly at States’ practice and, in particular, at the outcomes of the NPT Review Conferences to offer a realistic perspective on the interpretation of Article VI and to open legal questions on that basis.

In this regard, it must be recalled that at the 2000 NPT Review Conference, States Parties agreed on a final document that sets out the so-called 13 Practical Steps for the Implementation of Article VI, which range from the entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the moratorium on nuclear tests pending the entry into force of the CTBT, to the negotiation of a treaty banning the production of fissile material for nuclear

27 *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) (1996) ICJ Report 226.

28 *Ibid.*, para 99.

29 *Ibid.*, para 100.

30 CA Ford (n 24) 402.

31 *Ibid.* See also DH Joyner (n 22) 97.

32 As noted by L Magi (n 25) 64, Judge Guillaume appended an individual opinion affirming precisely that the ICJ acted *ultra petita* (*Legality of the Threat or Use of Nuclear Weapons* (n 27) 287); to the contrary, Judge President Bedjaoui linked the need to interpret Article VI to the whole discourse on the legality of the use of nuclear weapons (*ibid* 267).

weapons, and finally to some steps that urge NWS to engage in measures aimed at the reduction and eventual total dismantling of their nuclear arsenals.³³

The 13 Practical Steps were upheld in the course of the 2010 NPT Review Conference, where States agreed on an Action Plan to implement the 13 Practical Steps that were reduced to seven 'concrete steps.'³⁴ Significantly, those steps include 'the unequivocal undertaking of the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States Parties are committed under article VI' and the 'continued validity of the practical steps agreed to in the Final Document of the 2000 Review Conference.' Also, for the first time in an NPT Review Conference, States Parties expressed deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons, even though this is referenced in the Preamble of the NPT.³⁵

As the 2015 NPT Review Conference did not produce any final document, the 2010 Action Plan still serves as the latest valid guidance agreed by States Parties.

In light of this situation, the main legal question that is still open is whether the outcomes of NPT Review Conferences can be used to interpret the obligations set forth in Article VI of the NPT and thus to clarify the fog that surrounds that provision. In particular, it is reasonable to ask whether the 13 Practical Steps and 2010 Action Plan could be the 'effective measures' that are to be negotiated by NPT States Parties, as advocated by some scholars.³⁶

In this respect, one possibility is to consider the outcomes of the NPT Review Conferences as subsequent agreements or practice in the terms of Articles 31 or 32 of the Vienna Convention on the Law of Treaties (VCLT). According to the ILC's Draft Conclusion no. 11 on subsequent agreements and subsequent practice in the interpretation of treaties, it is possible that final documents of conferences of States Parties to a treaty constitute subsequent agreements or practice, depending on the circumstances of their adoption.³⁷ Furthermore, in the commentary to Draft Conclusion no. 11, the ILC explicitly mentioned

33 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (New York 2000) NPT/CONF.2000/28 (Parts I and II) 14–15.

34 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final document (New York 2010) NPT/CONF.2010/50 (Vol. I) 19–20.

35 Ibid.

36 See M Roscini (n 5), L Magi (n 25) and DH Joyner (n 22) 102.

37 ILC, 'Draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties' in 'Report of the International Law Commission on the Work of its the 70th Session' (30 April–1 June and 2 July–10 August 2018) UN Doc. A/73/10, 15.

the NPT Review Conferences to identify the category of conferences of States Parties whose outcome falls under the scope of application of the conclusion.³⁸

Determining the interpretive value of the final documents is not merely a theoretical exercise: should States Parties agree on the above approach, failure to fulfil the 13 Practical Steps and/or the 2010 Action Plan could give rise to a violation of the obligations contained in Article VI of the NPT; moreover, there would be much more clarity on the content of a much-debated provision. In particular, this approach would definitely counter the NWS' argument that the obligation to disarm is dependent on the conclusion of a general treaty with this object and purpose.³⁹

4 The Treaty on the Prohibition of Nuclear Weapons

However, a new general treaty on disarmament actually exists. The TPNW entered into force on the 21 January 2021. Its adoption represented the culmination of a path begun in 2010, known as 'The Humanitarian Initiative', fostered by 16 States Parties to the NPT, which tried to propose, with no success, a 'humanitarian' approach to nuclear weapons, in the course of the 2015 NPT Review Conference.⁴⁰ The contents of the initiative, which aimed at preventing 'catastrophic, persistent effects of nuclear weapons on our health, societies and the environment' through a complete ban on nuclear weapons originated in the already mentioned clause inserted in the 2010 NPT Review Conference that highlighted the 'catastrophic humanitarian consequences that would result from the use of nuclear weapons'.⁴¹

The content of the initiative was taken up at the UN level, thanks to the endorsement by the Council of Delegates of the ICRC,⁴² and some UN agencies

38 Ibid 83.

39 The NWS' interpretation builds on the Preamble of the NPT, in which it is stated that States Parties desire to disarm 'pursuant to a Treaty on general and complete disarmament under strict and effective international control'. See again CA Ford (n 24) 403.

40 A Kmentt, 'The Development of the International Initiative on the Humanitarian Impact of Nuclear Weapons and its Effects on the Nuclear Weapons Debate' (2015) 97 IRRC 681. On the negotiating and drafting history of the TPNW, see S Casley Maslen, *The Treaty on the Prohibition of Nuclear Weapons: A Commentary* (OUP 2019) 47 ff.

41 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final document (New York 2010) NPT/CONF.2010/50 (Vol. I) 19.

42 See ICRC, *Working towards the elimination of nuclear weapons* (26 November 2011) <<https://www.icrc.org/eng/resources/documents/resolution/council-delegates-resolution-1-2011.htm>>. The resolution contains an appeal to all States 'to pursue in good faith and conclude with urgency and determination negotiations to prohibit the use

and NGOs, such as the International Campaign to Abolish Nuclear Weapons (ICAN), which was awarded the Nobel Peace Prize for its efforts.

The TPNW was, therefore, negotiated within the framework of a mandate given by the UNGA in Resolution 71/258, titled 'Taking forward multilateral nuclear disarmament negotiation', adopted with 113 votes to 35 and 13 abstentions.⁴³

Significantly, none of the nine NWS joined the negotiation of the Treaty, though China abstained in the voting in the UNGA. The negotiations suffered from a boycott by States that have agreements with the USA on the stationing of nuclear weapons on their soil, except for the Netherlands, which participated in all the drafting conference under pressure from its Parliament but, at the end, voted against the adoption of the treaty.

As to the content of the treaty, it is important to devote some words to the approach that inspired its negotiation. Ambassador Whyte Gomez from Costa Rica, President of the negotiating conference, issued a non-paper to present the first draft of the treaty, stating that it would be built on four principles: complementarity with the existing disarmament regime, in particular the NPT; reinforcement of existing obligations; non-discrimination between NWS and NNWS; and a flexible design to endure for the long term.⁴⁴

Building on these founding principles, the TPNW includes a comprehensive set of prohibitions on participating in any nuclear weapon activities, which can easily be associated with a complete ban on nuclear weapons. The restrictions – which are, for the most part, listed in Article 1 of the Treaty – include not to develop, test, produce, acquire, possess, stockpile, use or threaten to use nuclear weapons. Significantly – and critically, as we will see later – the Treaty prohibits the deployment of nuclear weapons on the national territory of States Parties and makes illegal the provision of assistance to any State in the conduct of prohibited activities.

It is immediately clear that the TPNW is built on a different rationale to that of the NPT: whereas the latter still considers the use of nuclear weapons as a viable option for defending national security, the former does not admit any reservation to Article 1 (see Article 16), hence it puts all the States – whether NWS or NNWS – on the same plane. The rationale of the TPNW is not the only feature of the treaty that deserves comment. Indeed, in the set of prohibitions,

of and completely eliminate nuclear weapons through a legally binding international agreement.'

43 UNGA Res 71/258 (11 January 2017) UN Doc A/RES/71/258.

44 Letter from Ambassador Elayne Whyte Gomez (Costa Rica) (Geneva 22 May 2017) <<https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/05/Letter-from-the-Chair-May-24-2017.pdf>> 2.

the negotiating States agreed to include a ban on the use of nuclear weapons ‘under any circumstances’, an expression that with no interpretive doubts refers also to armed conflicts.⁴⁵ Such an inclusion, which is in line with the position of the ICRC, represents the first explicit prohibition of the use of nuclear weapons in armed conflict. Indeed, it is useful to recall that in the 1996 Advisory Opinion, the ICJ was not able to reach a similar conclusion, though it admitted that the use of nuclear weapons might violate the principle of proportionality.⁴⁶

Last but not least, the TPNW, building on one of its founding principles, does not foresee any termination date: Article 17 sets an unlimited duration for the treaty. It is certainly possible for States Parties to withdraw, but to do so they have to justify the existence of ‘extraordinary events’ and to notify the other States Parties 12 months before the expected date of withdrawal. Moreover, the same article contains a safe clause that maintains the prohibition on using nuclear weapons in armed conflict if the withdrawing State is engaged in an armed conflict, until the expiration of the 12-month notification period.

According to its founding principles, the TPNW is meant to complement the already existing international legal obligations on disarmament, especially the NPT. This is confirmed by the Preamble of the treaty, in which the necessity to fully implement the NPT is reaffirmed and regarded as the cornerstone of international law on disarmament. To this end, the TPNW contains a saving clause, Article 19, according to which ‘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.’

The content of the above-mentioned clause, though it was probably designed to link the NPT and the TPNW, reinforced the criticisms of NWS and their allies. Indeed, the wording of Article 19 clearly sets out that the TPNW shall not prejudice ‘obligations’ undertaken by States Parties, but it does not say that the TPNW shall not prejudice ‘rights’ conferred to States Parties under existing international agreements, implying that all the rights accorded to NWS are inconsistent with the TPNW.⁴⁷ This view is also confirmed by Article 4,

45 See, accordingly, M Pedrazzi, ‘The Treaty on the Prohibition of Nuclear Weapons: A Promise, a Threat or a Flop?’ (2017) *ItYBIL* 220. This interpretation is supported by the Preamble of the TPNW: ‘Considering that any use of nuclear weapons would be contrary to the rules of international law applicable in armed conflict, in particular the principles and rules of international humanitarian law’.

46 See, again, M Pedrazzi (n 45) 221.

47 For an analysis from this angle, see S Casley Maslen, ‘The Relationship of the 2017 Treaty on the Prohibition of Nuclear Weapons with other Agreements: Ambiguity,

which dictates that each State Party of the treaty must dismantle its nuclear arsenal 'in accordance with a legally binding, time-bound plan for the verified and irreversible elimination of that State Party's nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear-weapons-related facilities.' Accordingly, NWS can theoretically adhere to the TPNW before the dismantling of their nuclear arsenals, but if they do so, they assume an obligation to eliminate their nuclear weapons' programmes.⁴⁸

In light of the above, which is nothing but a confirmation that the TPNW builds on a non-discriminatory approach, it appears clear that the treaty admits no dedicated paths for NWS. Their reaction, therefore and predictably, has been a firm opposition to the TPNW. In a joint declaration, the USA, France and UK affirmed that:

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.⁴⁹

Critically, the three States observed that:

This initiative clearly disregards the realities of the international security environment. Accession 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. 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. It will do the exact opposite by creating even more divisions at a time when the world needs to remain united in the face of growing threats, including those from the DPRK's ongoing proliferation efforts. This treaty offers no solution to the grave threat posed

Complementarity, or Conflict?' (1st August 2017) *EJIL: Talk!*, <<https://www.ejiltalk.org/the-relationship-of-the-2017-treaty-on-the-prohibition-of-nuclear-weapons-with-other-agreements-ambiguity-complementarity-or-conflict/>>. More in general, see also M Sossai, 'Il rapporto tra il trattato sul divieto di armi nucleari e gli altri accordi in materia di non proliferazione e disarmo' (2018) 1 *RivDirInt* 185.

48 See M Sossai (n 47).

49 Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption (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/>>.

by North Korea's nuclear program, nor does it address other security challenges that make nuclear deterrence necessary. A ban treaty also risks undermining the existing international security architecture which contributes to the maintenance of international peace and security.

Russia took a similar stance: 'At that time, we saw the domination of a dangerous and delusive trend towards forcing the nuclear powers to abandon their nuclear stockpiles without any regard for their security interests and strategic realities.'⁵⁰ Similarly, China, who, it must be recalled, did not oppose the UNGA resolution that launched the negotiations of the TPNW, affirmed that a full nuclear disarmament must be achieved in the light of the 'principle of safeguarding global strategic stability and compromising the security of no country', which are best assured in the existing non-proliferation regimes.⁵¹

Significantly, India, which is regarded as a NWS, but is not a Party to the NPT 'supported the commencement of negotiations on a comprehensive Nuclear Weapons Convention in the Conference on Disarmament, which is the world's single multilateral disarmament negotiation forum working on the basis of consensus.'⁵²

Criticisms towards the TPNW were also raised by NNWS, which nonetheless are allied to NWS. This is a critical factor that impacts, in particular, on NNWS having military agreements with NWS on the installation of nuclear facilities or devices on their territories, within the context of NATO. According to the 2010 Strategic Concept, whereas only three NATO Members are NWS, the whole alliance 'ensure the broadest possible participation of Allies in collective defence planning on nuclear roles, in peacetime basing of nuclear forces, and in command, control and consultation arrangements.'⁵³ In such a context, five NATO States – Belgium, Germany, Italy, the Netherlands and Turkey – still host on their territories nuclear weapons deployed by the USA in the context of the so-called NATO Nuclear Sharing policy.⁵⁴ Such a circumstance virtually makes

50 Foreign Minister Sergey Lavrov's remarks at a UN Security Council meeting on the Non-Proliferation of Weapons of Mass Destruction: Confidence Building Measures (18 January 2018) <https://russiaun.ru/en/news/sclav_1801>.

51 Foreign Ministry Spokesperson Hua Chunying's Regular Press Conference on March 20 (20 March 2017) <<https://www.fmprc.gov.cn/ce/cenp/eng/fyrth/t1447146.htm>>.

52 Response by the Official Spokesperson to a media query regarding India's view on the Treaty to ban nuclear weapons (18 July 2017) <<https://www.mea.gov.in/media-briefings.htm?dtl/28628>>.

53 NATO (n 18) 19.

54 See, for more details, Berlin Information-Center for Transnational Security (BITS), *NATO Nuclear Sharing and the NPT – Questions to be Answered* (June 1997) <<http://www.bits.de/public/researchnote/rn97-3.htm>>.

it impossible for those States to adhere to the TPNW. However, the domestic political dynamics of Germany,⁵⁵ Italy⁵⁶ and the Netherlands⁵⁷ deserve attention: in all three countries, national Parliaments are pushing their respective Governments to find ways to join the TPNW. In Belgium, the Government adopted a report in which it committed to explore the possibility of joining the TPNW.⁵⁸

5 Regional and Bilateral Treaties on Disarmament and Testing

International treaty obligations on nuclear disarmament and testing can be found in a variety of international treaties. As of today, one can count a series of treaties establishing the so-called nuclear weapons free zones (NWFZ) agreements; treaties applicable only to pre-determined geographic areas; and two treaties specifically dedicated to nuclear testing.

According to UNGA Resolution 3472B of 1975,⁵⁹ a NWFZ is characterised by the total absence of nuclear weapons and by the existence of an international system of verification and control.⁶⁰ As it is the same UNGA Resolution to state that NWFZ must be the result of a 'free exercise of sovereignty',⁶¹ their establishment must be achieved through the conclusion of international treaties. As of now, five such treaties are in force: the 1967 Treaty of Tlatelolco,⁶² which creates a NWFZ in Latin America and the Caribbean; the 1985 Treaty of Rarotonga,⁶³ applicable in the South Pacific; the 1995 Treaty of Pelindaba,⁶⁴ applicable in Africa; the 1996 Treaty of Bangkok,⁶⁵ establishing the Southeast Asia Nuclear Weapons Free Zone; and finally the 2006 Treaty of Semipalatinsk,⁶⁶ which institutes a NWFZ in Central Asia. All five treaties share the same features: they are signed at a regional level, with the initial involvement of a small number of States but foreseeing the participation of NWS that can accept some

55 ICAN, Germany <<https://www.icanw.org/germany>>.

56 ICAN, Italy <<https://www.icanw.org/italy>>.

57 ICAN, Netherlands <<https://www.icanw.org/netherlands>>.

58 ICAN, Belgium <https://www.icanw.org/belgium_tpnw_shift>.

59 UNGA Res 3472B (XXX) (11 December 1975).

60 Ibid, para 1.

61 Ibid.

62 Treaty for the Prohibition of Nuclear Weapons in Latin America (1967).

63 South Pacific Nuclear Free Zone Treaty (1985).

64 The African Nuclear-Weapon-Free Zone Treaty (1996).

65 Treaty on the Southeast Asia Nuclear Weapon-Free Zone (1995).

66 Treaty on a Nuclear-Weapon-Free Zone in Central Asia (2006).

obligations related to the respect of denuclearised zones, through the ratification of apposite optional protocols. Regarding the content, NWFZ Treaties prohibit the possession and even the stationing on national territories of nuclear weapons; significantly, with exception of the Treaty of Tlatelolco, all the other NWFZ treaties oblige NWS Parties not to test any nuclear weapons in the zone delimited by the treaty itself.

The international legal regime concerning nuclear disarmament is also composed of three sectoral treaties: the 1959 Antarctic Treaty,⁶⁷ which was the first ever agreement on nuclear weapons; the 1966 Outer Space Treaty;⁶⁸ and the 1971 Seabed Arms Treaty.⁶⁹ The first is broad in scope as it provides that Antarctica 'shall be used for peaceful purposes only', with the consequence that 'any measures of military nature' are prohibited, including the use of nuclear weapons. Article IV of the Outer Space Treaty explicitly prohibits parties to place in orbit nuclear weapons or weapons of mass destruction, though it does not ban the use of nuclear weapons in outer space or prevent the launching of nuclear weapons from Earth into space. Similar provisions feature in the Seabed Arms Treaty, which prohibits any activities aimed at implanting on the seabed nuclear weapons or any other weapons of mass-destruction.

Nuclear testing is also specifically governed by the 1963 Partial Test Ban Treaty⁷⁰ and the 1996 Comprehensive Test Ban Treaty (CTBT)⁷¹ that is not yet in force. The Test Ban Treaty of 1963 prohibits nuclear weapons tests 'or any other nuclear explosion' in the atmosphere, in outer space, and under water. Whereas it does not ban underground tests, the Treaty contains a general prohibition of nuclear explosions if they cause 'radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control' the explosions were conducted. In accepting limitations on testing, the nuclear powers accepted as a common goal 'an end to the contamination of man's environment by radioactive substances.' This treaty is in force and applies also to NWS, which are Parties to it; however, it does not foresee an international verification mechanism, leaving such an activity to States Parties. This circumstance prompted calls for the conclusion of the CTBT that entails an overall

67 The Antarctic Treaty (1959).

68 Treaty on principles governing the activities of States in the exploration and use of outer space, including the moon and other celestial bodies (1967).

69 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 (1971).

70 Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water (1963).

71 Comprehensive Nuclear-Test-Ban Treaty (1996).

prohibition on conducting nuclear tests and – most importantly – establishes the Comprehensive Nuclear Test Ban Treaty Organization (CNTBTO), an international monitoring system that may conduct on-site inspections. The CTBT requires ratification by all NWS to enter into force, which so far has not happened, hence a stalemate exists on this front. For the same reason, the CNTBTO is not yet operative, though a preparatory commission was envisaged and currently operates in Vienna.

Some last words can be spent on particular treaty-based regimes. As mentioned in the second paragraph of this chapter, the USA and Russia – which possess the majority of nuclear weapons or devices in the world – established a regime under the START treaty-regime by which they limit their respective nuclear warheads. The bilateral regime between the two nuclear powers is now regulated by the New START, which was negotiated in 2010 and renewed at the beginning of 2021. It must not be forgotten that the USA and Russia are still also part of the Intermediate-Range Nuclear Force Treaty (INF), signed in 1987 and entered into force in 1988, which still binds the two States to eliminate all nuclear and conventional ground-launched ballistic and cruise missiles with ranges of between 500 and 5,500 kilometres.

Another particular regime is represented by the already mentioned JCPOA, an agreement signed by Iran with the five permanent Members of the UN Security Council on 14 July 2015. The JCPOA was endorsed by UN Security Council Resolution 2231 and adopted on 20 July 2015. According to the plan, Iran is bound to reduce the enrichment of uranium. Iran's compliance with the nuclear-related provisions of the JCPOA will be verified by the International Atomic Energy Agency (IAEA) according to certain requirements set forth in the agreement.

6 Customary International Rules on Disarmament and Testing

As demonstrated by the analysis performed in previous paragraphs, it must be acknowledged that the existing international treaty regimes might not be sufficient to place effective limitations on the nuclear arms race or on testing, given that all NWS are still not bound by any treaty-based prohibition. This substantiates the necessity to investigate the existence of international legal obligations of a customary nature.

It is important to recall that the existence of a customary duty to disarm nuclear arsenals was at the core of the application of the Marshall Islands against India before the ICJ that never reached the merits stage due to the

Court's ruling on the absence of a dispute between the parties.⁷² This issue, therefore, is still of practical relevance, especially in light of the entry into force of the TPNW which, according to a recent comment, could pave the way for the affirmation of a customary prohibition on using or threatening to use nuclear weapons.⁷³

In this regard, one must not forget that the ICJ already had the chance to scrutinise whether a prohibition against using or threatening to use nuclear weapons had acquired customary status. In the 1996 Advisory Opinion, the Court ruled out the existence of a customary rule that prohibits using or threatening to use nuclear weapons, on the ground that a firm and consolidated *opinio juris* did not exist at that time. In particular, the ICJ found that all the UNGA Resolutions condemning the use of nuclear weapons, though potentially able to have a normative impact on the evolution of international law, were adopted with abstentions and contrary votes.⁷⁴ Moreover, the Court also noted that the same Resolutions did not contain any reference to such a customary rule.⁷⁵ This reasoning brought the ICJ to conclude that:

[t]he 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.⁷⁶

As more than 20 years have passed since the adoption of the Advisory Opinion, it is reasonable to verify if that finding is still valid. In this regard, some elements that emerge from the analysis performed in the previous paragraphs can be helpful. Indeed, the stalemate of the NPT Review Conferences, the consequent slowness in the disarmament process, and the emergence of new nuclear threats corroborate the Court's findings. Furthermore, the adoption and the entry into force of the TPNW, as seen above, were welcomed with

72 *Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v. India)* (Jurisdiction of the Court and admissibility of the application) (2016) ICJ Report 255.

73 G Lythgoe, 'Nuclear Weapons and International Law: The Impact of the Treaty on the Prohibition of Nuclear Weapons' (2 December 2020) *EJIL: Talk!* <<https://www.ejiltalk.org/nuclear-weapons-and-international-law-the-impact-of-the-treaty-on-the-prohibition-of-nuclear-weapons/>>.

74 *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) (n 27) para 72.

75 *Ibid.*

76 *Ibid.*, para 73.

strong critiques from the NWS and some declarations aimed precisely at denying a customary status to the rules contained in the new treaty. In the already mentioned joint statement, France, USA and UK clearly affirmed that:

we would not accept any claim that this treaty reflects or in any way contributes to the development of customary international law. Importantly, other states possessing nuclear weapons and almost all other states relying on nuclear deterrence have also not taken part in the negotiations.⁷⁷

The argument raised by France, USA and UK mirrors the usual approach of NWS regarding the evolution of customary rules in the field of nuclear disarmament. Indeed, despite an isolated statement from China,⁷⁸ NWS have always adhered to the doctrine of nuclear deterrence, in their exercise of their rights to self-defence, as seen in the second paragraph of this chapter. This, as seen above, was considered by the ICJ as a strong obstacle to the formation of a customary rule on the prohibition of nuclear weapons.

At this stage of the analysis, one must admit that the debate on the possible evolution of a customary prohibition of nuclear weapons suffers from the strong opposition of NWS to the TPNW.

However, one must not underestimate the fact that the new treaty may still produce normative effects. In the future, more States could potentially join the TPNW and its implementation practice might contribute to attracting consensus over the obligations listed therein. Consequently, a legal argument can be made in favour of the possibility that *per se* the TPNW could contribute to the formation of a customary rule prohibiting nuclear weapons. According to the *North Sea Continental Shelf* case, 'widespread and representative' participation in a treaty can be considered evidence of the formation of a customary rule, provided that 'States whose interests were specially affected' participate in the treaty.⁷⁹ The ICJ confirmed this approach to the relationship between

⁷⁷ See *supra* footnote 48.

⁷⁸ 'Before the goal of complete prohibition and thorough destruction of nuclear weapons is achieved, nuclear-weapon states should commit themselves to no first use of nuclear weapons and undertake unconditionally not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones. Nuclear-weapon states should abandon the policies of nuclear deterrence based on the first use of nuclear weapons and reduce the role of nuclear weapons in their national security.' Statement of the Chinese Delegation on Draft Resolutions Related to Nuclear Disarmament before the Vote (New York, 24 October 2005) <https://www.fmprc.gov.cn/mfa_eng/wjb_663304/zzjg_663340/jks_665232/jkxw_665234/t219978.shtml>.

⁷⁹ *North Sea Continental Shelf (Federal Republic of Germany/Netherlands)* (Merit) (1969) ICJ Report 3, para 73.

treaties and custom in a later judgment: 'multilateral conventions may have an important role to play in recording and defining rules deriving from custom, or indeed in developing them.'⁸⁰

The doctrine of 'specially affected States' is therefore crucial.⁸¹ It was invoked by the USA and the UK before the ICJ during the proceedings related to the *Nuclear Weapons* Advisory Opinion. In particular, the USA held that 'customary law could not be created over the objection of the nuclear weapon States, which are the states whose interests are most specially affected.'⁸² The ICJ did not make recourse to that legal argument. Interestingly, in the recent 2016 judgment on the Preliminary Objections in the *Marshall Islands* case, the ICJ regarded the applicant in the proceedings (the Marshall Islands) as 'specially affected with regard to whether customary international law requires states to affirmatively pursue nuclear disarmament.'⁸³ The statement was made explicit by the Court when it held that the Marshall Islands 'has special reasons for concern about nuclear disarmament.'⁸⁴

The ILC did not explicitly include the notion of 'specially affected States' in the *Draft Conclusions on the Identification of Customary International Law*, but it mentioned it in the Commentary to Draft Conclusion no. 8 on the requirement of generality of the practice:

While in many cases all or virtually all States will be equally affected, it would clearly be impractical to determine, for example, the existence and content of a rule of customary international law relating to navigation in maritime zones without taking into account the practice of relevant coastal States and flag States, or the existence and content of a rule on foreign investment without evaluating the practice of the capital-exporting States as well as that of the States in which investment is made.⁸⁵

80 *Continental Shelf (Libyan Arab Jamahiriya/Malta)* (Merit) (1985) ICJ Report 13, para 27.

81 See, extensively, KJ Heller, 'Specially-Affected States and the Formation of Custom' (2018) 11 AJIL 191 ff.

82 *See Legality of the Threat or Use of Nuclear Weapons* (n 27) Letter Dated 20 June 1995 from the Acting Legal Adviser to the Department of State, Together with Written Statement of the Government of the United States of America, 8–9.

83 *Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v. India)* (n 72) para 44.

84 *Ibid.*

85 ILC, 'Draft Conclusions on the Identification of Customary International Law' in 'Report of the International Law Commission on the Work of its 70th Session' (30 April–1 June and 2 July–10 August 2018) (n 37) 136–137. See, accordingly, T Treves, 'Customary Law', *EPIL* (2012), para 36.

The Commentary seems to confirm that in the formation of customs there is no univocal interpretation of the notion of ‘specially affected States’, which surely means that it is not necessarily only the practice of NWS that counts in the context of nuclear disarmament.⁸⁶ Accordingly, the TPNW could potentially be a vehicle for the evolution of a customary regime on nuclear weapons.⁸⁷

This might be a long path as regards the full prohibition of nuclear weapons and the duty to disarm; however, that does not mean that the TPNW is not able already to confirm the existence of some customary rules related to nuclear disarmament.

Indeed, as noted, there has been no formal contestation, even by NWS, of the prohibition to transfer nuclear devices to NNWS or to Non-State Actors. The fact that such a prohibition is included in the NPT and the TPNW and in all the treaties establishing NWFZ, which for the most part are signed and ratified also by NWS, is evidence of the formation of custom. In addition, NWS’ practice seems to be coherent with this prohibition: in a 2008 white paper, France, describing the *Proliferation Security Initiative* affirmed that:

It now includes almost 90 signatories. It aims at improving operational cooperation among governmental actors in order to identify and prohibit the transfer of materials or equipment that may contribute to programmes on nuclear weapons and their means of delivery.

A similar reasoning can apply also to the prohibition on conducting nuclear tests, although the CTBT is not entered into force. States’ practice seems to go in this direction: NNWS – and, in particular, States negatively affected by nuclear tests – have always maintained that NWS must not perform nuclear tests; the latter’s resistance to this duty is fragile, as witnessed by France and the USA’s declaration on testing. Whereas the first State already ratified the CTBT and calls for universal ratification,⁸⁸ the latter has not yet adhered to the treaty but has confirmed its commitment to a long-term prohibition of nuclear testing.⁸⁹

86 See KJ Heller (n 81) 220–221; S Casley Maslen (n 40) 58.

87 See, accordingly, Gail Lythgoe (n 73).

88 Ministry of Defence, France, White Paper on ‘Defence and National Security’ (2008) <https://ihl-databases.icrc.org/customary-ihl/eng/docs/v2_rul_nuwea>.

89 United States, Report by the President, ‘201 National Security Strategy’, (2010) 23 <https://ihl-databases.icrc.org/customary-ihl/eng/docs/v2_rul_nuwea>.

The ICJ, in the *Nuclear Tests* case, adopted interim measures that, at least, confirmed that nuclear testing violates sovereignty rights of the affected States:

the French Government should avoid nuclear tests causing the deposit of radio-active fallout on the territory of New Zealand, the Cook Islands, Niue, or the Tokelau Islands.⁹⁰

In this respect, one should also consider that nuclear testing threatens the respect of international environmental norms, which have already acquired the status of custom, such as Principle 21 of the Stockholm Declaration, under which States have the responsibility to ‘ensure that activities within their jurisdiction or control do not cause damage to the environment[s] of other States or of areas beyond the limits of national jurisdiction.’⁹¹

7 Concluding Remarks

The main research questions raised in this Chapter concern the effectiveness of international legal obligations on disarmament. The answers are not univocal.

On one side, the effectiveness of international law on nuclear disarmament still rests on the implementation of the NPT, and in particular of Article VI. In this regard, the next NPT review conference will be called on to clarify crucial doubts, such as the legal value of the Action Plan agreed by States Parties in order to implement that provision.

On the other side, the stalemate characterising this phase of the disarmament process is affected by the entry into force of the TPNW. Whereas, at present, the treaty in itself has attracted severe critiques from NWS, in the future, it could catalyse States’ practice and *opinio juris*, hence contributing to consolidate a customary regime that might potentially fill the gaps of a treaty regime that is not always capable of coping with the nuclear threat.

⁹⁰ *Nuclear Tests (Australia v. France)* (Provisional Measures) (1974) ICJ Report 253, 106.

⁹¹ Report of the UN Conference on the human environment, UN Doc A/CONF.48/4 (1972) 2 ff. The customary nature of Principle 21 was confirmed by the ICJ in the Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons* (para 30). See, accordingly, P Sands, J Peel, *Principles of International Environmental Law* (Cambridge University Press 2018) 196.

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