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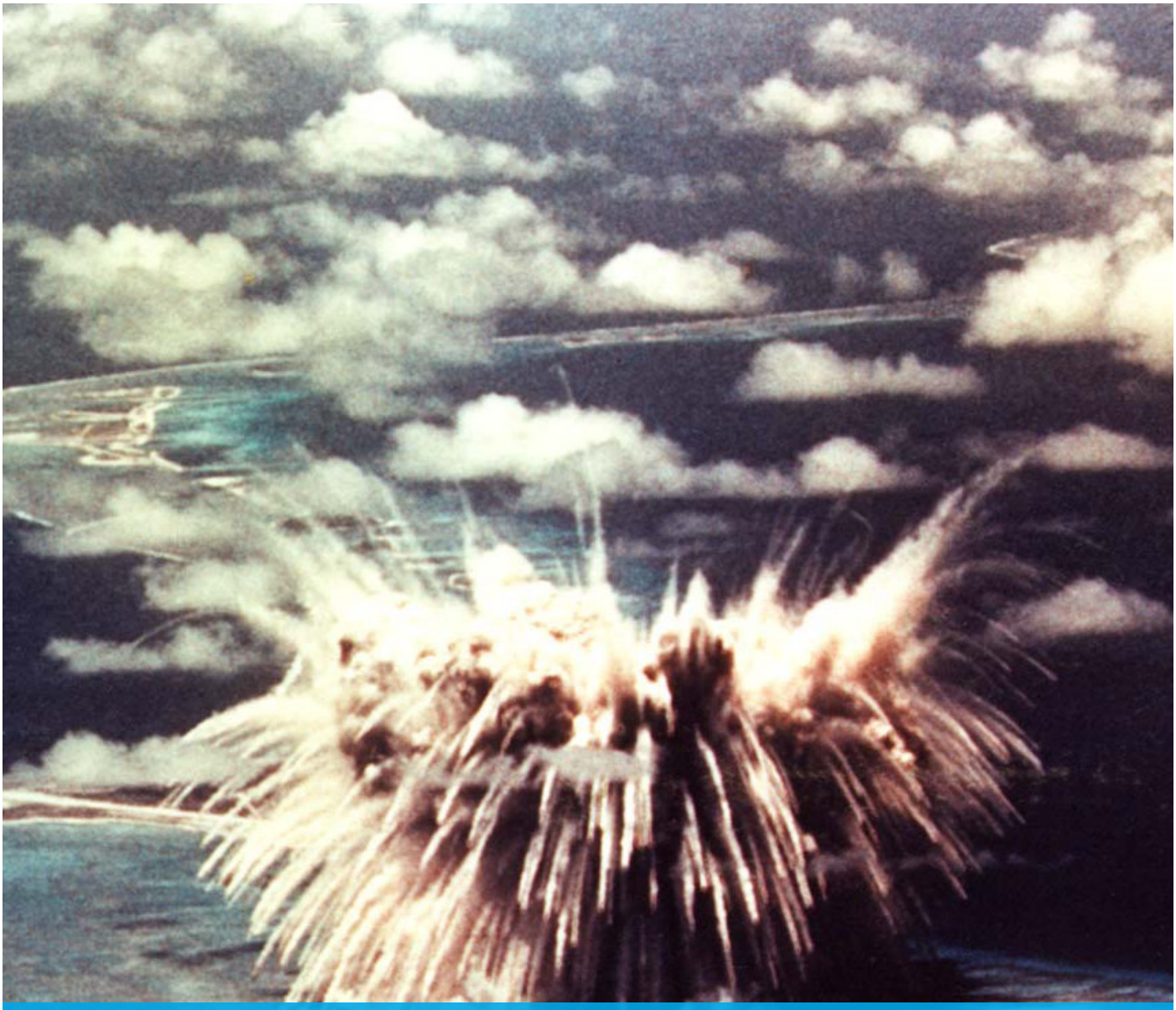

A PROHIBITION ON NUCLEAR WEAPONS

A guide to the issues

International Law
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Cover photo: Nuclear weapon test Seminole (yield 13.7 kt) on Enewetak Atoll (Photo: US Government).

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Preface

This study surveys various views on how to promote and achieve nuclear disarmament in the current security environment. It draws on our institutes' previous work on nuclear weapons-related issues, for instance, as part of analysing the so-called 'humanitarian impacts initiative', the work of the Conference on Disarmament, and the Nuclear Non-Proliferation Treaty (NPT).

In this work, the concept of 'effective measures' has received particular attention. The term itself is drawn from the wording of Article VI of the NPT, and the obligation therein to pursue negotiations towards disarmament—whereby each of the parties to the treaty 'undertakes to pursue negotiations in good faith on effective measures relating to … nuclear disarmament'.[1]

At the time of writing, the discourse on nuclear weapons has in many ways become more polarised than it was only a decade ago. Some would argue that the main source of this polarization is the 'humanitarian impacts initiative', or the loudening calls by civil society and many states for the negotiation of a prohibition on nuclear weapons. Others would contend that the source of the current discord rather stems from perceived unwillingness of the nuclear-armed states to abide by their legal obligations to phase out and eventually eliminate nuclear weapons.

Despite the current international focus on the notion of a treaty banning nuclear weapons, the multilateral discourse has, to date, lacked a comprehensive analysis of what a prohibition of nuclear weapons could mean, and what it could entail. It is not at all clear that states—whether they support the initiative or not—agree on what exactly it is they are talking about when a prohibition or ban on nuclear weapons is advocated or opposed.

This study assesses what a prohibition of nuclear weapons could plausibly constitute, why and how it might be pursued, and maps out the arguments both for and against doing so. The aim is to spotlight the policy considerations that such an instrument would entail for governments, whether or not they are currently supporting a prohibition on nuclear weapons. State policy makers are therefore the primary target audience for the study. Nevertheless, the analysis contained in this report is also intended to be relevant to other stakeholders, such as international organizations, civil society, academia, and the public at large.

If politics is the art of the possible, as is sometimes said, it is also undoubtedly the art of understanding and influencing perceptions. In our view, this is best done on the basis of facts, and of critical and well-founded arguments. This conviction is the cornerstone for the on-going collaboration between our two institutes, and the spirit in which this study has been written.

The two institutes would like to thank the Ministry of Foreign Affairs of Norway for its support to ILPI's project on Weapons of Mass Destruction, and to UNIDIR's Humanitarian Impact of Nuclear Weapons project. Finally, we would like to thank the Government of Ireland and the Ministry of Foreign Affairs of Austria for the support UNIDIR has received for its work on the humanitarian impact of nuclear weapons.

The views expressed in this study are those of the authors.

Jarmo Sareva and Gro Nystuen
February 2016

1 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (New York, 1 July 1968), Article VI: http://www.un.org/disarmament/WMD/Nuclear/NPTtext.shtml.

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List of abbreviations and acronyms

ANWFZ	African Nuclear Weapon-Free-Zone Treaty or Treaty of Pelindaba
APMBC	Anti-Personnel Mine Ban Convention (Mine Ban Treaty)
ASR	Articles on State Responsibility
ATT	Arms Trade Treaty
Bangkok Treaty	Southeast Asian Nuclear-Weapon-Free-Zone or SEANWFZ
BTWC	Bacteriological and Toxin (Biological) Weapons Convention
CANWFZ	Central Asian Nuclear-Weapon-Free Zone Treaty
CD	Conference on Disarmament
CCM	Convention on Cluster Munitions
CCW	Convention on Certain Conventional Weapons
CFE	Conventional Forces in Europe Treaty
CRPD	Convention on the Rights of Persons with Disabilities
CSTO	Collective Security Treaty Organization
CTBT	Comprehensive (Nuclear-)Test-Ban Treaty
CTBTO	Comprehensive (Nuclear-)Test-Ban Treaty Organisation
CWC	Chemical Weapons Convention
EEZ	Exclusive Economic Zones
ERW	Explosive Remnants of War
EURATOM	Treaty establishing the European Atomic Energy Community
FM(C)T	Fissile Material (Cut-off) Treaty
IAEA	International Atomic Energy Agency
IALANA	International Association of Lawyers Against Nuclear Arms
ICAN	International Campaign to Abolish Nuclear Weapons
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
IHL	International Humanitarian Law
ILPI	International Law and Policy Institute
INESAP	International Network of Engineers and Scientists Against Proliferation
IPPNW	International Physicians for the Prevention of Nuclear War
NAC	New Agenda Coalition (Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa)
NATO	North Atlantic Treaty Organization
NAS	Nuclear-armed states (i.e., states that possess or are believed to possess nuclear weapons: China, Democratic People's Republic of Korea, France, India, Israel, Pakistan, Russian Federation, United Kingdom, United States of America), sometimes referred to also as 'NAS' as distinct from the smaller group of 5 nuclear-armed states that belong to the NPT referred to here as the 'NPT5' or nuclear-weapon states, the term used in the NPT.
NGO	Non-governmental organization
New START	Treaty between the United States and Russia on Measures for the Further Reduction and Limitation of Strategic Offensive Arms
NNWS	Non-nuclear-weapon state
NPT	Nuclear Non-Proliferation Treaty

NPT5	The five nuclear-weapon states party to the NPT (i.e., China, France, Russian Federation, United Kingdom, United States of America)
NSAs	Negative security assurances
NWC	Nuclear Weapons Convention
NWS	Nuclear-weapon states (i.e., the NPT5 (see above))
OEWG	Open-ended working group
OPANAL	Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (English) or Organismo para la Proscripción de las Armas Nucleares en la América Latina y el Caribe (Spanish)
OPCW	Organisation for the Prohibition of Chemical Weapons
Pelindaba Treaty	African Nuclear Weapon-Free-Zone Treaty or ANWFZ
P5	China, France, Russian Federation, United Kingdom, United States (the 5 permanent members of the United Nations Security Council)
Rarotonga Treaty	South Pacific Nuclear Weapons Free Zone Treaty or SPNWFZ
SEANWFZ	Southeast Asian Nuclear-Weapon-Free-Zone or Bangkok Treaty
START	Strategic Arms Reduction Treaty
NTC	Nuclear Terrorism Convention
UNDC	United Nations Disarmament Commission
UNGA	United Nations General Assembly
UNIDIR	United Nations Institute for Disarmament Research
VERTIC	Verification Research, Training and Information Centre
VPP	Verification Pilot Project
WMD	Weapons of mass destruction
WMDC	Weapons of Mass Destruction or Blix Commission

Executive Summary

This study surveys the existing legal framework regulating nuclear weapons internationally, and assesses the scope and parameters of the Nuclear Non-Proliferation Treaty (NPT), nuclear-weapon-free zones (NWFZ) and international humanitarian law (IHL). It considers whether a nuclear weapons prohibition could enhance the current nuclear weapons control regime.

In an effort to situate the notion of a nuclear weapons prohibition within the existing multilateral discourse on nuclear disarmament, the study identifies and discusses four distinct, but not mutually exclusive, approaches to eliminating nuclear weapons:

- Comprehensive approach.
- Framework approach.
- Step-by-step approach.
- Ban treaty approach.

The bulk of the study seeks to identify and assess different elements of a potential nuclear weapons prohibition. The legal provisions considered cover prohibitions on use, development and testing, manufacturing and production, transfer, transit, stationing and deployment, possession and stockpiling, assistance in the commission of prohibited acts and inducement or encouragement. Such provisions could also include obligations related to stockpile destruction, safeguards, transparency and reporting, other compliance mechanisms, cooperation and assistance as well as national implementation measures.

The main considerations in the assessment of a prohibition:

- Although international humanitarian law restricts use of nuclear weapons to a very limited range or scenarios, if any, the fact that no explicit international prohibition on the use of nuclear weapons exists creates legal ambiguity. A provision prohibiting the use of nuclear weapons would cover whatever is left of hypothetical 'legal' use.
- The threat of use of nuclear weapons is already covered by the general prohibition on the threat of use of force in Article 2(4) of the United Nations Charter. A provision explicitly prohibiting the threat of use of nuclear weapons would consequently add nothing.

The fact that no explicit international prohibition on the use of nuclear weapons exists creates legal ambiguity.

- There is already a customary ban on atmospheric and underwater testing in international law. A provision prohibiting testing would therefore in practice be directed at underground testing.
- Prohibitions on manufacturing and production of nuclear weapons already exist for the non-nuclear-weapon states in the NPT. Whatever form a prohibition may take, it will have to take the complex issues regarding production and/or manufacturing of dual-use components into consideration.

Prohibitions on manufacturing and production of nuclear weapons already exist for the non-nuclear-weapon states in the NPT.

- Depending on the definition and scope of the word 'transfer', a provision prohibiting transfer could inhibit further stationing by the nuclear-armed states of their nuclear weapons in the territory of any other states.
- The question of transit, or movement, of nuclear weapons into the territory of non-nuclear-weapon states would have to be seen in the context of other international frameworks regulating transportation.
- Forward deployment is often used to describe the physical emplacement or stationing of nuclear weapons on the territory of a non-

nuclear-weapon state. A provision explicitly prohibiting forward deployment of nuclear weapons could prevent the continuation of nuclear sharing arrangements within NATO and therefore be problematic for certain European countries.

- A provision prohibiting possession of nuclear weapons may not add much as long as acquiring, stockpiling and retaining nuclear weapons are prohibited activities. Nonetheless, prohibitions on nuclear weapon possession and stockpiling could help to clarify the nuclear doctrines and policies of extended deterrence.

A provision prohibiting possession of nuclear weapons may not add much as long as acquiring, stockpiling and retaining nuclear weapons are prohibited activities.

- Legal provisions against assistance with prohibited acts are a common feature in existing disarmament treaties. A more wide-ranging prohibition of assistance than what follows from general international law could pose challenges with regard to military cooperation and interoperability—though this may be addressed through special provisions, as was the case in the Convention on Cluster Munitions (CCM).

- Another common feature in disarmament treaties is the prohibition of inducement or encouragement to the activities prohibited by the treaty. In a new nuclear weapons treaty, this might pose different challenges than it has in other disarmament treaties, especially with regard to military cooperation.

- Two alternatives for dealing with stockpiles under a prohibition are 1) a legal obligation to destroy stockpiles of nuclear weapons before accession, or 2) to permit accession before destruction is completed. To negotiate detailed and elaborate arrangements for nuclear weapon stockpile destruction and/or verification would probably be very complex and time-consuming. Such arrangements could be developed once a prohibition had entered into force, and could be a means of dialogue with nuclear-armed states on nuclear disarmament verification and destruction challenges.

- New transparency and compliance provisions could complement existing nuclear safeguards arrangements and contribute to strengthening the norm against nuclear weapon use and possession. These provisions could, for instance, include obligations for states parties to provide information on their policies, doctrines and practices in relation to nuclear weapons.

- The enormous scale of the consequences resulting from a nuclear weapon detonation would make any emergency response measures highly inadequate. A prohibition regime could nevertheless establish a forum or mechanism for improving international coordination and cooperation in this area.

- In light of the scope of contamination, the size of the areas affected and the long-lasting nature of radiological contamination, it could be difficult to establish a specific and time-bound obligation to address the long-term contamination resulting from a nuclear weapon detonation. Instead, a provision calling in general terms for the rehabilitation of affected areas and encouraging states to assist could be considered.

New transparency and compliance provisions could complement existing nuclear safeguards arrangements and contribute to strengthening the norm against nuclear weapon use and possession.

- The inclusion of a victim assistance obligation may be perceived by some as less central to the mainly preventative aim of a nuclear weapons prohibition than it has been in other weapons ban treaties. If included, there would be a number of complexities surrounding the scope of a potential obligation to assist victims of nuclear detonations, such as how to define the victims and how to determine the range of assistance to be provided.

Chapter 1 Introduction

While bilateral agreements between the United States and Russia have contributed to a drastic reduction in the total number of nuclear weapons from Cold War peaks, multilateral nuclear disarmament faces tall obstacles; not only are forums for multilateral nuclear disarmament largely deadlocked, but agreed steps, such as bringing into force the 1996 Comprehensive Test-Ban Treaty (CTBT),[2] have yet to be completed. These delays in progress towards nuclear disarmament are of acute concern to many states.

> Several stakeholders have drawn public attention to what has been referred to as a 'legal gap' in the nuclear non-proliferation and disarmament regime.

As a consequence, several stakeholders have drawn public attention to what has been referred to as a 'legal gap'[3] in the nuclear non-proliferation and disarmament regime. They have made the point that, in contrast to the regimes governing other weapons of mass destruction (biological and chemical), as well as those governing conventional weapons such as landmines and cluster munitions, the nuclear regime[4] does not comprehensively prohibit the weapon in question.[5]

True, the Nuclear Non-Proliferation Treaty (NPT) prohibits such arms for states parties that had not exploded a nuclear device before 1 January 1967,[6] and obliges each state party to negotiate towards ending the arms race,[7] yet this nuclear regime does not codify the illegality of such weapons per se. While the conventions on chemical and biological weapons both ban the use,[8] development, production, acquisition, stockpiling and retention of the weapon in question, international law applicable to nuclear weapons does not include any comparable prohibitions. As pointed out by the President of the International Committee on the Red Cross (ICRC), Peter Maurer: 'Nuclear weapons are the one weapon of mass destruction on which we are still confronted with a legal gap.'[9]

As of writing, 122 states have stated their intention, stemming from the so-called humanitarian initiative (see Box A), 'to identify and pursue effective measures to fill the legal gap' through their endorsement of the humanitarian pledge, a document introduced by the Austrian hosts

2 Comprehensive Nuclear-Test-Ban Treaty (Comprehensive Test-Ban Treaty, CTBT) (New York, 10 September 1996): https://www.ctbto.org/fileadmin/content/treaty/treaty_text.pdf.

3 By 'legal gap' we are referring to the lack of general prohibitions on development, possession, and use of nuclear weapons as found in comparable weapons prohibition regimes.

4 In addition to the NPT, this includes IAEA 'safeguards' under which non-nuclear-weapon states are bound to ensure that materials and technology from civilian nuclear activities are not diverted to weapon purposes.

5 See P. Maurer, 'Nuclear Weapons: Ending a Threat to Humanity', speech to the diplomatic community, Geneva, 18 February 2015: https://www.icrc.org/en/document/nuclear-weapons-ending-threat-humanity; J. Dhanapala and S. Duarte, 'Is there a future for the NPT?', *Arms Control Today*, vol. 45, July/August 2015; K. Kubiak, 'Hold-out or silent supporter?', Friedrich Ebert Stiftung, July 2015: http://library.fes.de/pdf-files/iez/11525-20151202.pdf; R. Acheson, 'Uprising', *NPT News in Review*, vol. 14, no. 17, Reaching Critical Will, 2015. See also G. Nystuen, S. Casey-Maslen and A.G. Bersagel (eds.), *Nuclear Weapons Under International Law*, Cambridge, Cambridge University Press, 2014.

6 Treaty on the Non-Proliferation of Nuclear Weapons (Nuclear Non-Proliferation Treaty, NPT) (New York, 1 July 1968), Article II.

7 *Ibid*, Article VI.

8 The BTWC does not explicitly prohibit *use* of biological weapons, yet the states parties have agreed that the treaty shall be interpreted to also include a prohibition on use. See, for example, the Final Declaration of the Seventh Review Conference of the BTWC, Article IV (16), where the states parties reaffirm, '[…] that under any circumstances the use, development, production and stockpiling of bacteriological (biological) and toxin weapons is effectively prohibited under Article I of the Convention; ': http://www.un.org/ga/search/view_doc.asp?symbol=BWC/CONF.VII/7.

9 Maurer, 2015, *op. cit.*

of the Third Conference on the Humanitarian Impact of Nuclear Weapons in December 2014.

On 7 December 2015, the United Nations General Assembly decided to 'convene an open-ended working group (OEWG) 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'.[10] The resolution was supported by more than two thirds of the United Nations membership,[11] indicating the strong willingness of a large number of states to move the nuclear disarmament agenda forward. How to fill the 'legal gap' and advance the goals set by the humanitarian pledge are likely to be major topics of discussion during the OEWG although the participation of nuclear-armed states (NAS) is not assured. China, France, Israel, Russia, United Kingdom and United States voted against the resolution, while India and Pakistan abstained. Of the NAS, only the Democratic People's Republic of Korea (DPRK), voted in favour of it.[12]

Although the idea of filling the legal gap by prohibiting nuclear weapons through a multilateral legal instrument has received increased attention in recent years, the general idea of making nuclear weapons illegal is far from new. Having formed a crucial element of the 1946 United States' Baruch Plan on international control of nuclear weapons and atomic energy, the idea precedes both the adoption of the NPT as well as the institution of the Conference on Disarmament and its predecessors.

What *is* new is the idea that the prohibition of nuclear weapons could be pursued independently from the process of elimination. A treaty banning nuclear weapons, in this view, would not be a last step in the elimination of nuclear weapons, but rather an instrument aimed at creating the conditions for moving towards that goal. Civil society proponents have argued that a prohibition on nuclear weapons—either as an individual or 'standalone' instrument or as part of a broader legal framework—would do this by stigmatizing both the use *and* possession of all nuclear weapons for all states.[13]

A standalone prohibition or ban treaty, however, would (as we will shortly explain) look quite different from a treaty that also provided for the *elimination* of all nuclear armaments. While certain legal provisions might be common to all of the possible approaches to filling the legal gap, others might be redundant depending on their purpose. For example, in the unlikely event that the world's nuclear weapons had already been eliminated or if a destruction-before-accession approach were adopted, a standalone prohibition treaty would not need detailed provisions for stockpile destruction.

In the multilateral debate in the field of nuclear disarmament, the phraseology and expressions used by states and civil society sometimes create more confusion than clarity. Ambiguity and abstraction can of course be useful, not least in the world of diplomacy, but it can also become an obstacle to agreement and progress by obscuring the actual positions of states.

In our view, all stakeholders in nuclear disarmament, including both supporters and opponents of calls for the negotiation of a prohibition of nuclear weapons, would benefit from a higher level of precision and clarity when it comes to different approaches to 'filling the legal gap'. The purpose of this study is therefore to contribute towards a better understanding[14] of the issues by exploring and analysing the elements and parameters that a legal instrument prohibiting nuclear weapons would likely include. In so doing, we hope to be able to provide both states and civil society with a map for navigating the complex

10 General Assembly resolution 70/33, *Taking forward multilateral nuclear disarmament negotiations*, A/RES/70/33, (11 December 2015) available from undocs.org/A/RES/70/33.

11 The resolution was not supported by China, France, Russia, UK, US or any of the other NATO member states.

12 Detailed voting results: http://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com15/votes-ga/33.pdf.

13 International Campaign to Abolish Nuclear Weapons (ICAN), 'The Case for a Ban Treaty', 2015: http://www.icanw.org/why-a-ban/the-case-for-a-ban-treaty/. For more see W. Walker, 'The absence of a taboo on the possession of nuclear weapons', *Review of International Studies*, vol. 36, no. 4, 2010.

14 See N. Fahmy and P. Lewis, 'Possible elements of an NWFZ treaty in the Middle East', *Disarmament Forum: Nuclear-weapon-free zones*, no. 2, 2011, pp. 39-50: http://www.unidir.org/files/publications/pdfs/nuclear-weapon-free-zones-en-314.pdf.

and sometimes confusing straits of the nuclear disarmament arena.

Finally, the terms 'ban' and 'prohibition' are used interchangeably in this study. The terms imply legally binding prohibitions on use, development, possession, etc. of nuclear weapons. When referring to a ban treaty of the type favoured by the International Campaign to Abolish Nuclear Weapons (ICAN), we include the adjective 'standalone' to denote that it has been conceived as a single specific step intended to contribute towards the elimination of nuclear weapons.

When referring to international legal instruments or approaches to nuclear disarmament, the term 'comprehensive'[15] in this context describes to a process that would culminate in the elimination of nuclear arsenals and deliver a nuclear-weapon-free world (comparable thus to the effect of the Convention on Chemical Weapons (CWC) in eliminating chemical weapons). It thus presupposes that the nuclear-armed states must be part of the process. A prohibition or ban, in contrast, connotes a less ambitious intermediate step. It would stigmatize nuclear weapons by prohibiting, but not necessarily eliminating, them.

Sometimes, proponents of a ban or prohibition treaty refer to such an agreement as amounting to a 'comprehensive' prohibition. In order to avoid confusing the term 'comprehensive prohibition' with 'comprehensive convention' (as described later), we do not use 'comprehensive *prohibition*' in this study.

15 H. Williams, P. Lewis and S. Aghlani, 'The Humanitarian Impacts of Nuclear Weapons Initiative: The "Big Tent" in Disarmament', London, Chatham House, 2015.

16 *2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,* Final Document, NPT/CONF.2010/50 (Vol. I), part I, p. 19.

17 N. Ritchie, 'The humanitarian initiative in 2015', ILPI-UNIDIR NPT Papers, no. 1, Geneva and Oslo, ILPI/UNIDIR, 2015.

18 They also sent a common demarche to a number of countries, stating that they considered this initiative unhelpful.

19 Williams, Lewis and Aghlan, 2015, *op. cit.*

20 See footnote 3.

21 Ministry of Foreign Affairs, Austria, 'Austrian Pledge', 9 December, 2014: http://bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/HINW14_Austrian_Pledge.pdf.

BOX A

THE HUMANITARIAN INITIATIVE

The Final Document of the 2010 Review Conference of the Nuclear Non-proliferation Treaty (NPT) noted 'the catastrophic humanitarian consequences of any use of nuclear weapons' and reaffirmed 'the need for all States at all times to comply with applicable international law, including international humanitarian law.'[16] This language was significant for at least two reasons. First, although humanitarian consequences are referred to in the Preamble to the NPT, they had not previously been the subject of an expression of deep concern in an agreed final document of a five-yearly review of the treaty. Second, the NPT reference resulted in several initiatives to draw further attention to the humanitarian consequences of nuclear weapons. These initiatives affected the overall tone of the diplomatic debate on nuclear weapons, which had traditionally been dominated by technical language. The initiatives successfully shifted debate on nuclear disarmament away from narrowly defined military considerations, toward greater focus on the unacceptable humanitarian consequences of nuclear warfare.[17]

Notable among these initiatives was a conference to explore the humanitarian consequences of nuclear weapons hosted by Norway, in Oslo, in March 2013. Although the five NPT nuclear-weapon-states collectively decided not to attend[18] the Oslo Conference, 128 countries participated, as did several United Nations organizations and the International Red Cross and Red Crescent Movement. Mexico hosted a second conference in Nayarit in February 2014 (attended by 146 states), and in December 2014 the Austrian government hosted a third in Vienna (attended by 158 states). The United Kingdom and the United States chose to participate at the Vienna conference. Two other nuclear-armed states, India and Pakistan, attended all three conferences. Along with various joint statements at a national and international level, the conferences became widely known as the humanitarian initiative.

Chapter 2
The existing legal landscape

A strongly polarized debate over nuclear weapons and their legality has taken place during the past decades. It has been asserted by some that use of nuclear weapons is permitted under international law, whereas others have held that use, and even possession, of nuclear weapons constitutes a violation of international law. This debate peaked with the proceedings around the 1996 ICJ Advisory Opinion on the legality of nuclear weapons. Since the International Court of Justice (ICJ) did not resolve the issue, the frontlines remained, but now with the added element of both 'sides' taking the Advisory Opinion as evidence that they were right.

It is clear that various international legal regimes place very heavy restrictions on use of nuclear weapons. However, there is no unequivocal and explicit rule under international law against such use. While the two other categories of weapons of mass destruction (WMD) have been banned, nuclear weapons have yet to be explicitly prohibited.

A core consideration in discussions about a nuclear weapons prohibition is whether such a prohibition would add to the current international regulatory framework governing nuclear weapons[22] and its associated norms—including a so-called 'taboo' against use of nuclear armaments. This chapter briefly surveys three parameters that are central to such assessments: the NPT, nuclear-weapon-free-zones, and international humanitarian law.

It is clear that various international legal regimes place very heavy restrictions on use of nuclear weapons.

22 See also T. Dunworth, 'Strengthening the NPT: International Law and Effective Measures for Nuclear Disarmament', Discussion Paper, New York, October 2015.

It is important to note that the humanitarian initiative and the notion of a ban are distinct and not strictly linked to one another. The humanitarian conferences were 'big tent' affairs.[19] It was always clear that states attending held a spectrum of views on approaches to nuclear disarmament, even if they shared concerns about the continuing risk and foreseeable humanitarian consequences of nuclear weapon detonations. Indeed, the fact that the agendas of the three conferences were focused on reviewing evidence of humanitarian impacts rather than on seeking agreement to pursue a particular effective measure contributed to their success.

Yet in describing the humanitarian hazard posed by the use of nuclear weapons, the humanitarian conferences indirectly asked the question of how to make progress on nuclear disarmament. Although not an official output of the Vienna conference, at the conclusion of that international meeting Austria announced its own national pledge, and invited other states to join it. Notably, this 'humanitarian pledge' calls on 'all states parties to the NPT to renew their commitment to the urgent and full implementation of existing obligations under Article VI, and to this end, to identify and pursue effective measures to fill the legal gap[20] for the prohibition and elimination of nuclear weapons and [to] pledge to cooperate with all stakeholders to achieve this goal'.[21]

A standalone prohibition or ban treaty might be one way of filling such a gap. However, from a simple reading it is clear that the meaning of the language in the humanitarian pledge is broad, and can be subject to several interpretations, ranging from a commitment to fulfil obligations already contained in the NPT to a call for a process towards an international nuclear weapons prohibition.

I) THE NUCLEAR NON-PROLIFERATION TREATY (NPT)

The NPT prevents non-nuclear-weapon states parties from receiving nuclear weapons or having any control over them (Article II). Non-nuclear-weapon states (NNWS) are prohibited from manufacturing or receiving assistance to manufacture such weapons or otherwise acquiring them. NNWS have thus already foresworn nuclear armaments.

Proponents view a prohibition or ban as strengthening the NPT by affirming the importance of that Treaty's disarmament and non-proliferation pillars and the parties' commitment to them. Advocacy for a ban is also seen as a means of drawing international attention to a key additional factor in relation to the *implementation* of the NPT. The disarmament obligation under the NPT is contained in Article VI. The negotiation of 'effective measures relating [...] to nuclear disarmament' has occurred in an ad hoc unilateral and bilateral way, but the only relevant multilateral negotiation of effective measures—the CTBT—is not yet in force, blocked as it is by the non-ratification of six NAS (China, DPRK, India, Israel, Pakistan and the US) and two NNWS (Egypt and Iran). Other possible effective measures, such as the negotiation of a treaty to prohibit the production of fissile material for use in nuclear weapons or other explosive devices, have yet to materialize.[23] Disarmament obligations on the nuclear weapons states thus remain contested, and continue to be challenging to fulfil.

II) NUCLEAR-WEAPON-FREE ZONES (NWFZ)

About 100 NNWS are party to regional nuclear-weapon-free-zones (NWFZs).[24] The NPT notes the 'right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories'.[25] As NGOs have noted, NWFZs 'can be seen as reflecting a decision by non-nuclear-armed states to take responsibility for prohibiting and eliminating nuclear weapons.'[26] The states of the regions of Latin America and the Caribbean, the South Pacific, Southeast Asia, Africa, and Central Asia (Box B) have essentially reaffirmed, through NWFZ treaties, their NPT duties not to manufacture or otherwise acquire, possess or have control (or seek or receive assistance thereto) over any nuclear explosive device by any means anywhere inside or outside their respective Zones. Mongolia has self-declared its nuclear-weapon-free status, recognized through the adoption of resolution 55/33S by the United Nations General Assembly.[27]

Each treaty establishing an NWFZ includes a protocol for the five nuclear-weapon states recognized under the NPT to sign and ratify.[28] These protocols call upon the nuclear-weapon states to respect the status of the zone in question and not to use or threaten to use nuclear weapons against zone treaty states parties. Such declarations of non-use of nuclear weapons are referred to as negative security assurances (NSAs). However, to date, the majority of the nuclear-weapon states have not ratified most of the NWFZ protocols, and those ratified have at times come with reservations.

The Weapons of Mass Destruction (or Blix) Commission (WMDC)[29] noted, however, that NWFZs have allowed states in a region to address some

23 Since the initial development of a FM(C)T mandate in the CD in 1995, the commencement of negotiations has been blocked by nuclear-armed states, initially by the US and later by Pakistan.

24 See C. Hellestveit and M. Mekkonen, 'Nuclear Weapon Free Zones: The Political Context' in *Nuclear Weapons Under International Law*, G. Nystuen, S. Casey-Maslen, A.G. Bersagel (eds.), Cambridge, Cambridge University Press, 2014, pp. 347-374.

25 Nuclear Non-Proliferation Treaty, Article VII.

26 R. Moyes, R. Acheson and T. Nash, 'A Treaty Banning Nuclear Weapons', Article 36/ Reaching Critical Will, 2014: http://www.article36.org/wp-content/uploads/2014/04/AR06_TREATY_REPORT_27.4.14.pdf

27 See General Assembly resolution 55/33, *Mongolia's international security and nuclear weapon free status*, A/RES/55/33 (12 January 2001), available from undocs.org/A/RES/55/33.

28 The Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) (Mexico City, 14 February 1967) does not specify that only the NPT nuclear-weapon states should accede to the protocols, but rather invites all nuclear-armed states to sign and ratify the protocols. The Treaty of Tlatelolco was negotiated before the conclusion of the NPT.

29 H. Blix et.al, 'Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms', Final report of the Weapons of Mass Destruction Commission (WMDC), 2006:

BOX B

NUCLEAR-WEAPON-FREE ZONES

A nuclear-weapon-free zone (NWFZ) is a geographical area declared free of nuclear weapons as described under Article VII of the Nuclear Non-Proliferation Treaty and in the United Nations Guidelines on Nuclear-Weapon-Free Zones from 1999. As of 2016, there are five such regional treaties in place in populated areas of the world: Latin-America and the Caribbean, Africa, Central Asia, Southeast Asia, and the South Pacific. In addition, the status of Mongolia as a nuclear-free territory has been recognized by the United Nations General Assembly. Antarctica is also considered nuclear-free, and so is outer space.

NWFZ	UN MEMBER STATES	TOTAL
Latin America (Treaty of Tlatelolco)	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela.	33
Africa (Treaty of Pelindaba)	Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Chad, Comoros, Côte d'Ivoire, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Senegal, South Africa, Swaziland, Togo, Tunisia, United Republic of Tanzania, Zambia, Zimbabwe. In addition, the following countries have signed, but not yet ratified: Cabo Verde, Central African Republic, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Liberia, Niger, Sao Tome and Principe, Sierra Leone, Somalia, Sudan, Uganda.	54
Central Asia (Treaty of Semey / Semipalatinsk)	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.	5
Southeast Asia (Bangkok Treaty)	Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam.	10
South Pacific (Rarotonga Treaty)	Australia, Fiji, Kiribati, Nauru, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.	11

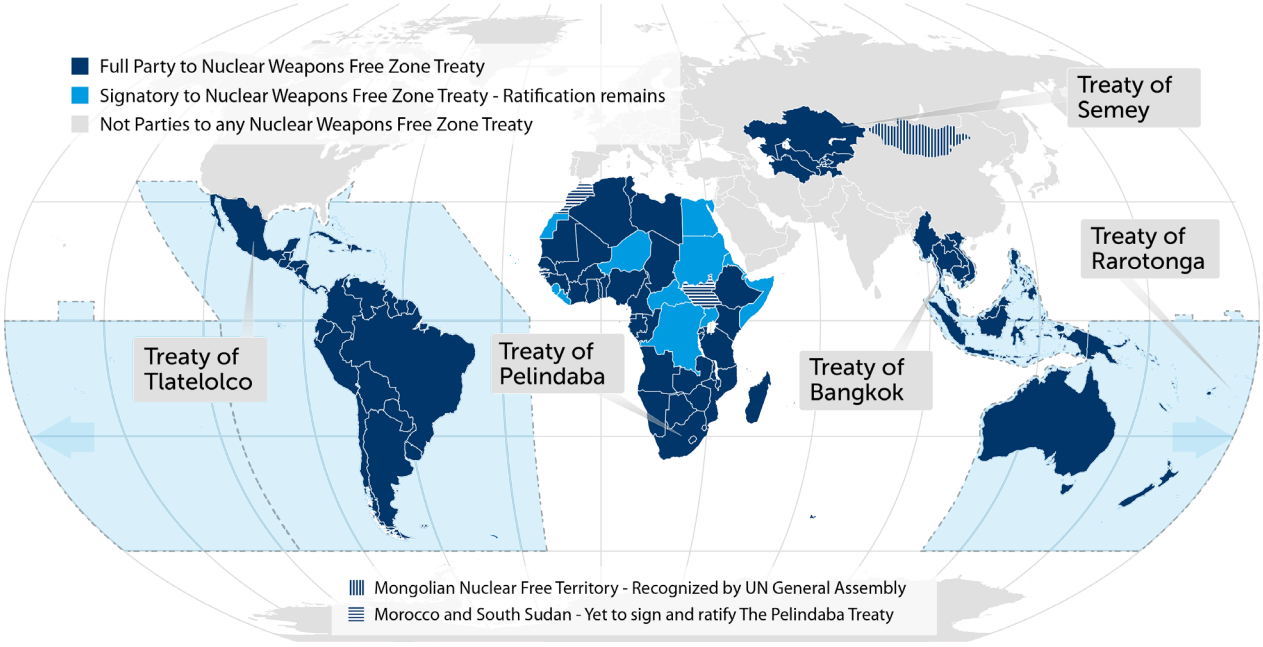

TABLE 1

IDENTIFYING THE LEGAL GAP

PROHIBITIONS	BIOLOGICAL WEAPONS	CHEMICAL WEAPONS	NUCLEAR WEAPONS
Development/production/manufacturing	BTWC	CWC	NPT (applies only to the NNWS); all NWFZ treaties
Acquisition	BTWC	CWC	NPT (applies only to the NNWS); all NWFZ treaties
Possession/stockpiling	BTWC	CWC	All NWFS treaties
Transfer	BTWC	CWC	NPT (prohibits transfers to NNWS)
Use	BTWC*; 1925 Geneva Protocol	CWC; 1925 Geneva Protocol	General IHL rules on conduct of hostilities; three NWFZ treaties (Tlatelolco, Bangkok, Semey**)

* See footnote 8; **Also known as the Treaty of Semipalatinsk.

shortcomings of the NPT regime by excluding nuclear weapons and establishing greater transparency and stronger verification measures. In a paper written for the WMDC, Parrish and du Preez concluded that NWFZs could thus be viewed as important disarmament measures, since one path to achieving the goal of nuclear disarmament under Article VI of the NPT would be the gradual elimination of nuclear weapons region by region through NWFZs.[30] By fencing off entire regions of the world from nuclear weapons, NWFZs could potentially overcome a seeming loophole in the NPT—the deployment in the territories of some NNWS[31] of nuclear weapons controlled by nuclear-weapon states. However, the NWFZs remain geographically constrained in scope, and thus there are limits on the degree to which they can stigmatize nuclear weapons in a global sense. A general prohibition of nuclear weapons would (if it were adhered to by all states) in practice constitute a global NWFZ.

III) INTERNATIONAL HUMANITARIAN LAW (IHL)

International humanitarian law (IHL) is a framework of treaties and customary law, regulating, *inter alia*, conduct during armed conflict and situations of occupation. It includes the 1949 Geneva Conventions and their Additional Protocols, the Hague Conventions and a series of treaties covering specific methods and means of warfare, particularly weapons.

IHL does not specifically prohibit nuclear weapons. Nevertheless, their use in armed conflict is restricted by the general rules of IHL regulating the conduct of hostilities, including the use of weapons. These rules restrict which and how weapons may be used, and outline measures to be taken to limit their impact on civilians, civilian areas and the natural environment.

Warring parties are required to distinguish, at all times, between civilians and combatants and between civilian objects and military objectives and thus prevent indiscriminate attacks, as well as incidental loss of civilian life, injury to civilians, or damage to civilian objects that would be excessive in relation to the direct military advantage anticipated. [32] Moreover, the warring parties are obliged to take precautions to spare the civilian population before and during an attack.

These general rules of IHL regulate not only the way in which hostilities are conducted, but also the *means* by which they are carried out. Weapons that cannot, for example, be used in a way that allows distinction between civilians and combatants, or which by their inherent charac-

http://www.blixassociates.com/wp-content/uploads/2011/02/Weapons_of_Terror.pdf.

30 S. Parrish and J. du Preez, 'Nuclear-Weapon-Free Zones: Still a Useful Disarmament and Non-Proliferation Tool?', The Weapons of Mass Destruction Commission, Paper no 6, 2005, p. 2: http://www.blixassociates.com/wp-content/uploads/2011/03/No6.pdf.

31 Belgium, Germany, Italy, Netherlands and Turkey.

32 See Article 48 and 51, Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977.

teristics will cause superfluous injury or unnecessary suffering for combatants[33], are prohibited from use. It is also generally prohibited for the warring parties to deploy means of warfare that cause widespread, long-term and severe damage to the environment, although it is a matter of dispute between states whether this rule applies to nuclear weapons.[34]

The sheer scale of the casualties and destruction resulting from the use of a nuclear weapon in or near a populated area and its long-term effects on health and the environment call the compatibility of those armaments with IHL into serious doubt. The heat, blast and radiation generated by the explosion of a nuclear weapon and the distances over which these effects would generally be spread led the International Red Cross and Red Crescent Movement's Council of Delegates to conclude in 2011 that 'it is difficult to envisage how any use of nuclear weapons could be compatible with the requirements of international humanitarian law, in particular the rules of distinction, precaution and proportionality'.[35]

33 See Article 35 and 57, Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977.

34 See Article 35, Protocol Additional to the Geneva Conventions of 12 August 1949, and J.M. Henckaerts, 'Study on customary international humanitarian law: a contribution to the understanding and respect for the rule of law in armed conflict', *International Review of the Red Cross*, vol. 87 no. 857, 2005, pp. 175-197, p. 191.

35 The Council of Delegates of the International Red Cross and Red Crescent Movement resolution CD/11/R1, 2011: https://www.icrc.org/eng/resources/documents/resolution/council-delegates-resolution-1-2011.htm.

Chapter 3
Approaches to eliminating nuclear weapons

In principle, nuclear disarmament resulting in the ultimate elimination of all nuclear weapons is a universally shared objective. It is enshrined both in the NPT and in resolutions of the United Nations General Assembly dating back to 1946.[36] Yet multilateral commitment to a coordinated, time-bound process is lacking. Progress has been hampered by deadlocks in traditional multilateral mechanisms such as the Conference on Disarmament (CD) and the United Nations Disarmament Commission (UNDC), a negotiating body and a deliberative forum, respectively. Despite apparent consensus among states parties to the NPT on the decisions and outcomes of its 1995, 2000 and 2010 Review Conferences, systematic implementation of those conclusions has not occurred, while four of the nine nuclear-armed states are not even bound by its terms.

Partly because of the perceived lack of progress in nuclear disarmament, and partly because of growing concerns and new evidence about the humanitarian impacts of nuclear weapons (including potential accidents in handling them), states have begun to discuss effective multilateral measures for nuclear disarmament. Support for the humanitarian pledge is symptomatic of the new momentum and aspiration of a large number of states to achieve the elimination of nuclear weapons.

As discussed in the Introduction, the humanitarian pledge points to a 'legal gap' in the nuclear non-proliferation and disarmament regime. It calls on states to 'pursue effective measures (Box C) to fill the legal gap for the prohibition and elimination of nuclear weapons'. But the humanitarian pledge does not specify whether prohibition could be separated from the process of physical elimination, and, if so, which to pursue first. The question of sequencing is a significant one. Yet it is a source of some confusion in the current multilateral discourse on nuclear disarmament. Should prohibition precede elimination? Or should elimination come first when conditions allow with prohibition then following? Or could they be pursued simultaneously, in the form of a treaty that would, in effect, resemble the Chemical Weapons Convention? Or should the prohibition form part of a negotiated structure of legal instruments—a formal framework that could either set out an agreed sequence or foreshadow the need to agree on a sequence at the outset of the initial negotiations?

These options correspond roughly with four approaches cited frequently in debate in the United Nations and the NPT review cycle:

- Comprehensive nuclear weapons convention (where prohibition and elimination would be provided for in a single legal instrument).
- Framework agreement (where different prohibitions and other obligations would be pursued independently of each other but within the same broad frame).
- Step-by-step or building-block approach (where elimination would precede prohibition).
- Standalone ban treaty (where prohibition would precede elimination).

The four approaches to developing effective measures to fill the perceived legal gap are explored here in further detail, with the aim of clarifying the strengths and weaknesses of each of them.

36 T. Caughley, 'Analyzing effective measures: Options for nuclear disarmament and implementation of NPT article VI', ILPI-UNIDIR NPT Papers, no. 3, Geneva and Oslo, ILPI/UNIDIR, 2015.

TABLE 2

FILLING THE LEGAL GAP	
APPROACH	SEQUENCING OF PROHIBITION AND ELIMINATION
Comprehensive	Simultaneous prohibition and elimination (no separation).
Framework	Prohibitions pursued within a common legal framework (potential separation of prohibition and elimination).
Step-by-step	Elimination before prohibition (full separation of prohibition and elimination).
Standalone ban treaty	Prohibition before elimination (full separation of prohibition and elimination).

I) A COMPREHENSIVE APPROACH

One possible approach to filling the legal gap regarding the prohibition and elimination of nuclear weapons would be to tackle both prohibition and elimination in a single legal instrument. This idea is the basis of a proposed comprehensive Nuclear Weapons Convention (NWC). Such a convention, as understood here, would be an all-embracing legal instrument providing for both the prohibition *and* elimination of nuclear weapons. It would, in other words, if adhered to by all parties including the nine nuclear-armed states, provide a complete legal architecture for a world without nuclear weapons. This undoubtedly represents the main appeal of the comprehensive approach.

The idea of a comprehensive convention has been advocated for a number of years, both by civil society and states, but has so far failed to gain critical momentum. In 2007, Costa Rica and Malaysia tabled a version of the comprehensive approach entitled 'draft Model Convention on Nuclear Weapons' (or 'model convention') in the United Nations General Assembly.[37] The proposal was based on an updated version of a text prepared by the civil society groups IALANA, INESAP and IPPNW that had been submitted by Costa Rica to the United Nations Secretary-General in 1997. The model convention offered, in a single document, a fully-fledged draft of the measures the authors thought would be needed to both prohibit and eliminate nuclear weapons.[38]

The authors of the model convention envisage a series of phases for the elimination of nuclear weapons. These phases begin with taking nuclear weapons off high-alert status, then removing weapons from deployment, removing nuclear warheads from their delivery vehicles, disabling the warheads, removing and disfiguring the 'pits' (the imploding core of a nuclear weapon) and placing the fissile material under international control. Each of the phases contains a (negotiable) timeframe for its completion. The model convention also contemplates time limits for the making of mandatory declarations disclosing inventories of nuclear weapons and materials.[39]

Although the text provided general guidelines for a verification regime, it did not prepare a specific verification *mechanism*. Provisions on the verification of nuclear disarmament activities analogous, for instance, to the verification annex in the Convention on Chemical Weapons (CWC), remain to be drafted.

The model convention idea has been endorsed by the United Nations Secretary-General.[40] However, the model convention has not received serious support from any of the nuclear-armed states. The phased programme of disarmament proposed in the Model Convention on Nuclear Weapons is ambitious, and to date the NAS have shown little willingness to commit to that kind of time-bound endeavour. In light of this reluc-

37 United Nations Doc A/62/650, 18 January 2008, and NPT/CONF.2010/PC.I/WP.17, 1 May 2007.

38 M. Datan et al., 'Securing our Survival (SOS): The Case for a Nuclear Weapons Convention', Cambridge, Massachusetts, International Physicians for the Prevention of Nuclear War, 2007.

39 United Nations Doc A/62/650, 18 January 2008; NPT/ CONF.2010/PC.I/WP.17, 1 May 2007, p. 21.

40 United Nations, Secretary-General Ban Ki-moon, 'Contagious Doctrine of Deterrence Has Made Non-Proliferation More Difficult, Raised New Risks, Secretary-General Says in Address to East-West Institute', United Nations, 24 October 2008: http://www.un.org/press/en/2008/sgsm11881.doc.htm.

BOX C

EFFECTIVE MEASURES

The term 'effective measures' is a phrase from the NPT, which entered into force in 1970 and to which all but a very few of the world's states are party. Article VI obliges all parties to 'pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament'.[41] Although the five-yearly NPT Review Conferences in 1995, 2000 and 2010 identified principles, goals, steps and actions towards nuclear disarmament and reached agreements on outcomes by consensus, the efforts of the five NPT nuclear-weapon states (China, France, the Russian Federation, United Kingdom and United States) to implement them have been criticized by many non-nuclear weapon states and observers as inadequate.[42] In addition, four nuclear-armed states—India, Israel, North Korea (which has declared its withdrawal from the NPT) and Pakistan—are not party to the NPT and are not therefore bound by its terms.

In the 45 years since the NPT entered into force, certain actions have been taken that were either intended as—or constituted—partial 'effective measures' towards nuclear disarmament under Article VI. Individual NPT nuclear-weapon states have reduced the size of their arsenals, sometimes acting in concert through bilateral agreements (for instance, through the negotiation of the 'New START' treaty between Russia and the United States). At a regional level, non-nuclear-weapon states have negotiated agreements establishing zones in which the presence of nuclear weapons is prohibited (NWFZs). And at a global multilateral level the Comprehensive Test Ban Treaty (CTBT),[43] which is a prohibition on explosive testing of nuclear weapons, was negotiated in the 1990s, but it has not entered into force. The CTBT specifically declares the parties' intention to 'take further effective measures towards nuclear disarmament'.[44]

In a document tabled in 2013 in the OEWG established by the United Nations General Assembly 'to take forward multilateral nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons', the New Agenda Coalition or NAC (Brazil, Egypt, Ireland, Mexico, New Zealand and South Africa) outlined their thinking on what they believed would constitute 'effective measures' for nuclear disarmament.[45] The authors of that paper suggested that the commitment to work towards nuclear disarmament 'could be in the context of a comprehensive treaty dealing with nuclear disarmament, or a framework agreement under which other instruments would be elaborated'.

The New Agenda Coalition's evolving analysis of the options was subsequently presented in the NPT. During the third preparatory meeting in the 2010-2015 NPT review cycle, the NAC tabled an expanded set of options including a 'Nuclear Weapons Ban Treaty' that would establish key prohibitions towards a 'world free of nuclear weapons'.[46] That proposal was further refined a year later at the 2015 Review Conference to narrow the alternatives to a choice between two legally distinct approaches—'a standalone agreement, whether a comprehensive convention or a ban treaty' on the one hand, and a framework agreement of 'mutually-supporting instruments' on the other.[47] The Review Conference's limited discussions on effective measures, however, were inconclusive and no agreed outcome was achieved.

tance, a major challenge for achieving an NWC is how to get a process started to negotiate such a treaty in the first place, given that the success of the approach would require cooperation and support from most, if not all, the nuclear-armed states.

Getting all NAS to participate in the negotiation of a legally binding convention to eliminate their nuclear weapons in a time-bound manner is highly unlikely in the foreseeable future.

41 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (New York, 1 July 1968), Article VI. See also the reference to 'effective measures' in the humanitarian pledge: http://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/HINW14vienna_Pledge_Document.pdf

42 See G. Mukhatzhanova, 'Implementation of the Conclusions and Recommendations for Follow-on Actions adopted at the 2010 NPT Review Conference Disarmament Actions 1–22', James Martin Center for Nonproliferation Studies, April 2015, p. 2.

43 Comprehensive Nuclear-Test-Ban Treaty (Comprehensive Test-Ban Treaty, CTBT) (New York, 10 September 1996): https://www.ctbto.org/fileadmin/content/treaty/treaty_text.pdf.

44 New Agenda Coalition working paper, A/AC.281/WP.10, 20 August 2013, p. 2.

45 New Agenda Coalition working paper NPT/CONF.2015/PC.III/WP.18, paragraph 29.

46 New Agenda Coalition working paper NPT/CONF.2015/WP.9, paragraphs 8-10.

A more recent but much less developed example of a comprehensive approach has emerged. Cuba circulated a proposal at the Vienna Conference on the Humanitarian Impact of Nuclear Weapons in December 2014. Stating that it was 'time to negotiate a legally binding instrument banning nuclear weapons and providing [for] their total elimination', Cuba proposed that the United Nations General Assembly should establish an open-ended working group to negotiate and recommend a 'comprehensive draft international convention to prohibit the possession, use or threat of use, development, production, acquisition, testing, stockpiling and transfer of nuclear weapons and to provide for their verified destruction not later than in 20 years'.[47]

Cuba envisaged that such a draft Convention would be adopted at the United Nations High Level Conference on nuclear disarmament to be convened in 2018 pursuant to General Assembly Resolution 68/32. That resolution (adopted in 2013 with 137 yes votes, 28 no votes and 20 abstentions) specifically calls for the 'urgent commencement of negotiations ... for the early conclusion of a comprehensive convention on nuclear weapons to prohibit their possession, development, production, acquisition, testing, stockpiling, transfer and use or threat of use and to provide for their destruction'.[48] Yet, the resolution calls for the negotiations to take place in the CD where decisions are taken only by consensus, not, as proposed by Cuba, the United Nations General Assembly where matters may be settled by voting.

II) A FRAMEWORK APPROACH

A second approach to filling the legal gap would be to pursue an agreed range and sequence of 'effective measures' for the prohibition of nuclear weapons within a negotiated framework agreement.[49] In contrast to the comprehensive approach it would not require all parties to agree simultaneously to be bound by all elements of a prohibition. And unlike a standalone ban treaty of the kind discussed below, a framework could maintain some sort of architectural link between the processes of prohibition and elimination.

A legally binding framework agreement for a nuclear weapons prohibition could take any of several forms. It could comprise a framework agreement with additional protocols supplemented over time and containing specific measures, in much the same way as the 1980 Convention on Certain Conventional Weapons (CCW). This framework convention[50] mainly described the scope of application of the regime it was establishing and set out the manner in which it and its protocols would become legally binding on states parties. The five existing protocols to the agreement contain the actual substantive obligations and have been negotiated between 1980 and 2006.

Another form of framework approach is one in which the head agreement stipulates the sequence—and conceivably the time frame—under which subsequent agreements within its scope will be negotiated. In yet another possible approach, the provisions containing the prohibitions on the weapon could be included in the head agreement, while the subsequent protocols deal with issues such as stockpile destruction and control of fissile material.

If the ambition of the head agreement were limited to identifying the steps needed to move forward on nuclear disarmament, a structural skeleton of this nature could potentially provide sufficient flexibility for all states to engage actively in the discussions. It might constitute a confidence-building measure towards the complex discussions of substance that would follow. A frame-

47 Statement by the delegation of Cuba to the Third International Conference on Humanitarian Impact of Nuclear Weapons, Vienna, 9 December 2014: http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/vienna-2014/9Dec_Cuba.pdf.

48 General Assembly resolution 69/58, *Follow-up to the 2013 high-level meeting of the General Assembly on nuclear disarmament*, A/RES/69/58 (11 December 2014), Operative paragraph 4, available from undocs.org/A/RES/69/58. See also undocs.org/A/C.170/L.15, operative paragraph 4.

49 P.M. Lewis, 'A New Approach to Nuclear Disarmament: Learning from International Humanitarian Law Success', International Commission on Nuclear Non-proliferation and Disarmament, Paper No. 13, January 2009.

50 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 (Convention on Certain Conventional Weapons, CCW) (Geneva, 10 October 1980): https://www.icrc.org/ihl/INTRO/470.

TABLE 3

OVERVIEW OF THE PROHIBITION DEBATE

APPROACH	FOR A PROHIBITION	AGAINST A PROHIBITION
Disarmament	It would add legal and public pressure on the NAS to disarm, and pave the way for further cuts in arsenals.	It would have no effect on disarmament, not least because none of the NAS would sign it.
Non-proliferation	A prohibition would complement existing non-proliferation law, e.g. by reinforcing the taboo against nuclear weapons use and by reinforcing safeguards obligations.	It would have unforeseen political consequences, possibly triggering regional arms races that would threaten the NPT regime.
Relation to existing law	There is a legal gap on nuclear weapons, e.g. compared to other WMDs. A prohibition would supplement and strengthen existing law.	It would undermine and/or duplicate existing law (e.g. the NPT). Most of the likely elements of a prohibition would already be illegal for the states that will ratify it (only NNWS).
Effectiveness	A prohibition supported by the majority of the United Nations membership would have a strong normative impact.	A prohibition that does not include the NAS would be irrelevant, especially since it would add very little to existing NNWS obligations.
Security dimension	Disarmament promotes security for all. The status quo, in which nine states and their allies rely on nuclear weapons for their security and where non-possessing states have foresworn nuclear arsenals, is unjust, unsustainable, discriminatory and destabilizing.	Security and stability are preconditions for disarmament. A prohibition would destabilize the international system and increase the risk of major wars. Nuclear weapons have for instance played a key role in keeping Europe at peace. Removing that element would be highly irresponsible.
Priorities / Focusing resources	Prohibition is the only viable step forward in a deadlocked debate, so that is where energy and resources should be focused, especially by the NNWS.	Prohibition is a diversion of attention and resources from more critical measures. The international community should stay focused on the clearly identified next steps or building blocks, e.g. the FM(C)T.
Sequencing	Prohibition historically precedes elimination. There is no reason that this should be different with nuclear weapons.	Issues should be tackled one by one, as they have been so far (e.g. with PTBT, NPT and CTBT). Prohibition will come, but at a later stage.
Negotiation climate	Negotiation of a prohibition would release tension and frustration among NNWS. Engagement from nuclear-armed states would represent signs of good will and renewed commitment.	A prohibition provokes polarization and divisiveness, and is destructive to multilateral disarmament efforts. It is driven by emotions, not pragmatism and realism.
Process	Prohibition negotiations would be 'open to all and blockable by none'. Effectiveness does not rely on immediate universality, or even the support of NAS.	Any legal instrument in the field of disarmament must be developed based on the principle of consensus in order to achieve 'buy-in' by the possessors and thus effectiveness.
Humanitarian imperative	Concerns about the humanitarian impact and risks of nuclear weapons and the humanitarian initiative has added urgency to the debate, and pointed to a logical conclusion: nuclear weapons should be illegal for all and prohibited.	The humanitarian approach has added little to what was already known, and while the reminder was useful, it only highlights the importance of commencing further steps, such as the negotiation of an FM(C)T.

work agreement could conceivably foreshadow among its steps the negotiation of one or more protocols on the prohibition of for example use, development, transfer or possession of nuclear weapons, either prior to or following obligations for example on stockpile destruction of nuclear armaments.

A key feature of the idea of a framework approach appears to be its ambiguity. In 2010, for example, the NPT Review Conference called on states possessing nuclear weapons to undertake concrete disarmament efforts and affirmed the need for all states to make 'special efforts to establish the necessary framework to achieve and main-

tain a world without nuclear weapons'.[51] The NPT parties also noted the five-point proposal for nuclear disarmament put forward by the United Nations Secretary-General, calling for consideration of 'negotiations on a nuclear weapons convention or agreement on a framework of separate mutually reinforcing instruments, backed by a strong system of verification'.[52] The status of the framework envisaged by NPT states parties and the Secretary-General is not specified, but the context in each case suggests a legally binding one if it is to deliver its professed objective.

III) A STEP-BY-STEP APPROACH

A third approach, favoured by the nuclear-armed states and most of their allies, is a step-by-step or building block process to the elimination of nuclear weapons. This has become a traditional way of thinking about nuclear disarmament: independent steps such as negotiating a comprehensive ban on nuclear testing, providing adequate security assurances for non-nuclear-weapon states, halting the production of fissile material, and negotiating verifiable arms reduction treaties should be pursued in successive and mutually supportive steps until a world without nuclear weapons is achieved. States that favour this approach are reluctant, or even adamantly opposed in some cases, to pursuing a single, comprehensive and time-bound agreement on the prohibition and elimination of nuclear weapons.

Despite the inclusion of aspirational lists of steps, for instance in the 2000 and 2010 NPT Review Conference outcome documents, no clear articulation of the components of the step-by-step approach has been proposed to date. A practical challenge for the credibility of the step-by-step approach is that the only multilateral nuclear disarmament step currently in train—the CTBT—still awaits ratification by six nuclear-armed states after nearly twenty years,[53] and has thus not yet entered into force.

The terms 'step-by-step' and 'building blocks' are often used interchangeably. Each denotes an approach that need not be restricted to one step/building block at a time. The building block approach[54] would potentially allow more freedom in the *sequencing* of steps, leaving open the possibility that multilateral negotiations and unilateral or bilateral actions could take place contemporaneously.[55] 'Step-by-step' and 'building block' appear to be also closely related to 'the full spectrum approach', a term coined by the United States during the 70th session of the United Nations General Assembly. During the thematic debate on nuclear weapons on 19 October 2015, the United States noted that:

> [H]istory shows that a practical and *full-spectrum approach* to disarmament has proven to be the most effective means to reduce nuclear dangers and make progress on nuclear disarmament. The United States will continue to pursue every avenue available, but the hard truth is that the final goal of disarmament will not be realized overnight or in a single negotiation.[56]

Proponents of the step-by-step approach attach low priority to the negotiation of a legally binding prohibition prior to elimination of nuclear arsenals. A prohibition-first approach is, from this perspective, seen as something drawing attention away from efforts to initiate steps they see as more pressing such as the negotiation of a Fissile Material (Cut-off) Treaty (FM(C)T).

IV) A BAN TREATY APPROACH

The idea of a standalone treaty banning nuclear weapons has gained substantial attention over the past few years. Of the four approaches pre-

51 *2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document*, NPT/CONF.2010/50 (Vol. I), part I, p. 20.

52 United Nations Secretary-General's Address to the East-West Institute, New York 24 October 2008. See footnote 48.

53 China, Democratic People's Republic of Korea, India, Israel, Pakistan and the United States.

54 See 'Building Blocks for a World without Nuclear Weapons, A/AC.281/WP.4: http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/615258B9A34DF759C1257BCD00342175/$file/A_AC.281_WP.4+E.pdf.

55 See T.G. Hugo, 'On builders and blockers: States have different roles to play to complete the nuclear disarmament puzzle', ILPI-UNIDIR NPT Papers, no. 4, Geneva and Oslo, ILPI/UNIDIR, 2015.

56 R.A. Wood, US Ambassador to the United Nations in New York, Statement to the First Committee of the General Assembly, 19 October 2015: http://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com15/statements/19October_US.pdf. Emphasis added.

sented here it is the most recent to emerge.[57] It is also the option civil society supports most vocally. The core idea is that a treaty banning nuclear weapons would stigmatize the possession of nuclear weapons, and thus pave the way for further nuclear disarmament. Another key feature of this approach is that, because its focus is on prohibition rather than elimination, it can take place regardless of whether the nuclear-armed states, or their allies, support it.

On the sequencing question, the ban treaty approach clearly sees prohibition as a precursor to, or even a prerequisite for, the eventual elimination of nuclear weapons. One NGO, Article 36, has noted that, historically, the prohibition of a weapon has usually preceded its elimination.[58] Some argue that prohibition is a crucial interim step to 'delegitimizing'[59] nuclear weapons and thus contributing to creating the conditions for their elimination.[60]

Proponents of a ban on nuclear weapons also view such a measure as offering states the means to formalize a 'categorical rejection' of their use or possession by anyone under any circumstances.[61] To that end, ICAN supports the negotiation of a legally binding instrument that would prohibit its parties from engaging under any circumstances in any activity related to the use, development, production, stockpiling, transfer, acquisition, deployment, and financing of nuclear weapons, as well as assistance in these acts. An important principle for ICAN is that negotiations on such an instrument should be 'open to all and blockable by none',[62] indicating their belief that negotiations could take place even if the nuclear-armed states choose not to participate, and that in the absence of a consensus rule, no state—including the nuclear-armed states—would be in a position to veto the outcome.

Even though many of a prohibition's key parameters have not been clearly articulated, international debate on the notion of a prohibition on nuclear weapons has lately become intense. The summary in Table 3 represents our understanding of current views expressed by states and civil society on the notion of a nuclear weapons prohibition. The Table is illustrative rather than exhaustive.

SUMMING UP

There are a number of approaches to and interpretations of what constitute effective measures for nuclear disarmament, and to achieving the agreed goal of the elimination of nuclear weapons. What is important to note—consistent with the rationale for undertaking this study—is that all the approaches described here include either an explicit or an implicit acknowledgement of the need, at some point in time, to prohibit nuclear weapons through the negotiation of a legally binding agreement. In view of that reality, this study analyses what elements a prohibition on nuclear weapons might contain.

Clearly, the four approaches in this chapter treat the urgency of prohibiting nuclear weapons differently. Yet, at present, no United Nations member state appears to dispute the goal of a world without nuclear weapons, or the fact that such a world would need to have in place a legal regime that prohibits these weapons. And that is the starting point for our exploration of elements and parameters of a future prohibition regime likely to be discussed in multilateral forums in which nuclear disarmament is on the agenda.

57 See NPT/CONF.2015/PC.III/WP.18, paragraph 29.

58 Article 36, 'Banning Nuclear Weapons: Responses to Ten Criticisms', Briefing Paper, London, 2013, p. 4: http://www.article36.org/wp-content/uploads/2013/12/Ten-criticisms.pdf.

59 See K. Berry et.al, 'Delegitimizing Nuclear Weapons: Examining the validity of nuclear deterrence', James Martin Center for Non-Proliferation Studies, Monterey Institute of International Studies, May 2010: http://cns.miis.edu/opapers/pdfs/delegitimizing_nuclear_weapons_may_2010.pdf.

60 N. Ritchie, 'Valuing and Devaluing Nuclear Weapons', *Contemporary Security Policy*, vol. 34, no. 1, 2013, pp. 146–73.

61 Moyes, Acheson and Nash, 2014, *op. cit.* , p. 5.

62 D. Högsta, ICAN Network Coordinator, statement delivered to the First Committee of the UNGA, 16 October 2015: http://www.icanw.org/action/ican-statement-to-the-first-committee-of-the-unga/.

Chapter 4
Exploring possible elements of a prohibition

Discussions on the prohibition of nuclear weapons feature in many international forums, and take place among state policy makers as well as civil society and academics. In the view of advocates of the early negotiation of a prohibition, nuclear weapons should be regarded as illegitimate in any hands. For justification they point to evidence[63] of the catastrophic humanitarian consequences of the use of nuclear weapons and to the growth of international concern about the risks associated with them.[64] The illegitimacy of nuclear weapons should, they argue, be confirmed in a formal, global regime prohibiting possession and use of nuclear weapons, which would be part of international law, in the same way that biological and chemical weapons have been outlawed.

> Advocates of the early negotiation of a prohibition point to evidence of the catastrophic humanitarian consequences of the use of nuclear weapons.

Whether the prohibition of nuclear weapons were to be negotiated 'now', as called for by ICAN; whether it would form part of a framework agreement or a model convention; or whether it would be the last of many steps in a 'step-by-step' process, the very notion of prohibiting nuclear weapons poses a number of difficult questions:

- What kind of prohibitions and obligations would a legal instrument contain?
- Would it prevent states parties from engaging in military operations with nuclear-armed non-parties?
- Would it include stronger safeguards standards than current international law stipulates?
- Would it require states to assist victims of the detonation—or even the development—of nuclear weapons?
- And would it allow for the accession of states that still have nuclear weapons?

The aim of this chapter is to identify and elaborate on these and other questions related to prohibiting nuclear weapons. Our intention is to help illuminate on-going discussions on these matters, both in the multilateral arena among states and among other interested stakeholders.

The potential elements are grouped under three headings:

i) Prohibitions (what states must not do).

ii) Obligations (what states would be required to do).

iii) Miscellaneous elements (parameters that typically feature in international treaties of this kind).

63 As adduced, for example, at the Oslo, Nayarit and Vienna Conferences on the humanitarian impact of nuclear weapons.

64 See International Law and Policy Institute, 'Counting to zero: An overview of United Nations member states' positions on nuclear disarmament and the humanitarian impact of nuclear weapons', Report, 8th Edition, October 2015, pp. 10–13.

i) Prohibitions

USE

One of the key arguments for why a new universal legal regime surrounding nuclear weapons is needed is that none of the global legal frameworks applicable to nuclear weapons explicitly prohibits use by states. As described in Chapter 2, the NPT does not prohibit use, and clearly foresees the possibility that nuclear-weapon states might use nuclear weapons. International humanitarian law, the body of international law regulating the conduct of hostilities, does not specifically deal with nuclear weapons, although it is widely assumed that the rule of distinction[65] will rule out most examples of use of nuclear weapons. When the International Court of Justice (ICJ) was asked whether use of nuclear weapons could be permitted under international law, it did not succeed in giving a clear answer. The ICJ concluded (in 1996) that it could not rule out the lawfulness of the use of a nuclear weapon in 'extreme circumstances of self defence'.[66] This reveals an important part of the legal gap in that the two other weapons of mass destruction regimes do prohibit use—while no such rule explicitly applies to nuclear weapons.

The term 'use' appears in several arms prohibitions, including the CWC, protocols to the CCW, APMBC and CCM. These conventions, however, do not define 'use'. As a general rule, one might suggest that employing a weapon consistently with its intended purpose constitutes use. The CCM implicitly indicates what is meant by 'use' as it specifies that a failed cluster munition is one that has been 'fired, dropped, launched, projected or otherwise delivered and which should have dispersed or released its explosive submunitions'.[67] The term 'otherwise delivered' indicates that this list is not exhaustive and thus encompasses all forms of potential use in combat.

The international legal framework pertaining to conduct of hostilities already restricts the possibility of use of nuclear weapons to a very limited range of scenarios, if any.[68] Arguably, for instance, nuclear weapons could be used without violating the rule of distinction—a low-yield tactical nuclear weapon against a military submarine in the middle of the Pacific Ocean, for example. However, it is not entirely clear that such an attack would not violate the rule against unnecessary suffering for the combatants in the submarine.

In the words of the Council of Delegates of the International Red Cross and Red Crescent Movement, it is 'difficult to envisage how any use of nuclear weapons could be compatible with the rules of international humanitarian law, in particular the rules of distinction, precaution and proportionality'.[69] Moreover, analyses of nuclear targeting and scenarios of use indicate that nuclear weapons would not be employed in ones or twos against remote sites but could be used in significant numbers against military, industrial, political, and population centres.[70]

> It is difficult to envisage how any use of nuclear weapons could be compatible with the rules of international humanitarian law.

Even so, the fact that no explicit international prohibition on the use of nuclear weapons exists creates legal ambiguity, and a ban on nuclear weapons would therefore have to prohibit whatever is left of hypothetically 'legal' use. During the discussions on prohibitions of other weapons, it was argued that it would be possible to use

65 The principle of IHL saying that parties to a conflict must at all time distinguish between civilians and combatants.

66 International Court of Justice, '*Legality of the Threat or Use of Nuclear Weapons*', Advisory Opinion of 8 July 1996, paragraph 105(2)(E).

67 Convention on Cluster Munitions (CCM) (Oslo, 3 December 2008), Article 2(4).

68 See Protocol Additional to the 1949 Geneva Conventions (Additional Protocol I), Articles 48 and 35(2). It is unlikely that nuclear weapons can be used without breaching the rule of distinction, and also the rule prohibiting superfluous injury and unnecessary suffering. The nuclear-armed states are either not party to Additional Protocol I, or have made reservations with regard to their nuclear weapons.

69 Council of Delegates resolution CD/11/R1, 2011: https://www.icrc.org/eng/resources/documents/resolution/council-delegates-resolution-1-2011.htm.

70 *Ibid*.

BOX D

OTHER WEAPONS PROHIBITION AGREEMENTS

In the arms control and disarmament arena, there are several examples of bans—and proposals to ban—weapons or the materials from which they draw their lethal power. Recent bans of note are the Conventions prohibiting the use, stockpiling, production and transfer of, respectively, anti-personnel mines (APMBC, 1997) and cluster munitions (CCM, 2008). In relation to weapons of mass destruction, there are the treaties on the prohibition of, respectively, bacteriological and toxin weapons (BTWC, 1972—often referred to as the Biological Weapons Convention) and chemical weapons (CWC, 1993).

The CWC is one recent example of an arms control treaty banning a weapon of mass destruction, and its prohibition is worth noting in considering nuclear weapons. Article I(1) of the CWC spells out that each state party to the CWC 'undertakes never under any circumstances':

> (a) To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone;
>
> (b) To use chemical weapons;
>
> (c) To engage in any military preparations to use chemical weapons;
>
> (d) To assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention.

As for bans on nuclear materials, France tabled a draft prohibition on the production of fissile material for nuclear weapons or other explosive devices in the Conference on Disarmament on 13 April 2015. Despite this, fissile material negotiations have not yet commenced even though they have been on the CD's agenda for twenty years.[73]

anti-personnel mines or cluster munitions, for example, without violating international humanitarian law. However, most of the actual usage of these weapons was clearly highly problematic with regard to IHL. Hence, the point of such prohibitions was to outlaw *all* usage, irrespective of the (limited) potential for law-abiding usage. The potential prohibition of nuclear weapons would follow a similar logic, at least with regard to use. And it should be noted, for example, that the prohibition on use in the 1925 Gas Protocol[71] paved the way for the later comprehensive disarmament regimes for biological and chemical weapons.

A ban on use[72] would likely be most relevant as part of a standalone ban or framework approach, and least relevant for a prohibition instrument to finalize the last step in a step-by-step approach. In the case of a framework approach, an option would be to negotiate, as one of the elements, a ban on use, and then complement it with prohibitions on elements such as development or production, transfer or possession (and potentially obligations on stockpile destruction) over time. In the step-by step approach, a ban on use would arguably not be necessary provided that all nuclear weapons were eliminated.

What may complicate the term 'use' with regard to nuclear weapons is that in political rhetoric about them, possessing or stockpiling these arms, or even being in a military alliance with states that possess them, is sometimes perceived as a form of 'use' because of the conceived political effects of their possession. Looking at other weapons prohibitions, however, the argument that possession

71 Protocol to the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925 Geneva Protocol) (Geneva, 17 June 1925).

72 A prohibition on the use of nuclear weapons has been the subject of an annual United Nations General Assembly resolution sponsored by India since 1992. Whether a prohibition exclusively on use of nuclear weapons would serve any disarmament purpose would depend on whether it was explicitly coupled with undertakings to eliminate those armaments.

73 CD/2020, Letter dated 9 April, 2015, from the Permanent Representative of France to the Conference on Disarmament, addressed to the Acting Secretary-General of the Conference transmitting a draft Treaty Banning the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices prepared by the Government of France: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G15/076/39/PDF/G1507639.pdf?OpenElement.

equates use has not been part of the discussions. Indeed, there is no basis in international law for arguing that possession of a potential instrument for violating international law obligations would constitute a violation in itself.[74] Nor is there any parallel in national legal systems (even though possession of arms or narcotics or other items might be a criminal offence in itself—this is always specified in the relevant legal bases).

Another question is whether all forms of nuclear weapons detonations should be considered to constitute use, or whether one should draw the line at employment of a nuclear weapon against an enemy. The latter would exclude testing[75] as well as accidental detonations. In this study, testing is considered part of development of nuclear weapons, and will not be discussed as part of 'use'. Accidental detonations arguably cannot fall under the term 'use' as it is not possible to prohibit accidents.

THREAT OF USE

Subject to specific exceptions provided for in the United Nations Charter, the threat of use of armed force is prohibited under its Article 2(4). This applies to all forms of armed force against another state, irrespective of the weapon that might be intended for use.[76] Thus, threatening use of nuclear weapons, as well as threatening use of all other weapons against another state, is already prohibited.

This is the part of international law that regulates in which circumstances use of force by one state against another can be legal, *jus ad bellum*, as opposed to the international law regulating which means and methods can lawfully be used in warfare, *jus in bello*.

All regulations on means of warfare (weapons, for example) are part of international humanitarian law (IHL). A prohibition on nuclear weapons would also necessarily fall into this category. Threats are generally not prohibited under IHL, with two specific exceptions**:** threats of killing everyone who has surrendered or is taken prisoner (refusal of quarter),[77] and threats of violence with the purpose of spreading terror among the civilian population.[78] These two exceptions implicitly make it clear that threats are generally not covered by IHL—it is the actual conduct of hostilities that is regulated, not the political rhetoric surrounding the hostilities.

This is the reason why only use, and not threats of use—for example, of chemical weapons, antipersonnel landmines or cluster munitions—are regulated in the respective treaty regimes prohibiting these weapons. Threat of use, moreover, is not dealt with in the CCW protocols, for example, on blinding laser weapons or non-detectable fragments or booby traps. Nor is threat of use regulated in the treaties on nuclear-weapon-free zones.

> A provision on threat of use of nuclear weapons in a new legal instrument would add nothing.

Still, when it comes to discussions about prohibitions on nuclear weapons, the element of *threat* of use is often mentioned. This can be traced back to the ICJ's Advisory Opinion of 1996, where the Court was asked by the United Nations General Assembly whether the use or threat of use of nuclear weapons was 'in any circumstance permitted under international law'.[79] In answering the question, the ICJ said 'if the use of force itself in a given case is illegal—for whatever reason—the threat to use such force will likewise be illegal'.[80] The Court extended this understanding to cover not only *jus ad bellum*, but also *jus in bello*. In other words, if the use of nuclear weapons is prohibited, it follows that threatening to use them is also pro-

74 Draft Articles on State Responsibility, Article 2, which specifies that an internationally wrongful act must be an act or omission.

75 Testing is discussed below.

76 N. Hayashi, 'Legality under jus ad bellum of the threat of use of nuclear weapons' in G. Nystuen, S. Casey-Maslen and A.G. Bersagel (eds.), *Nuclear Weapons under International Law*, Cambridge, Cambridge University Press, 2014, pp. 31–59.

77 Additional Protocol I, Article 40.

78 Additional Protocol I, Article 51(2).

79 General Assembly resolution 49/75, *General and complete disarmament*, A/RES/49/75 (15 December 1994), available from undocs.org/A/RES/49/75.

80 International Court of Justice, 1996, *op. cit.*, paragraph 47.

hibited. This position appears difficult to substantiate, as has been discussed above.[81]

Another reason why threat of use is often mentioned in connection with nuclear weapons is that in the view of some discussants,[82] the possession of nuclear weapons in itself can be viewed as a form of threat of using them. According to this line of argument, all of the nuclear-armed states would constantly be violating the United Nations Charter's prohibition on threats of use of force. If, however, one looks at the Protocols to nuclear-weapon-free zone treaties on negative security assurances,[83] it is there specified that both the threat of use and use of nuclear weapons against the members of the NWFZ are prohibited. The implication of these prohibitions is that threat of use must be a more qualified act than just possessing the weapon; otherwise these provisions would be redundant.

Threats of use of nuclear weapons are already prohibited under the United Nations Charter because all threats of armed force are prohibited. A provision on threat of use of nuclear weapons in a new legal instrument—whether it was adopted before, during or after the process of elimination—would add nothing. But it would risk undermining the prohibition in the Charter by implicitly indicating that this general prohibition is not sufficient. It would beg the question of whether threats of use of other weapons really are prohibited if this is not explicitly stated in some legal instrument. As is the case for all other specific and general legal frameworks pertaining to weapons and their use, threats of such use would not seem to belong in a prohibition.

DEVELOPMENT AND TESTING

Prohibiting the 'development' of a nuclear weapon would obviously include any activity to test it. Given the history of nuclear weapons and efforts to curb underground and atmospheric testing through the Partial Test Ban Treaty (PTBT) and the CTBT, it seems likely that 'testing' would be specifically mentioned amongst the prohibitions in a ban regime either on its own or in the context of 'developing'. Since a customary ban on atmospheric and underwater testing seems to have manifested itself,[84] such a prohibition on testing would in practice be directed at underground testing.

The term 'development' overlaps with 'manufacturing' or 'production', as discussed below. Other elements covered by the term 'development' will thus appear under those headings.

MANUFACTURING AND PRODUCTION

As just mentioned, there is a certain overlap between the term 'develop' and the terms 'manufacturing' or 'production', although development is often seen as preceding production. The issue of both development and production/manufacturing of nuclear weapons is complex because it pertains to the development and production/manufacturing of the individual components of the weapon. Unlike, for example, components of cluster munitions,[85] individual components of nuclear weapons (as well as chemical weapons, for example, see box E on defining nuclear weapons) often have dual-use characteristics.

> A prohibition on manufacturing or production already exists for the non-nuclear-weapon states in the NPT.

A prohibition on manufacturing or production already exists for the non-nuclear-weapon states in the NPT. Within the framework of the International Atomic Energy Agency (IAEA), both production and export/import of dual-use components

81 See also G. Nystuen, 'Threats of use of nuclear weapons and IHL' in Nystuen, Casey-Maslen and Bersagel (eds), *op.cit.*, pp. 148-170.

82 See e.g. C. J. Moxley Jr., J. Burroughs and J. Granoff, 'Nuclear Weapons and Compliance with International Humanitarian Law and the Nuclear Non-Proliferation Treaty', *Fordham International Law Journal*, Volume 34, Issue 4, 2011, Article 1.

83 See Protocol 1, Article 2 to the Treaty of Bangkok, and Protocol 2, Article 1 to the Treaty of Rarotonga.

84 See e.g. D.J. MacKay, 'The testing of nuclear weapons under international law' in Nystuen, Casey-Maslen and Bersagel (eds), *op.cit.*, 2014, pp. 292-318.

85 See V. Wiebe, D. Smyth and S. Casey-Maslen, 'Article 1. General obligations and scope of application' in G. Nystuen and S. Casey-Maslen (eds.), *The Convention on Cluster Munitions: A Commentary*, Oxford, Oxford University Press, 2010, pp. 117-19.

BOX E

DEFINING NUCLEAR WEAPONS

The P5's *Glossary of Key Nuclear Terms* defines nuclear weapons as a 'weapon assembly that is capable of producing an explosion and massive damage and destruction by the sudden release of energy instantaneously released from self-sustaining nuclear fission and/or fusion'.[88] It might be expected that a prohibition regime would also include a definition of nuclear weapons.

The NPT and the CTBT do not provide explicit definitions of nuclear weapons and nuclear explosive devices. The bilateral disarmament and arms control agreements between Russia and the United States include protocols with long lists of definitions. However, a definition of the central object of regulation—nuclear weapons—is absent. As noted by the ICJ in its 1996 Advisory Opinion on nuclear weapons, international law does, however, provide a number of definitions of nuclear weapons.[89] All of the nuclear-weapon-free zone treaties invoke the physical process capable of producing the explosion as the distinguishing characteristic of nuclear weapons within the broader category of explosive devices, defining nuclear weapons broadly as any explosive device capable of releasing nuclear energy. The Treaties of Bangkok and Tlatelolco moreover stipulate that the release of nuclear energy needs to happen 'in an uncontrolled manner'. This additional qualifier might, however, be redundant as the chain reaction needed to produce a nuclear explosion is necessarily an uncontrolled process.[90]

Most NWFZ treaties explicitly exclude from the definition of nuclear weapons a consideration of the purpose for which such a weapon could be used, although the Treaty of Tlatelolco stipulates that the device has 'a group of characteristics that are appropriate for use for warlike purposes'. This additional qualifier reflected a belief—widely held when the Tlatelolco Treaty was drafted in the 1960s—that nuclear explosions might have a peaceful application such as in the construction of large canals.[91] The CTBT's 1996 prohibition on all nuclear explosions, irrespective of their purpose, makes this qualifier redundant.

In contrast to the definitions of biological weapons and chemical weapons in the BTWC and the CWC, respectively, none of the existing legal definitions of nuclear weapons sees the actual subjective purpose for which these arms could be used or developed as directly relevant. This reflects the fact that, generally speaking, the dual-use potential of the material used to produce a nuclear explosion (that is, weapons-usable uranium or plutonium), is much lower than the dual-use potential of the material used to produce biological and chemical weapons, (microbial agents and toxic chemicals). Hence, in the absence of an alternative purpose for which weapon-usable uranium and plutonium could be used other than to cause an explosion, there would not seem to be a need to include a consideration of the purposes for which nuclear weapons could be used in a legal definition of these weapons.

A specific challenge the drafters of the NWFZ treaties encountered was to separate nuclear weapons from their means of transport or delivery. In the NWFZ treaties, this is resolved by explicitly excluding from the definition 'the means of transport or delivery of such a weapon or device if separable from and not an indivisible part of it'.[92] The CWC provides an alternative model, and separates chemical weapons from adjacent infrastructure by including 'any equipment specifically designed for use directly in connection with the employment of munitions and devices' in the legal definition of the weapon.

Defining an object to be regulated or prohibited under international law is rarely a value-neutral exercise. The process leading to the CCM provides a recent example of how defining a weapon category can be contentious.[93] However, considering the physical distinctness of a nuclear chain reaction and the low dual-use potential of weapons-usable uranium or plutonium, defining nuclear weapons in the context of a prohibition would seem to be a relatively uncomplicated task.[94]

are regulated with a view to implementing the prohibitions in the NPT for actors other than the NPT nuclear-armed states. Whatever form a prohibition may take, it will have to take the complex issues regarding production and/or manufacturing of dual-use components into consideration.

The interpretation of the term 'manufacture' has, in the context of the NPT, generated much discussion and controversy. One of the hard questions is to what extent nuclear research can be said to constitute 'manufacturing' under its Article II.[86] In other words, at what point can research or production of dual-use components that could be used to develop nuclear weapons be said to 'cross the line'. It may prove difficult to encourage some non-nuclear-weapon states to accept additional restrictions on potential dual-use activities that

86 See G. Nystuen and T.G. Hugo, 'The Nuclear Non-proliferation Treaty' in Nystuen, Casey-Maslen and Bersagel (eds.), *op. cit.*, 2014, pp. 388–90.

are currently permissible under the NPT regime with respect to source and fissile materials.

TRANSFER

The term 'transfer' can mean just the physical movement of an item, or it can mean the change of title (and thus ownership through 'acquiring'). It can also mean that *both* of those requirements must be met in order for a transfer to have taken place. The term transfer has been given different meanings in different treaties. In the recently adopted Arms Trade Treaty (ATT), transfer is defined as comprising 'export, import, transit, trans-shipment and brokering'.[87] By using the term 'comprising', it is indicated that this list is exhaustive. It is important to note, however, that the ATT is concerned with requiring *authorisations* for transit; it does not prohibit weapons. The term 'acquire', which is used in other treaties mentioned in this paper, could arguably be covered by the term 'transfer'.

If 'transfer' of nuclear weapons were to be defined to cover also physical movement of nuclear weapons across borders, without necessarily changing title, such a prohibition would, in addition to preventing proliferation, be aimed at inhibiting further stationing by nuclear-armed states of their nuclear weapons in the territory of any other state. And it would also apply to non-nuclear-weapon states (NNWS) hosting nuclear armaments on behalf of a nuclear-armed state (see 'stationing and deployment').

87 The Arms Trade Treaty (ATT) (New York, 3 June 2013), Article 2(2).

88 P5 Working Group on the Glossary of Key Nuclear Terms, 'P5 Glossary of Key Nuclear Terms', Beijing, China Atomic Energy Press, 2015, p. 6.

89 International Court of Justice, 1996, *op. cit.*, p. 243.

90 J. Borrie and T. Caughley, *An Illusion of Safety: Challenges of Nuclear Weapon Detonations for United Nations Humanitarian Coordination and Response*, New York and Geneva, UNIDIR, 2014, p. 20.

91 The NPT, for instance, contains a provision on peaceful nuclear explosions in Article V.

92 See Article 1(c) of the Treaty of Pelindaba, 1996.

93 J. Borrie, *Unacceptable Harm: A History of How the Treaty to Ban Cluster Munitions Was Won*, New York and Geneva, UNIDIR, 2009, pp. 268-73.

94 See 18 U.S. Code § 831(f)(1) and 832 - Participation in nuclear and weapons of mass destruction threats to the United States.

Correspondingly, a treaty entailing such a type of prohibition on nuclear weapons transfers would require significant changes in policy from NNWS hosting nuclear weapons that wish to join such a regime.[95]

> The term 'transfer' as used in disarmament treaties is aimed primarily at possessor states,

The term 'transfer' is a common feature in arms control and disarmament treaties. The BTWC, CWC, APMBC and CMC all explicitly prohibit transfer of the weapon in question, directly or indirectly. The term is, however, not part of the general prohibitions in any of the NWFZ treaties. One possible explanation for this is that the zone treaties do not allow for states possessing the weapons to become parties (see section on 'stockpile destruction' below), and since 'transfer' is understood as an active verb (requiring control over the subject to be transferred) it would in practice be impossible to violate the transfer prohibition without first possessing the weapons, which would be prohibited under other provisions of the treaty.

In short, 'transfer' as used in disarmament treaties is aimed primarily at possessor states, which makes it more relevant if the treaty in question has a stockpile destruction component—in practice allowing possessor states to become parties while undertaking stockpile destruction. Whether it makes sense to include the term 'transfer' among the prohibitive elements of a treaty therefore depends on the chosen approach and intended scope.

TRANSIT

Transit is not a specific legal term with a commonly accepted meaning.[96] It is generally under-

95 See, for instance, K. Kubiak, 'Hold-out or Silent Supporter? Implications of the humanitarian initiative on nuclear weapons for Germany', Berlin, Friedrich Ebert Stiftung, 2015: http://library.fes.de/pdf-files/iez/11525-20151202.pdf; O. Güven and S. van der Meer, 'A treaty banning nuclear weapons and its implications for the Netherlands', Policy Brief, Clingendael, The Hague, 2015: http://www.asser.nl/media/2582/a-treaty-banning-nuclear-weapons-2015.pdf.

96 K. Van Heuverswyn and N. Duquet, 'Transit of strategic goods in Europe: A comparative

stood to involve the movement (or transportation) of items (or persons) through a state territory, be it on land or sea, on its way from one state to another. The User's Guide to a European Union Council Common Position on exports of military technology and equipment defines transit as 'movements in which the goods (military equipment) merely pass through the territory of a Member State.'[97]

The question of transit, or movement, of nuclear weapons into the territory of NNWS has been highly controversial over the years, even within a nuclear alliance such as NATO. Iceland, Denmark and Norway, for example, refuse to allow transit by way of port visits by nuclear-weapon-capable naval units.[98] Other NATO allies see things quite differently, and five of them—Netherlands, Belgium, Germany, Italy and Turkey—have US nuclear warheads on their territories.[99]

> Transit, if addressed in a standalone prohibition treaty, would have to be seen in the context of other international frameworks regulating transportation.

The NWFZ treaties are relatively vague on the issue of transit. In the Tlatelolco Treaty, there is no reference to the term, and in the other four treaties, the word is only used to stress that each state shall decide for itself whether it will accept transit.[100] In the Bangkok Treaty, the text also goes one step further, emphasizing that nothing in the treaty shall prejudice the rights of states under the law of the seas, including the 'rights of innocent passage, archipelagic sea lanes passage or transit passage of ships and aircraft'.[101] This language may have been included as a way to soften the reactions to the first part of that article, which states that the treaty and its protocol 'shall apply to the territories, continental shelves, and EEZs of the States Parties within the Zone in which this Treaty is in force.'[102] The uncertain legal implications of this wording seem to be one of the main reasons why the five NPT nuclear-weapon states have yet to sign and ratify the protocols of the treaty.

Transit, if addressed in a standalone prohibition treaty, would have to be seen in the context of other international frameworks regulating transportation. The point of departure under international law is that a state can only restrict transit in its own territory (including territorial waters), and thus a standalone prohibition treaty could also only oblige its states parties to regulate transit where they have jurisdiction. Similarly to 'transfer', the issue of transit would be largely irrelevant to a prohibition concluding a step-by-step process. If nuclear weapons were eliminated, and development and production prohibited, there would be no need to prohibit transit and transfer.

STATIONING AND DEPLOYMENT

These two terms—stationing and deployment—are often used interchangeably. However, according to the definition used in the Rarotonga Treaty (South Pacific NWFZ), for instance, 'stationing' is a considerably broader term than 'deployment'. It covers activities such as 'emplantation, emplacement, transportation on land or inland waters, stockpiling, storage, installation and deployment.'[103]

'Deployment' was used in the first NWFZ Treaty (Tlatelolco). However, in all the four subsequent zone treaties the term 'stationing' was preferred. Deployment has instead been primarily associated

analysis of policy on the transit of strategic goods in Belgium, France, Germany, the Netherlands and the United Kingdom', Flemish Peace Institute, 2013, p. 9: http://www.flemishpeaceinstitute.eu/sites/vlaamsvredesinstituut.eu/files/files/reports/report_transit_of_strategic_goods_in_europe.pdf.

97 Council of the European Union, *User's Guide to Council Common Position 2008/944/CFSP defining common rules governing the control of exports of military technology and equipment*, p. 5, §2.5.2.

98 S.L. Eide, 'A Ban on Nuclear Weapons: What's in it for NATO', ILPI Policy Paper, no. 5, 2014: http://nwp.ilpi.org/?p=2296.

99 See H.M. Kristensen, 'U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning', 2005: http://www.nrdc.org/nuclear/euro/euro.pdf.

100 See e.g. Article 4(2) of the Treaty of Pelindaba, or Article 5(2) of the Treaty of Rarotonga.

101 Treaty of Bangkok, Article 2(2).

102 Treaty of Bangkok, Article 2(1).

103 Treaty of Rarotonga, Article 1(d).

with arms control treaties such as those agreed between the US and Russia over the past decades. A definition of 'deployed' weapons can be found in one of the annexes to the first START treaty from 1991, where the term is generally understood to mean a warhead that is placed in a launcher, or planned for such placement.

On the one hand, it seems self-evident that stationing and deployment would be prohibited under a treaty aiming to outlaw nuclear weapons. It would, however, not be strictly necessary to include the terms as such (stationing or deployment) in a prohibition. A prohibition on possession and/or stockpiling could have the same effect; no nuclear weapon could arguably be kept in the territory of a state that is bound by a prohibition on stockpiling of nuclear weapons. Normally, the concepts of deployment or stationing would be relevant only for the NAS (they would be the states doing the deploying/stationing), whereas stockpiling or possession would be relevant also for NNWS that are hosts or recipients.

Forward deployment

As a subcategory of 'deployment', the term 'forward deployment' is often used to describe the physical emplacement or stationing of nuclear weapons on the territory of a NNWS. This usually refers to a part of the nuclear sharing arrangement within NATO, whereby five NNWS are hosting an unconfirmed number approximating 180 to 200 nuclear warheads on their territory, even though the weapons are owned and formally controlled by the United States.

Over the years it has been alleged[104] that forward deployment is contrary to the NPT prohibitions on transfer of or receiving nuclear weapons.[105] The counter argument made is that a transfer requires not only physical movement of the item in question but also a change of title or ownership: as long as the weapons remain the property of the United States there has thus been no transfer in terms of the NPT.[106]

Moreover, the first stationing or deployment of United States nuclear weapons in certain countries in Europe took place before the NPT was negotiated and adopted.[107] According to Mohamed Shaker there was an understanding between the two superpowers toward the end of the NPT negotiations that such stationing would not be contrary to the NPT as long as the control (and potential use) of the weapons remained with the United States.[108] In fact, the wording of the basic prophylactic provisions of the NPT may have been specifically designed to allow for the continuation of nuclear sharing arrangements within NATO.[109]

It seems self-evident that stationing and deployment would be prohibited under a treaty aiming to outlaw nuclear weapons.

An explicit prohibition on 'forward deployment' of nuclear weapons could cause problems for certain European countries, even though, in practical terms, a prohibition on deployment would arguably only apply to those countries that actually have nuclear weapons—and therefore deploy them. Nevertheless, an outright prohibition against 'forward deployment' could reduce the likelihood of countries that host United States nuclear weapons on their territories joining a prohibition treaty.

The argument *for* including all aspects of stationing and deployment in a prohibition on nuclear weapons is difficult to dispute. Allowing states to join a prohibition against nuclear weapons but not requiring that they keep their territory nuclear-weapon-free would be perceived by many as hypocrisy.

104 L. Spagnuolo, 'NATO nuclear burden sharing and NPT obligations', *BASIC Getting to Zero Papers*, No. 13: http://www.basicint.org/sites/default/files/gtz13.pdf.

105 Nuclear Non-Proliferation Treaty, Articles I and II.

106 See D. Caldwell, 'Permissive Action Links: A Description and Proposal', *Survival: Global Politics and Strategy*, vol. 29, no. 3, 1987, pp. 224–38.

107 The first American nuclear weapons were stationed in Europe in 1954, see e.g. H.M. Kristensen, 2005, *op. cit.*, p. 24.

108 See M. Shaker, *The Nuclear Non-Proliferation Treaty*, Vol. I, p. 234.

109 See G. Nystuen and T.G. Hugo, 2014, *op. cit.*, pp. 374-396.

POSSESSION AND STOCKPILING

Proponents of a nuclear weapons ban argue that it would need to prohibit the possession and/or stockpiling of these arms. Stockpiling and possessing are not synonyms, but they overlap (to the extent that they are precise terms). Stockpiling normally refers to the physical storing of items, and does not necessarily relate to ownership of the items. Likewise, possession does not equal ownership; rather it implies physical control over an item, either combined with ownership rights or not.

The APMBC, BTWC, CCM and CWC do not include 'possession' among their specific prohibitions. The CWC, however, requires that states parties undertake to destroy chemical weapons they 'own or possess'.[110] As a prohibition on nuclear weapons is unlikely to include comprehensive mechanisms on destruction and verification comparable to those in the CWC, it can be argued that the inclusion of the element of 'possession' may not be needed so long as acquiring, stockpiling and retaining are prohibited activities.

Several international legal instruments already prohibit the possession of nuclear weapons. All of the nuclear-weapon-free zone treaties prohibit the possession of nuclear weapons by their state parties.[111] Two of them—the Pelindaba and Semipalatinsk treaties—also explicitly prohibit stockpiling. The Pelindaba NWFZ treaty contains an additional obligation to destroy and dismantle nuclear explosive devices.[112]

Article II of the NPT also implicitly[113] prohibits the possession or stockpiling of nuclear weapons by the treaty's non-nuclear-weapon states through their obligations not to receive or manufacture or acquire nuclear weapons.[114]

If this NPT legal obligation were adhered to by all, it would be difficult if not impossible for a state to come to possess a nuclear weapon, let alone stockpile them. But Article II does not apply to the NPT's five nuclear-weapon states (all of whom possess and stockpile nuclear weapons). Nor of course does Article II apply to the four other nuclear-armed states outside the regime.[115]

> Several international legal instruments already prohibit the possession of nuclear weapons.

In light of the legal instruments mentioned above, critics of the notion of a nuclear weapons prohibition question the value of an additional prohibition on nuclear weapon possession or stockpiling, especially if it is does not involve current possessors when negotiated. They ask, in effect, what difference would it make? A common answer given by ban proponents is that such prohibitions would be in line with a ban's presumed normative objective—to consolidate the general understanding in world affairs that nuclear weapons are unacceptable in any hands, and cannot be used. Instilling that understanding is intended to affect policies and behaviour over time in ways that make it more difficult for possessors to resist nuclear disarmament and for proliferation of nuclear arms to occur. By virtue of the fact that a '(r)esort to nuclear weapons presupposes their production, testing, stockpiling, transportation and deployment before actual use in hostilities',[116] prohibitions on nuclear weapon possession and stockpiling could help to clarify the nuclear doctrines and policies of extended deterrence.

The practical way of securing implementation of the prohibition on stockpiling in the APMBC and the CCM was to specify that stockpiles must be

110 See Articles 1 and 3 of the Chemical Weapons Convention.

111 Article 36 and Reaching Critical Will, 'Filling the Legal Gap: The Prohibition of Nuclear Weapons', London, 2015: http://www.article36.org/wp-content/uploads/2015/05/A36-RCW-gaps-table-updated.pdf.

112 M. Hamel-Green, 'Peeling the orange: Regional paths to a nuclear-weapon-free world', *Disarmament Forum: Nuclear-weapon-free zones*, no. 2., 2011, p. 8: http://www.unidir.org/files/publications/pdfs/nuclear-weapon-free-zones-en-314.pdf.

113 Article 36 and Reaching Critical Will, 2015, *op.cit.*

114 Nuclear Non-Proliferation Treaty, Article II.

115 Democratic People's Republic of Korea, India, Israel and Pakistan.

116 M. Kunz and J.E. Viñuales, 'Environmental approaches to nuclear weapons' in Nystuen, Casey-Maslen and Bersagel (eds.), *op.cit.*, 2014, p. 269.

destroyed within certain timelines (see 'stockpile destruction' in the next section for a more elaborate discussion). The obligation to destroy stockpiles, however, contained a qualifier. In the BTWC, CWC and the APMBC, there is an obligation to destroy all stockpiles within a state party's 'jurisdiction or control'. This means that a state party is only relieved of its stockpile destruction obligations for those biological weapons, chemical weapons or anti-personnel mines that are present in locations that are either not under state control (for example, in territories controlled by insurgents) or not under state jurisdiction (for example, foreign military bases where the host state has waived jurisdiction). In the CCM, the phrase used is 'jurisdiction *and* control' (emphasis added), but the legal implications of the use of 'and' instead of 'or' is not clear.[117]

A ban on possession would arguably be relevant for any of the four approaches to filling the legal gap.

The possible effect of the inclusion of a 'jurisdiction and/or control'-qualifier would be that the threshold for 'umbrella' states to join a prohibition could be perceived as lower, both for those with United States nuclear weapons on their territory, and for those that might expect protection by nuclear weapons in a crisis. It would, however, come with a cost: it could be more difficult to communicate the merits of a prohibition that is perceived to contain inconsistencies and loopholes, particularly if the 'loophole-beneficiaries' were United States treaty allies.

A ban on possession would arguably be relevant for any of the four approaches to filling the legal gap, whether the instrument of prohibition was adopted before, during or after a process of elimination.

117 The reason for the use of 'and' in stead of 'or' was, according to the Irish presidency, a clerical error, and had moreover little if any impact, as '[i]t seems very unlikely that a State will exercise either jurisdiction or control, but not both' (Declan Smyth in Nystuen and Casey-Maslen (eds.), 2010, *op.cit.*, p. 259).

ASSISTANCE IN THE COMMISSION OF PROHIBITED ACTS

It is not likely that a prohibition on nuclear weapons would become binding for all states in the short term following its negotiation and adoption. In particular, the nuclear-armed states will in all likelihood remain outside such a regime until they individually or collectively decide to renounce and relinquish nuclear weapons. The question, therefore, is to what extent a state party to such a prohibition could be held responsible for *assistance* to a non-party, e.g. through participating in military operations or alliances (Box F) that require joint nuclear planning, such as in the Nuclear Planning Group (NPG) of NATO.

Assistance to commit a prohibited act (violation of a treaty obligation or a customary norm), can, according to the Articles on State Responsibility (ASR),[118] in itself constitute a violation of international law. Article 16 of the ASR specifies that a state that assists another state in the 'commission of an internationally wrongful act' can be held responsible, but only if the act constituted a violation for the state that received the assistance.[119] In other words, a state party to the prohibition on anti-personnel mines cannot (through the general rules on state responsibility) be held responsible for violating that norm through assisting a non-state party in carrying out acts in contravention of that convention.

Prohibitions of assistance to treaty violations are a common feature in the BTWC, CWC, APMBC and CCM.[120] All of them, however, go beyond the customary rules codified in the ASR. In these four disarmament treaties, assistance is considered an illegal act regardless of whether or not the assisted state is party to the treaty.

The scope of responsibility for *assistance* in these four treaties, which thus is broader than what

118 The Articles on State Responsibility (ASR) are norms codified by the United Nations International Law Commission and to a large extent considered to represent international customary law, see http://legal.un.org/ilc/texts/instruments/english/draft_articles/9_6_2001.pdf.

119 This also follows from the Vienna Convention on the Law of Treaties, Articles 34 and 35.

120 The scope of the assistance prohibition is limited to assistance to manufacture or acquire the weapons in the BTWC.

BOX F

NUCLEAR ALLIANCES

Of the 28 states that are members of the North Atlantic Treaty Organization (NATO), three possess nuclear weapons while five other NATO states have nuclear weapons (belonging to the United States) stationed on their territory. Outside of NATO there are a further five nations (Australia, Japan, Philippines, the Republic of Korea and Thailand) in formal military alliances with the United States. The Collective Security Treaty Organization (CSTO), comprising the Russian Federation and five post-Soviet states, is a further bloc. It is expected that its members would be affected by a prohibition on the involvement of non-nuclear-weapon possessors with Russia. There is the potential, therefore, for a considerable number of states either to shun any negotiation of a ban on nuclear weapons, or at least to actively resist any restrictions on interoperability.[123]

would follow from general international law, has triggered considerable debate about how to deal with military cooperation with states not party.

This was particularly the case in the discussions leading to the adoption of the CCM, in which a number of states—notably those in military alliances in which some of the members would remain outside the regime—voiced serious concerns about interoperability in international operations. A country like the United States was not bound by the prohibition on using cluster munitions in a military operation, but would their potential coalition partners in a given operation violate the treaty through cooperating with them?

> If a prohibition on nuclear weapons were to contain a more wide-ranging rule on assistance than what follows from general international law this would pose challenges with regard to military cooperation and interoperability.

In the CCM, in order to avoid potential responsibility for 'assistance' through military cooperation with non-states parties, a specific provision on interoperability was included. This provision, Article 21, allows state parties to the CCM to 'engage in military cooperation and operations with States not party to this Convention that might engage in activities prohibited to a State Party'. It is, however, specified that this shall not authorise the state party to 'itself' commit violations of the Convention.[121] The function of Article 21 seen together with Article 1(c) on assistance seems to be that the prohibition on assistance does not cover ordinary military cooperation in operations or alliances with states not party (and which may possess and use cluster munitions in such operations).

Theoretically, one could make similar arrangements with regard to a prohibition on nuclear weapons. This would, however, be rather more complicated, at least for NATO members, because of the integration of nuclear weapons in their military doctrines and strategic concepts. One key issue would thus be where to place the threshold for assistance, *inter alia* through asking the following questions:

- Is assistance defined as stationing/deploying nuclear weapons in one's territory?
- Is it to participate in planning of potential use of nuclear weapons?
- Is it to be covered by a 'nuclear umbrella'—e.g. through sharing the political commitment laid down in NATO's strategic concept?
- Should assistance constitute more qualified acts of deliberately assisting in using nuclear weapons against an enemy?

Provisions on interoperability would not have become part of the CCM if the rules on assistance as outlined in Article 16 of the ASR had been applied. The benefit of a wide-ranging assistance rule is that the normative impact of the treaty can be magnified considerably.

121 See T. Rislaa Arntsen, 'Article 21. Relations With States not party to this Convention' in Nystuen and Casey-Maslen (eds), 2010, *op.cit.*, pp. 541-85.

This issue is also relevant with regard to nuclear weapons and military alliances. If a prohibition on nuclear weapons were to contain a more wide-ranging rule on assistance than what follows from general international law,[122] this would pose challenges with regard to military cooperation and interoperability—both inside and outside military alliances.

INDUCEMENT OR ENCOURAGEMENT

In addition to assistance, inducement and encouragement are also prohibited in the BTWC, CWC, APMBC and CCM. These concepts are far-reaching in terms of treaty language, and are relatively rare in treaty terminology. The historical backdrop was the prohibition[124] against biological and chemical weapons—weapons that were almost universally condemned, notably after extensive chemical weapons use and damage during World War I. When the APMBC was negotiated, the same language was used even if the degree of stigma attached to anti-personnel mines was lower.

If a ban on nuclear weapons is to contain a prohibition on inducement or encouragement to all of the banned activities, it might be hard to delineate clearly when military cooperation would be covered, for example, in NATO or other nuclear umbrella alliances. The doctrinal reliance of the non-nuclear-weapon states in NATO on the potential use of nuclear weapons makes this quite different from parallels with cluster munitions or anti-personnel mines. From an ordinary understanding of the words, the thresholds for inducement and encouragement would likely be lower than that for assistance.

FINANCING

One discussion that has come up in the case of other prohibition regimes, including during the negotiations of the CCM, is whether the issue of financing, or investments in, development or production of the weapon in question should constitute assistance, encouragement or inducement to commit a prohibited act.

In the case of nuclear weapons, a number of civil society actors have argued that a prohibition should contain explicit language on financing.[125] There are, however, several reasons why states may want to avoid a specific reference to the term financing in a legally binding instrument aimed at prohibiting nuclear weapons.

There are several reasons why states may want to avoid a specific reference to the term financing in a legally binding instrument aimed at prohibiting nuclear weapons.

For one, it seems clear that the terms assistance, encouragement or inducement do not exclude the possibility of covering financing. Indeed, several states have adopted national legislation where they have prohibited investments or financing of cluster munitions, for example.[126] Others have long-standing practices excluding producers of various weapons (including nuclear weapons) from their governmental investment portfolios.[127]

122 Articles on State Responsibility (ASR), Article 16.

123 See also ILPI, 'Nuclear umbrellas and nuclear umbrella states': http://nwp.ilpi.org/?p=1221) and ILPI, 'Counting to zero: An overview of United Nations member states' positions on nuclear disarmament and the humanitarian impact of nuclear weapons', 8th edition, October 2015, p. 23: http://nwp.ilpi.org/wp-content/uploads/2015/10/SF_BASIC_INDICATORS-2015B_FULL.pdf.

124 See the 1925 Geneva Protocol.

125 Moyes, Acheson and Nash, 2014, *op. cit.*

126 For listing of countries and analysis of measures, see PAX, 'Worldwide Investments in Cluster Munitions—a shared responsibility', November 2014: http://www.stopexplosiveinvestments.org/report.

127 See, for instance, the Ethical Guidelines for the Norwegian Pension Fund, Section 2 (a): http://etikkradet.no/en/guidelines/. See also PAX, 'States banning investments in cluster munitions', September 2015: http://www.paxforpeace.nl/media/files/states-banning-investments-september-2015.pdf.

ii) Obligations

STOCKPILE DESTRUCTION

The plain meaning of a stockpile is 'a large accumulated stock of goods or materials'.[128] Thus, logically, a prohibition on possession of nuclear weapons would generally be tantamount to a ban on stockpiling these arms (see also the discussion of the term 'possession' above). If a world free of nuclear weapons is the desired end-state for a ban regime that is in principle open to membership by any state, the issue of dealing with existing stockpiles arises if and when states with nuclear weapons wish to join it. Transitioning from possession to non-possession of nuclear weapons for these states would necessitate some process of disarmament or stockpile destruction. This could occur in a number of ways.

Historically, approaches to the destruction of existing stockpiles of weapons have varied widely. On one end of the spectrum are the NWFZ: of these, only one of the five zones (Pelindaba Treaty) mentions stockpile destruction at all. In the other four, the assumption seems to have been that if a state within the zone were to possess nuclear weapons, these would have to be eliminated before joining the treaty.

> The question of whether or not to permit exception to stockpile destruction obligations is significant in considering the requirements for a prohibition.

Among the treaties that do deal with stockpile destruction, the BTWC and the CWC are quite different. The CWC contains very elaborate provisions for the verified destruction of chemical weapon stockpiles. In contrast, beyond stipulating that stockpiling is prohibited, there are no substantive procedures on how this is to be achieved in the BTWC. The same is the case for the Pelindaba Treaty.

Somewhere in between these points on the continuum are the APMBC and the CCM, each of which contains provisions setting out legally binding timelines for stockpile destruction, but which leaves many of the details to the states concerned.[129] For example, Article 4 of the APMBC provides that 'each State Party undertakes to destroy or ensure the destruction of all stockpiled anti-personnel mines it owns or possesses, or that are under its jurisdiction or control, as soon as possible but not later than four years after the entry into force of this Convention for that State Party.' The CCM allows and contains detailed provisions governing deadline extensions (Article 3).[130]

The respective stockpile destruction provisions of the APMBC and CCM provide for certain limited exceptions to the obligation for stockpiles to be destroyed.[131]

The question of whether or not to permit any exception to stockpile destruction obligations is a significant one in considering the requirements for a prohibition regime on nuclear weapons. Obviously, the retention of any nuclear weapon by a state party to such a regime would run counter to the objective of achieving a nuclear-weapon-free world (unless it was specifically sanctioned under international safeguards for some controlled activity relating, say, to disablement or verification techniques).

Nevertheless, fears about nuclear weapons 'breakout' have always posed a challenge for nuclear disarmament, especially the prospect of transition from possession of low numbers of nuclear

128 Definition by Oxford Dictionaries: http://www.oxforddictionaries.com/definition/english/stockpile?q=stockpiling#stockpile__6.

129 See S. Maslen, *Commentaries on Arms Control Treaties: The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction*, Oxford University Press, Oxford, 2004, and Nystuen and Casey-Maslen (eds.), 2010, *op.cit*.

130 Since the stockpile destruction deadline is eight years after entry into force of the CCM for each state party, it remains to be seen how many requests for extension there will be from August 2018.

131 Convention on Cluster Munitions, Article 3(6); Anti-Personnel Mine Ban Convention (Mine Ban Treaty) (Ottawa, 3 December 1997).

weapons to zero.[132] Unlike with anti-personnel mines or cluster munitions (or even chemical weapons for that matter), the existence of even one nuclear weapon could have major consequences for international security. An exception to stockpile destruction requirements might be considered justified, such as one or a few nuclear weapons placed under international control as insurance against nuclear breakout by a state or terrorist organization. Whatever the merits of such arguments, the point here is that exceptions to humanitarian-derived prohibitions on weapons are not unprecedented and, if a draft ban treaty were to include provisions on stockpile destruction, could arise therein.

Without entering into the technicalities of verification and the dismantlement of nuclear weapons and related infrastructure, what would the process of stockpile destruction conceivably look like? It has been suggested that if no nuclear-armed states were involved in the shaping of a ban regime, the need for specific and time-bound disarmament/stockpile destruction obligations would be minimal (because the non-nuclear-weapon states have no stockpiles to be dismantled). But this does not mean such an agreement should not provide guidance. In essence, there are two alternative approaches to dealing with stockpile destruction in a prohibition treaty: i) destruction before accession, or ii) accession before destruction is completed.[133]

(i) Stockpile destruction before accession

Requiring full compliance with all destruction/dismantling provisions before a state can become party to an international nuclear weapons agreement would follow an example set by South Africa when it acceded to the NPT in 1991 after having dismantled all of its nuclear warheads and its nuclear weapons programme. South Africa joined the NPT as a non-nuclear-weapon state subject to the same nuclear safeguard obligations as all other non-nuclear weapon states. The IAEA subsequently verified the South African government's claim that it had disarmed and abandoned its nuclear weapons programme.[134]

An advantage of the destruction-before-accession approach is that the particular challenges of stockpile destruction/disarmament do not become a direct problem for the prohibition regime. Therefore, it could simplify the process of negotiating and adopting such a regime in the first place. A potential disadvantage is that by excluding states that possess nuclear weapons but declare their firm intention to destroy their stockpiles of nuclear weapons, the regime may deny itself some political support, or the access of states parties to transparent information about how stockpile destruction is being achieved. This latter problem might be overcome by the involvement of the IAEA in monitoring the process (as occurred after the fact in South Africa's case), and could be aided by recent technical and procedural research relating to disarmament verification, notably the United Kingdom–Norway Initiative.[135]

An advantage of the destruction-before-accession approach is that the particular challenges of stockpile destruction do not become a direct problem for the prohibition regime.

The Model Nuclear Weapons Convention contains illustrative mechanisms for a phased, time-bound process of nuclear weapon elimination. Noting that approach, Article 36 and Reaching Critical Will argued that:

> [N]egotiations of the ban treaty would not necessarily need to pre-determine the exact mechanisms and procedures by which the nuclear-armed states would undertake the process of elimination. By leaving these arrangements open, the ban treaty would avoid any such provisions being held up as an excuse not to join by nuclear-armed states. This does not preclude nuclear-armed states from drawing upon the provisions of the model convention if they choose to do so.[136]

132 See M.E. O'Hanlon, 'A Skeptic's Case for Nuclear Disarmament', Washington D.C., Brookings Institution Press, 2010.

133 See T.G. Hugo, 'About a Ban: Dismantling the Idea of a Ban on Nuclear Weapons', ILPI Policy Paper, No. 3, 2013: http://nwp.ilpi.org/?p=2080.

134 See http://fas.org/nuke/guide/rsa/nuke.

135 See https://www.gov.uk/government/publications/uk-norway-initiative-on-nuclear-warhead-dismantlement-verification--2.

136 Moyes, Acheson and Nash, 2014, *op. cit.*

(ii) Accession before stockpile destruction

This option would require more detailed provisions to be negotiated than in the destruction-before-accession case. However, it could potentially lower the threshold for participation by the states possessing nuclear weapons. As is the case in other arms prohibitions,[137] the treaty could stipulate certain time limits for stockpile destruction after the treaty's entry into force. Nevertheless, one analysis concludes that 'this form of deferral or grace period would have to be time-bound and subject to approval on a case by case basis by the state parties [to a ban], and it would probably also necessitate the establishment of a system for verifying progress on stockpile destruction (verification of disarmament).'[138]

'Join-then-destroy' is the format that most closely resembles those of other weapons prohibition regimes discussed above. As noted, however, there are important differences in the way in which those provisions have been elaborated—indeed the model NWC envisages a 'disable (de-alert)-then join-then destroy' approach. In view of the perceived strategic importance and destructiveness of chemical weapons, states negotiated very detailed provisions on destruction in the CWC, including a lengthy annex on implementation and verification. Drafting the CWC took 'many years of intensive negotiations'.[139] Even with the precedent of previous bilateral nuclear arms control agreements and with guidance from drafts like the model convention, negotiating what would amount to a verification regime for nuclear weapons elimination in a ban regime might also be a lengthy affair. If the nuclear-armed states were not involved in negotiations on a ban, developing such provisions before they are needed might be unnecessary and could be better deferred until any of them wished to join a ban.

This leads to a question of whether it might be possible to achieve both—on the one hand ensuring that only nuclear-free states can be full parties to the treaty, while on the other hand securing the political gains that could come with the active participation by nuclear-armed states in the prohibition regime. This would require a setup in which signatory states, or even observer states, can take part in the conferences of states parties to the treaty. This was debated at some length during the process of the Arms Trade Treaty, where one point of disagreement concerned whether non-parties could have voting rights in certain matters. Proposals to this effect were not adopted, but signatory states were given certain rights at the conferences of states parties that other observer states were not given.[140]

'Join-then-destroy' is the format that most closely resembles those of other weapons prohibition regimes.

Another case that might have bearing on such discussions is the Treaty of Tlatelolco.[141] One of its particularities relates to the entry into force requirements under Article 29 of that treaty. Compared to similar treaties, the formal requirements for entry into force of the Tlatelolco Treaty are surprisingly high (all states in the region have to ratify and all states possessing nuclear weapons must ratify two separate protocols). Yet, the next subsection of the same article (29(b)) also allows ratifying states to waive parts or all of the preceding requirements, meaning that the treaty can enter into force for the states that want it to enter into force. Once 11 states had undertaken this procedure, a meeting of states parties and signatories was convened to set up the Agency, and the regime became fully operational in practice.

A similar approach can be found in the CTBT, whereby a majority of the states that have ratified the treaty can request the Depositary to convene a Conference of States that have deposited instruments of ratification. The purpose of this conference, which would be reconvened annually, is to examine whether the entry into force requirement has been met and to propose measures to

137 See for instance the Chemical Weapons Convention, the Anti-personnel Mine-Ban Convention, and the Convention on Cluster Munitions.

138 Hugo, 2013, *op. cit.*, p. 6.

139 United Nations General Assembly Resolution 47/39 (1992) of 16 December 1992 quoted in L. Woollomes Tabassi, *OPCW: The Legal Texts*, The Hague, T.M.C. Asser Press, 1999, p. 521.

140 See the Rules of Procedure for the ATT Conferences of States Parties: http://www.thearmstradetreaty.org/images/ATT_CSP1_CONF.1.pdf.

141 Hugo, 2013, *op. cit.*, p. 6.

facilitate early entry into force. The CTBT does not, however, become binding until 180 days after all of the 44 states listed in Annex II have ratified the treaty.

Combinations of these alternatives could increase inclusivity in a prohibition, which could have political advantages in the shorter-term for the consolidation of the regime. It could help to allay concerns by nuclear-armed states—and to at least some degree their allies—that they face attempts to isolate them. However, it is difficult to see how such alternatives would benefit the consolidation of the ban regime in the longer-run, especially if the intermediate step becomes overly comfortable and mutates into a state of permanence.

> Trying to negotiate detailed and elaborate arrangements for nuclear weapon stockpile destruction would be complicated.

Stockpile destruction issues in the APMBC and CCM negotiation processes were substantive, but never the most difficult or contentious ones that treaty makers faced. In contrast, questions of verifiable and complete stockpile destruction were to the fore in the negotiation of the CWC because states felt they could not afford to take chances with a weapon of mass destruction. Later efforts to negotiate a verification protocol to the BTWC failed in 2001. More contentious than the practical challenges of destroying any stockpiles of biological weapons found in violation of the BTWC if the protocol had been adopted was the divisive question of how detailed and intrusive treaty monitoring arrangements should be in the first place. This was due to state sensitivities about protecting national security secrets and commercial proprietary information.[142]

Taken together, these precedents suggest that trying to negotiate detailed and elaborate arrangements for nuclear weapon stockpile destruction and/or verification would be complicated—with or without the involvement of nuclear-armed states.

SAFEGUARDS, TRANSPARENCY AND REPORTING

Typically, disarmament-related agreements contain obligatory measures for transparency among their parties. Transparency means openness, or 'that which is not classified or withheld from public view, but which is freely available to all parties.'[143] Transparency, of which national reporting is a core component, can build trust and confidence among a regime's members. However, states vary widely in their attitudes to transparency—in their general level of openness, depending on the perceived sensitivity of the specific matter being dealt with, as well as how vital it is that the information provided under transparency measures is correct. Moreover, depending on the weapon being considered, national security concerns and the desire to protect commercial proprietary information can each have a major bearing on how stringent reporting requirements for states will be, as well as on the nature of any mechanisms for compliance and enforcement.

Although compliance is discussed later in this study, the intrinsic link between transparency reporting and compliance must be emphasized. In some arms control agreements, transparency is an essential component of detailed and, sometimes, intrusive verification regimes to ensure states parties are complying (such as in bilateral nuclear treaties between the United States and Russia, the CWC, the Conventional Forces in Europe (CFE) treaty, and nuclear safeguards agreements with the IAEA). In others, such as the APMBC and the CCM, states parties have pursued a different path, one based to a greater extent on the notion of 'cooperative compliance' in which national reporting requirements are linked to looser systems of fact-finding and determinations of compliance. The latter approach is not without controversy,[144] but has been effective, and it is a selling point of these prohibition regimes to

142 See J. Littlewood, *The Biological Weapons Convention: A Failed Revolution*, Ashgate, Aldershot, 2005.

143 UNIDIR and VERTIC, *Coming to terms with security: A handbook on verification and compliance*, Geneva and London, United Nations Institute for Disarmament Research/The Verification Research, Training and Information Centre, 2003, p. 5: http://www.unidir.org/files/publications/pdfs/coming-to-terms-with-security-a-handbook-on-verification-and-compliance-302.pdf.

144 See e.g. Maslen, 2004, *op. cit.*, p. 214.

TABLE 4

COMPLIANCE-RELATED PROVISIONS OF MAJOR MULTILATERAL DISARMAMENT AND ARMS CONTROL

TREATY	MAJOR PROHIBITION	DISPUTE SETTLEMENT
Geneva Protocol (1925)	Use of chemical and bacteriological weapons	None
Partial (Limited) Test Ban Treaty (1963)	Nuclear weapons testing in the atmosphere, outer space and underwater.	None
Outer Space Treaty (1967)	Nuclear weapons in outer space; Military use of celestial bodies.	Consultation
Non-Proliferation Treaty (1968)	Proliferation of nuclear weapons.	IAEA Statute provides for mandatory referral to ICJ and access to ICJ advisory opinions.
Seabed Treaty (1971)	Nuclear weapons on ocean floor.	Consultation
Biological and Toxin Weapons Convention (1972)	Production and stockpiling of bacteriological and toxin weapons.	Consultation
Environmental Modifications Treaty (1977)	Military or other hostile use of environmental modification techniques.	Consultation (e.g. formation of consultative committee of experts).
Moon Treaty (1979)	Any hostile act on, or using, the moon; Placing nuclear weapons on or in orbit around the moon.	Consultation; Peaceful means; Assistance from United Nations Secretary-General.
Celestial Bodies Agreement (1984)	Moon and other celestial bodies to be used only for peaceful purposes.	Consultation; Peaceful means; Assistance from United Nations Secretary-General.
Chemical Weapons Convention (1993)	Development, production, stockpiling, use and transfer of chemical weapons.	Clarification and consultation; ICJ referral; ICJ advisory opinions.
Comprehensive Nuclear-Test-Ban Treaty (1996)	Nuclear tests and other nuclear explosions in all environments.	Consultation and cooperation; Referral to ICJ.
Anti-personnel Mine Ban Convention (1997)	Bans use, stockpiling, production and transfer of AP mines.	Consult and cooperate; United Nations Secretary-General may exercise good offices; Fact-finding.
Convention on Cluster Munitions (2008)	Bans use, development, production, acquisition, stockpiling, retention and transfer of cluster munitions.	Consult and cooperate; Referral to ICJ; Meetings of States Parties.
Arms Trade Treaty (2013)	Regulates the international trade in conventional arms	Consult and cooperate 'including through negotiations, mediation, conciliation, judicial settlement or other peaceful means' (Article 19); Arbitration (by mutual consent)

TREATIES

	INTERNATIONAL ENFORCEMENT	NOTABLE COMPLIANCE FEATURES
	None	None
	None	None
	None	None
	Request by IAEA to remedy non-compliance; Curtailment or suspension of assistance; Return of materials and equipment; Suspension of privileges and rights of membership; Report on non-compliance to Security Council and General Assembly.	Safeguards regime administered by IAEA; Assistance/exchanges in peaceful uses of nuclear energy.
	Referral to Security Council.	None
	Referral to Security Council.	Security Council may carry out investigations.
	Referral to Security Council.	Consultative committee of experts formed on request; Exchange of information.
	None	None
	States parties to ensure that national activities are carried out in accordance with treaty.	Reporting of activities to United Nations Secretary-General.
	Request measures to redress non-compliance; Referral to Security Council; Recommend collective measures.	Mandatory penal legislation; Compliance promoted by Organisation for the Prohibition of Chemical Weapons.
	Request to State Party to take measures to redress; Conference of State Parties to take the necessary measures to ensure compliance; Suspend rights and privileges; Referral to United Nations.	Comprehensive Test Ban Treaty Organisation (CTBTO) to ensure implementation of treaty provisions.
	Special Meeting of States Parties may request party to take measures.	Fullest possible exchange of information.
	Requests for clarifications submitted through United Nations Secretary-General; Other general procedures or specific mechanisms for clarification of compliance' may also be adopted (Article 8).	Fullest possible exchange of information.
	None	The ATT's Conferences of States Parties shall review the implementation and operation of the Treaty (Article 17).

states, particularly in the global south, concerned about a heavy compliance burden on them.[145]

This means that transparency and reporting provisions would be influenced by the philosophy that prevails on compliance in the development and negotiation of any ban regime on nuclear weapons. How this would be settled would shape the list of reporting requirements.

> An Additional Protocol agreement with the IAEA (or equivalent) could be a pre-requisite for joining a prohibition on nuclear weapons as part of the requirements for ensuring confidence in compliance.

While states to date have been less specific, several NGOs have called for the development of a prohibition regime that would, in effect, structurally resemble the APMBC and CCM.[146] This implies their preference for a cooperative compliance approach intended to be as minimally intrusive as possible for non-nuclear-weapon states. Even a cooperative compliance approach, however, depends on national reporting that is obligatory in nature. Relatively high rates of national reporting by states parties to the APMBC and CCM are historically due in part to the encouragement of civil society, and their efforts to independently monitor the state of compliance in these regimes through projects such as the Landmine Monitor and the Cluster Munition Monitor. Yet in the nuclear sphere, the kinds of information of relevance for reporting (see below) could be rather different from the APMBC and CCM. For instance, if a ban regime did not permit nuclear-armed states to join until they had destroyed their stockpiles there might be little value in a reporting obligation on stockpile destruction. No clearance reporting obligations would be required either. And victim assistance reporting obligations, if any, might also differ in a nuclear weapons ban regime. (Victim assistance is discussed later in this chapter.)

Another point is that even states which, traditionally, have been open about their activities are often cautious about the degree to which they are prepared to openly share information about peaceful nuclear activities that, say, fall under IAEA Comprehensive Safeguards Agreements and Additional Protocols negotiated with the Agency.

In view of the destructiveness of nuclear weapons, one might be sceptical of a related agreement that lacks intrusive verification measures to ensure confidence in compliance. However, if it is presumed that the prime 'target market' for a nuclear weapons ban regime is the NPT non-nuclear-weapon states, then the picture might alter somewhat. 182 states already have nuclear safeguards agreements of some kind with the IAEA. A total of 174 of them have Comprehensive Safeguard Agreements, while an additional five states (including nuclear-armed states) have voluntary offer agreements, and three have item-specific safeguards agreements. A great deal of information is collected through national declarations and reports, inspections and other means, and processed and used by the IAEA to make determinations about whether states are complying with their nuclear non-proliferation obligations. In addition to this, 126 Additional Protocols are in force (with 125 states and Euratom), while another 21 states have signed these agreements but have yet to bring them into force.[147]

Indeed, concluding an Additional Protocol agreement with the IAEA (or a substantive equivalent) could conceivably be a pre-requisite for joining a prohibition on nuclear weapons as part of the requirements for ensuring confidence in compliance.[148] While this would necessarily bear on the issue of stockpile destruction discussed earlier, it

145 See S.D. Goose, 'Goodwill yields good results: Cooperative compliance and the Mine Ban Treaty' in J. Williams, S. D. Goose and M. Wareham (eds.), *Banning Landmines: Disarmament, Citizen Diplomacy and Human Security*, Lanham, Rowman & Littlefield, 2008, pp. 105-126, p. 110.

146 Moyes, Acheson and Nash, 2014, *op. cit.*, pp. 10-13.

147 All figures from 'IAEA Safeguards: Serving Nuclear Non-Proliferation', Vienna, International Atomic Energy Agency, 2015: https://www.iaea.org/sites/default/files/safeguards_web_june_2015.pdf.

148 See e.g. Article 8 (b) of the Central Asian Nuclear-Weapon-Free Zone (CANWFZ) requiring states parties to conclude an agreement with the IAEA for the application of safeguards in accordance

BOX G

ONE VIEW OF COMPLIANCE UNDER A NUCLEAR WEAPONS BAN TREATY

Article 36 and Reaching Critical Will have offered one view of how compliance could be dealt with under a nuclear weapons ban treaty regime:

- 'Verification of some of the treaty's provisions could, at least initially, be based on existing IAEA safeguards and the CTBTO. These mechanisms could deal with material accountancy and detection of nuclear tests.
- 'However, existing safeguards, even with the additional protocol for enhanced IAEA safeguards, might still provide an insufficient degree of assurance against the possibility that a state could break out of the regime and acquire a militarily significant nuclear capability without detection. Furthermore, some of the provisions outlined above could require new verification measures in order to ensure the effective maintenance of a nuclear weapon free world and to achieve nuclear disarmament. This would, among others, include measures to verify elimination of nuclear weapons.
- 'Some disarmament activities, such as the irreversible removal of fissile material, can be based on or readily adapted to existing arrangements and implemented through existing organizations. Others, like the withdrawal and dismantlement of warheads and delivery vehicles, will require new arrangements and international institutions. Important work has been undertaken by organizations such as VERTIC in cooperation with Norway and the United Kingdom to consider how verification of nuclear disarmament might work. The International Panel on Fissile Materials has also considered the technical aspects of nuclear disarmament. This work could be drawn upon during the implementation of a ban treaty. In addition, there are the ongoing activities of the 'Verification Pilot Project' (VPP) involving the United States Departments of Defense, Energy and State, and the governments of Norway, Sweden and the United Kingdom, with an additional number of states active in support of the VPP.
- 'Mechanisms for the verification or enforcement of the ban treaty's provisions could be negotiated along with the basic treaty framework or subsequently, in future meetings of states parties. One option, following the model of the Chemical Weapons Convention, could be for the ban regime to establish a preparatory commission, which could be used to resolve outstanding issues and establish implementation and verification mechanisms.'[149]

would also give specific, practical effect to claims that a nuclear weapons prohibition treaty that is global in intent strengthens the NPT as well as the overall international safeguards regime.

Several possible issues regarding reporting and transparency could arise depending on the eventual relationship between a prohibition regime and the IAEA. Many states, as mentioned earlier, may be reluctant to share detailed information about their allegedly peaceful nuclear activities openly under a prohibition regime, and the Agency (to which most already report) is bound by strict confidentiality rules to protect the data it receives from states as part of their safeguards reporting obligations and its other related activities. However, national reporting under a ban could be a pared-down version in which steps would be taken to protect sensitive information of the data already provided under safeguards.

A second issue is more overtly a political and transitional one. It is not assured that a nuclear weapons ban regime that is global in aspiration could count on unanimous support from the IAEA's Board of Governors, at least initially. In this environment the NPT nuclear-weapon-states are pre-eminent, and they may be unsympathetic to the aims of a ban regime or in contributing to its success. This could have implications for the degree and nature of cooperation between a ban regime and the Agency.

As pertinent as technical data about the nuclear fuel cycle is to IAEA safeguards, there are many matters on which states are not obliged to report to the IAEA, but which a prohibition regime could usefully gather from its membership. For example:

- Information could be gathered on how individual states parties relate to nuclear weapons in terms of their policies, doctrines and practices, for instance those of non-nuclear-weapon states allied with nuclear-armed states.

with the NPT (INFCIRC/153 (Corr.)), and an Additional Protocol (INFCIRC/540 (Corr.))'.

149 Moyes, Acheson and Nash, 2014, *op. cit.*, pp. 13-14.

- Drawing on earlier precedents, there could be a reporting requirement for foreign stockpiles of a state party.[150]

- Reporting could also, in effect, be beneficial in consolidating dialogue between members of different NWFZ arrangements, and with other states not members of national or regional NWFZs.

- Conceivably, reporting obligations in a ban agreement could help reinforce currently optional transparency aspects of the NPT.

In sum, regular reporting by adherents to a prohibition could be an important confidence-building measure and give focus to the regime, especially in its early years in which universalizing the prohibition is likely to be a major objective.

OTHER COMPLIANCE MECHANISMS

'Compliance' in the context of disarmament and arms control agreements may include issues raised by transparency reporting (or lack thereof). It may also include issues raised by verification activities—where they exist—through specific mechanisms set out in those agreements.

It has been argued that ideally a compliance mechanism 'should enable the parties to successfully address all types of compliance issues and be able to take action or recommend the taking of action to deal with them'.[151] This includes:

- Distinguishing between well-founded allegations of non-compliance, and those which are not (for instance, made for political or other purposes).

- Determining that non-compliance has occurred.

- Differentiating between minor and substantial non-compliance.

- Determining which instances of non-compliance are unintentional and which are deliberate.

The list of possible compliance mechanisms that could be included in a ban treaty in order to improve adherence and confidence in the regime is limited only by the imagination of the negotiators and the political flexibility within which they operate. Table 4 outlines the dispute settlement, enforcement and notable compliance provisions of some major treaties related to disarmament and arms control.[152] As the table illustrates, these associated mechanisms vary widely. They range from quite stringent requirements that include mandatory inspections and possible international sanctions on non-complying states, to nothing but presumably the stigma of being in non-compliance.

> Regular reporting by adherents to a prohibition could be an important confidence-building measure.

As noted earlier in the section on transparency, the prevailing philosophy on transparency and compliance in a given regime—including the level of assurance needed that states are in compliance—will shape the kind of information to be provided; i.e., how cases of suspected or alleged non-compliance with the prohibitions will be investigated. To date, there appears to have been little detailed exposition of what compliance mechanisms under a nuclear weapons ban could look like. Certain NGOs promoting a nuclear weapons ban treaty have, however, briefly discussed verification, which is relevant to the overall topic of compliance (see Box G). This offers some clues as to the general nature of the compliance regime they envisage for a prohibition on nuclear weapons.

Some questions of compliance under a nuclear weapons ban regime might be covered by existing legal arrangements. That is to say, a suspected or alleged violation of a prohibition on nuclear weapons such as possession or an attempt to acquire nuclear weapons would also probably violate the NPT, a state's bilateral safeguards arrangements, and any NWFZ agreement to which a state was party.[153]

150 B. Docherty, 'Article 7. Transparency Measures' in Nystuen and Casey-Maslen (eds.), 2010, *op. cit.*, pp. 420-453.

151 UNIDIR and VERTIC, 2003, *op. cit.*, p. 33.

152 Table 4 is based in part on UNIDIR and VERTIC, 2003, *op. cit.*, pp. 37-39.

153 See Hugo, 2013, *op. cit.*, pp. 6-7.

Regional nuclear-weapon-free zone treaties give indications that in principle this complementarity between regimes could be given practical effect.[154] The Treaties of Tlatelolco (Latin America and the Caribbean) and Pelindaba (Africa) both contain obligations for regular state reporting to the relevant treaty monitoring body, in parallel to national reports to the IAEA in the case of the Tlatelolco treaty.

Although NWFZs vary in their procedures for dealing with allegations of non-compliance and other complaints, the Tlatelolco treaty is notable in providing for states parties to invite the IAEA to carry out inspections in the states parties where there is an alleged treaty breach. OPANAL, the Tlatelolco treaty's monitoring body, is mandated—upon authorization by the Council—to raise the matter with the state party concerned, and the General Conference may report violation concerns to the United Nations Security Council, the General Assembly, as well as the Organization of American States. Under the Bangkok Treaty, the treaty monitoring body for SEANWFZ is a Commission that 'shall consider the emergent situation and shall decide on any measure it deems appropriate to cope with the situation, including the submission of the matter to the IAEA and, where the situation might endanger international peace and security, the Security Council and the General Assembly of the United Nations in addition to taking its own measures.[155]

Existing arrangements like these in the NWFZs underline the desirability of harmonization between any nuclear weapons prohibition and other relevant legal regimes. To what extent this is possible is likely to be as much a political question as a legal one. It is true both for those states joining, and for those not joining, but that are in positions to influence the posture of other regimes toward or against cooperation with a nuclear weapons ban treaty's implementation.

There would be some questions of compliance under a prohibition or ban treaty that would not be fully covered under the arrangements of other regimes. This suggests that a mechanism for clarification and facilitation of compliance would be required for those cases, the question being what would be appropriate. One of the stickier examples would be how to handle suspected or alleged non-compliance with any prohibitions of a ban regime on assistance in the commission of prohibited acts.

Set against the backdrop of other weapons treaties, formal allegations of non-compliance are usually rare, and are considered to be quite grave developments. In practice, states often prefer to seek clarification on compliance matters in ways that stop short of invoking special compliance mechanisms. Indeed, in regimes such as the APMBC and CCM that have opted for 'cooperative compliance' approaches during their negotiation and implementation, states parties are generally assumed to be in compliance unless there is reason to believe otherwise.

Instead of mandatory inspections on the territory of a state party suspected or alleged to have violated the agreement as some treaties like the CWC have, there are provisions under the APMBC for fact-finding visits to clarify any violations and support facilitation of compliance. These ultimately rely on the consent of the receiving state party. In the subsequent development of the CCM, the list of items on which states parties are obliged to report was extended as compared with Article 7 of the APMBC on which it was based. However, the succeeding Article 8 provisions on facilitation and clarification of compliance were made much shorter in the CCM. One expert, relating this back to the APMBC's Article 8 compliance procedures, suggested that this essentially streamlines an unused mechanism—the APMBC's compliance mechanism for formal facilitation and clarification has never been invoked.[156]

While the consequences of non-compliance with the APMBC and CCM might be civilian harm and

154 Article 36, 'Nuclear weapon free zones and banning nuclear weapons', London, 2014: http://www.article36.org/wp-content/uploads/2014/05/A36_NWFZ_2014.pdf.

155 Article 14 in the Treaty of Bangkok.

156 A Committee on Cooperative Compliance was established by the Third Review Conference of the APMBC in 2014, with a mandate to informally consider whether concerns about compliance are credible, clarify the situation with states parties concerned and, if relevant, make suggestions for steps to be taken by the concerned states parties. For further information, see: http://www.maputoreviewconference.org/fileadmin/APMBC-RC3/3RC-Decisions-Machinery-27Jun2014.pdf. See also B. Docherty, 'Article 8. Facilitation and clarification of compliance' in Nystuen and Casey-Maslen (eds.), 2010, *op.cit.*, pp. 454-472.

damage to the normative regime in question, they are not likely to be matters in which national survival is at stake. In contrast, nuclear weapons have a particular destructive power and status in world politics. For these reasons, it cannot be assumed that states involved in a process toward a prohibition on nuclear weapons would initially coalesce around the comparatively relaxed kinds of compliance mechanisms seen in some other weapons prohibition treaties, even if the IAEA or equivalent nuclear safeguards bolster them. As tense international negotiations over limiting Iran's nuclear programme have underlined, many states take issues of suspected non-compliance with existing international obligations very seriously when nuclear weapons are concerned.

In sum, the shape of the compliance regime is likely to be a serious concern for many states in the emergence of any initiative toward an international nuclear weapons ban. On one side are a large majority of the world's states that have legally foresworn nuclear weapons, and which already accept a significant legal burden of reporting, safeguards activities and inspections to ensure their compliance with the NPT and NWFZ arrangements. On the other are nuclear-armed states concerned that a treaty prohibition they probably will not be party to (at least not initially) will impede the effectiveness of the existing nuclear non-proliferation regime.

The shape of the compliance regime is likely to be a serious concern for many states in the emergence of any initiative toward an international nuclear weapons ban.

There will also be nuclear umbrella states concerned that they could be subject to allegations of non-compliance under an international prohibition for their membership and activities in military alliances with nuclear-weapon states.[157] A compliance mechanism, supported by transparency, verification and cooperation with other relevant regimes as appropriate, must assure states of a prohibition's credibility. Above all, it must not create a false sense of security: this could be an additional temptation for states party to the regime to violate a ban on nuclear weapons based on the calculation that they could defy serious consequences if caught.

COOPERATION AND ASSISTANCE

Emergency assistance

During the conferences on the humanitarian impact of nuclear weapons, both states and international organizations presented compelling evidence that any emergency response measures to a nuclear weapon detonation would be highly inadequate in responding to humanitarian needs, in particular if the explosion occurs in a populated area.[158] Still, the fact remains that if a nuclear weapon detonation were to occur, the international community would be expected to respond to requests for assistance from the affected state(s). Studies conducted by both the United Nations and the ICRC documented the tremendous challenges in providing international assistance after a nuclear weapon detonation. These studies have also underlined that steps can and should be taken to better prepare for such an event even if these would inevitably be inadequate.[159] While mechanisms are in place to respond to civil nuclear accidents or radiological emergencies through the IAEA and the Inter-Agency Committee on Radiological and Nuclear Emergencies, no coherent framework is in place to coordinate an international response in the event of a nuclear weapon explosion.[160] A prohibi-

157 See Güven and van der Meer, 2015, *op. cit.*, p. 13.

158 ILPI, 'Evidence of catastrophe', 2015, pp. 4-8: http://nwp.ilpi.org/?p=3388. See also Austrian Federal Ministry for Europe, Integration and Foreign Affairs, 'Vienna Conference on the Humanitarian Impact of Nuclear Weapons, 8-9 December 2014 (report)', Vienna, 2015: http://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/ViennaConference_BMEIA_Web_final.pdf.

159 J. Borrie and T. Caughley, *An Illusion of Safety: Challenges of Nuclear Weapon Detonations for United Nations Humanitarian Coordination and Response*, UNIDIR, New York and Geneva; D. Loye and R. Coupland, 'International Assistance for Victims of Use of Nuclear, Radiological, Biological and Chemical Weapons: Time for a Reality Check' in *International Review of the Red Cross*, Vol.91, No. 874, June 2009, ICRC, Geneva.

160 The WHO International Health Regulations appear to cover disease generated by a nuclear

tion regime could provide a vehicle for improving international coordination and cooperation in this regard.

A parallel can be found in Article X in the CWC, under which states parties have the right to seek or receive assistance and protection in cases of use or the threat of use of chemical weapons (Article X (8)). This may include the provision of assistance, such as detection, protection and decontamination equipment, as well as medical antidotes and treatment. Article X also calls for the exchange of equipment, material and information concerning means of protection, and it establishes a databank with information about such means, as well as a voluntary fund for assistance to be managed by the OPCW.

However, the consequences resulting from a nuclear weapon detonation would present qualitatively different and more complex challenges than those caused by chemical weapons. There is also limited experience on which to base emergency response measures. This could make it a difficult task to develop and agree on appropriate provisions related to emergency assistance and protection. Rather than including specific provisions for assistance in the agreement itself, it might alternatively establish a forum or mechanism through which such measures could be further developed as part of the implementation process.

Longer-term remediation measures

Beyond assistance measures in the context of emergency response, some proponents of a ban have argued that a treaty should also include positive obligations to address the long-term contamination resulting from a nuclear weapon detonation.[161] This would be comparable to provisions in the APMBC and the CCM that require states parties with contaminated areas under their jurisdiction or control to clear and destroy anti-personnel mines or cluster munition remnants in order to protect civilians and make areas safe for future civilian use. Both treaties establish a 10-year deadline to clear contaminated areas (though they allow for possible extensions), and also require that measures be taken to protect civilians until clearance has been completed, such as marking and fencing contaminated areas and providing risk education.

Rather than including specific provisions for assistance in the agreement itself, a prohibition might alternatively establish a forum or mechanism through which such measures could be further developed as part of the implementation process.

Certainly, remediation measures may be needed in areas contaminated by radioactive fallout. Still, the scope of contamination, the size of the areas affected and the long-lasting nature of radiological contamination will affect the types of measures that are considered feasible and appropriate in a given context. This could make it difficult to establish specific and time-bound legal obligations in this regard. Another option would be to include a provision calling in more general terms for the rehabilitation of affected areas and encouraging states to assist.

The provision on 'environmental security' (Article 6) in the Central Asian Nuclear-Weapon-Free Zone treaty provides an example in this regard. In that article, parties undertake to 'assist any efforts toward the environmental rehabilitation of territories contaminated as a result of past activities related to the development, production or storage of nuclear weapons or other nuclear explosive devices, in particular uranium tailings storage sites and nuclear test sites'. This also brings in concerns about contamination associated with the development, testing and production of nuclear weapons. States with

detonation, but it is not clear how this instrument would come in to play if such an event should happen. See e.g. statement by S. Solomon, Acting Legal Counsel, World Health Organization, Vienna, Conference on the Humanitarian Impact of Nuclear Weapons, 9 December 2014: http://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/Presentations/HINW14_S4_Presentation_Steven_Solomon.pdf.

161 Moyes, Acheson and Nash, 2014, *op. cit.*; Article 36, ´"Victim Assistance" in a Treaty Banning Nuclear Weapons', Briefing Paper, 2015: http://www.article36.org/wp-content/uploads/2015/01/victims-nuclear-weapons.pdf.

areas contaminated due to any of these activities may propose to include a similar provision in an agreement prohibiting nuclear weapons. Yet such a proposal could meet with resistance. Other non-nuclear weapon states may be reluctant to assist if nuclear-armed states remain outside the treaty and thus are not contributing. And if nuclear-armed states were to participate in the negotiations, they may insist on restricting the scope of any such provisions so that they exclude measures to address existing contamination, as is the case for example in the CCW Protocol V on Explosive Remnants of War (ERW).

Nuclear-armed states would likely be concerned by any obligations that relate to addressing the consequences of previous production, testing or use in a ban treaty. This might serve as an argument for them against joining the agreement at a later stage, even if such provisions apply to all states parties and are not linked to a responsibility for the harm caused. Whether or not to include such provisions would therefore merit careful consideration in the context of attracting future adherence to a prohibition regime by nuclear-armed states.

Nuclear-armed states would likely be concerned by any obligations that relate to addressing the consequences of previous production, testing or use in a ban treaty.

Victim assistance

The most recently concluded treaties prohibiting specific weapons, namely the APMBC and the CCM, both contain provisions for victim assistance, as does the CCW's Protocol V on ERW. Based on the standards developed in these instruments, it has been argued that a treaty banning nuclear weapons ought to include legal obligations to ensure the rights of nuclear weapons victims.[162]

If such provisions were to be included in a prohibition, it would be the first time in a treaty on weapons of mass destruction. Neither the NPT nor regional treaties on nuclear weapons have so far contained provisions for assisting victims of nuclear weapons, whether they are victims of deliberate use, testing or accidental detonation. The BTWC includes no reference to victims of bacteriological or toxin weapons. Article X of the CWC on assistance and protection in the event of chemical weapons use or the threat of such use does include a provision for emergency measures to protect victims in cases where immediate action is indispensable. However, this CWC provision is limited to emergency assistance and directed at the OPCW's Director-General, not states parties.

The main normative developments related to victims and victim assistance emerged over the last two decades in relation to conventional weapons. This reflects the fact that humanitarian concerns and notions of human security have come to play a central role in disarmament initiatives during this period and that some of the main arguments for prohibiting both anti-personnel mines and cluster munitions were the high number of civilian victims in affected countries and their (often lifelong) need for assistance. It was also important that survivors of these weapons participated in negotiations together with other civil society actors, advocating for the inclusion of provisions to ensure victims' rights to adequate support. Moreover, the adoption of the Convention on the Rights of Persons with Disabilities (CRPD) in 2006 strongly influenced the negotiation of the victim assistance provisions in the CCM. This is reflected in the explicit references to the rights of cluster munition victims and the CRPD in the CCM´s preamble, as well as in Article 5, which requires that victim assistance be provided 'in accordance with applicable international humanitarian and human rights law'. The CCM thus placed victim assistance in a weapons ban treaty for the first time within a broader human rights-based framework.[163]

The survivor discourse was not at the forefront in earlier negotiation processes on nuclear weapons and other weapons of mass destruction, although human impacts were directly or indirectly acknowledged, for example, in the NPT and the

162 *Ibid*.

163 K.R. Rutherford, 'Victim-assistance History in International Humanitarian Law: From Somalia to Geneva to Lao PDR', *Journal of ERW and Mine Action*, 15:1, 2011, pp. 42-45; M.A. Reiterer, 'Assisting Cluster Munition Victims: A New International Standard', *Journal of ERW and Mine Action*, 15:1, 2011, pp. 46-49.

PTBT. However, given that victim assistance has become an established feature of more recent weapons ban treaties, some states and NGOs would almost certainly bring it into the discussions in any future process to negotiate a nuclear weapons prohibition.

This is already indicated by the language on victims included in the humanitarian pledge on nuclear weapons mentioned earlier. The Pledge underlines the harm that victims of nuclear explosions and testing have experienced and recognizes that the 'rights and needs of victims have not yet been adequately addressed'.[164] An agreement prohibiting nuclear weapons would be an obvious place to start to address this gap.

Given the growing attention to victim assistance in other weapons-related treaties, it seems likely that, as a minimum, any instrument prohibiting nuclear weapons would include an acknowledgement of the needs and rights of victims of nuclear weapons. It could also affirm that states have a responsibility to ensure that these rights are fulfilled. Including language to this effect in the preamble to a treaty is unlikely to be controversial. In both the APMBC and the CCM, language on victims is included in the preamble in addition to the operative provisions. Preambular language acknowledging the challenges of victims and their need for assistance is also found in the 2013 Arms Trade Treaty since there was insufficient support to include assistance to victims as an actual obligation in that treaty.

Whether or not a prohibition regime should include a positive obligation to provide victims with assistance could be far more contentious. Many states and NGOs will consider the CCM, which contains the most comprehensive victim assistance provisions to date, a model for a nuclear weapons prohibition. The CCM requires each state party to provide victims in areas under its jurisdiction or control with adequate assistance, complemented by an obligation on all states parties in a position to do so to provide assistance for this purpose. Non-nuclear weapon states might, however, resist including such a requirement in the context of a nuclear weapons prohibition especially if the nuclear-armed states themselves do not also take part or assume responsibility for assisting and alleviating the potentially enormous burden on affected states. If the nuclear-armed states are not participating in the negotiation of a prohibition it is hard to see how this would occur, unless the nuclear-armed states make their own commitment in parallel, which seems unlikely.

Given the growing attention to victim assistance in other weapons-related treaties, it seems likely that, as a minimum, any instrument prohibiting nuclear weapons would include an acknowledgement of the needs and rights of victims of nuclear weapons.

To make the case for inclusion of victim assistance, its proponents would argue that it is now accepted that the victim assistance obligation in the CCM is premised on states' general obligations towards their own citizens and on the needs and rights of victims, rather than as compensation based on responsibility for the harm caused.[165] Whether or not agreement could be reached on including victim assistance in a nuclear weapons prohibition regime, this would in any case not preclude victims from pursuing access to legal remedies, including reparation, under other relevant regimes, such as human rights frameworks.[166]

If an obligation to assist victims were to be included in a prohibition on nuclear weapons, several additional questions would need to be addressed. Importantly, it would need to establish who would be entitled to assistance by defining 'nuclear weapon victim'. And the range of assistance to be provided would also need to be spelled out. The particularly extensive effects of nuclear weapons in both time and space would be

164 The humanitarian pledge: http://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/HINW14vienna_Pledge_Document.pdf.

165 Article 36, 2015, *op. cit.*, p. 2.

166 See S. Casey-Maslen, 'The right to a remedy and reparation for the use of nuclear weapons' in Nystuen, Casey-Maslen and Bersagel (eds.), 2014, *op. cit.*, pp. 461-481.

a complicating factor when determining who is to be included in the definition of victim and in defining the scope of assistance to be provided.

Even if such questions could be resolved, a more fundamental question remains with regard to the relevance of victim assistance in the context of a nuclear weapons prohibition. A key difference between it and the other weapons prohibitions that contain victim assistance obligations would relate to the normative purpose of the treaties. The prohibitions on anti-personnel mines and cluster munitions had both a remedial and preventative purpose. In other words, they were intended to address an existing humanitarian and developmental problem affecting lives and livelihoods in a range of countries worldwide, as well as to prevent the problem from continuing to grow—by outlawing and eliminating the weapons.

The key question that states would need to grapple with is whether or not victim assistance should be included at all.

A nuclear weapons prohibition, with or without the nuclear-armed states, would first and foremost be intended to serve a preventive purpose. This might reduce the incentives for and perceived relevance of including positive obligations to deal with the humanitarian consequences of nuclear weapons in a prohibition treaty. This is because the aim would be to prevent or at least reduce the risk of such consequences occurring in the first place. An additional argument against the inclusion of such provisions would be the far-reaching and catastrophic consequences that might result from any use of nuclear weapons, which would not only make the scope of such obligations difficult to predict, but also extremely difficult or even impossible to implement.

A related argument that has been raised, including in parts of civil society, against the inclusion of victim assistance obligations in a prohibition treaty is that it may complicate negotiations and delay agreement unnecessarily. From this perspective, the focus should be on achieving a clear and concise ban on nuclear weapons, avoiding other issues that might distract from this goal. It has been suggested that such additional obligations may instead be addressed at a later stage or through the agreement's implementation process.

In short, although there are complexities surrounding the scope of a potential victim assistance obligation in a nuclear weapons prohibition, such as how to define the victims, the key question that states would need to grapple with is whether or not it should be included at all.

NATIONAL IMPLEMENTATION MEASURES

Inclusion in a prohibition agreement of a provision on national implementation would be consistent with treaties of this kind (for example, the CWC (Article VII)). Its purpose is to require states parties to implement national legal, administrative and regulatory measures to prevent and suppress any activity prohibited to a state under the agreement. Such measures are principally intended to prevent non-

BOX H

THE WITHDRAWAL PROVISIONS OF THE CHEMICAL WEAPONS CONVENTION (CWC)

Article XVI:

'2. Each State Party shall, in exercising its national sovereignty, have the right to withdraw from this Convention if it decides that extraordinary events, related to the subject matter of this Convention, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal 90 days in advance to all other States Parties, the Executive Council, the Depositary and the United Nations Security Council. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

3. The withdrawal of a State Party from this Convention shall not in any way affect the duty of States to continue fulfilling the obligations assumed under any relevant rules of international law, particularly the Geneva Protocol of 1925.'

state actors from committing acts that would be inconsistent with the prohibitions under the agreement. Another important function of the national implementation requirement would be to ensure that all states parties contribute as much as possible to the aggregated normative effect of the regime.

Examples of this could include integration of the obligations under the treaty in national laws, including the penal code of the states parties. It could moreover take the form of restrictions on investments in nuclear weapons or even trade in sensitive materials with non-parties (as is the case in the CWC). Currently, neither the NPT nor any of the NWFZ treaties include explicit national implementation requirements, something that arguably forms part of the legal gap identified during the conferences on the humanitarian impact of nuclear weapons.

Both the CWC and the CTBT contain specific articles on national implementation, requiring states parties to ensure that the prohibitions and obligations under the treaty also apply to all natural persons under its jurisdiction. The two treaties further require states parties to cooperate and support each other in the process of implementing the treaty obligations on a national level. The CTBT even requires states parties to set up a National Authority to serve as a focal point for the secretariat/agency overseeing the implementation of the treaty.

An important function of the national implementation requirement would be to ensure that all states parties contribute as much as possible to the aggregated normative effect of the regime.

With a view to filling the legal gap on nuclear weapons, similar provisions could be considered for a nuclear weapons prohibition treaty.

Both the CWC and the CTBT contain specific articles on national implementation, requiring states parties to ensure that the prohibitions and obligations under the treaty also apply to all natural persons under its jurisdiction.

With regard to nuclear weapons, similar obligations exist as part of the 2005 Nuclear Terrorism Convention (NTC)[167] as well as the United Nations Security Council Resolution 1540 (2004).[168] Among other things, the NTC requires states parties to criminalize the possession of nuclear material that can be used for weapons, while the 1540 resolution, which is more focused on non-proliferation, requires all states to put in place effective measures to prevent illegal transport of nuclear material. While these regimes clearly contribute to strengthening the legal framework prohibiting nuclear weapons on a national level, they do not cover the full spectrum of the prohibitions found under most disarmament treaties. For example, there is no requirement under the NTC or the 1540 resolution to refrain from inducement to develop nuclear weapons.

167 International Convention for the Suppression of Acts of Nuclear Terrorism (Nuclear Terrorism Convention, ICSANT) (New York, 14 September 2005).

168 United Nations Security Council Resolution 1540 (2004).

iii) Miscellaneous elements

RESERVATIONS

The inclusion in a nuclear weapons ban treaty of an article allowing states to attach reservations to their obligations warrants careful reflection. If reservations were permitted, a state party intending to join would be able to unilaterally modify the application of a particular obligation to it, so long as the reservation did not defeat the object and purposes of the treaty.

> Both the CTBT and the CWC specify that reservations are not possible

Best practice in negotiating a treaty having such high significance as a ban on nuclear weapons would be to entertain the inclusion of a reservation only if its use would assist a state to become party in circumstances when its domestic legal system would otherwise preclude it based on some legal technicality. Both the CTBT and the CWC specify that reservations are not possible[169] (although the CWC provides that its annexes 'shall not be subject to reservations incompatible with its object and purpose', thus leaving open the possibility of limited reservations to its annexes). If a treaty does not contain a reservations article (as is the case with the BTWC and the NPT), lawful reservations are permitted in certain circumstances.[170]

WITHDRAWAL

According to treaty law, states parties can withdraw from international agreements if this is in 'conformity with the provisions of the treaty'.[171] Not all treaties permit withdrawal because this has the potential to weaken the regime in question. The knowledge by a (potential) state party that it can subsequently withdraw from its obligations may, however, be instrumental in overcoming initial hesitancy in becoming party to an agreement. Some treaties therefore include an article that permits withdrawal but impose a threshold for withdrawing. The NPT for instance says that a party may withdraw 'if it decides that extraordinary events, related to the subject matter of that treaty, have jeopardized the supreme interests of its country'. (The BTWC and CWC have similar provisions.) DPRK announced its withdrawal from the NPT on the basis of this provision. A national assessment of 'extraordinary events' that 'have jeopardized the supreme interests' of a state, may well be expressed in subjective and imprecise terms and, as a consequence, challenged by other parties (as has been the case with the DPRK's withdrawal from the NPT).

ENTRY INTO FORCE

States involved in negotiating a treaty often include amongst its articles a provision that determines its entry into force at a point in time when it will have what they believe will be a critical mass of states parties. For instance, the BTWC, CWC and NPT required 22, 43 and 65 states parties, respectively, before the entry into force of those treaties. The four Geneva Conventions, in contrast, only needed two ratifying or acceding states for them to enter into force. The logic of this latter arrangement was that even two states adhering to the humanitarian standards the Geneva Conventions set would be better than none, while waiting for a larger number of states to accede.

In the case of the BTWC and the NPT, three states in each case that had been designated depositaries of the treaty were also required to become party in order to bring it into force. The CTBT has not yet entered into force because one of the preconditions it imposed remains unfulfilled. That treaty actually specified which states were required to become party before the agreement would enter into force. The CTBT in effect invested each of those states with the power to prevent the agreement from becoming part of international treaty law.

A nuclear weapons prohibition would likely aspire to get a large number of parties before it entered into force, in order to demonstrate its international significance. As a possible benchmark, the

169 The same is the case for the Anti-personnel Mine-Ban Convention and the Convention on Cluster Munitions.

170 The Vienna Convention on the Law of Treaties, Article 19.

171 The Vienna Convention on the Law of Treaties, Article 54.

BOX I

POLICY CONSIDERATIONS RELEVANT FOR A NUCLEAR WEAPONS PROHIBITION

Goal: is there a clear and shared understanding about what a prohibition on nuclear weapons of some kind could and should achieve, both at the point in time it would be adopted and over the longer-term? This is an important matter because, as mentioned above, it has implications for who must be involved, and how a prohibition is seen as set against broader nuclear disarmament and non-proliferation goals. Is the interim nuclear disarmament goal of stigmatizing nuclear weapons through a prohibition tangible enough to be worthwhile?

Content: which draft provisions for inclusion in a prohibition would best achieve the goal, while at the same time maximizing the kind of international support necessary for this to occur?

Format: how would the elements of a prohibition be framed? Would these elements constitute a standalone treaty, or be embedded within a framework instrument or other form of legally binding instrument? How feasible are such alternatives relative to one another, set against the risks for global security and justice that the current impasse in nuclear disarmament creates?

Participation: are there identifiable states realistically capable of constituting a 'core group' to pursue a prohibition, lobby in support of it, and defend it in diplomatic and intellectual terms against its critics? Who would help? How 'ready' are civil society or international organizations to lend substantial support? Conversely, what are the implications of likely lack of participation in such a process by some, such as nuclear-armed states?

Process: which disarmament 'machinery' is feasible or appropriate to facilitate negotiations on a prohibition? The alternatives include:

- 'Ad-hoc diplomatic processes (organized, hosted and chaired by a group of states (e.g. the APMBC and the CCM).
- Global diplomatic processes under the auspices of the United Nations (e.g. the ATT).
- A process in the CD (BTWC, CWC, CTBT).
- A process in the United Nations General Assembly (the draft of the CTBT was adopted by the Assembly after consensus on it had eluded the CD).
- A process under the auspices of the NPT.

Rules of Procedure: how would decisions in any negotiations be taken? Alternatives include, by:

- Two-thirds majority, which is the ordinary rule for adoption of treaties under the Vienna Convention on the Law of Treaties, Article 9(2).
- Consensus, i.e., where decisions only can be made if no formal objection is voiced (as in the CD);
- Vote, with an obligation to make every effort to reach consensus before a vote is taken (with a qualified majority), as in the NPT (rule 28).
- Voting with a requirement for a simple majority for most decisions (such as in the United Nations General Assembly).

Funding: how would the financial costs of a process be met? Practical matters include:

- Ensuring that the costs of hosting negotiations are covered. Options include sharing the financial burden amongst the participants, or covering it in some other way, for instance from the budgets of the CD or United Nations General Assembly if negotiations were to take place under such auspices.
- Facilitating equitable participation. Sponsorship programmes have helped representatives of less wealthy states play a full part in weapons-related multilateral processes in recent years (e.g. the APMBC, CCM, CCW).
- To what extent would involvement of civil society be encouraged? In recent decades, civil society actors have been important sources of momentum, ideas, expertise and diversity in multilateral disarmament processes. However, they require resources to do what they do.

ATT required 50 ratifications before it entered into force. If, however, a nuclear weapons ban were to specify that it would enter into force only after one or more current possessors of nuclear weapons had become party, the agreement might suffer the same fate as the CTBT which, 20 years after its conclusion, has yet to be consummated in formal international legal terms.

Chapter 5
Concluding thoughts

This study has sought to contribute to policy makers' understanding of the issues around the notion of a legal prohibition on nuclear weapons. The study has mapped the main approaches toward the ultimate elimination of nuclear weapons and looked at the broader political and legal parameters within the context of the 'effective measures' debate in nuclear disarmament. It has also discussed the potential content of the so-called 'legal gap' and examined the kind of elements a prohibition on nuclear weapons would likely entail.

The main findings of the study are listed in its executive summary. Among the many substantive issues that would need to be considered by policy makers, we address a few issues in more detail below in view of their particular salience to current policy debates.

The value of a prohibition

A key consideration in pursuing a prohibition regime would be the value that this would add to the current nuclear weapon control regime, including the NPT:

- Among other things, it would serve to reaffirm the commitment of the NNWS involved to foreswearing nuclear weapons under a binding arrangement that would be non-discriminatory.
- Given practical effect by adherence to international benchmarks for nuclear safeguards such as the IAEA Additional Protocol, a prohibition would tangibly benefit the non-proliferation regime and global security.
- It would help to shine a spotlight on states' behaviour, as opposed to their rhetoric, concerning the need to diminish the role of nuclear weapons in security with a view to their ultimate elimination.
- In terms of stigmatizing nuclear weapons, a globally-oriented prohibition could bring into the fold countries in the northern hemisphere, in particular those located in neighbourhoods in which regional NWFZs are currently not an option. Over time, such efforts to change what is accepted as responsible state behaviour with respect to the possession, deployment and use of nuclear weapons could have significant effects in shaping regional 'security environments'.

On nuclear deterrence

This study has deliberately not focused on nuclear deterrence per se, although the authors readily acknowledge that security considerations cannot be ignored in the broader discourse. Traditionally, nuclear deterrence has dominated the multilateral nuclear weapon discourse. Since the 2010 NPT Review Conference and the gathering in momentum of the humanitarian initiative, this discourse has altered in significant ways.

This study has deliberately not focused on nuclear deterrence per se, although the authors readily acknowledge that security considerations cannot be ignored in the broader discourse.

While the humanitarian initiative was not the destructive force in the NPT that the NPT5 feared it would be, it was also not sufficient to transform the 2015 Review Conference's prospects for success (this failed due to lack of consensus over talks about a Middle East WMD-free-zone). By then there were plenty of signs of a resurgent nuclear deterrence discourse as NATO-Russia relations chilled, and some security policy makers looked with increasing nostalgia to the perceived certainties of Cold War 'mutually assured destruction'. As one commentator recently observed in describing Germany's dilemma as a nuclear umbrella state, 'Never since the end of

the Cold War have the international community and Europe been so deeply divided over the role of nuclear weapons in security policy.'[172]

Whatever one thinks of nuclear weapons as a basis for security, the reality is that it is important to the perceptions of some policy makers. Fears that nuclear deterrence will be undermined go to the heart of the matter when the notion of a prohibition is raised. Opponents of a nuclear weapons prohibition seem to build their case upon these uncertainties. At the same time, they appear to offer no way out of the trap of a perpetual nuclear-armed world and all of its attendant catastrophic risks.

On effectiveness

When the arguments are examined closely that a nuclear weapons prohibition regime would be destructive to the NPT or nuclear disarmament prospects. They do not really pass scrutiny. The more coherent charge is that such a regime might not establish a widespread stigma against the possession of nuclear weapons, or that it might not exert sufficient pressure on nuclear-armed states and their allies to take concrete steps toward nuclear disarmament. It is possible that opponents of a prohibition have concluded that the opposite is true; that a nuclear weapons prohibition could call the political and moral basis for nuclear deterrence into increasing question. Among other things, it could complicate the security assurances given by NAS to their allies.

In other words, the possibility that a nuclear weapons prohibition would challenge the nuclear status quo is not acceptable to some states, particular the nuclear-armed ones and some of their allies. What makes the prospect of a prohibition of particular concern to its severest critics is that the threat of non-participation by nuclear-armed states might not be sufficient dissuasion. A process toward such a treaty is, in principle, something that a conglomerate of states in the international community could pursue and adopt without nuclear-armed state cooperation. In that sense, disquiet that the prospect of a nuclear weapons prohibition treaty has already instilled in some states speaks to the idea's potency in a way the idea of a comprehensive nuclear weapons convention has not.

The possibility that a nuclear weapons prohibition would challenge the nuclear status quo is not acceptable to some states.

However, simply because an eventual nuclear weapons ban regime might create some pressure on those reliant on these arms to change their relevant policies and behaviour does not mean it will be effective. While the likely absence of nuclear-armed states and some of their allies from the negotiations on a prohibition could facilitate the pace of proceedings, such a process would have clear limitations in actually bringing about the elimination of nuclear weapons in the short-term. This is something that proponents as much as opponents acknowledge .

Such a scenario is not dissimilar from the present situation, in which progress towards elimination of nuclear weapons at a multilateral level is not occurring. Yet the possibility of failure of a future nuclear-weapon-ban regime to lead to elimination is construed as worse than continuing to achieve nothing in nuclear disarmament efforts, when it is in fact more or less the same. Meanwhile, the possibility of such a regime's success in catalyzing nuclear disarmament is discounted, or itself seen as threatening to the current nuclear order. Part of the promise of a nuclear weapons prohibition regime is the possibility that a legally codified taboo on use and possession of nuclear weapons weapons could gather sufficient strength to bring about further nuclear weapons elimination as a tide that lifts all boats, normatively speaking.[173]

172 O. Meier, 'Germany and the role of nuclear weapons: Between prohibition and revival', SWP Comments 2, German Institute for International and Security Affairs, Berlin, January 2015, p. 1: https://www.swp-berlin.org/fileadmin/contents/products/comments/2016C02_mro.pdf.

173 Some scholars have argued a taboo exists already in the case of nuclear weapon use. See e.g. N. Tannenwald, 'Stigmatizing the bomb: Origins of the nuclear taboo', *International Security*, vol. 29, no. 4, 2005. See also R. Price and N. Tannenwald, 'Norms and Deterrence: The Nuclear and Chemical Weapons Taboos' in P.J. Katzenstein (ed), The *Culture of National Security: Norms and Identity in World Politics*, Columbia University Press, New York, 1996.

NEXT STEPS IN CONSIDERING THE ELEMENTS OF A PROHIBITION

The First Committee of the United Nations General Assembly voted on 5 November 2015 to set up a new open-ended working group (OEWG) for 'taking forward multilateral nuclear disarmament negotiations'.[174] In particular, the OEWG will address 'concrete effective legal measures, legal provisions and norms that will need to be concluded to attain and maintain a world without nuclear weapons'. The Group, which will meet periodically in Geneva from late February 2016, is also intended to address recommendations on other measures that could contribute to taking forward multilateral nuclear disarmament negotiations, such as:

a) Transparency measures related to the risks associated with existing nuclear weapons;

b) Measures to reduce and eliminate the risk of accidental, mistaken, unauthorized or intentional nuclear weapon detonations; and

c) Additional measures to increase awareness and understanding of the complexity of and interrelationship between the wide range of humanitarian consequences that would result from any nuclear detonation.

The creation of the OEWG reflects the frustration of many in the international community with protracted deadlock on nuclear disarmament, typified by two decades of inactivity in the CD and a failed NPT Review Conference in May 2015. The NPT5 have signalled their strong reluctance to participate in the OEWG, principally because of the absence of an explicitly consensus-based approach in the conduct of its work.[175] The OEWG might additionally be hampered by the limited time it has to meet: a maximum of fifteen days in 2016.

Nevertheless, the OEWG provides an opportunity for proponents of a prohibition on nuclear weapons to pursue their case, and for it to be examined and debated by other states—if enough focus is given to exploring the options for, and substantive elements of, 'effective measures'. Box I lists some of the consideration policy practitioners might choose to keep in mind.

FINAL REMARKS

In early 2016 it remains to be seen whether the substantial level of international support for the humanitarian pledge will be translated into political momentum towards the negotiation of a prohibition, or other diplomatic steps. Moreover, those championing a prohibition have yet to demonstrate that the notion of a ban of the kind analysed in this study has sufficient diplomatic momentum—let alone a sense of inevitability about it. And, although the practical, normative impact of a ban treaty regime might eventually be considerable, the notion that such a treaty would ever become customary law (and thus applicable to all states, whether they join the treaty or not) is doubtful.

Overall, the desire of some for a legal prohibition on nuclear weapons will be weighed against many factors in forums such as the OEWG in 2016. Not least, there is the matter of the political effort and unwavering vision required by any state champions of such an initiative, matched with the necessity of convincing enough of the international community of the value of the outcome to facilitate nuclear disarmament objectives.

Finally, the degree of sensitivity of the nuclear-armed states and some of their allies about the prohibition approach is itself cause for some optimism. It indicates that like-minded processes are able to re-capture the attention and imagination of policy makers and public alike as a catalyst for more concerted international efforts towards the shared goal of a nuclear-weapon free world.

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174 United Nations document code: A/C.1/70/L.13/Rev.1.

175 Explanation of vote by Ambassador A. Guitton of France on A/C.1/70/L.13/Rev.1 on behalf also of China, Russian Federation, United Kingdom and United States, First Committee, United Nations General Assembly, 2 November 2015.

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