



Discussion Paper

# Weapons of Mass Destruction, Non-proliferation, and Disarmament

Independent Commission on Multilateralism

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When considering current threats to peace and stability, many are more concerned with the effects of climate change (such as water crises, extreme weather events, and environmental crises) and regional conflicts (from the spread of extremism and intolerance to the flow of refugees) than with weapons of mass destruction (WMD), especially nuclear weapons. While the possession of WMD figures as one of the top risks to global security, their use is considered unlikely.<sup>1</sup> Many perceive the issue as a relic of the Cold War era or, more recently, as an unmaterialized justification for the invasion of Iraq.

Philosophically, one could say that the threat of WMD sits at the nexus of existential concerns and sentiments of disillusionment and missed opportunities—opportunities to make nuclear tests a thing of the past, complete nuclear disarmament, and contain proliferation. This is not to say that nothing has been achieved in these fields, but rather that the multilateral system has not been able to deliver on its promises of non-proliferation and disarmament, dating back to 1946. This is in part the result of the tension between the need to fill the legal gap in the non-proliferation and disarmament framework and the efforts of the permanent members of the UN Security Council (P5) and their allies to maintain the nuclear world order.

Why focus on non-proliferation and disarmament of WMD<sup>2</sup> when today small arms and light weapons create much greater havoc around the world? For one, if the threat of WMD seems antiquated and unlikely to materialize, the mere existence of WMD remains one of the paramount threats to mankind. WMD “pose some of the greatest contemporary security challenges, in part because they are often characterized by rapid evolution and a tendency to increase in urgency with little warning time.”<sup>3</sup> Nuclear weapons remain the biggest existential threat, as well as the biggest gap in the multilateral disarmament and non-proliferation architecture. And if many important baseline tools to counter WMD threats and prevent proliferation already exist—from chemical and biological weapons conventions to export control regimes, including monitoring, verification, and safeguard systems— few address nuclear weapons, and even fewer deal with future threats, such as the miniaturization of WMD.<sup>4</sup>

It is within this context that this paper explores key challenges and developments in the field of non-proliferation and disarmament of WMD, with an emphasis on nuclear arms. It will first give an overview of the state of the non-proliferation and disarmament machinery at the multilateral and bilateral levels. In the second part, it will explore the key elements and recent developments of current debates on non-proliferation and disarmament, as well as gaps and opportunities. The paper concludes with recommendations for strengthening and unblocking the current gridlock in the non-proliferation and disarmament machinery.

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<sup>1</sup> World Economic Forum, *The Global Risks Report 2016*, available at [www.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf](http://www.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf).

<sup>2</sup> The UN General Assembly has defined the UN Charter’s principles on “disarmament” and “regulation of armaments” as two distinct yet related concepts, one referring to the general and complete elimination of all WMD and the other to the limitation and/or control of small arms and light weapons.

<sup>3</sup> Andy Weber and Christine L. Parthemore, “Innovation in Countering Weapons of Mass Destruction,” Arms Control Association, 2015, available at [https://www.armscontrol.org/ACT/2015\\_0708/Features/Innovation-in-Countering-Weapons-of-Mass-Destruction](https://www.armscontrol.org/ACT/2015_0708/Features/Innovation-in-Countering-Weapons-of-Mass-Destruction).

<sup>4</sup> Ibid.

## I. The Non-proliferation and Disarmament Machinery: The Multilateral Ice Age

In theory, the UN system has a strong multilateral non-proliferation and disarmament machinery to control WMD. In practice, it has yielded few new normative outcomes for nearly two decades. The UN disarmament machinery includes the triad of the UN General Assembly's First Committee, the UN Disarmament Commission (UNDC), and the Conference on Disarmament, created by the first Special Session on Disarmament (SSOD I) and the review mechanism for its implementation set in place by the 1995 Non-Proliferation Treaty (NPT) Review Conference.

In the UNDC and Conference on Disarmament, strict "ruling by consensus" results in gridlock, with individual states' security interests trumping the collective security of all states. Although the General Assembly's First Committee, which adopts resolutions by majority vote, regularly adopts landmark WMD resolutions (e.g., on the proposed Fissile Material Cut-Off Treaty, on convening an open-ended working group on the elimination of nuclear weapons, and the Humanitarian Pledge for the Prohibition and Elimination of Nuclear Weapons), these resolutions often either lack the support of states with nuclear weapons, or their implementation is blocked by one or two member states in the Conference on Disarmament.

This translates into a normative framework that has made little progress in the multilateral system, though some developments on the policymaking front have taken place over the years. The Chemical Weapons Convention (CWC) has made it possible to envisage an identified timeframe for the global elimination of the declared stockpile of chemical weapons, and the 1972 Biological and Toxin Weapons Convention (BWC) remains a landmark agreement that condemns any use of biological agents or toxins other than for peaceful purposes.<sup>5</sup>

### ***Non-proliferation and Disarmament in the UN System***

#### ***Nuclear Weapons***

Gauging concrete progress requires balancing shifts in the number of weapons with the overarching policies and norms governing those weapons. The overall number of nuclear weapons has decreased drastically since the Cold War, but the current holdings of nuclear weapons have stagnated, with the great majority of nuclear weapons still held by the two largest possessor states. In terms of policies, there is an overall failure by the UN machinery in measuring how much nuclear weapons material there is in the world, making it difficult to agree upon a set of metrics. This adds to the opacity of the disarmament debate, complicates the development of any action plan to deal with nuclear weapons material. Not knowing how many weapons exists is also a greater vulnerability when it comes to questions of terrorism.

**Non-Proliferation Treaty (NPT):** Regarding the governance of nuclear weapons, the cornerstone of the non-proliferation regime, the NPT, has proven resilient, despite the fact that four (or five)<sup>6</sup> out of nine of its review conferences failed to reach consensus (1980, 1990, [1995], 2005, and 2015). Supported by 190 parties that have joined the treaty, including the five nuclear-weapon states, its comprehensive core is based on three pillars:

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<sup>5</sup> As of May 2016, the CWC has been ratified by 192 states and the BWC by 173 states.

<sup>6</sup> Technically, the 1995 NPT Review Conference did not reach an agreement on a final review document, but many consider it one of the most "successful" conferences when it permitted the indefinite extension of the treaty.

1. Non-proliferation: Countries without nuclear weapons will not acquire them.
2. Disarmament: Countries with nuclear weapons will move toward disarmament.
3. Peaceful use: All countries have the right to peacefully use nuclear technology.

The role of the International Atomic Energy Agency (IAEA) in ensuring that the NPT safeguard system is respected has proven crucial in enforcing non-proliferation and allowing for the peaceful use of nuclear energy. Despite the failure of half (or nearly half) of the NPT review conferences, some have estimated that the existence of the NPT may have helped contain an increase in the number of nuclear-armed states by up to three or four times.<sup>7</sup> However, while undeniably a multilateral disarmament achievement, there are concerns that the weak implementation of the NPT's final documents, the repeated failure of its conferences, and stalemate on the other nuclear disarmament processes (the Comprehensive Nuclear-Test-Ban Treaty and the Fissile Material Cut-Off Treaty) will undermine its future credibility.

**Comprehensive Nuclear-Test-Ban Treaty (CTBT):** The CTBT is probably the “longest-sought, hardest-fought non-proliferation goal,”<sup>8</sup> but twenty years after its adoption in 1996, it still has not entered into force. Nonetheless, perhaps some solace can be found in the CTBT's International Monitoring System (supported by civilian and military networks), an effective network capable of detecting any nuclear test and thereby precluding any CTBT violator from escaping detection.<sup>9</sup> If China and the US were to ratify the CTBT, this could create a snowball effect toward its entry into force, but until then there is little hope for its entry into force anytime soon.

**Fissile Material Cut-Off Treaty (FMCT):** The CTBT is frequently viewed as one side of the nuclear control regime “coin,” the other side being the proposed FMCT. A large amount of fissile material, including directly weapons-useable highly-enriched uranium and separated plutonium, still exists in the world today. A ban on the production of fissile material for anything other than verified peaceful use, alongside a prohibition of nuclear tests, would provide the foundation for eventual nuclear disarmament. Unfortunately, the negotiations on an FMCT have yet to start in the Conference on Disarmament due to differences among the P5 on the priorities and their inability to persuade all member states to agree to these negotiations.

**UN General Assembly resolutions:** The UN General Assembly, through its First Committee, has tried to break the stalemate in the Conference on Disarmament by creating groups of experts that would identify concrete ways forward (e.g., on an FMCT and a convention on eliminating all nuclear weapons). At its seventieth session, the General Assembly adopted fifty-seven resolutions and decisions, of which twenty-three were on nuclear weapons.<sup>10</sup> Notably, in December 2015, the General Assembly adopted several resolutions emphasizing the catastrophic humanitarian consequences that would result from the use of nuclear weapons and aiming for complete nuclear disarmament:

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<sup>7</sup> Torbjørn Graff Hugo, “On Builders and Blockers: States Have Different Roles to Play to Complete the Nuclear Disarmament Puzzle,” ILPI-UNIDIR NPT Review Conference Series, paper no. 4, 2015.

<sup>8</sup> Daryl G. Kimball, “Reconsidering the Test Ban Treaty,” Arms Control Association, 2015, available at [http://www.armscontrol.org/ACT/2015\\_11/Focus/Reconsidering-the-Test-Ban-Treaty](http://www.armscontrol.org/ACT/2015_11/Focus/Reconsidering-the-Test-Ban-Treaty).

<sup>9</sup> Ibid.

<sup>10</sup> “On Recommendation of First Committee, General Assembly Adopts More than 50 Drafts, Including New One on ‘Ethical Imperatives’ for Nuclear Disarmament,” coverage of UN General Assembly, available at <http://www.un.org/press/en/2015/ga11735.doc.htm>.

- Resolution 70/33 on “Taking Forward Multilateral Nuclear Disarmament Negotiations” expanded the mandate of the existing open-ended working group to identify substantial legal measures and norms to help take forward negotiations on a treaty for the elimination of nuclear weapons. It also mandated the governmental working group to “formulate recommendations on other measures that could contribute to taking forward multilateral nuclear disarmament negotiations, including but not limited to transparency measures,... measures to reduce and eliminate the risk of accidental, mistaken, unauthorized or intentional nuclear weapon detonations, and additional measures to increase awareness [of] the wide range of humanitarian consequences that would result from any nuclear detonation.” The open-ended working group has already met and consulted extensively, with the objective to present a report by the third week of August 2016.<sup>11</sup>
- Resolution 70/57 on a “Universal Declaration on the Achievement of a Nuclear-Weapon-Free World” was adopted by 133 member states (28 against) as a declaration by non-nuclear-weapon states calling on nuclear-weapon states to take steps toward a nuclear-weapon-free world.<sup>12</sup>
- Resolution 70/47 on the “Humanitarian Consequences of Nuclear Weapons,” a new resolution, declared that the only way to guarantee nuclear weapons would never be used again is their total elimination. It called on all states, as part of their shared responsibility, to prevent the use of nuclear weapons and their vertical and horizontal proliferation.<sup>13</sup>
- Resolution 70/48 on a “Humanitarian Pledge for the Prohibition and Elimination of Nuclear Weapons,” also a new resolution, requested all states possessing nuclear weapons to take concrete measures, pending the total elimination of nuclear weapons, to reduce the risk of detonations, including by reducing the operational status of nuclear weapons (de-alerting), moving those weapons away from deployment and into storage, and diminishing the role of those weapons in military doctrines.<sup>14</sup>
- Resolution 70/50 on “Ethical Imperatives for a Nuclear-Weapon-Free World” also touched on the humanitarian impact and ethical aspects of nuclear weapons as creating a shared responsibility to act with urgency and determination to take the necessary measures, including legally binding measures, to eliminate and prohibit all nuclear weapons, “given their catastrophic humanitarian consequences and associated risks.”<sup>15</sup>

**Nuclear-Weapon-Free Zones (NWFZ):** Influenced by the Rapacki Plan led by Poland in the 1950s (which never came to fruition), the first NWFZ was created in Latin America in 1967,<sup>16</sup> and there are now five NWFZs (Latin America, the South Pacific, Southeast Asia, Africa, and Central Asia). The NPT recognizes NWFZs in Article VII and affirms the right of countries to be part of a regional approach to strengthening global nuclear non-proliferation and disarmament norms and to consolidating international efforts toward peace and security. NWFZs are treaty-based zones with legally binding protocols recognized by the five nuclear-weapon states. Within these NWFZs, countries may use nuclear energy for peaceful purposes. The issue becomes politically charged when it comes to the Middle East, where most

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<sup>11</sup> UN General Assembly Resolution 70/33 (December 7, 2015), UN Doc. A/RES/70/33.

<sup>12</sup> UN General Assembly Resolution 70/57 (December 7, 2015), UN Doc. A/RES/70/57.

<sup>13</sup> UN General Assembly Resolution 70/47 (December 7, 2015), UN Doc. A/RES/70/47.

<sup>14</sup> UN General Assembly Resolution 70/48 (December 7, 2015), UN Doc. A/RES/70/48.

<sup>15</sup> UN General Assembly Resolution 70/50 (December 7, 2015), UN Doc. A/RES/70/50.

<sup>16</sup> The 1967 Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean.

countries wish to create a NWFZ but have been blocked by a few that oppose the start of discussions. This issue was one of the main factors in the failure of the last NPT review conference in May 2015.

**Security Council Resolution 1540:** The UN Security Council adopted one of the most “recent” norm-making resolutions in the field of non-proliferation (almost twelve years ago). Security Council Resolution 1540 filled a gap in common international and regional standards for control of sensitive technologies that could lead to the proliferation of WMD, whether nuclear, chemical, or biological. The resolution imposes binding obligations on states to adopt domestic legislation addressing means of delivering WMD and to establish appropriate domestic controls over related materials to prevent their illicit trafficking. Member states are to report annually to the Security Council on their efforts to meet their obligations under this resolution.<sup>17</sup>

### Chemical and Biological Weapons

With regards to non-nuclear WMD, the UN track record is more encouraging.

**Chemical Weapons Convention (CWC):** The CWC, which was signed in 1993 and entered into effect in 1997, was the first post–Cold War weapons treaty of a global and nondiscriminatory nature. Since then, the international community has demonstrated its strong desire to use this instrument to eliminate the possibility of developing, producing, using, stockpiling, or transferring chemical weapons. The 192 states parties to the CWC account for about 98 percent of the world’s chemical industry, with nearly 5,000 industrial facilities liable to verification by the Organisation for the Prohibition of Chemical Weapons (OPCW), the body responsible for implementing the convention. The OPCW has verified the destruction of 90 percent of the world’s declared stockpile of chemical agents and nearly 60 percent of known chemical weapons and containers (as of October 2015).

The CWC has deepened the international norm against the use and possession of chemical weapons and provided for unprecedented international cooperation in Syria, which led to the destruction of most of that country’s known chemical weapons.<sup>18</sup> Before UN Security Council Resolution 2118 was adopted on September 27, 2013, Syria had to ratify the CWC to join the OPCW and turn over a series of documents related to its stockpile. This allowed the OPCW to establish a calendar of verification, removal, and destruction of the stockpiles, which was considered a success. The current top priority for the CWC is to gain universal membership and ensure that chemical weapons do not reemerge.

**Biological Weapons Convention (BWC):** The BWC, which was signed in 1972 and entered into effect in 1975 as the first multilateral disarmament treaty, has enshrined global and nondiscriminatory legal norms against biological weapons for over forty years, with 174 states parties banning the production of an entire category of weapons.<sup>19</sup> However, while a formal verification regime has been long in the making, the continued absence of such a regime undermines the BWC’s legitimacy and prevents it from properly addressing biological risks. Moreover, while member states agreed thirty years ago to

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<sup>17</sup> UN Security Council Resolution 1540 (April 28, 2004), UN Doc. S/RES/1540.

<sup>18</sup> Organisation for the Prohibition of Chemical Weapons, *Report on the Implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction in 2014*, December 2, 2015.

<sup>19</sup> The BWC builds on a complements other treaties, in particular the 1925 Protocol for the Prohibition of Asphyxiating, Poisonous or Other Gases, and of Bacterial Methods of Warfare.

strengthen the treaty by reporting annually to the UN on confidence-building measures, only about half of the treaty signatories currently submit these voluntary annual reports.

There is hope that the Eighth Review Conference of the BWC (set to take place in November 2016) will look into all biological threats in the twenty-first century. While there is universal agreement that biological weapons are not an acceptable mean of warfare,<sup>20</sup> the shortcomings of the BWC do not sufficiently protect against new biological weapons or bioterrorism. A protocol to the BWC establishing a verification regime could strengthen its effectiveness and improve its implementation of confidence-building measures to guard against bioterrorism and adapt to new developments in science and technology.

#### *Other UN Institutions*

**UN Office for Disarmament Affairs (UNODA):** Established as a department in 1998, UNODA is the secretariat for the UN disarmament machinery, including the UN Register of Conventional Arms and regional fora. It also provides support and information to member states and is the UN's public face for disarmament through education, outreach, and media relations.

**UN Institute for Disarmament Research (UNIDIR):** Established in 1980, UNIDIR is a voluntarily funded autonomous institute within the UN whose mission is to assist the international community, through research and education, in finding and implementing solutions to disarmament and security challenges. While UNIDIR does valuable work, it lacks adequate funding to sustain its workload.

**UN secretary-general's Advisory Board on Disarmament Matters:** The advisory board, established in 1978 and composed of fifteen experts, convenes twice a year to advise the secretary-general on specific disarmament matters. It also functions as UNIDIR's board of trustees. The advisory board adopts its agenda based on requests from the secretary-general and its own recommendations. The secretary-general reports annually to the General Assembly on the advisory board's activities.

#### ***Disarmament and Non-proliferation beyond the UN***

Addressing non-proliferation and disarmament issues within the confines of the multilateral machinery has been challenging, at best, especially in relation to nuclear weapons. Several attempts have been made to identify ways to end the nuclear disarmament stalemate by forcing movement in the UN or by circumventing the UN machinery altogether. These attempts have been met with great resistance by nuclear-weapon states and their allies (often referred to as nuclear umbrella states), and few have yielded concrete results. However, several state coalitions and multi-stakeholder initiatives have sought to create positive momentum where the multilateral system has not been able to.

**Joint Comprehensive Plan of Action (JCPOA) : The Iran nuclear deal):** The Iran nuclear deal, concluded on July 14, 2015, is a landmark agreement resulting from multiparty negotiations. Although the agreement was plurilateral, the UN system, through the IAEA, was involved in its implementation. The Security Council had passed multiple resolutions over the years demanding that Iran halt its enrichment

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<sup>20</sup> The use of biological weapons is prohibited in international and non-international conflicts under both treaty and customary international humanitarian law. See International Committee of the Red Cross, Customary IHL Database, Rule 73, available at [www.icrc.org/customary-ihl/eng/docs/v1\\_cha\\_chapter23\\_rule73](http://www.icrc.org/customary-ihl/eng/docs/v1_cha_chapter23_rule73).

activities, but it took political leadership, which the UN lacked, to conclude negotiations. While the level of influence and legitimacy provided by the UN resolutions is open to debate, ultimately it was the P5+1 (or E3+3: China, Germany, France, Russia, UK, US, European Union, and Iran) that gained enough traction, after twenty months of negotiations and several failed attempts, to conclude an agreement. On January 16, 2016, the IAEA announced that Iran had met its nuclear-related commitments and that implementation of the deal could start. This set in motion the partial shutting down of the country's nuclear program. The multilateral system's role, through the IAEA, is key to monitoring and verifying implementation of the deal. The Iran deal shows that each case may have its own specificities and solutions, but the notion of peaceful use of nuclear energy by non-nuclear-weapon states will henceforth be assessed by a new standard.

**Nuclear Security Summit (NSS):** Considering the need to reconcile growing interest in the peaceful use of nuclear energy in the developing world with non-proliferation goals, nuclear security has become a major focus of international debate. This is the challenge US President Barack Obama tried to address through the launch, in 2010, of the Nuclear Security Summit (there have since been four summits, the latest, and last, in April 2016). The overall objective was to identify solutions at the national, regional, and international levels to concerns that vulnerable nuclear material could fall into the hands of terrorists. Numerous commitments were made throughout the four summits to help strengthen the global nuclear security architecture. The summits provided the opportunity to draw commitments on the ratification and implementation of several treaties, including the Amendment to the Convention on the Physical Protection of Nuclear Material, which finally entered into force on May 8, 2016, following the most recent summit. While not all agree on the importance of the summits' outcomes, they have created a space to discuss nuclear security and safety, get hundreds of national security commitments, and bridge the discussions on nuclear safety and security. Most of all, they have enabled the IAEA to establish a triennial International Ministerial Conference on Nuclear Security (the first set to take place from December 5 to 9, 2016), which promises to be much more inclusive than the summits.

**Regional initiatives:** Nuclear Weapon Free Zones (NWFZs) have established critical regional spaces to work as building blocks toward complete nuclear disarmament, but these are not the only regional initiatives. The constructive role of regional organizations in building norms and capacity often gets overlooked. For example, the Organization for Security and Co-operation in Europe's (OSCE) 2010 Astana Commemorative Declaration Towards a Security Community is a transnational initiative engaging states at the national level to limit regional arms races.<sup>21</sup> This was preceded by the 1994 Principles Governing Non-Proliferation, which derived from OSCE states parties' endorsement of universal adherence to the NPT, CWC, BWC, and other international instruments.

**Inter-organizational initiatives:** Inter-organizational synergies that further enable awareness and implementation of global disarmament initiatives have already proven to be efficient tools, and they deserve more investments. Regional cooperation on Security Council Resolution 1540 is a case in point, as organizations such as the OSCE, Organization of American States, World Customs Organization, and World Health Organization have worked with UNODA in implementing relevant provisions. Regional or national regulatory agencies, such as the European Atomic Energy Community (Euratom), can also play a

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<sup>21</sup> Organization for Security and Co-operation in Europe, *Astana Commemorative Declaration Towards a Security Community*, December 3, 2010.



role in identifying verification and monitoring measures that could help develop greater political will for nuclear disarmament.

**Government and civil society initiatives:** Other initiatives by governments and civil society have emerged over the years to promote progress toward a world free of nuclear weapons, often on the margins of the multilateral system:

- The New Agenda Coalition (NAC), established in 1998, played a role in convincing nuclear-weapon states to agree to practical steps on the 2000 NPT review and consistently submits a resolution or decision to the General Assembly on a nuclear-weapon-free world.
- With the same objective, the Middle Power Initiative promotes the need to fill the legal gap on nuclear weapons.
- The Non-Proliferation and Disarmament Initiative (NPDI), a ministerial-level group of twelve middle-power states established within the framework of the NPT in 2010, aims mainly to advance the nuclear disarmament agenda and promote greater transparency in the way nuclear-weapon states fulfill their disarmament obligations.
- The Proliferation Security Initiative (PSI) was launched by the US in 2003 as an informal global effort “to stop trafficking of weapons of mass destruction, their delivery systems, and related materials to and from states and non-state actors of proliferation concern.”<sup>22</sup> One of its main activities has been to conduct several simulation exercises every year.
- Another US-led initiative, the International Partnership for Nuclear Disarmament Verification (IPNDV), was announced in December 2014. It aims to bring together both nuclear-weapon and non-nuclear-weapon states to discuss the challenges of verification in nuclear disarmament and ways to overcome those challenges.

This overview of WMD non-proliferation and disarmament efforts, while not exhaustive, demonstrates that not all is dormant. However, efforts mostly focus on denuclearization and seem limited in scope when considering the legal gap on several types of emergent threats. The concept of strategic stability, as commonly understood, is being challenged, and the scope of threats widens with ongoing and emergent conflicts. While old frameworks and treaties remain relevant, they are in dire need of revitalization and complementary support. The legitimate concern is that new forms of warfare will outpace old frameworks. The fact is that “the ability to act quickly as new threats emerge—often in weeks or months, not years—is critical but underappreciated,”<sup>23</sup> and the question of whether these capabilities exist, or can be developed, remains.

## II. “Old Tools, New Threats” or “New Tools, Old Threats”?

Disenchantment and polarization are the two defining characteristics of the current WMD debate. The General Assembly’s first-ever resolution, in 1946, established a commission to make proposals on “the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.”<sup>24</sup> The acceptance of the goal of nuclear disarmament has not changed in the seventy

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<sup>22</sup> US Department of State, “Proliferation Security Initiative,” n.d., available at <http://www.state.gov/t/isn/c10390.htm>.

<sup>23</sup> Weber and Parthemore, “Innovation in Countering Weapons of Mass Destruction.”

<sup>24</sup> UN General Assembly Resolution 1(1) (January 24, 1946).

years since, but no agreement on a suitable pathway or a universal framework for achieving this goal has found consensus.

Nuclear-weapon states see progress on non-proliferation as a precondition for nuclear disarmament. While there is support for non-proliferation, there is also growing impatience among a large number of countries at the slow pace of nuclear disarmament. The pace of the two largest possessors' reductions has slowed, and none of the other nuclear-weapon states are part of any agreed multilateral framework for nuclear reductions. Neither is there any agreed framework for dialogue among all states possessing nuclear weapons to address nuclear dangers (including accidental or deliberate use of nuclear weapons), transparency, confidence-building measures, or nuclear reductions. Finally, the opposition of many nuclear powers to no-first-use of nuclear weapons demonstrates the entrenched nature of nuclear weapons in their security doctrines.

These factors bring to the fore the gaps in the legal regime (centered on the NPT), which has so far focused on containing and restraining possession rather than restraining the use of nuclear weapons. Those impatient with nuclear disarmament do not see merit in a step-by-step or building-block approach but rather support a leap forward with the decisive step of banning nuclear weapons.<sup>25</sup> A number of countries do not favor this approach, given their dependence on nuclear weapons for security, and have continued to modernize their nuclear forces, despite growing tensions between some of the main possessors. In the face of an impasse between the multilateral machinery and politically entrenched positions of nuclear-weapon states and their allies, can new approaches emerge and old concepts find their second wind?

### ***Holistic Approaches for the Complete Elimination of WMD***

The UN disarmament and non-proliferation machinery has been set up in such a way that discussions focus on obligations of nuclear-weapon states, verification mechanisms, and monitoring capabilities. Attempts to broaden the debate to include discussions related to human rights, humanitarian consequences, transparency, and accountability are constantly challenged. Some states fear that allowing these issues to converge would cause alliances to emerge, making it much more difficult to avoid public and political pressure. Breaking the silos around these issues could help democratize the UN machinery, even if political will and leadership are crucial for actually changing that machinery.

### ***Humanitarian Impact: Dealing with the Consequences***

While it is hard to imagine any use of nuclear weapons that would be fully compatible with existing principles and rules of international humanitarian law, this has not stopped countries from acquiring such weapons. As part of the movement to eliminate all forms of nuclear weapons, states and other actors have made significant efforts to raise awareness of the catastrophic consequences of the use of nuclear weapons. Since the risk of a nuclear attack, accidental or voluntary, can never be eliminated as long as nuclear armaments exist, the hope has been to provide traction for a push to eliminate nuclear weapons by raising awareness of the lack of existing capacity—and the difficulty of imagining future capacity—for an adequate humanitarian response to a nuclear attack.

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<sup>25</sup> Andrew Baklitskiy, "The 2015 NPT Review Conference and the Future of the Nonproliferation Regime," Arms Control Association, 2015, available at <https://www.armscontrol.org/print/7084>.

The seventieth session of the General Assembly in 2015 saw the culmination of a global effort by UN member states (led by Austria, Mexico, and Norway) and civil society to call for a commitment to ban nuclear weapons because of the devastating humanitarian impact their use would have (e.g., the Humanitarian Pledge for the Prohibition and Elimination of Nuclear Weapons in Resolution 70/48, as well as several other resolutions). The main sponsors hosted a series of conferences over two years (2013–2014), highlighting the humanitarian consequences of nuclear weapons use to prevent them from ever being used again. The initiative brought additional attention to the importance of Article VI of the NPT,<sup>26</sup> channeled the voice of the majority of NPT member states on nuclear disarmament, and perhaps instilled enough dynamism to set in motion discussions on a legal instrument prohibiting nuclear weapons.<sup>27</sup>

While the call to ban nuclear weapons based on the inevitably devastating humanitarian consequences their use would entail has gained some momentum, the humanitarian consequences of other WMD still require the world's awareness. Although the development, production, stockpiling, and use of chemical and biological weapons has been banned by international law,<sup>28</sup> these weapons are easier to access and use, which is why they are often referred to as the “poor man's atomic bomb.” The humanitarian impact of a smallpox outbreak or a chemical attack might not be as apocalyptic as that of a nuclear attack but remains a catastrophic threat and would present an extremely challenging environment for first responders.

#### *Breaking the Silos: Human Rights, Development, and WMD*

WMD discussions in the multilateral system are clearly contained within the UN disarmament and non-proliferation machinery, leaving little space to broaden their scope—which is probably to the benefit of nuclear-weapon states. It could be considered whether to add this item to the agenda of the Human Rights Council under the “freedom from fear” in an effort to further push the debate beyond the security doctrine. This was done quite successfully with the question of “killer robots,” raising awareness and breaking the silos of armaments and human rights.

The UN Conference on Trade and Development could also discuss the costs of WMD armaments and non-proliferation to development. A recent report by the NGO Article 36 raises the issue of discrimination against developing countries in the disarmament discourse in multilateral fora.<sup>29</sup> Underrepresentation, costs of armaments versus development aid, and the influence of agenda prioritization are not popular topics but, if they were to gain enough traction, could start to change and democratize the system.

#### *Civil Society: A Force to Be Reckoned With*

The efforts around the Humanitarian Pledge for the Prohibition and Elimination of Nuclear Weapons, adopted during the General Assembly's seventieth session, “galvanized civil society engagement to a

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<sup>26</sup> Article VI refers to efforts made in good faith by NPT parties to pursue negotiations on a treaty on general and complete disarmament with the principal purpose of nuclear disarmament and the cessation of the arms race.

<sup>27</sup> Paul Meyer, “Running Interference for Our Nuclear Allies,” *Embassy*, November 26, 2015.

<sup>28</sup> Under the CWC and BWC.

<sup>29</sup> Article 36, “Disarmament, Development and Patterns of Marginalisation in International Forums,” April 2016, available at [www.article36.org/wp-content/uploads/2016/04/A36-Disarm-Dev-Marginalisation.pdf](http://www.article36.org/wp-content/uploads/2016/04/A36-Disarm-Dev-Marginalisation.pdf).

degree not seen for decades.”<sup>30</sup> This is not to say that civil society has been idle, but its role is often undervalued when it comes to non-proliferation and disarmament, in part due to the notion that armaments, especially nuclear, fall strictly under the state’s purview. Nevertheless, civil society advocacy has brought several issues to the forefront in other areas, and many initiatives would not have materialized without continuous civil society efforts (e.g., the landmine convention and the creation of the International Criminal Court). While civil society has been given a yearly platform at the First Committee, and calls are being made for greater civil society interaction with the Conference on Disarmament, civil society is still marginalized, creating a disconnect between its formal and informal influence. Alternative paths to overcome the disarmament and non-proliferation gridlock might not come from conventional actors, and ways to channel civil society’s determination should be identified and set in place.

#### *A UN Nuclear Regulatory Agency*

In 1946, the US presented the idea of all fissile material being owned by an international agency called the Atomic Development Authority (ADA). The Acheson-Lilienthal Report proposed that the ADA release small amounts of fissile material to individual states for peaceful uses of atomic energy. The US insisted on retaining the atomic bomb until satisfied with the effectiveness of the agency, causing the Soviet Union to reject the idea. The failure to secure international control of nuclear weapons virtually guaranteed the nuclear arms race that followed. The concept of a regulatory agency is attractive and would provide great benefit to the international community at large, including in addressing terrorist threats. The current context makes it unlikely to succeed, but it deserves renewed attention.

#### ***Twentieth Century Security Strategies in the Twenty-First Century***

At the center of discussions on WMD is the question of whether certain types of weaponry can keep a country safer. Is there a tipping point where owning WMD—whether nuclear, chemical, or biological—creates greater risk of exposure, whether from an internal accident, a weapon launch due to cyberattack, or a threatened country? Here enters the deterrence debate.

The unevenness of capabilities also creates a dilemma at the source of the lack of efforts to unlock the gridlock: the states capable of developing new weapons are mainly the same as those defending the international system of disarmament and non-proliferation. In whose interest would it be to limit capabilities and impose international obligations? An arms race is reemerging, and this global threat lies in the hands of a few powerful states. This arms race interlinks with other issues, including degrading weapon systems, high-alert status, the growing role of non-state actors, and more precise, smaller, and cheaper weapons, to increase the global threat posed by WMD.

#### *A Revitalized Arms Race*

The nuclear weapons stockpile is aging, and at least part, if not all, of it should be retired. With the US and Russia both owning nearly 5,000 nuclear weapons, retiring them could have financial, safety, and security benefits for both countries. Instead, however, the US is moving toward modernizing its strategic nuclear capability at the cost of \$1 trillion over thirty years, and Russia is upgrading its force “with new

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<sup>30</sup> Meyer, “Running Interference for Our Nuclear Allies.”

multi-warhead missiles, aircraft, submarines, and even a rumored nuclear underwater drone.”<sup>31</sup> Between the proponents of complete disarmament and those defending a step-by-step approach, no one is asking how to contain a nuclear arms race and if the UN system can help.

### *The De-alerting Debate*

The continuing role of nuclear weapons in security doctrines and their high-alert status has not kept pace with improvements in the international climate after the end of the Cold War. Unfortunately, the return of tensions in Central and Eastern Europe indicates that the earlier period was a lost opportunity. Even today, nuclear-armed intercontinental ballistic missiles (ICBMs) can reach the US or Russia in less than thirty minutes. US launch processes for ICBMs and submarine-launched ballistic missiles (SLBMs) require only two and twelve minutes, respectively.<sup>32</sup>

Nevertheless, the space for strengthening the stability-enhancing features of deterrence still exists. Russia and the US could help by taking their thousands of nuclear warheads off high-alert.<sup>33</sup> Perhaps the risk of the launch of nuclear weapons by mistake or miscalculation is low, but eroding safety measures, strengthened cyber-attack capabilities, and the potential for human error increase those chances. The world has faced many close calls in the past.<sup>34</sup> The fact is that “high alert weapons carry a fourfold risk of unnecessary nuclear war,”<sup>35</sup> a risk that, with sufficient political will, could be eliminated with minimal effect on the current security doctrine—even as the main nuclear possessors are looking to modernize their strategic force.

### *Backing Up or Backing Away From Deterrence?*

There is also a renewed debate about the role of nuclear deterrence.<sup>36</sup> While deterrence via conventional weapons is often more credible, nuclear weapons are the ultimate deterrent. This Cold War-era theory is facing new, more complex realities shaped by reemerging tensions, additional great powers, new nuclear-weapon states, the greater role of non-state actors, and new environments, including outer space and cyberspace. “Refurbishing” old weapons into smaller and smarter ones can make them better deterrents, and research is ongoing to develop nuclear missiles that are more precise, including for underground detonation. This could mean that fewer nuclear weapons are necessary for

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<sup>31</sup> Gordon Adams and Richard Sokolsky, “Obama Is About to Launch a New Nuclear Arms Race. There’s a Better Way,” *Defense One*, January 18, 2016.

<sup>32</sup> Andrew Brown and Jeffrey Lewis, “Reframing the Nuclear De-Alerting Debate: Towards Maximizing Presidential Decision Time,” *Nuclear Threat Initiative*, December 11, 2013, available at <http://www.nti.org/analysis/articles/reframing-nuclear-de-alerting-debate-towards-maximizing-presidential-decision-time/>.

<sup>33</sup> Ramesh Thakur, “How to Handle the Risk of Nuclear Proliferation,” *OpenCanada.org*, February 27, 2015, available at <https://www.opencanada.org/features/how-to-handle-the-risk-of-nuclear-proliferation/>.

<sup>34</sup> Union of Concerned Scientist, “Close Calls with Nuclear Weapons,” April 2015, available at [www.ucsusa.org/sites/default/files/attach/2015/04/Close%20Calls%20with%20Nuclear%20Weapons.pdf](http://www.ucsusa.org/sites/default/files/attach/2015/04/Close%20Calls%20with%20Nuclear%20Weapons.pdf).

<sup>35</sup> Gareth Evans, Tanya Ogilvie-White, and Ramesh Thakur, “Nuclear Weapons: The State of Play 2015,” *Centre for Nuclear Non-Proliferation and Disarmament and Australian National University*, 2015, available at [https://cnnd.crawford.anu.edu.au/sites/default/files/publication/cnnd\\_crawford\\_anu\\_edu\\_au/2015-02/printer\\_copy.pdf](https://cnnd.crawford.anu.edu.au/sites/default/files/publication/cnnd_crawford_anu_edu_au/2015-02/printer_copy.pdf).

<sup>36</sup> Camille Grand, “The Saliency of Nuclear Weapons after Ukraine,” speech at 2015 EU Non-Proliferation and Disarmament Conference Second Plenary Session, November 12, 2015, available at <http://www.iiss.org/en/events/eu%20conference/sections/eu-conference-2015-6aba/plenary-2-90fb/grand-b14b>.

the same deterrence effect, but “the smaller yields and better targeting can make the arms more tempting to use—even to use first, rather than in retaliation.”<sup>37</sup>

The existence of nuclear weapons, even if small in size or number, leads many to determine that deterrence might be “the safest doctrine to deal with them.”<sup>38</sup> This doctrine is hard to disprove—until a nuclear attack by two states possessing nuclear weapons occurs. If no such attacks have occurred, however, it may be not because of, but despite nuclear weapons. Parallels with a study on gun regulations<sup>39</sup> could suggest that the mere fact of possessing a weapon increases the chance of being a victim of violent attack. Perhaps it is time to reestablish constructive dialogue between the strategic and disarmament communities to reevaluate security doctrine in the current context.

#### *From Militarization to Weaponization of Outer Space*

While the prevention of an arms race in outer space (PAROS) is a critical issue on the UN disarmament and arms control agenda, some argue that the threshold of whether “to militarize or not to militarize space” has been crossed with the proliferation of strategic satellites and space exploration. Efforts should now focus on preventing a space arms race by prohibiting the placement of weapons in outer space.<sup>40</sup> Strengthening space security needs to be achieved either through comprehensive or partial legal instruments (e.g., General Assembly Resolution 63/40 on PAROS, the Code of Conduct for Outer Space Activities) or through transparency and confidence-building measures (e.g., General Assembly Resolution 63/68). Both approaches have strong advocates, but a lack of trust and political will has made progress slow on both tracks at a time when threats to space security (ballistic missile defense, cyber threats, weakened deterrence capabilities, etc.) have increased manifold.

#### *Ballistic Missile Defense: Present and Alert*

It is difficult to address the current debate without acknowledging ballistic missile defense (BMD). Considered either as the future of deterrence or as an increasing global threat, BMD technology (conventional or WMD) is said to be possessed by some thirty countries and is very much part of the twenty-first century landscape. A new dimension of BMD to be reckoned with is the creation of a hypersonic missile that would go five times the speed of sound. While no country has yet achieved this, some superpowers are said to be close to such capabilities, which would defy all early-warning systems. In the meantime, the presence of BMD in Europe is seen as directly responsible for growing tensions in the region, and the high-alert status of BMD remains a constant threat to the world.

### **III. Conclusion**

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<sup>37</sup> William J. Broad and David E. Sangerjan, “As U.S. Modernizes Nuclear Weapons, ‘Smaller’ Leaves Some Uneasy,” *New York Times*, January 11, 2016, available at <http://www.nytimes.com/2016/01/12/science/as-us-modernizes-nuclear-weapons-smaller-leaves-some-uneasy.html?ncid=newsltushpimg00000003&r=0>.

<sup>38</sup> Thérèse Delpech, “Nuclear Deterrence in the 21<sup>st</sup> Century: Lessons from the Cold War for a New Era of Strategic Piracy,” RAND Corporation, 2012, p. 1.

<sup>39</sup> Comparison of homicides and suicides in Seattle, WA, and Vancouver, BC, from 1980 to 1986 determines that almost everything about the cities was the same except gun control laws and homicide rates. The chances of being shot in Seattle were eight times greater. John Henry Sloan, et al., “Handgun Regulations, Crime, Assaults and Homicide,” *New England Journal of Medicine* (1988).

<sup>40</sup> Delpech, “Nuclear Deterrence in the 21<sup>st</sup> Century,” p. 70.

The formal structures of the UN disarmament and non-proliferation machinery cannot, and should not, be replaced but are in need of serious revitalization. In an ideal world, the disarmament and non-proliferation machinery would be “open to all, blockable by none.” The reality is that, over the last thirty years, the UN disarmament machinery has suffered from a constant erosion of the processes that support its normative framework. The unnoticed passing of the seventieth anniversary of the General Assembly’s first resolution, which called for a plan of action for the elimination of all nuclear weapons and other WMD, is a troubling sign for an organization that has too little to celebrate. Probably one of the most ominous signs comes from the General Assembly and its First Committee moving from the condemnation of the use of nuclear weapons as a crime against humanity<sup>41</sup> to declaring it “inherently immoral.”<sup>42</sup> These are symptoms of a declining system that has not been able to deliver anything new on disarmament in over twenty years.

At the root of lack of progress on disarmament is the lack of inclusiveness, which translates into a lack of political will and democratic pressure, coupled with rigid organizational procedures that allow member states to stall discussions. At the state level, progress will remain blocked by the self-preserving interests of the nuclear powers, which, while trying to limit proliferation, need to maintain nuclear capabilities as long as nuclear arms exist in any shape or form. This does not mean there is no space for improving, strengthening, and further developing the current disarmament regimes. While the multilateral system is not a panacea, it contains tools to address WMD and shape solutions.

The taboo around the “new” nuclear-weapon states confines them to the margins of the NPT and other nuclear disarmament discussions, with little accountability. At the same time, progress largely depends on how much pressure non-nuclear-weapons states are able to put on the nuclear-weapon states, which is often too little. The resulting system is unyielding, lacks transparency, shields states from unwanted pressures, and only holds those accountable who have nothing to hide.

Even revitalizing the debate might not be sufficient to address new disarmament and non-proliferation challenges and risks opening a can of worms by allowing renegotiation of all past gains. Ad hoc conferences of like-minded states have proven useful on specific subjects and for generating international attention and momentum, but their long-term utility remains limited, as their outcomes do not enjoy universal acceptance. However, they have the power to engender action by including all interested parties, which can be a motor for needed change.

Such movement is not created in a vacuum, and in the absence of political leadership to drive change, the UN might be kept waiting indefinitely. The following recommendations vary in ambition but are all in the realm of the possible for a secretary-general willing to tackle the issue of disarmament and non-proliferation.

## ***1. Strengthen the UN disarmament machinery***

### **1.1. The General Assembly should hold a special session to review efforts on nuclear disarmament.**

Because holding the fourth Special Session on Disarmament (SSOD IV) appears difficult at the moment, and another NPT review conference is not set to take place until 2020, a more focused

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<sup>41</sup> UN General Assembly Resolution 1653(XVI) (November 24, 1961), UN Doc. A/RES/1653(XVI).

<sup>42</sup> UN General Assembly Resolution 70/50 (December 7, 2015), UN Doc. A/RES/70/50.

UN conference to review efforts on nuclear disarmament could be useful. This would not replace but supplement the NPT review conferences.

- 1.2. The General Assembly should request a comprehensive study on nuclear weapons.** In 1989, the General Assembly mandated the secretary-general to conduct a comprehensive study on nuclear weapons in Resolution 45/373. Over twenty-five years later, the UN and its member states could benefit from an update on the current global status of nuclear weapons.
- 1.3. The secretary-general should reinstate UNODA as a department of the UN.** This would ensure UNODA gets the resources and capabilities required to handle today's disarmament and non-proliferation challenges. It would also give UNODA a mandate to develop policies and strategies for the secretary-general.
- 1.4. The secretary-general should request that UNODA—or UNIDIR—look into the management and doctrine of nuclear weapons.** It could act as a secretariat for discussions on these issues. In this way, non-nuclear-weapon states, think tanks, and civil society could help advance and support further transparency efforts among the P5. These discussions could also shed light on the potential hazards of inaccurate information and get buy-in from the P5.
- 1.5. The secretary-general should propose strengthening UNIDIR's mandate and providing core funding.** This would help small and developing countries be better informed and represented in the disarmament machinery. UNODA could then commission UNIDIR to play a more central role in discussions on nuclear weapons management and to help review the security doctrine in light of the current challenges.

## 2. Mandate UNODA in exploring ways for states to bear a cost for retaining their nuclear weapons

- 2.1. The secretary-general should mandate UNODA to explore ways for nuclear-weapon states to bear a cost for retaining nuclear weapons.** This could include nuclear-weapon states subsidizing measures by non-nuclear-weapon states to protect against the indiscriminate effects of nuclear weapons. This mandate could give UNODA a more practical purpose in coordinating such measures—perhaps as an Office of Disarmament and Protective Security—and compel a rethink of extended deterrence.

## 3. *Support the IAEA's increasing responsibilities*

- 3.1. Member states should consider providing the resources necessary for the IAEA to discharge its increasing responsibilities** in the fields of nuclear safeguards, safety, and security.
- 3.2. The IAEA should hold a nuclear transportation safety and security conference.** Maritime security is seldom discussed in terms of WMD, but WMD are often found in international waters on submarine-launched ballistic missiles or on cargo ships when being transported from one location to another. An international conference on maritime security, under the aegis of the UN, could be a first step toward a more structured response, especially considering the entry into force of the amendment on the protection of nuclear material facilities.
- 3.3. The IAEA should create a science and technology advisory board** to conduct research on nuclear safeguards, safety, and security and to share information among member states and with civil society.



#### **4. *Implement Security Council Resolution 1540 and other paths to innovative multilateralism***

**4.1. UNODA should identify links between Resolution 1540 and WMD.** In particular, it should explore links between Resolution 1540 and cybersecurity and terrorism to help address gaps and challenges in the non-proliferation regime.

**4.2. The secretary-general, through UNODA, could build on Resolution 1540 to improve the UN's image.** The diffusion of technology and the emergence of new actors have highlighted the need for increased regulatory controls that build on Resolution 1540. Supporting implementation of Resolution 1540 through broader outreach, capacity building, and cooperative activities with all stakeholders would also help increase awareness of the work of the UN multilateral system in supporting non-proliferation initiatives.

#### **5. *Help assess the role of new technologies***

**5.1. The UN General Assembly should mandate the secretary-general to report on new technologies and WMD.** New technologies have an important role to play in countering WMD, particularly in democratizing the process of countering proliferation. The UN should report on the impact of new developments of science and technology on international security, in particular WMD.

**5.2. The UN, through the IAEA and implementation of Resolution 1540, could help provide affordable access to counter-proliferation technologies.** The UN can support efforts by low-income countries to counter threats from WMD. New technologies can also help expand opportunities for the private sector and individual citizens to mitigate dangers from nuclear, biological, and chemical weapons. The goal would be to invest in innovation for good rather than feeding an arms race for new technology.

#### **6. *Engage civil society***

**The secretary-general should support NGOs in mobilizing funding through multiple sources.** This would help strengthen the role of civil society in the disarmament machinery, help under-represented regions to be better represented in debates, and legitimize the role of civil society at the UN.

