



Volume 3

Number 1 *International Journal for Nuclear Security*

9-12-2017

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Recommended Citation

Aboul-Enein, Sameh (2017) "Toward a Non-Nuclear World: The NPT Regime – Nuclear Disarmament and the Challenge of a WMDFZ in the Middle East," *International Journal of Nuclear Security*: Vol. 3: No. 1, Article 2.

Available at: <http://trace.tennessee.edu/ijns/vol3/iss1/2>

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Cover Page Footnote

This article is written in the author's personal and academic capacity. With assistance from Research Assistant Nadine Iskandar

Toward a Non-Nuclear World: The NPT Regime – Nuclear Disarmament and the Challenge of a WMDFZ in the Middle East

Dr. Sameh Aboul-Enein¹

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With assistance from Research Assistant Nadine Iskandar

Abstract

This paper aims to provide a comprehensive overview of various approaches for nuclear disarmament and nonproliferation with the intention of determining how best to promote a Weapons of Mass Destruction Free Zone in the Middle East (MEWMDFZ). Using a qualitative approach, I investigate historical cases of agreements regarding nonproliferation zones and examine the causes for deadlock through both a perusal of historic successes and failures and a review of relevant literature. Particular focus is given to the failure of the NPT Review Conference of 2015. Furthermore, I discuss the importance of role-play simulations and their indications of the need for capacity-building and for cooperation on verification, dismantlement, and security assurances. The paper concludes that empowering and institutionalizing the NPT Review Process is necessary for the establishment of an MEWMDFZ and that concrete steps must be taken toward dismantling existing programs and disarming existing nuclear powers in order to move forward in the zonal process. I argue that an extensive verification scheme, in which nuclear-weapon states make an annual declaration to a register maintained by the United Nations, would promote transparency and enhance confidence in the arms reduction process.

Introduction

In the aftermath of the 2015 Nuclear Non-Proliferation Treaty (NPT) Review Conference, there has been a wavering confidence in the non-proliferation regime due to the imbalance of power between nuclear-weapons-possessing states and non-nuclear-weapons-possessing states. The ideal environment for promoting both non-proliferation and elimination is one in which nuclear weapons are widely—perhaps even universally—regarded as illegal, illegitimate, and immoral. The NPT is the fundamental apparatus for achieving nuclear disarmament and the regulation of nuclear proliferation, but a number of complications need to be addressed if the global community's faith in the treaty's effectiveness is to be restored. At the

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moment, the NPT's focus merely reflects the position of the system's leading nuclear powers. Therefore, it is critical that all nuclear-weapons-possessing states begin taking concrete steps toward the elimination of nuclear weapons and enacting strict regulations on the development of nuclear energy—one critical component as such being the establishment of a Weapons of Mass Destruction Free Zone (WMDFFZ) in the Middle East.

Part I. Taking Stock of the NPT Review Process

The majority of analysts and practitioners would assert that the 1968 NPT is the starting point for all constructive discussion on the topic of nuclear disarmament [1]. The road to achieving “nuclear zero” is one in which there are many components that necessitate the engagement of both nuclear-weapon and non-nuclear-weapon states [1]. More recently, the path to eliminating all nuclear weapons globally has become particularly challenging due to the loss of faith in the efficacy of the NPT Review Conference process. Discussions regarding the NPT Review Conference's effectiveness commonly express themes of tension over the new focus of the non-nuclear-weapon states regarding the humanitarian impact of nuclear weapons, contention among NPT parties on how best to progress in nuclear disarmament, an increasing frustration with the “slow pace of achieving the nuclear disarmament goals of Article VI of the NPT,” the rising popularity of the proposal to negotiate a nuclear weapons ban without the participation of the nuclear-weapon states [2], and the legal gaps in the NPT itself.

1. The Humanitarian Impact

There is an apparent dissatisfaction among non-nuclear-weapon states with the nuclear-weapon states' assertion that possessing these weapons promotes national security. The majority of NPT supporters believe that it is precisely this logic that runs counter to the treaty's foundation. On the other hand, nuclear-weapons-possessing states and their defense allies imply that deterrence is a key security strategy in protecting the safety of their nations and people. And that—human security—is precisely what is at the heart of discussions on nuclear disarmament. Where nuclear-weapon states and non-nuclear-weapon states differ is in their perspectives on how to achieve this security. At the 2014 Vienna Conference on the humanitarian impact of nuclear weapons, the United Kingdom and the United States both stressed their understanding of the humanitarian impact of nuclear weapons use [2]. While none of the five NPT nuclear-weapon states attended the Oslo and Nayarit conferences and three of the countries refused to attend the Vienna conference, the humanitarian impact initiative did not merely fade away [2].

At the 2015 NPT Review Conference, 160 member states endorsed the humanitarian initiative, which focuses mainly on the impact of a nuclear weapon's detonation on human beings and the environment. The states called for the establishment of a legal framework to eliminate nuclear weapons [3] and argued for the framework to be inserted into the final document with the precise terminology they developed, which would include the phrase “humanitarian consequences” [3]. The nuclear-weapon states were against this approach and asserted that there was no need for urgent or immediate disarmament actions [3]. A substantial majority of the states present made the assertion that the disarmament section of the draft final document, which included the humanitarian impact-focused language but not legally binding disarmament measures, could have been adopted by the conference. However, many non-nuclear-weapon states did not view the compromise as sufficient to meet their goals. Ultimately, some of the humanitarian initiative's members were satisfied to see that the conference concluded without a final consensus.

Thus far, the humanitarian initiative and the Humanitarian Pledge, which 107 states have endorsed [3], are the dominant approaches to consider for those who are disillusioned with the NPT Review Process. Those who are party to the Humanitarian Pledge have highlighted the “legal gap” in the NPT Review Process and have expressed their determination to fill it. During the conference, a cross-regional group of 47 states argued, in a statement put forward by Austria, that the conference discussions highlighted the “urgency to act upon the unacceptable humanitarian consequences of nuclear weapons,” but that they were not yet able

to make “credible progress on filling the legal gap” [3]. There is a strong possibility that these countries will begin working on the contentious legal instrument to ban nuclear weapons.

2. Different Approaches to Elimination

The threat of fragmentation of the NPT Review Process, due to the differing ideologies between groups of countries, has always been evident. All NPT participants have different approaches and definitions for what constitute effective measures for disarmament and how to achieve the goal of eliminating all nuclear weapons. The range of approaches is as follows: Step-by-Step, Comprehensive, Framework, and Ban Treaty.

3. A Step-by-Step Approach

During their conference in London in February 2015, the five nuclear-weapon states asserted that a “step-by-step approach to nuclear disarmament that promotes international stability, peace, and undiminished and increased security for all remains the only realistic and practical route to achieving a world without nuclear weapons” [4]. This step-by-step disarmament approach has proved favorable for nuclear-weapon states, with significant reductions seen in Russian and U.S. nuclear weapons stockpiles and their delivery vehicles since the height of the Cold War [2].

This step-by-step approach has become the “traditional way” [5] of discussing nuclear disarmament, as it is made up of independent steps: “negotiating a comprehensive ban on nuclear testing, providing adequate security assurance for non-nuclear-weapon states, halting the production of fissile material, and negotiating verifiable arms reduction treaties.” All such aims should be sought in consecutive and equally supportive steps until the total elimination of all nuclear weapons is achieved globally [6].

4. A Comprehensive Approach

Conversely, the majority of non-nuclear-weapon states would prefer a single agreement in the form of a comprehensive approach. At the 2015 NPT Review Conference, many speakers expressed their preference for a time-bound commitment toward global nuclear disarmament, but some expressed disdain of several nuclear-weapon states’ actions. They asserted that these states were reluctant to budge from their positions due to a “lack of political will” [6]. Iran’s speaker asserted that most non-nuclear-weapon states believed that the best way to achieve the complete eradication of nuclear weapons is via the negotiation of a comprehensive nuclear weapons agreement and that they were frustrated with the current piecemeal approach to nuclear disarmament [6]. By contrast, a comprehensive approach would tackle both elimination and prohibition in a “single legal instrument” [5]. One purpose of such a model is to prove that the elimination of nuclear weapons is practically feasible [7]. It will serve as a legal framework and take the form of a Nuclear Weapons Convention (NWC) that assembles the steps necessary to achieve the goal of global zero in an “effective, reliable, irreversible, and sustainable manner” [7].

5. A Framework Approach of Separate Mutually Reinforcing Instruments

In 2008, the UN Secretary General characterized this approach as a “framework of separate mutually reinforcing instruments” [8]. This legally binding framework agreement, which aims to prohibit and eliminate nuclear weapons by pursuing an agreed-upon range and sequence of effective measures, could take several different forms. It would draw on the results of both the 1980 Convention on Certain Conventional Weapons (CCW) and the 1981 Inhuman Weapons Convention. The first step would be to negotiate a foundational treaty that would be made up of the core prohibitions and obligations, with or without timeframes, and subsequent negotiations would fine-tune the details, such as the order and deadlines for “specific measures, verification, and institutional issues” [9]. These factors would then change the framework through additional obligations or through “separate mutually reinforcing agreements” [9].

The Framework Approach differs from the comprehensive approach in that it is not necessary for all parties to be in simultaneous agreement in order to follow all elements of a prohibition [5]. Furthermore, this approach can maintain an “architectural link between the process of prohibition and elimination” [5]. It might be similar to what is envisioned for a nuclear ban treaty approach because it can begin embedding international law prohibitions even if nuclear-weapon states are reluctant. Both the Framework Approach and the Ban Treaty Approach are not mutually exclusive, as they combine elements of “comprehensive and incremental measures to prohibit and eliminate nuclear weapons” [9]. Additionally, they can have a practical effect on states’ behavior because the measures can be negotiated and entered into effect expeditiously.

6. *Ban Treaty Approach*

The Ban Treaty approach has gained much attention over the past few years. This is the option that civil society promotes most vocally, and it is also the most recent to emerge [5]. The logic behind it is that a ban would “stigmatize the possession of nuclear weapons, and thus pave the way for further nuclear disarmament” [5]. The International Campaign to Abolish Nuclear Weapons (ICAN) supports this vision and argues that a global ban is long overdue, but that it can be accomplished through “enough public pressure on political leadership” [10].

Many non-governmental organizations (NGOs) also support the negotiation of a legally binding instrument that would outlaw their parties from taking part in any activity related to the “use, development, production, stockpiling, transfer, acquisition, deployment, and financing of nuclear weapons” [5]. ICAN, along with other supporters of the Ban Treaty approach, promote having negotiations on a treaty banning nuclear weapons without the participation of those armed with nuclear weapons [5]. ICAN alludes to the NPT Review Process when it asserts that the only other option is to continue allowing nuclear-weapon states to manipulate the process and “perpetuate two-tier systems and treaty regimes” that have no ability to achieve disarmament [5].

In the most recent session of the *Open-ended Working Group to Develop Proposals to Take Forward Multilateral Nuclear Disarmament Negotiations*, which took place at the United Nations Office in Geneva, discussion concluded with the majority of nations—107 states from Africa, Latin America, the Caribbean, Southeast Asia, and the Pacific—stating their intention to launch negotiations in 2017 for a global ban on nuclear weapons. The group adopted its final report by a vote in which it recommended that a conference be held in 2017 to negotiate “a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination” [11]. The treaty is open to signature in September of 2017.

7. *The Pace*

The conferences to review the operation of the treaty have been held at five-year intervals since the NPT came into effect in 1970, and each conference thereafter has sought to reach consensus on a declaration that would examine the parties’ efforts in implementing the treaty’s provisions and make recommendations for measures to strengthen it based on their analysis [6]. A consensus on a final declaration was achieved in the 1975, 1985, 1995, 2000, and 2010 Review Conferences, but was not brought to fruition in the 1980, 1990, 2005, and 2015 Review Conferences.

One dominant critique of the NPT Review Process in recent years has been that it moves at a frustratingly slow pace and that this is in part due to the lack of timeframes for achievement of agreed-upon goals; in reality, though, the review process, as outlined in Article VIII and the 1995 and 2000 Review Conferences’ documents *inter alia*, reviews the operation of the Treaty and makes recommendations toward that end, and state parties have reduced the process to endless repetitive statements and “working papers.” On the other hand, nuclear-weapon states make the counterargument that nothing in Article VI requires a timeframe or specific requirements for achieving the prohibition and elimination of nuclear weapons [12]. Thus,

criticisms from both civil society and the majority of non-nuclear-weapon states have agreed that a “legal gap” in Article VI does not set a precise timeline and measurements for achieving nuclear disarmament.

This rift has caused tensions between the NWS (nuclear-weapon states) and the NNWS (non-nuclear-weapon states), which was epitomized at the 2015 NPT Review Conference, especially when considering that in 2010, the NPT nuclear-weapon states pledged to “accelerate concrete progress on the steps leading to nuclear disarmament” [13], including “all types of nuclear weapons,” and, as well, promised to work on bringing into legal force the 1996 Comprehensive Test Ban Treaty (CTBT). Since the 2010 New Strategic Arms Reduction Treaty (New START), progress has been delayed due to ever-worsening U.S.-Russian relations and differences among the key nuclear-weapon states on how to move forward [13]. Additionally, there exists a general critique that the nuclear-weapon states came to the conference without new proposals for meeting their NPT obligations to lower both the number of nuclear weapons and the risk that those weapons might be used [13].

While some critics criticize the NPT for having failed to move forward on negotiations on a ban since its founding, 45 years ago, actual disarmament is not that simple. Analyzing the progress toward nuclear disarmament is complicated in that both the changes in the numbers of nuclear weapons and the policies governing these weapons are worth considering. Measurable steps have been taken by key nuclear-weapon states, both unilaterally and bilaterally, with respect to reductions [14]. So, it is indeed important to set a timeframe for disarmament, but such ought to be done through the NPT review framework.

8. *The Legal Gap*

The gaps in the NPT’s legalities are as follows:

- No comprehensive prohibition exists, as NPT Articles I and II focus solely on preventing non-nuclear-weapon states from receiving nuclear weapons or having any control over them [5]. Furthermore, non-nuclear-weapon states are prohibited from creating or receiving help in creating such weapons.
- It is not clear whether the NPT prohibits nuclear-weapon states in assisting one another in the production of such weapons [15].
- Similarly, no language in the NPT prohibits NPT non-nuclear-weapon states from assisting nuclear-weapon states in the manufacture and acquisition of such weapons.
- The NPT only explicitly prohibits the production of a fully assembled nuclear weapon.
- No language in the NPT prohibits nuclear weapon modernization, though such modernization goes against a reasonable interpretation of Article VI [15].

The main argument for the legal gap in the NPT is that nuclear weapons are the only weapons of mass destruction that have not yet been designated as explicitly illegal by an international treaty. Those pointing to this issue often note that the current stalemate in nuclear disarmament is caused by the lack of a “clear normative framework that rejects the possession of these weapons” [16]. The argument for filling the NPT’s legal gap was most publically addressed in the December 2014 Conference on the Humanitarian Impact on Nuclear Weapons in Vienna, where there was a pledge calling on all states party to the NPT to renew their commitment to Article VI of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons by pursuing “effective measures to fill the legal gap for the prohibition and elimination of nuclear weapons” [15]. This pledge is titled Article 36 and states that a comprehensive instrument is needed which prohibits all activities that involve nuclear weapons in all circumstances for all state parties [15]. It asserts that the legal gap arises because several instruments cover only certain areas or activities, thus rendering the current international legal regulation of nuclear weapons fragmentary. Furthermore, the rules in existing instruments apply to different states in different ways, creating an imbalance in power.

While some argue that it is necessary to come up with an entirely different framework to address the issue of eliminating nuclear weapons, it is important to consider that the NPT has served the international community well by largely preventing further proliferation of nuclear weapons. That said, the NPT's current framework contains legal gaps that enable states to retain their nuclear weapons or engage in nuclear weapon activities so as to assert political power from their possession and deployment while still claiming that they want to encourage elimination. Thus, it is necessary to strengthen the NPT by eliminating these gaps and including language that explicitly calls for the legal elimination of nuclear weapons. Such an effect can be achieved by building on the NPT through the consideration of existing norms and by reinforcing existing legal instruments to establish a solid framework toward eliminating the weapons.

As well, in its *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, the International Court of Justice ruled that no customary rules or laws exist which prohibit usage of nuclear weapons, but it unanimously ruled that: "there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control" [17]. Such a ruling complements the framework proposed earlier.

Even though international humanitarian law (IHL) does not specifically prohibit nuclear weapons, all weapons still need to follow the general rules of IHL when it comes to regulating the conduct of hostilities. For example, the principle of proportionality, which is contained in Protocol II and which was amended in the Convention on Certain Conventional Weapons [18] and mentioned under the Statute of the International Criminal Court, states that "intentionally launching an attack [with] the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian object [...] which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated" is a war crime in international armed conflicts [19]. Furthermore, the general rules of IHL regulate the means by which hostilities are carried out. Thus, weapons that cause excessive injury or unnecessary suffering for combatants [20] or that cannot be used in a way that allows distinction between civilians and combatants are prohibited. From these principles, it can be deduced that nuclear weapons are not compatible with international law, as they cause large-scale casualties and destruction.

Historically, when there has been a prohibition on weapons systems, it facilitates their elimination [15]. States that possess such weapons begin to regard them as illegitimate or as taboo to own; such regard has ultimately led to the emergence of a stigmatization of nuclear weapons and a global nuclear taboo regarding their use and possession [21]. The weapons lose their political value, and along with it, "the money and resources for their production, modernization, proliferation, and perpetuation" [21]. Thus, the addition of a clause pertaining to a legal ban on nuclear weapons in the NPT [22] would have a "significant normative and practical impact"[22] on all states. This is because of the fact that the impending nuclear weapons ban movement aims to turn the existing global norms against nuclear weapons into international law. Accordingly, a normative treaty that intends to ban the use, stockpiling, acquisition, and development of nuclear weapons will enable its proponents to advocate the addition of such a legal, comprehensive ban on nuclear weapons in the NPT, which sets only partial bans on the acquisition and development of nuclear weapons.

9. The Role of the IAEA in Nuclear Disarmament Verification

Nuclear disarmament agreements rely greatly on the role of verification. The verification process involves collecting and critically judging information to determine whether NPT parties are in compliance with the agreement [23]. The process is an effective confidence-building measure in that it assures all parties that their agreements are being implemented in a fair and effective manner [23]. In considering the issue of disarmament, verification can help keep all states accountable because the threat of detection will "deter a party from pursuing non-compliance" and will also help facilitate responses to non-compliance [23]. Such

accountability paves the way for states to agree to legally binding commitments of disarmament because all parties' efforts are recognized, and transparency exists.

According to the IAEA Statute as reported by Persbo and Marius Bjorningstad, this cooperation in nuclear disarmament should focus on the following [24]:

1. Developing a generic model of the entire dismantlement process. This would include all relevant verification objectives and technologies and identify suitable verification procedures for each dismantlement action.
2. Developing a declaration standard. This standard should allow the inspected party to list all sites, documentation, and personnel relevant to the verification process. It should include a section describing sites, documents, or personnel not eligible for inspection and the reason(s) for ineligibility. It should also include an attached description of special safety precautions that the inspectorate must take when visiting facilities.
3. Identifying key inspection points and associated measurement technologies and techniques, including information barriers and other restrictions.
4. Developing procedures and methods that will help resolve compliance concerns involving national security-related facilities and information.
5. Calculating the cost of building new, identical, built-for purpose dismantlement facilities and comparing it to the cost of using existing facilities with their inherent challenges [24].

The International Atomic Energy Agency (IAEA) should play a significant role in verification as it has a statutory mandate to “apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement [...] to any of the State’s activities in the field of atomic energy, and this applies to nuclear disarmament verification” [25]. The member states also play a significant role in that they will shape how the agency will prepare for and carry out nuclear disarmament verification. The IAEA can offer careful coordination among all stakeholders to explore and implement multilateral approaches to nuclear disarmament verification. The IAEA will be able to support coordination among “governments, the United Nations, other international and regional organizations” [25], all nuclear-weapon states (except the Democratic People’s Republic of Korea [DPRK]), and, as well, the vast majority of non-nuclear-weapon states. The agency has a long history of verifying non-proliferation to inform multilateral approaches, and it can use such experience when it comes to nuclear disarmament. The IAEA has Voluntary Offer Agreements (VOAs) with the five NPT Nuclear Weapon States that covers some of their peaceful nuclear activities. Of these, three states have item-specific safeguards agreements, and the agency has applied safeguards to 181 non-nuclear-weapon states, 173 of which have comprehensive safeguards agreements [26]. There are 126 additional protocols that are in force with 127 states and Euratom, and another 21 states have signed an additional protocol but have yet to bring it into force [26]. To manage these verifications, 883 people from 95 countries work in the Department of Safeguards overseeing [26] more than 200,110 significant quantities of nuclear material in 1,286 nuclear facilities and locations outside of facilities that are all under safeguards [26]. In addition, the IAEA General Conference and the Board of Governors have approached new verification challenges and are overseeing solutions to these in an inclusive manner.

The IAEA has developed a strong relationship within the broader UN system that ought to be utilized, and it has established an array of technical verification procedures and information handling systems. Thus, it is essential that member states play a foundational part in shaping the IAEA’s role in verifying nuclear disarmament. This ought to come in the form of both technical and financial support because it will “determine the sophistication and readiness of the IAEA’s disarmament verification capabilities” [23]. The

member states which comprise the IAEA Board of Governors and general conference can provide political support that will determine how and when the IAEA's disarmament verification capabilities are actualized.

Beyond developing verification technology, the nuclear-weapon states should open their testing sites to the CTBTO (Comprehensive Nuclear-Test-Ban Treaty Organization) and their nuclear-weapon facilities to international inspection. Knowing what to look for and where to look is always challenging. Verifying complete disarmament is likely to be far more difficult and will involve addressing an even larger and more complex set of questions. For example, how can the inspectorate be completely sure that a state has declared all of its nuclear warheads [1]? Likewise, how can the inspectorate be confident that there is not a further, undeclared production of nuclear warheads? A significant factor that would facilitate effective and efficient verification is a careful selection of which items, activities, and facilities must be monitored and which need not be. To increase transparency and build confidence in a comprehensive verification scheme, nuclear-weapon states could provide annual declarations to a register that would perhaps be maintained by the United Nations. The declarations could include the [1]:

- Total current numbers of nuclear warheads and delivery systems.
- Current projected level of arsenals at the next NPT Review Conference.
- Plans for the development and deployment of missile defenses and indications of the nature, location, and scope of such defenses.
- Fissile material inventories and plans to place excess fissile materials under international inspection.
- Plans for the elimination of nuclear weapons and delivery vehicles.

Staffing the IAEA Verification Commission and ensuring security

A full security committee that confidentially reports to the United Nations Secretariat regarding nuclear inspection will need to be appointed. The inspectors themselves will be scientifically qualified and have experience in the area. Their job will be to inspect military nuclear installations or nuclear installations that are capable of conversion to nuclear weapons manufacturing and then report to the UN Secretary General. The inspectors will be individuals of proven intellectual ability and integrity but need not be members of nuclear-weapon states.

The IAEA member states ought to involve the IAEA Secretariat and broader international community in ensuring that these declarations are executed, because they are integral to verifying nuclear disarmament. IAEA member states have many opportunities to discuss the agency's role in verifying nuclear disarmament, such as the IAEA's General Conference, the NPT Review Process, the Conference on Disarmament, and the UN General assembly, all of which serve as multilateral forums that allow states to express their support for the role of the IAEA in verifying nuclear disarmament [23].

In addition, other verification initiatives have proved beneficial to the nuclear disarmament cause, such as the US-led International Partnership for Nuclear Disarmament Verification (IPNDV), the UK-Norway Initiative, and the Verification, Research, Training and Information Center (VERTIC)'s project supporting Multilateral Disarmament Verification. These verification systems allow non-nuclear-weapon states and nuclear-weapon states to analyze technical and procedural issues together. The IAEA provides powerful tools for nuclear disarmament verification via its safeguards, inspections, and measurements because it builds a relationship of trust and cooperation between the inspecting and inspected parties, thus enabling more effective and credible verification in the long-term.

Part II. The Nuclear Weapon Free Zone in the Middle East

A Nuclear Weapon Free Zone (NWFZ) is a group of countries that agree to denuclearize through a multilateral treaty. Such a treaty simultaneously involves not only denuclearizing, but also attempts to

attain negative security guarantees from the nuclear weapon states. The United Nations asserts that an NWFZ serves as an important disarmament tool and helps strengthen the security of states party to such zones. It also contributes to the primary objective of strengthening regional peace and security and, by extension, international peace and security. This integral, regional, confidence-building measure reaffirms the commitment of the states that belong to the zone to honor their legal obligations to other international non-proliferation and disarmament instruments to which they are party [27].

We cannot speak of the NPT Review Conference without considering the NWFZ in the Middle East and vice versa. The prospect of an NWFZ in the Middle East cannot be achieved without the NPT operating at full force. The 1995 NPT Review Conference called for the “establishment of an effectively verifiable Middle East Zone free of Weapons of Mass Destruction, Nuclear, Chemical, and Biological, and their delivery systems” as part of a package of decisions that results in the extension of the nuclear NPT. Integral to the package is a “comprehensive and gradual” [28] strategy for disarmament because, ultimately, the goal of establishing a Weapons of Mass Destruction Free Zone in the Middle East is the nucleus of the broader goal of Article VI of the Non-Proliferation of Nuclear Weapons proposal.

In considering the challenges to building an NWFZ in the region, it is essential to analyze the history of how the proposal for the zone came about:

- The United Nations General Assembly (UNGA) was the first to support the creation of an NWFZ in a resolution affirmed in December of 1974 after a proposition by Iran and Egypt.
- In 1980, Israel joined an international consensus allowing the General Assembly to pass a resolution supporting the goal of an NWFZ without a vote. Since 1980, that resolution has been passed every year without a vote by the UNGA, and support for the proposal has been part of various UN Security Council Resolutions.
- Then in 1988, Egypt called for a study of effective, verifiable measures that would facilitate the establishment of an NWFZ in the Middle East.
- In 1989, IAEA released a technical study focusing on the different conditions for the use of safeguards on nuclear facilities in the Middle East. The study was a major step forward toward building up an NWFZ.
- In 1990, Egypt presented the initial proposal to establish a Weapons of Mass Destruction Free Zone (WMDFZ) in the Middle East. That same year, a UN Expert Study on “A Zone Free of Weapons of Mass Destruction in the Middle East” was released.
- In 1991, the UN Security Council Resolution on Iraq, adopted under Chapter VII of the UN Charter, framed Iraq’s disarmament in the context of establishing a WMDFZ in the Middle East.
- Since 1991, the IAEA General Conference has, without protest, received and accepted every year a request requiring the use of full extension shields on all atomic offices in nuclear weapons installation sites as a fundamental step in the foundation of the NWFZ.
- The 1995 NPT Review Conference was special because when the treaty came into force in 1970, there was an agreement that after 25 years, all signatories would meet to determine whether they wished to retain the treaty, change it, or dismiss it entirely. The United States and its allies agreed to retain it, asserting that the NPT is beneficial in preventing more countries from attaining nuclear weapons. However, other countries presented the counterargument that this meant that all nuclear-weapon states also had to get rid of their nuclear weapons programs.

- In 1999, the United Nations Disarmament Commission (UNDC) set forth guidelines and principles for the establishment of an NWFZ [29], creating an important reference for the organization of future zones that should be thoroughly utilized [30]. The guidelines and principles state that an NWFZ should not prevent the use of nuclear science and technology for peaceful purposes. If specified in the treaties establishing such zones, bilateral, regional, and international cooperation may facilitate the peaceful research and use of nuclear energy in the zone to support socio-economic, scientific, and technological development. The UNDC also specifies that nuclear-weapon states should be consulted during the negotiations of each treaty, including the negotiation of relevant protocol(s) establishing an NWFZ, in order to facilitate the signature and ratification of the treaty.

More than two decades have passed since the 1995 Treaty on the Non-Proliferation of Nuclear Weapons Review and Extension Conference adopted a resolution on the Middle East that called for the establishment of a WMDFZ in the region. The resolution was an integral part of the fundamental agreement to ensure the indefinite extension of the treaty. For many states, it also constitutes the fourth pillar of the NPT regime, which is one reason why many states feel aggrieved with the lack of progress and the apparent low priority given to the matter prior to 2010 [31]. Unfortunately, to this day, no practical steps have been taken to implement this resolution. Despite the fact that the 2010 NPT Review Conference presented a way forward toward adopting an action plan on the Middle East, it is important to acknowledge that little progress has been achieved in the years since, and there has been scant evidence that the conveners were even committed to calling the meeting in accordance with the timeline and the mandate established by the 2010 NPT Review Conference [31].

By signing the UN Resolution on establishing a Middle East Weapons of Mass Destruction Free Zone (MEWMDFZ) in 2011, all states in the Middle East have, in principle, expressed their support for a multilateral, regional, non-proliferation framework; in doing so, they have backed internationally agreed-upon norms in the UN General Assembly and the UN Disarmament Commission to establish NWFZs. The consensus does not mean, however, that all states have committed to signing a Nuclear Non-Proliferation Treaty (NPT). The MEWMDFZ and the NPT are separate treaties. As such, it is apparent that the issue is not one of whether there is a consensus that an NWFZ in the region would create stability and promote security; it is, rather, a question of how to arrive at such a point. The question of whether or not the NPT will continue to develop as a far-reaching and genuinely global pact—addressing outstanding issues, including the Middle East and fulfillment of disarmament obligations—will prove fundamental in any future attempts to strengthen the treaty [32]. The universality of the NPT is critical to regional and global security because the states remaining outside of the treaty fundamentally undermine the benefits of membership for their neighbors by maintaining nuclear programs that constitute a continuing nuclear danger to their neighbors and the rest of the world [32]. (It is therefore crucial for Israel, India, Pakistan, and North Korea to accede to the NPT, as their decision to remain outside of the treaty is threatening the continuation of the treaty itself.)

The importance of achieving universality with the NPT has been recognized by the treaty's member states, and there have been numerous, continued calls for achieving such universality since the 1995 NPT Review Conference. Additionally, a number of important documents emphasize this yet unmet and crucial objective, such as the NPT Review Conference Outcome documents (which include the 1995 NPT Review and Extension Conference Outcome) [33] and the Final Outcome document of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. The latter document mentions, in Article VIII of Part I, that “Review Conferences should also address specifically what might be done to strengthen the implementation of the Treaty and to achieve its universality”[4]. The UN General Assembly also adopted another key resolution that supports the universal establishment of the NPT in “Draft XXIV — Towards a Nuclear-Weapon-Free world: Accelerating the Implementation of

Nuclear Disarmament Commitments (L.41/Rev.1)” [3]. The operative paragraph 13 of that document “stressed the fundamental role of the NPT in achieving nuclear disarmament and non-proliferation and called on all States’ parties to spare no effort to achieve its universality” [3]. Moreover, the document advised that India, Pakistan, and Israel unconditionally accede to the NPT as non-nuclear states. The Non-Aligned Movement (NAM) has also adopted several resolutions calling for the universal establishment of the NPT. The most important such resolution is the final document of the 2005 NPT Review Conference in which NAM states that parties to the treaty urged India, Pakistan, and Israel to promptly join the treaty. NAM also asserts that states which have decided to remain outside of the NPT are undermining the credibility of the non-proliferation regime.

1. An Examination of Zones and Agreements

The delay in positive results over the past decade has influenced many critics of the zone to suggest that it is nearly impossible to achieve a WMDFFZ in the Middle East. However, such skepticism calls into question why other regions in the world are able to successfully arrive at such a consensus. One of the first NWFZs to be declared was in Latin America and the Caribbean – the Tlatelolco NWFZ, which was established on paper in 1967 and came into effect a year later. Since then, NWFZs have been declared in the South Pacific with the Treaty of Rarotonga in 1985, in Southeast Asia with the Bangkok NWFZ in 1997, in Central Asia in 2009 with the Treaty of Semipalatinsk, and most recently, in Africa with the Treaty of Pelindaba in 2009. Another citable example is the bilateral model of the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC), which ended a decades-long nuclear rivalry and brought what would have been a prolonged arms race between the two states to an end. If the previous NWFZs are taken as indicators, the establishment of NWFZs go through the following stages: 1) a pre-negotiation phase which outlines principles and preferences regarding the broad parameters of the zone, 2) targeted negotiations based on formulating a legally binding text, 3) signing and ratifying, 4) institution-building and additional accessions, and 5) a step-by-step implementation of all treaty commitments. Furthermore, we suggest that it is vital to look at the negotiations that took place, what was accomplished, and what barriers were overcome when determining how to implement new NWFZs in the future.

While contextual differences between these zones and the Middle East exist, these treaties provide guidance for formulating the technical, institutional, and scientific dimensions of an NWFZ. They offer solutions regarding verification and compliance with treaty obligations that could be adapted to the Middle East [27]. In seeking an effective framework that can be adapted to the region, it is advisable to determine how the experience of other zones and the advice given in forums and conferences on the topic could be helpful to the region, particularly in the critical areas of verification, compliance, governance, and cooperation [27]. Internationally, the calls for the establishment of an NWFZ in the Middle East have been ongoing since the early 1970s. At the United Nations General Assembly in 1974, Iran, joined by Egypt, proposed a resolution to create an NWFZ in the Middle East. This resolution was adopted by an overwhelming majority, and since 1980, it has been adopted by consensus every year. However, no action has been taken by states to implement the zone.

2. Unilateral Action: The South Africa Precedent

South Africa is the first country to voluntarily abandon a fully developed nuclear weapons program [34]. The Middle East, particularly Israel (which, despite adopting a policy of nuclear opacity and not formally declaring its possession of nuclear weapons, is widely believed to have a military nuclear program), ought to consider South Africa a useful model for dismantlement and disarmament because South Africa’s experiences show that renouncing nuclear weapons does not undermine national security but, rather, strengthens it. South Africa took five years to build its first nuclear device and a total of sixteen years to construct its six-weapon arsenal, and yet it terminated and fully dismantled its program and all related facilities in less than twenty-four months.

The Pelindaba Treaty, which established an NWFZ in Africa, contains the following standards. The treaty prohibits the research, development, manufacturing, stockpiling, acquisition, testing, possession, control, or stationing of nuclear explosive devices in the territory of parties to the treaty and the dumping of radioactive waste in the African zone by treaty parties [34]. It also prohibits any attacks by treaty parties against nuclear installations in the zone and requires them to maintain the highest standards of physical protection of nuclear material, facilities, and equipment that are to be used exclusively for peaceful purposes. The treaty requires parties to conclude comprehensive safeguard agreements with the IAEA equivalent to the agreements required in connection with NPT that verify nuclear non-proliferation [34]. Additionally, the treaty provides for verification and compliance mechanisms. For example, the African Commission on Nuclear Energy (AFCON) serves as one such compliance mechanism and encourages regional and sub-regional programs for cooperation on the peaceful uses of nuclear science and technology [34].

3. Euratom: The European Institutional Experience

The Middle East should also explore the applicability of the Euratom experience, particularly its technical dimensions. Euratom was created to coordinate research programs for the peaceful uses of nuclear energy and to pool knowledge, infrastructure, and funding. It ensures the security of the atomic energy supply within the framework of a centralized monitoring system and acts in several areas connected to atomic energy, including research, safety standards, and the peaceful uses of nuclear energy [34]. The Euratom Program puts a lot of effort into developing nuclear skills and competence as a means to maintain Europe's status as the world leader in nuclear safety and waste management.

4. ABACC: The Argentine-Brazil Institutional Experience

The Middle East can also draw inspiration from the regional organization, Brazilian-Argentine Agency for Accounting and Control of Nuclear Weapons (ABACC). ABACC's bold initiative is to rid the region of nuclear weapons and other WMDs and to reposition the region on a non-nuclear course. In addition to the July 1991 signature of the Agreement for the Exclusively Peaceful Use of Nuclear Energy, the relationship attained by Brazil and Argentina through ABACC is significant [34]. The sovereign right of each nation to access nuclear technology for scientific, technological, economic, and social development is included in this agreement, and both countries committed to establishing the Common System for Accounting and Control of Nuclear Materials (SCCC) [27]. There is a clear and definite compromise in the agreement for the peaceful use of nuclear materials and facilities submitted to Brazil's and Argentina's control [27]. The ABACC was created to manage and apply the SCCC in this context and allowed both countries to join the Tlatelolco Treaty and the NPT.

5. 2011 IAEA Forum

A useful reference point on the subject of the Middle East zone is the IAEA forum on "Experience of Possible Relevance to the Creation of a Nuclear-Weapon Free Zone in the Middle East," held in Vienna in November 2011 [35]. The forum attendees presented several constructive proposals, such as taking stock of the importance of declaratory policy (specifically, declarations of good intent), and identifying specific and practical confidence-building measures. They suggested that the latter objective could be accomplished by: 1) considering the lessons and context of other regions prior to the establishment of an NWFZ, 2) reviewing existing multilateral principles for establishing such zones, 3) reviewing the relevant theory, practice, and experience of the representatives from the five NWFZs in setting up and implementing such zones, and 4) discussing the region of the Middle East in such a context [36].

6. The Framework for Verification of a WMD Free Zone in the Middle East

A critical measure of arms control agreements that strives for building-confidence among all stakeholders is effective verification. The Middle East has a history of reportedly developing and possessing nuclear

weapons, and the history has bred mistrust among all relevant stakeholders. Thus, effective and comprehensive verification arrangements are essential for restoring confidence in the region [37]. Such arrangements would require that all facilities in the region involved in the development or stocking of nuclear weapons be “dismantled by the possessor state prior to the creation of the NWFZ” [37].

An NWFZ in the Middle East will most likely be agreed upon in the context of a regional, legally binding instrument that contains all of the obligations that states in the Middle East must follow [24]. It is a basic prerequisite for the zone that all states in the area accede to the NPT, Chemical Weapons Convention (CWC), and Biological Weapons Convention (BWC). The regional instrument establishing the zone would also potentially “set a timeframe to address the asymmetries in membership of the three treaties” [24]. It is expected that this would occur in conjunction with additional regional arrangements connected to the resulting verification obligations that include regional verification systems. The Five NPT nuclear-weapon states have an obligation to uphold the treaty establishing the zone in that they must not threaten or use nuclear weapons against any state that is party to the zone, nor assist in any act that violates the treaty establishing the zone.

WMDFZs are significant to more parties than the ones directly involved and affected by the zones. They are also important to the states bordering the region and to all NPT and IAEA party states. For example, the current zones have verification standards through NWFZ agreements that call for “international inspection through the IAEA and additionally by regional structures” [37]. The IAEA has powerful tools for nuclear disarmament verification that will allow inspectors in the Middle East to closely monitor the dismantlement process, such as those associated with safeguards, inspections, and measurements [24]. Thus, the IAEA can play the role of compliance verification with states’ treaty obligations by ensuring that nuclear material, facilities, and activities are under full-scope safeguards. All states in the zone will also need to implement the Comprehensive Safeguards Agreements [37].

The IAEA and regional authorities should act jointly to conduct all routine and non-routine verification activities. The NPT must remain central in the negotiation of a treaty-based Middle East WMDFZ, and the IAEA tools must be implemented in a manner that complies with Article IV of the NPT to avoid hampering the parties’ economic and technological development, as well as to allow international cooperation in the field of peaceful nuclear activities. The resolution adopted on September 20, 2012 during the eighth plenary meeting of the fifty-sixth regular session of the IAEA General Conference on the Applications of IAEA safeguards in the Middle East states that it “calls upon all states in the region to accede to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)” and that it “calls upon all states in the region to accede to and implement all relevant nuclear disarmament and non-proliferation conventions, to fulfill in good faith international obligations and commitments relating to safeguards, and to cooperate fully with the IAEA within the framework of their respective obligations” [38].

These resolutions confirm that it is necessary for all relevant stakeholders to negotiate and finalize safeguards agreements with the IAEA covering all nuclear material within the region, “allowing the IAEA to carry out routine [...] and special inspections of safeguarded nuclear facilities and materials” [38].

Part III. The 2015 NPT Review Conference and the Nuclear Weapons Free Zone in the Middle East

The failure of the NPT Review Conference in 2015 can be attributed to the lack of progress on the part of the co-sponsors of the 1995 Middle East Resolution in establishing a WMDFZ in the Middle East. It is clear that the Middle East NWFZ is stuck at the very early stages of development and has not progressed through any of the substantive stages conducive to establishment of the zone. However, the region cannot be an exception to the norm, and it is vital for stakeholders to change this course.

A major critique voiced at the 2015 Review Conference was that the nuclear-weapon states were more preoccupied with protecting their own interests than with compromising. One example is the United States choosing to safeguard Israeli interests over a WMDFZ in the Middle East [39]. The conference ended with the U.S. refusing to agree to the wording on the Middle East NWFZ and stalling the entire draft of the final document. This final document would have set a March 2016 deadline for convening a conference toward this end [40]. The U.S. argued that the deadline for the zone was “arbitrary,” and Canada asserted that Israel, a non-NPT party, ought to be included in the negotiations [40]. The U.S. went so far as to criticize the Arab group on the subject of an NWFZ by calling it inflexible, which prompted the Non-Aligned movement to assert that it was actually the United States, United Kingdom, and Canada that were to blame for the outcome of the final plenary. The lack of progress on a WMDFZ in the Middle East has been a particularly contentious topic of conversation for non-nuclear-weapon states, especially since the previous mandate on the zone expired, and it appears that a new one might not be confirmed until the next Review Conference in 2020 [39]. However, Arab states could possibly present the issue to the UN General Assembly, where they could then gather the support necessary to pass on the issue of organizing the WMDFZ conference to the Secretary General.

Furthermore, the recurring obstacle that comes up in all discussions regarding an NWFZ in the region is the conversation on Israel, which currently remains the only state in the Middle East that has not yet become a party to the NPT and the only state in the region which possesses nuclear weapons. Therefore, Israel’s accession to the treaty as a non-nuclear-weapon state remains central to achieving the goal of universal adherence to the treaty in the Middle East. In an effort to gain broad support within the review conference framework, the original Arab Group text on the WMDFZ was amended during the negotiations. Those who worked on the section for a WMDFZ in the Middle East intended for the negotiations on the zone to be consensus-based [3]. However, if the Arab states do decide to take the issue to the General Assembly, they would effectively bypass the provisions requiring consensus.

The NPT must play a stronger role in achieving a WMDFZ in the Middle East if member states hope to reach the treaty’s goal of nuclear disarmament and non-proliferation. Even the treaty, though, faces challenges in that while some nuclear-weapon states have reduced their arsenals, accelerated dismantlement, and terminated some nuclear test sites, there are still an approximated 9,920 nuclear weapons worldwide that remain deployed and stockpiled, according to the Bulletin of the Atomic Scientists [41]. It is simply unsustainable to expect NPT members to exercise indefinite restraint and take on ever-increasing burdens to prove peaceful use while universality languishes and nuclear disarmament remains a distant goal [31]. There is also the issue that the continuing lack of implementation of the 1995 resolution is bound to have serious consequences, not only for the future of proliferation within the region, but also for the credibility of the NPT regime. This failure to make progress is now increasingly perceived as a breach of faith and commitment on the part of the depositary states and the conveners of the conference. To minimize any negative impact on the NPT regime, the depositary states that co-sponsored the 1995 Resolution must assume special responsibility and take visible and concrete steps on the implementation of the 1995 resolution and 2010 action plan on the Middle East.

Congruently, the level of public frustration has recently been escalating, and it is essential that policymakers both inside and outside of the region do not underestimate the frustration. The Arab Spring has, without a doubt, changed existing fundamental dynamics and had significant implications on the political and security settings in the Middle East. Public opinion has a more significant role in Arab societies, and such weight, in turn, will provide a platform for citizens to voice their beliefs on disarmament and security issues. Thus, Arab governments are now more accountable to their people, and foreign policy is aligning with domestic aspirations. Therefore, state representatives ought to approach the issue of an NWFZ in a manner that upholds the principle of equal commitment to regional and global security, the fulfillment of critical commitments, and the creation of a regime that is non-discriminatory in order to build confidence [1].

While progress has been made, there is still a need for intensified work in order to finalize the agenda and various modalities, including preparation for how the issues of verification and compliance should be addressed. As well, other issues such as security guarantees and the inalienable right to cooperate in the peaceful use of nuclear energy and nuclear security are in need of elaboration. It is essential to address the centrality of the NPT regime when negotiating a treaty-based Middle East NWFZ. Negotiations should also consider IAEA safeguards, as well as verification and inspection mechanisms.

Part IV. Using Education as a Tool

An important ingredient in creating a climate for an NWFZ in the Middle East is the engagement of university institutes and scientific establishments, both governmental and civil, in a program of research and education in the region.

In fact, the use of education as a tool to promote awareness and a global culture for disarmament and non-proliferation is not without precedent. The United Nations General Assembly issued UNGA “Resolution 55/33 E,” titled “United Nations Study on Disarmament and Non-Proliferation Education,” in 2000 [42], which called for a study on the effects of disarmament and non-proliferation education on the definition and situation of disarmament and non-proliferation. It also requested an assessment of new pedagogical methods to advance education on disarmament and non-proliferation. Additionally, the United Office of Disarmament Affairs regularly conducts online courses through its website to raise awareness.

In fact, on the important issues pertaining to nuclear disarmament and non-proliferation, the General Assembly resolution requested that the Secretary General and a group of governmental experts prepare a comprehensive study on all issues pertaining to disarmament and non-proliferation. The study’s objective was to define the current trends and forms of disarmament and non-proliferation education in various institutions and at all possible instructional levels in order to properly assess the impact of the education and to further promote it. In 2002, two years after the general assembly request, the “United Nations Study on Disarmament and Non-Proliferation Education (A/57/124)” was submitted to the First Committee of the General Assembly at its 57th session. The study built upon and sought to revitalize past efforts toward disarmament education, which it considered an integral part of peace education. The study also brought the world’s attention to the importance of conducting impactful educational seminars and courses on disarmament and non-proliferation as a means to promote awareness and a global culture of disarmament and to one day reach global zero.

In fact, as far as the Middle East is concerned, there has been no shortage of academic and other non-governmental interest in the topic. In addition to many officials with vast experience, a wealth of experts and resources is available that can be positively harnessed to ameliorate the political stalemate. Thus, it is necessary to have more comprehensive and widespread training and education programs focusing specifically on scientific universities, ministries, businesses, and relevant government agencies that will be required to bolster regional capacity to the necessary level [43]. Innovative thinking that aims to use education as a tool is a very important tactic for furthering the Middle East nuclear disarmament and non-proliferation agenda.

Information-sharing through the exchange of research, academic conferences, and simulations can create a climate of cooperation among states. Through these academic efforts, all states in the region can be convinced that their long-term security interests are dependent on a WMDFFZ. Furthermore, all relevant international non-proliferation treaties and organizations, such as the IAEA, CTBTO, NPT, United Nations Office of Disarmament Affairs (UNODA), Organization for the Prohibition of Chemical Weapons (OPCW), and BWC Implementation Unit, should be called upon to begin the collective awareness and

outreach program for the relevant cadres from the region. The program should aim to address the main technical, institutional, and legal issues related to the establishment of the free zone.

A more constructive approach toward engaging with all countries of the region is required in order to guarantee their full engagement. Regional discussion on diplomatic, political, and technical issues affecting the adoption of a NWFZ at both governmental and non-governmental expert levels will help achieve such constructiveness. The Middle East has not witnessed a transparent interaction on nuclear disarmament for many years, and all opportunities should be utilized to bring such interaction to fruition. An approach that engages all of the region's countries is required in order to guarantee their full participation in the conference. The 2020 NPT Review Conference should be inclusive to allow for a more genuine and necessary interaction about nuclear disarmament, dismantlement, nuclear rollback, non-proliferation, peaceful uses, transparency, accountability, and verification.

Part V. Other Factors Affecting the NPT and the Middle East Zonal Process

In addition to the political difficulties of achieving the creation of a Middle East NWFZ, a number of other political and economic issues are also affecting states and preventing coordinated movement toward agreement.

A. Conflict

The Middle East remains a highly volatile region troubled with protracted conflicts. The threat of possible acquisition and proliferation of WMDs in the Middle East has contributed to greater instability and tension and has led to an accelerated arms race in the region.

B. Economy

Alongside these security issues, a large number of Middle Eastern states are facing significant social problems due to their economic situations. The economic recovery that was anticipated in oil-importing Arab countries from 2009-2014 following the Great Recession of 2007-2009 turned out to be weaker than expected due to the "heightened regional security concerns, continued political uncertainty, weak economic policies and slow global economic recovery" [44].

C. Humanitarian Aid

The region has seen a troubling link between the increased rate of domestic armed conflicts and the blockage of humanitarian aid efforts [45]. Due to the increasing number of conflicts in the region, funding has become a critical issue that humanitarian aid programs and operations deal with. The scope of the problem has become so large that these programs are struggling to keep up with the situation. What is particularly alarming is that over the past few years, as the causes of displacement have evolved and the issue has become more severe, the assistance to these vulnerable people has worsened [46].

D. Refugees and Displaced Persons

However, humanitarian aid programs are not the only entities struggling to keep up with the crises due to low financial resources. A number of countries in the region host the largest numbers of displaced Syrian refugees who have fled Syria due to domestic crises under President Bashar al-Assad's regime. Egypt, Iraq, Jordan, Lebanon, and Turkey have made great efforts to receive and assist the four million Syrian refugees who crossed the borders over the past five years [46]. These countries have had to take in a large

influx of vulnerable people while working with their own limited resources. The host countries are not only worried about the difficulty in providing financial support to Syrian refugees but are also concerned about their own long-term futures. Furthermore, the United Nations is also struggling to provide aid to the refugees. The United Nations High Commission for Refugees asserts that the budgets of the UN agencies cannot keep pace with the growth in need [47]. The United Nations and its partners require greater contributions in order to help the displaced people each year, but this need is coupled with the reality that each year, additional crises around the world demand more attention and financial assistance from the same donors who are called upon to find a way to provide more aid without a “simultaneous increase in how much money they have available” [46]. For example, the top five emergencies in 2015 were as follows: Syrian Regional Response Plan, the crisis in South Sudan, the civil war in Yemen, the armed conflict in Iraq, and the Nepal Earthquake [47]. Also in 2015, significant cuts were made to food rations for the Syrian refugees in Lebanon and Jordan [47]. As well, millions of refugees were left without access to healthcare in Iraq due to UN-run healthcare services being closed across a large part of the country [47]. Those working in humanitarian aid are still doing everything in their power to provide for these displaced people, but the fact is that the majority of the United Nations’ humanitarian work is funded solely by voluntary donations, with agencies such as UNICEF and UNHCR receiving none of the regular budget that member states pay into the UN’s central coffers.

E. Terrorism and the Cyber Security Threat

One of the most significant challenges that the region deals with is terrorism, and this challenge is directly connected to the issue of the proliferation of nuclear weapons and the cyber security threat. Nuclear security is, in many ways, connected to cyber security. The Nuclear Security Summit in Washington, D.C. in March 2016 recognized the growing importance of information security related to nuclear material and technology, including information held on computer systems [48]. While many are concerned with the idea of nuclear technology and that the knowledge of how to build nuclear weapons might fall into terrorist hands, others also fear terrorist exploitation of cyber vulnerabilities in nuclear weapon systems. Such an attack could come in the form of attacks on nuclear command and control systems, communications links, weapons and delivery systems, and computer hardware and software used to manage and operate nuclear energy installations and attempts to provide false or misleading information to these systems and to decision makers, otherwise known as “spoofing.” The number of countries that are considering peaceful nuclear energy is growing, but without the proper precautions, the threat of international sabotage by non-state actors is growing as well. The need for improvements to be made to nuclear security conditions becomes more urgent when taking into account the fact that cyber threats are becoming entangled with precision strike and nuclear missile capabilities and that such threats could negatively affect nuclear deterrence efforts.

F. Limitations of the 2015 Review Conference

It was our anticipation that the 2015 Review Conference would take stock and consider the next steps for the long-overdue implementation of Article VI of the NPT; however, this progress did not occur. Toward the end of the conference, it was evident that any language that implied specific and effective measures to implement nuclear disarmament had been removed from successive drafts of the outcomes document. This removal led some observers to discern that the nuclear non-proliferation regime, itself, is in crisis [39]. During the conference, the non-nuclear-weapon states accused nuclear-weapon states of “discrimination [...] and failing to live up to their commitments to disarm” [39]. However, this is not a sign of a loss of confidence in the NPT, as it is normal for these conferences to contain excessive rhetoric and frustration.

Furthermore, the inability of the 2015 NPT review conference to produce a final document is not historically anomalous. The parties have failed to produce a final document in four out of the nine review conferences since the NPT entered into force in 1970 [39]. Since 1985, the major contradictions in the

review conferences have not changed. In particular, Article VI of the NPT has remained the most heated issue at the conferences due to its focus on disarmament [39]. Many observers have pointed to the escalating tensions between the United States and Russia at the last review conference as a sign of the NPT's weakening, but the fact is that both sides have continued to enact current arms control accords, such as the New START, and both sides are still working together in the P5 Process. Given the lack of resources and the growing demand of the refugee crises in the region, it is understandable that there are limited finances to deal with other pressing security issues. However, the 2020 NPT conference offers an opportunity for progress on a nuclear non-proliferation agreement that should not be ignored.

On a positive note, what was noticeable in the last NPT Review Preparatory Conference in Vienna in May 2017 was the eagerness of states to participate in the review process. The factual summary prepared by the conference's chair, which is considered a working paper for the conference, demonstrated the willingness of states to actively engage in negotiations pertaining to the review process. The document also explained the existing anxiety of the nuclear-weapon states during the negotiations of the ongoing Nuclear Weapons Ban treaty; the nuclear-weapon states mostly rejected this treaty due to their concern that it might render the NPT obsolete. However, the factual summary presented by the chair assured nuclear-weapon states that the Nuclear Weapons Ban treaty would not affect the process of the NPT or its periodic review. Additionally, the factual summary indicated a sense of optimism and a willingness by a majority of the participants in the review conference to engage in constructive discussion of the issue of the establishment of a WMDFZ in the Middle East.

Conclusions

1. Key Criteria for Agreement

The NPT conference in 2010 and the NPT Review Conference in 2015 outlined and confirmed the steps needed to achieve an NWFZ in the Middle East. The steps are:

1) Progress by the nuclear-weapon states toward meeting the commitments they undertook in 2010, and 2) a clear and credible commitment on the part of participants of the forthcoming 2020 conference to establish a zone free of nuclear weapons and all other weapons of mass destruction in the Middle East [49].

These two points were confirmed as essential during the 2010 NPT Review Conference. Without them, member states would continue to be increasingly resistant to calls for tighter restrictions on the transfer and use of nuclear technology to increase confidence in the non-proliferation regime, or they might attempt to strengthen measures against non-compliance and withdrawal [49].

2. Consensus Agreements or Majority Decision

A number of countries are seeking shortcuts to fulfill their disarmament requirements and have a desire to shift the discussions to a body that makes decisions by majority as opposed to consensus, such as the UN General Assembly. This might constitute a threat to the NPT Review Conference if not addressed.

3. Commitment to Actualize 2010 Goals

All parties involved must redouble their efforts to actualize the goals set forth in the 2010 NPT Review Conference. Most important in the Action Plan on Disarmament is Action 5, which calls on nuclear-weapon states to engage with a view toward [4]:

- Rapidly moving toward a reduction in the global stockpile of all nuclear weapons, regardless of type or location.
- Further diminishing the role of nuclear weapons in military and security doctrines and policies, discussing policies to prevent the use of nuclear weapons, contributing to nuclear non-proliferation and disarmament, and enhancing transparency.

4. Generate a Roadmap to Agreement

When these elements are fulfilled, the propositions, which the Review Conference implied would take place after 2015, could begin working toward a roadmap for the gradual and total elimination of nuclear weapons.

5. Establish a Strict Verification Process

- The nuclear-weapon states ought to promote ways of increasing transparency and confidence through an extensive verification scheme where they would provide annual declaration to a register maintained by the United Nations [49]. These could include reporting [49]:
- The total current number of nuclear warheads and delivery systems deployed and in storage
- The projected arsenal size at the next NPT Review Conference
- Fissile material inventories
- Plans to place excess fissile materials under international inspections
- Plans for the elimination of nuclear weapons and delivery vehicles

6. Ensure Strict Standards of Compliance

As observed at the last NPT Review Conference and prior ones, the nuclear-weapon states are eager to establish strict standards for compliance with the NPT, and they support stern enforcement against any state that violates their obligations. However, it is effectively difficult to advocate that other states be held accountable to the rules of the NPT when the nuclear-weapon states themselves do not follow them. The restoration of faith in the NPT Review Process is necessary for the establishment of a zone free of all weapons of mass destruction in the Middle East.

Most recently, the draft resolution (L41), which calls to ban nuclear weapons, passed with 122 votes in favor on July 7, 2017 in New York City after months-long negotiations. However, in order for the Nuclear Weapons Ban Treaty to come into effect, signature and full ratification by at least 50 countries is required. For those nations that are party to it, the treaty prohibits the development, testing, production, stockpiling, stationing, transfer, use, and threat of use of nuclear weapons, as well as providing assistance and encouragement to the prohibited activities. For nuclear-armed states joining the treaty, it provides a time-bound framework for negotiations leading to the verified and irreversible elimination of its nuclear weapons program.

Furthermore, despite the fact that 69 nations did not vote (among them all of the nuclear-weapon states and all NATO members except the Netherlands), the passing of the treaty indicates a near-global desire to move toward a nuclear-free world. The leading proponents of the nuclear ban treaty, including a number of states and NGOs, hope to be able to enshrine into international law the existing stigma against nuclear weapons and eventually sustain enough pressure on the treaty's non-signatories to relinquish their possession of nuclear weapons.

7. Confirm the Role of the UN in the Internationalization Process

The United Nations can play a role in the internationalization of the NPT by taking the necessary steps to institutionalize the NPT Review Regime by:

- Creating vital institutional features, as the NPT lacks the institutional features that the International Arms Control regimes (such as the Comprehensive Test Ban Treaty and Chemical Weapons Convention) possess.
- Formalizing an operational structure that exists year-round, as the NPT does not have a dedicated secretariat, nor does it hold annual meetings.
- Providing features, through institutionalization, such as a permanent Secretary General, political bureau, and more frequent meetings, so that the NPT does not continue to be dependent on the UN

Secretariat. This would allow all involved stakeholders the opportunity to respond more flexibly and effectively to the issues faced by the treaty.

8. Appoint a UN Special Envoy

On the issue of the WMDFZ in the Middle East, it would be constructive for the Secretary General of the United Nations to consider appointing a special envoy on issues that will deal with the nuclear threat while also assessing how to attract financial and political resources for this pressing security issue. This Special Envoy could focus on:

- Establishing a Nuclear Weapons Free Zone in the Middle East by working on enforcing an IAEA verification mechanism in the region.
- Combating WMD proliferation globally and coordinating with the international community to prevent WMD proliferation ambitions.
- Blocking extremist or terrorist forces from obtaining any nuclear material, which might pose a nuclear security threat to peace and stability.

The long-term effectiveness of the global non-proliferation regime requires the full support and cooperation of both the nuclear-weapon states and the non-nuclear-weapon states. The arguments that groups of states use in defense of maintaining nuclear weapons for the sake of deterrence would not be plausible in a world in which these weapons were devalued and delegitimized through a legally binding instrument enforced by the NPT Regime. The elimination of nuclear weapons must and will be actualized, but it requires determined persistence and transparency from all parties involved.

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UNGA Resolution 55/33 E

UNITED NATIONS STUDY ON DISARMAMENT AND NON-PROLIFERATION EDUCATION

The General Assembly,

Desirous of stressing the urgency of promoting concerted international efforts at disarmament and non-proliferation, especially in the field of nuclear weapons and other weapons of mass destruction and their delivery systems, with a view to strengthening international security and enhancing sustainable economic and social development,

Conscious of the need, more than a decade after the end of the cold war and at the start of the twenty-first century, to combat the negative effects of cultures of violence and complacency in the face of current dangers in this field through long-term programs of education and training,

1. Requests the Secretary-General to prepare, with the assistance of a group of qualified governmental experts, a study on disarmament and non-proliferation that would have the following aims:
 - a) To define contemporary disarmament and non-proliferation education and training, taking into account the need to promote a culture of non-violence and peace;
 - b) To assess the current situation of disarmament and non-proliferation education and training at the primary, secondary, university and postgraduate levels of education, in all regions of the world;
 - c) To recommend ways to promote education and training in disarmament and non-proliferation at all levels of formal and informal education, in particular the training of educators, parliamentarians, municipal leaders, military officers and government officials;
 - d) To examine ways to utilize more fully evolving pedagogic methods, particularly the revolution in information and communications technology, including distance learning, to enhance efforts in disarmament education and training at all levels, in the developed and the developing world;
 - e) To recommend ways in which organizations of the United Nations system with special competence in disarmament or education or both can harmonize and coordinate their efforts in disarmament and non-proliferation education;
 - f) To devise ways to introduce disarmament and non-proliferation education into post-conflict situations as a contribution to peace-building; and considers that the group of experts should invite representatives of organizations of the United Nations system with special competence in disarmament or education or both to participate in its work, and should also invite university educators, disarmament and peace-related institutes and non-governmental organizations that have special qualifications in education and training or in the field of disarmament and non-proliferation to make written and oral presentations to it;
2. Also requests the Secretary-General to report to the General Assembly at its fifty-seventh session on this question. 69th plenary meeting 20 November 2000

TOWARDS A NUCLEAR-WEAPON-FREE WORLD: THE NEED FOR A NEW AGENDA

The General Assembly,

Alarmed by the threat to the very survival of mankind posed by the existence of nuclear weapons,
Concerned at the prospect of the indefinite possession of nuclear weapons,

Concerned also at the continued retention of the nuclear-weapons option by those three States that are nuclear weapons capable and that have not acceded to the Treaty on the Non-Proliferation of Nuclear Weapons,

Believing that the proposition that nuclear weapons can be retained in perpetuity and never used accidentally or by decision defies credibility, and that the only complete defense is the elimination of nuclear weapons and the assurance that they will never be produced again,

Concerned that the nuclear-weapon States have not fulfilled speedily and totally their commitment to the elimination of their nuclear weapons,

Concerned also that those three States that are nuclear-weapons capable and that have not acceded to the Treaty on the Non-Proliferation of Nuclear Weapons have failed to renounce their nuclear-weapons option,

Bearing in mind that the overwhelming majority of States entered into legally binding commitments not to receive, manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, and that these undertakings have been made in the context of the corresponding legally binding commitments by the nuclear-weapon States to the pursuit of nuclear disarmament,

Recalling the unanimous conclusion of the International Court of Justice in its 1996 advisory opinion that there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control,

Stressing that the international community must not enter the third millennium with the prospect that the possession of nuclear weapons will be considered legitimate for the indefinite future, and convinced that the present juncture provides a unique opportunity to proceed to prohibit and eradicate them for all time,

Recognizing that the total elimination of nuclear weapons will require measures to be taken firstly by those nuclear-weapon States that have the largest arsenals, and stressing that these States must be joined in a seamless process by those nuclear-weapon States with lesser arsenals in the near future,

Welcoming the achievements to date and the future promise of the Strategic Arms Reduction Talks process and the possibility it offers for development as a plurilateral mechanism including all the nuclear weapon States, for the practical dismantling and destruction of nuclear armaments undertaken in pursuit of the elimination of nuclear weapons,

Believing that there are a number of practical steps that the nuclear-weapon States can and should take immediately before the actual elimination of nuclear arsenals and the development of requisite verification regimes take place, and, in this connection, noting certain recent unilateral and other steps,

Welcoming the agreement recently reached in the Conference on Disarmament on the establishment of an Ad Hoc Committee under item 1 of its agenda entitled “Cessation of the nuclear arms race and nuclear disarmament”, to negotiate, on the basis of the report of the Special Coordinator and the mandate contained therein, a non-discriminatory, multilateral and internationally and effectively verifiable treaty

banning the production of fissile material for nuclear weapons or other nuclear explosive devices, and considering that such a treaty must further underpin the process towards the total elimination of nuclear weapons,

Emphasizing that, for the total elimination of nuclear weapons to be achieved, effective international cooperation to prevent the proliferation of nuclear weapons is vital and must be enhanced through, inter alia, the extension of international controls over all fissile material for nuclear weapons or other nuclear explosive devices,

Emphasizing also the importance of existing nuclear-weapon-free zone treaties and of the signature and ratification of the relevant protocols to these treaties,

Noting the joint ministerial declaration of 9 June 1998 and its call for a new international agenda to achieve a nuclear-weapon-free world, through the pursuit, in parallel, of a series of mutually reinforcing measures at the bilateral, plurilateral and multilateral levels,

1. Calls upon the nuclear-weapon States to demonstrate an unequivocal commitment to the speedy and total elimination of their respective nuclear weapons and, without delay, to pursue in good faith and bring to a conclusion negotiations leading to the elimination of these weapons, thereby fulfilling their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons;
2. Calls upon the United States of America and the Russian Federation to bring the Treaty on
3. Further Reduction and Limitation of Strategic Offensive Arms (START II) into force without further delay and immediately thereafter to proceed with negotiations on START III with a view to its early conclusion;
4. Calls upon the nuclear-weapon States to undertake the necessary steps towards the seamless
5. integration of all five nuclear-weapon States into the process leading to the total elimination of nuclear weapons;
6. Also calls upon the nuclear-weapon States to pursue vigorously the reduction of reliance on nonstrategic nuclear weapons and negotiations on their elimination as an integral part of their overall nuclear disarmament activities;
7. Further calls upon the nuclear-weapon States, as an interim measure, to proceed to the dealerting of their nuclear weapons and, in turn, to the removal of nuclear warheads from delivery vehicles;
8. Urges the nuclear-weapon States to examine further interim measures, including measures to enhance strategic stability and accordingly to review strategic doctrines;
9. Calls upon those three States that are nuclear-weapon capable and that have not yet acceded to the Treaty on the Non-Proliferation of Nuclear Weapons to reverse clearly and urgently the pursuit of all nuclear weapons development or deployment and to refrain from any action which could undermine regional and international peace and security and the efforts of the international community towards nuclear disarmament and the prevention of nuclear weapons proliferation;
10. Calls upon those States that have not yet done so to adhere unconditionally and without delay to the Treaty on the Non-Proliferation of Nuclear Weapons and to take all the necessary measures that flow from adherence to this instrument;
11. Also calls upon those States that have not yet done so to conclude full-scope safeguards agreements with the International Atomic Energy Agency and to conclude additional protocols to their safeguards agreements on the basis of the Model Protocol approved by the Board of Governors of the Agency on 15 May 1997;
12. Further calls upon those States that have not yet done so to sign and ratify, unconditionally and without delay, the Comprehensive Nuclear-Test-Ban Treaty and, pending the entry into force of the Treaty, to observe a moratorium on nuclear tests;

13. Calls upon those States that have not yet done so to adhere to the Convention on the Physical Protection of Nuclear Material⁶² and to work towards its further strengthening;
14. Calls upon the Conference on Disarmament to pursue its negotiations in the Ad Hoc Committee established under item 1 of its agenda entitled “Cessation of the nuclear arms race and nuclear disarmament”, on the basis of the report of the Special Coordinator and the mandate contained therein, of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, taking into consideration both nuclear non-proliferation and nuclear disarmament objectives, and to conclude these negotiations without delay, and, pending the entry into force of the treaty, urges States to observe a moratorium on the production of fissile materials for nuclear weapons or other nuclear explosive devices;
15. Also calls upon the Conference on Disarmament to establish an appropriate subsidiary body to deal with nuclear disarmament and, to that end, to pursue as a matter of priority its intensive consultations on appropriate methods and approaches with a view to reaching such a decision without delay;
16. Considers that an international conference on nuclear disarmament and nuclear non-proliferation, which would effectively complement efforts being undertaken in other settings, could facilitate the consolidation of a new agenda for a nuclear-weapon-free world;
17. Recalls the importance of the decisions and resolution adopted at the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, ⁶³ and underlines the importance of implementing fully the decision on strengthening the review process for the Treaty;
18. Affirms that the development of verification arrangements will be necessary for the maintenance of a world free from nuclear weapons, and requests the International Atomic Energy Agency, together with any other relevant international organizations and bodies, to explore the elements of such a system;
19. Calls for the conclusion of an internationally legally binding instrument to effectively assure nonnuclear-weapon States parties to the Treaty on the Non-Proliferation of Nuclear Weapons against the use or threat of use of nuclear weapons;
20. Stresses that the pursuit, extension and establishment of nuclear-weapon-free zones, on the basis of arrangements freely arrived at, especially in regions of tension, such as the Middle East and South Asia, represent a significant contribution to the goal of a nuclear-weapon-free world;
21. Affirms that a nuclear-weapon-free world will ultimately require the underpinnings of a universal and multilaterally negotiated legally binding instrument or a framework encompassing a mutually reinforcing set of instruments;
22. Requests the Secretary-General, within existing resources, to compile a report on the implementation of the present resolution;
23. Decides to include in the provisional agenda of its fifty-fourth session an item entitled “Towards a nuclear-weapon-free world: the need for a new agenda”, and to review the implementation of the present resolution.

79th plenary meeting, 4 December 1998

Review of the operation of the Treaty, as provided for in its Article VIII (3), taking into account the decisions and the resolution adopted by the 1995 Review and Extension Conference and the Final Document of the 2000 Review Conference

Articles I and II and first and third preamble paragraph

1. The Conference reaffirms that the full and effective implementation of the Treaty on the Non-Proliferation of Nuclear Weapons and the regime of non-proliferation in all its aspects has a vital role in promoting international peace and security. The Conference reaffirms that every effort should be made to implement the Treaty in all its aspects and to prevent the proliferation of nuclear weapons and other nuclear explosive devices, without hampering the peaceful uses of nuclear energy by States parties to the Treaty. The Conference remains convinced that universal adherence to the Treaty and full compliance of all parties with all its provisions are the best way to prevent the spread of nuclear weapons and other nuclear explosive devices.