**NWFZs, Nuclear Disarmament, Nonproliferation, and Regional Security: A Symbiotic Relationship** [Draft of 6-27-20]

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Overview

It is hard to imagine an international climate less hospitable to nuclear arms control than today. To put it bluntly, the world is in a state of increasing disarray. Each day we see further evidence that the bilateral and multilateral arms control architecture that served the international community very well for the past half century is crumbling and is on the verge of total collapse, something that almost certainly will transpire should nuclear testing resume as some would have it. Yet we seem at a loss about how to take corrective action. To quote United Nations Secretary-General Antonio Guterres, “a wind of madness is sweeping the globe,” making everything more unpredictable and uncontrollable.

Under such circumstances, it is more important than ever to recognize those nuclear disarmament and nonproliferation approaches that continue to show some degree of success. Among the most significant are Nuclear-Weapon-Free Zones (NWFZs). Assuming that certain conditions are met—including the full adherence to existing zonal treaties by parties to those treaties— NWFZs retain promise looking forward. Moreover, although NWFZs typically are thought of mainly as measures to advance nuclear disarmament and nonproliferation, they also can play a useful role in enhancing regional security, advancing the peaceful use of nuclear energy, promoting environmental remediation, and reducing the risks of nuclear terrorism.

Common Characteristics

The idea of strengthening regional security by establishing a geographical space free of nuclear weapons can be traced back to the 1950s, and was manifest in the so-called Rapacki Plan of 1957. The approach also found expression in the Antarctic Treaty of 1959, the Outer Space Treaty of 1967, the Seabed Treaty of 1971, and—for the first time in a densely populated area—the 1967 Treaty of Tlatelolco. The latter regional treaty in Latin America and the Caribbean was followed by NWFZs in the South Pacific (The Treaty of Rarotonga, 1985), in Southeast Asia (The Bangkok Treaty, 1995), in Africa (the Pelindaba Treaty, 1996) and in Central Asia (2006).[[2]](#footnote-2) Mongolia also has declared itself to be a single state NWFZ[[3]](#footnote-3). Although each NWFZs has distinctive features, they share a number of common characteristics, most important of which are prohibitions on the development, manufacture, control, possession, testing, and stationing of nuclear weapons on the territory of the zone.[[4]](#footnote-4) All extant zones also mandate the application of IAEA comprehensive safeguards, and the Central Asian NWFZ also requires parties to have in place the Additional Protocol. In addition, most zones require strict conditions for nuclear exports, consistent with Paragraph 12 of the Decision on Principles and Objectives for Nuclear Non-Proliferation taken at the 1995 NPT Review and Extension Conference.[[5]](#footnote-5) Another common feature of NWFZs are obligations on the part of Nuclear Weapons States (NWS) in the form of protocols to the treaties.

United Nations General Assembly Resolution 3472 B (1975) defines the concept of a NWFZ and establishes the obligations of nuclear weapon states (NWS) with respect to the zone--namely to respect the terms of the zone and not to use or threaten to use nuclear weapons against States Parties to the zone.[[6]](#footnote-6) Subsequent decisions at the 1978 Special Session on Disarmament and the 1999 UN Disarmament Commission (UNDC) elaborated on the criteria for NWFZs, including the important UNDC provisions that: (1) the zonal initiative should emanate from the states in the region; (2) all relevant states should participate in the negotiations, and NWS should be consulted; (3) the zone should be established “on the basis of arrangements freely arrived at among the states of the region concerned; and (4) the NWFZ should reaffirm legal obligations deriving from other nuclear nonproliferation and disarmament commitments.[[7]](#footnote-7)

How NWFZs Advance the NPT:

The earliest NWFZs, and most importantly the Treaty of Tlatelolco, were negotiated prior to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). This history informs the language of Article VII of the NPT, which stipulates that “Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.”

NWFZs reinforce the NPT and advance nuclear disarmament and nonproliferation in a variety of ways when they are implemented faithfully. They do so by a combination of legally binding prohibitions, altering threat perceptions and fostering confidence building measures (CBMs), and reinforcing nuclear disarmament and nonproliferation norms.

1. Legal prohibitions. NWFZs go beyond the NPT in prohibiting zonal treaty parties from developing, manufacturing, possessing, testing, or allowing the stationing of nuclear weapons on their territory regardless of who may exercise control over the weapons. In this regard, NWFZs exceed the prohibitions in Article I of the NPT, which are directed at the NWS, and reinforce the commitments made by non-nuclear weapon states (NNWS) under Article II not to receive the transfer of nuclear weapons or assistance for the manufacture of such weapons. They also reinforce the Article III mandate regarding adoption of IAEA safeguards by requiring, at a minimum, comprehensive/full-scope safeguards.

For example, in the case of the Central Asian NWFZ, all parties to the treaty must bring into force, if they have not already done so, not only an agreement with the IAEA for the application of safeguards in accordance with the NPT, but also the Additional Protocol. In addition, the parties to the Treaty are expressly prohibited from providing “(i) source or special fissionable material or (ii) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State, unless that State has concluded with the IAEA a comprehensive safeguards agreement and its Additional Protocol….”[[8]](#footnote-8) The Treaty also reinforces the principle of physical protection of nuclear material and equipment by requiring each Treaty party to maintain effective standards of protection to prevent unauthorized use or handling or theft. To that end, the Treaty mandates States Parties to “apply measures of physical protection to nuclear material in domestic use, transport and storage, to nuclear material in international transport, and to nuclear facilities within its territory at least as effective as those called for by the Convention on Physical Protection of Nuclear Material of 1987 and by the recommendations and guidelines developed by the IAEA for physical protection.”[[9]](#footnote-9)

Although most of the aforementioned legal prohibitions apply to NNWS parties to NWFZs, NWS that conclude protocols to zones not only agree to respect the terms of the zones, but also assume legal obligations not to use nuclear weapons against or threaten the member states with nuclear weapons—thereby reinforcing the principle of negative security assurances (NSAs). Regrettably, the force of these commitments by NWS often are diluted by reservations and/or interpretative statements made in conjunction with their conclusion of the protocols.[[10]](#footnote-10)

1. Threat perceptions. An important but under-analyzed contribution of NWFZs is their impact on the threat perceptions of zonal parties and the relationship between altered threat perceptions and enhanced regional stability. The importance of this factor is not uniform across regions, but in most instances convergent threat perceptions both facilitate the negotiation of zones and contribute to their effectiveness, especially in moderating concerns about the nuclear ambitions of regional rivals.

Perhaps the best example of this dynamic involves the process by which the Treaty of Tlatelolco and its associated body—the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC)—has helped to strengthen confidence in the peaceful intentions of those states with the most advanced nuclear technology in the region, while also providing greater assurance that their nuclear facilities and materials are safe and secure.[[11]](#footnote-11)

The Tlateloloco Treaty also is illustrative of how a NWFZ can stimulate the creation of new regional bodies to ensure compliance with the obligations of the zonal treaty and thereby foster greater regional commitments to nuclear nonproliferation and disarmament. That has been the case with respect to Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), which was established in 1969 for the purpose of ensuring compliance with the zone’s nonproliferation and disarmament objectives. To date, the NWFZ in Latin America and the Caribbean is unique among NWFZs in having such a specialized agency to support the achievement of the treaty’s objectives.[[12]](#footnote-12)

1. Norm Development. The power of NWFZs to advance the goals of nuclear disarmament and nonproliferation extend beyond formal legal obligations and altered threat perceptions. They also involve the cultivation and reinforcement of norms and traditions regarding the nonuse of nuclear weapons and the risks associated with their production, testing and possession. The importance attached to this function varies across zones, but is a common feature of all NWFZs. This dimension is evident, for example, in the emphasis given by the Rarotonga, Pelindaba, and Central Asian NWFZs to the humanitarian and environmental consequences resulting from nuclear weapons production and/or nuclear testing. This emphasis is reflected in the Preamble to the Rarotonga Treaty, which notes that Treaty Parties are “Determined to keep the region free of environmental pollution by radioactive wastes and other radioactive matter,” and in Article 7 on the prevention of dumping of radioactive waste and other radioactive matter at sea, within the South Pacific NWFZ. A similar concern is highlighted in the Preamble to the Pelindaba Treaty, which speaks of the determination of States Parties “to keep Africa free of environmental pollution by radioactive wastes and other radioactive matter.” Article 7 of the Treaty also spells out a prohibition of dumping of radioactive wastes. In keeping with the Rarotonga and Pelindaba NWFZs, the Central Asian zone also has a major focus on the human and environmental costs associated with nuclear weapons production and testing. Even more so than the other zones, the overriding concern and the single element most responsible for the decision by the five Central Asian states to negotiate a NWFZ in the region was the shared view of the need to raise international consciousness about the damage inflicted on the territories of the Central Asian states during the course of many years of uranium mining and milling, as well as nuclear testing, and the necessity of undertaking remedial actions.[[13]](#footnote-13) This environmental concern is addressed specifically in Article 6 of the treaty devoted to “Environmental Security.”

A very different, but equally important normative dimension of NWFZs, albeit one that in underdeveloped in practice, are initiatives by zonal states to reinforce nuclear disarmament and nonproliferation norms by promoting disarmament and nonproliferation education—one of the few approaches widely supported by NNWS and NWS alike. OPANAL, in cooperation with Mexico and the James Martin Center for Nonproliferation Studies, has demonstrated the potential of this approach in the form of an annual Summer School on Non-Proliferation and Nuclear Disarmament, typically held in Mexico City for young diplomats from throughout Latin American and the Caribbean. Indeed, In July 2020 the sixth iteration of the school will be conducted, for the first time in an online format over the course of two weeks. The course is an excellent example of how NWFZs can help advance nuclear nonproliferation and disarmament literacy by fulfilling Action 22 of the 2010 NPT Review Conference Final Document, which encourages all states to implement the 34 recommendations of the United Nations study on disarmament and nonproliferation education in order to advance the goals of the NPT in support of achieving a world without nuclear weapons.[[14]](#footnote-14)

Obstacles to Overcome.

This short overview has identified a number of attractive features of NWFZs and the symbiotic relationship they enjoy with the NPT and regional security. The promise of NWFZs, however, has by no means been fully realized. Among major factors impeding the effectiveness of zones are: (1) the failure of some States parties to honor their zonal obligations; (2) the tendency of NWS to hedge their commitments through signing statements expressing reservations and/or restrictive interpretations; and (3) the inability or reluctance of different NWFZs to exploit the leverage they might derive from greater collaborative action.

One of the most unfortunate developments over the past fifteen years has been the readiness on the part of a number of States parties to three NWFZ treaties to ignore legally-binding provisions that are regarded as politically and economically inconvenient. This tendency is most evident with respect to nuclear commerce with a NPT-recognized NNWS lacking full-scope safeguards. Unfortunately, many countries who otherwise routinely champion nuclear disarmament and nonproliferation appear indifferent to these transgressions, and also choose to ignore the political obligations restricting nuclear trade to which they subscribed at the 1995 NPT Review and Extension Conference. Just as it is intolerable for NWS to pick and choose those NPT obligations to which they adhere, so it is impermissible for NNWS to ignore economically inconvenient legal and/or political commitments they have undertaken. To do so is to undermine their moral authority, diminish the credibility and influence of the zones to which they belong, and demonstrate the inconsistent manner in which peaceful use benefits accrue to NNWS parties to the NPT. Perhaps even more disturbing is the reluctance of any members of the three NWFZs in question or any members of other zones to acknowledge this infraction.[[15]](#footnote-15) In short, the more zonal members themselves cherry-pick the legal obligations they choose to honor, the more they encourage other states, including the NWS, to behave in a similar manner.

Just as States parties to NWFZs should adhere faithfully to all of their treaty obligations, so should NWS respect, without qualification, the treaty protocols to which they subscribe. Yet as noted previously, each NWS has, at one time or another, expressed reservations or issued interpretive statements when signing protocols and/or in the course of the protocol ratification process, which delimit their force. At various points of time, for example, the United States has indicated that it reserved the right to employ nuclear weapons in response to an attack using biological and chemical weapons, even if the attack came from a NNWS party to a NWFZ.[[16]](#footnote-16) Other NWS states have articulated different reservations and interpretations pertaining to such issues as the scope of the zone, transit of nuclear weapons, compliance of states with nonproliferation obligations, and the relationship of the NWFZ treaty to other, prior agreements. The issue of reservations has been the source of particular contention in the deliberation between the parties to the Bangkok NWFZ Treaty and the five NWS, none of which have yet concluded protocols to the Treaty. Although most NWFZ adherents emphasize the principle of unconditional adherence to the treaty protocols by the NWS, in practice this principle is observed mainly in the breach. Moreover, more than a half century since the first NWFZ in a populated region entered into force, there is only one zone—Latin America and the Caribbean—in which all five of the NPT-recognized NWS have ratified the non-use protocols. In short, although NWFZs cover the entire Southern Hemisphere and extend into the Northern Hemisphere, much more effort is required before these regions can be said to enjoy the full security benefits the zones were intended to provide.

It is now fashionable to applaud the increased cooperation among zones, a very worthy objective that has been highlighted at three international NWFZ conferences, and at meetings that usually are held on the margins of NPT Preparatory Committee meetings. While such gatherings provide an opportunity to share information and experiences, the sought after cooperation remains largely aspirational in nature. As such, the opportunity to act in a coordinated, if not united, fashion is unrealized, as is the potential for NWFZs to be a force multiplier for the many small NNWS zonal parties.[[17]](#footnote-17) Given the sheer number of NNWS adherents to NWFZs, one can imagine the potential influence of these zones were they to act in a more collective fashion that exploited their common interests and voting power with respect to nuclear disarmament and nonproliferation. As forcefully laid out in the most comprehensive study of the topic, cooperation, among the zones could facilitate:

* Strengthening the cohesion within each zone by enhancing the benefits of zonal membership through shared learning of features of other zones and of others’ experience in negotiating and implementing their respective treaties;
* Capacity building for more effective participation in the international disarmament and nonproliferation frameworks;
* Strengthening the position of each zone toward relevant outsiders [notably the NWS and their reluctance to sign relevant protocols or to attach interpretations and reservations];
* Enhancing the influence of zones, propagating the “zonal philosophy” and pursuing common interests in relevant international gatherings; and
* Promoting the idea of NWFZs in regions where no zone yet exists, and assisting regional States in their efforts to create new zones.[[18]](#footnote-18)

Conclusion

As we reflect on the potential and promise of NWFZs to reinforce the NPT and regional security, it is useful to look more closely at the origins of the first zone in a populated area—the Treaty of Tlatelolco. The catalyst for that zone—and for much subsequent nuclear arms control—was the 1962 Cuban Missile Crisis. From the vantage point of most Latin American states, nuclear war threatened to ravage their region, and yet they were relegated to the position of helpless bystanders. As one scholar of the Tlateloloco Treaty points out, the events of October 1962 underscored how the presence of nuclear weapons within the region made their territory a possible target of a nuclear strike.[[19]](#footnote-19) It therefore was no coincidence that the initiative for a NWFZ in Latin America arose during the Cuban Missile Crisis and found formal expression in a UN proposal in November 1962 and a joint declaration of five Latin American presidents in April 1963.[[20]](#footnote-20) States in the subcontinent believed that this innovative approach might prevent the deployment of nuclear weapons in their region by external powers, while reducing the likelihood of a regional nuclear arms race. Thus, even before the conclusion of the NPT, the pioneering effort of a small group of individuals led by then Mexican Under-Secretary Alfonso Garcia Robles demonstrated an unusual contagion effect: just as nuclear weapons may spread, so to may nuclear disarmament.

As my CNS colleague Gaukhar Mukhatzhanova often recalls when lecturing about NWFZs, Garcia Robles famously observed to the UN General Assembly in 1974 that NWFZs “would gradually broaden the areas of the world from which nuclear weapons are prohibited to a point where the territories of powers which possess them …will be something like contaminated islets subject to quarantine.”[[21]](#footnote-21) In this era of pandemics, including the nuclear variety, we sorely need that kind of a quarantine.

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2. The Treaty of Tlatelolco entered into force in 1969; the Treaty of Rarotonga entered into force in 1986; the Treaty of Bangkok entered into force in 1997; the Treaty of Pelindaba entered into force in 2009; and the Central Asian NWFZ Treaty entered into force in 2009. [↑](#footnote-ref-2)
3. In February 2006, the Mongolian Parliament adopted the Law on Mongolia’s Nuclear-Weapon-Free Status. See Harald Mueller, “Cooperation among Nuclear-Weapon-Free Zones: History, Challenges and Recommendations.” VCDNP Task Force Report (Vienna Center for Disarmament and Non-Proliferation, March 2018), p. 20. [↑](#footnote-ref-3)
4. The prohibitions vary in terms of their specificity. The language in the Central Asian NWFZ, for example, is ambiguous about the circumstances under which nuclear weapons might be introduced to the region.  
    [↑](#footnote-ref-4)
5. This paragraph specifies “that new supply arrangements for the transfer of source or special fissionable material or equipment or material especially designed or prepared for the processing, use or production of special fissionable material to non-nuclear-weapon States should require, as a necessary precondition, acceptance of the comprehensive IAEA safeguards and internationally legally binding commitments not to acquire nuclear weapons or other nuclear explosive devices.” [↑](#footnote-ref-5)
6. See <http://www.nuclearfiles.org/menu/library/treaties/nuclear-free-zones/UNGA_Res3472_1975.pdf> . [↑](#footnote-ref-6)
7. These points are highlighted by Gaukhar Mukhatzhanova in a lecture on “Ridding the world of nuclear weapons, One region at a time,” Mexico City, July 8, 2014. [↑](#footnote-ref-7)
8. Article 8 (c) of the Treaty on a Nuclear-Weapon-Free Zone in Central Asia. [↑](#footnote-ref-8)
9. Article 9 of the Treaty on a Nuclear-Weapon-Free Zone in Central Asia. [↑](#footnote-ref-9)
10. China, France, Russia, the United Kingdom, and the United States all have expressed reservations or issued interpretative statements when signing one or more protocols. [↑](#footnote-ref-10)
11. See Togzhan Kasenova, “Nuclear safeguards in Brazil and Argentina:

    25 years of ABACC,” AIP Conference Proceedings 1898, 040004 (2017); https://doi.org/10.1063/1.5009227

    Published Online: 15 November 2017 available at <https://doi.org/10.1063/1.5009227>. [↑](#footnote-ref-11)
12. See “Agency for the Prohibition of Nuclear Weapons in Latin American and the Caribbean (OPANAL)” available at https://www.nti.org/learn/treaties-and-regimes/agency-prohibition-nuclear-weapons-latin-america-and-caribbean-opanal/ [↑](#footnote-ref-12)
13. See, for example, William Potter, Togzhan Kassenova, and Anya Loukianova, “Central Asia Becomes A Nuclear-Weapon-Free Zone,” CNS Research Note (December 11, 2008) available at: <https://www.nonproliferation.org/central-asia-becomes-a-nuclear-weapon-free-zone/>. [↑](#footnote-ref-13)
14. See “Celebrating 15 Years of Disarmament and Non-Proliferation Education,” UNODA Occasional Papers, No. 31 (December 2017) available at: <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2018/01/op31.pdf>. [↑](#footnote-ref-14)
15. When challenged by the author on this point, one senior diplomat from a state usually on the side of the nonproliferation and disarmament angels, replied “We have bigger fish to fry.” Similarly, when a senior diplomat from another country usually regarded as a nonproliferation and disarmament champion was asked how his country’s stance on nuclear exports could be reconciled with its principled nonproliferation stance, the reply was: “We have principles, and then we have other principles.” [↑](#footnote-ref-15)
16. For a discussion of U.S. non-use policy in the context of NWFZs, see Leonard Spector and Aubrie Ohide, “Negative Security Assurances: Revisiting the Nuclear-Weapon-Free Zone,” *Arms Control Today* (April 2005), pp. 13-19 and George Bunn and Jean duPreez, “More Than Words: The Value of U.S. Non-Nuclear Use Promises,” *Arms Control Today* (July/August 2007). [ but the implications of this change in policy is unclear as the protocols to the Rarotonga, Pelindaba, and Central Asian NWFZ treaties have yet to be ratified by the US Senate] [↑](#footnote-ref-16)
17. This point is emphasized in Mueller, “Cooperation among Nuclear-Weapon-Free Zones,” p. 5. [↑](#footnote-ref-17)
18. Ibid. [↑](#footnote-ref-18)
19. See John R. Redick, “The Tlatelolco regime and Nonproliferation in Latin America,” *International Organization* (Winter 1981), p. 110. [↑](#footnote-ref-19)
20. Ibid. [↑](#footnote-ref-20)
21. Cited by Gaukhar Mukhatzhanova, “Ridding the world of nuclear weapons, One region at a time.” [↑](#footnote-ref-21)