



ARMS CONTROL NEGOTIATION ACADEMY

Enhancing and Expanding Nuclear-Weapon-Free Zones (NWFZs)

Andrej STEFANOVIC, Jorge LOPEZ, Peter SYLVA, and Yasmin HAMDY

May 2025

Note: *The views in this academic paper are the personal views and research of the ACONA authors and do not represent those of their employers and/or associations.*

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

Policy Memo

TO: United Nations Group of Experts (established by the First Committee of the UN General Assembly in 2024¹
Permanent Mission of Mongolia to the United Nations in New York (designated Chair of the Fourth Conference on NWFZs)
United Nations Office for Disarmament Affairs (UNODA)

FROM: Andrej STEFANOVIC², Jorge LOPEZ², Peter SYLVA², and Yasmin HAMDY²

DATE: May 2025

SUBJECT: Enhancing and Expanding Nuclear-Weapon-Free Zones (NWFZs)

Currently, approximately 115 countries participate in nuclear-weapon-free zones (NWFZs). By participating in these zones, States do not assume a neutral status; on the contrary, they take a stance against nuclear weapons. By joining a NWFZ, States commit to prohibiting nuclear weapons in their territories and promoting non-proliferation with the aim of achieving nuclear disarmament.

The political influence of the 115 countries participating in NWFZs could be relevant for unblocking international disarmament negotiations, exchanging experiences from regional approaches, and democratizing international discussions on non-proliferation.

During its 79th session, the plenary of the UN General Assembly adopted a resolution entitled “Comprehensive study of the question of nuclear-weapon-free zones in all its aspects”, which requests the Secretary-General to convene a group of up to 25 experts “to prepare a new comprehensive study of the question of nuclear-weapon-free zones, aimed at assessing the current status of existing and potential nuclear-weapon-free zones, as well as examining options and recommendations towards strengthening existing zones and the possible establishment of new zones, including in the Middle East”.³ The said resolution was adopted with 166 votes in

¹ Resolution 79/241 adopted by the UN General Assembly on 24 December 2024, *Reaching Critical Will*, at <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com24/resolutions/L68Rev1.pdf>

² This memo was written as a requirement of the 2024-2025 Arms Control Negotiation Academy program. Views expressed in the memo are the opinions of the authors and do not reflect the views of their employers.

³ Resolution 79/241 adopted by the UN General Assembly on 24 December 2024, *Reaching Critical Will*, at <https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com24/resolutions/L68Rev1.pdf>.

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

favor, one against, and no abstentions.⁴ This means that a majority of UN Member States, including the five nuclear-weapon States (NWS) - China, France, Russia, the United Kingdom, and the United States,⁵ as well as other nuclear weapons-possessing States (India and Pakistan) supported a new comprehensive study that would complement that one adopted in 1976 by the General Assembly. A new UN comprehensive study can be relevant to strengthen and enhance the regime established by NWFZs, and to advance nuclear disarmament and non-proliferation.

This paper provides a Harvard negotiation analysis framework to address key interests, alternatives, potential agreements, and mutual benefits among the main stakeholders that could be involved in the new comprehensive study on NWFZs. These include the group of 25 experts that would likely be nominated by the respective regional groups in the UN, and would certainly include the representatives of the five NWS, State parties and signatories to existing NWFZ treaties, with their respective regional organizations, such as OPANAL (Treaty of Tlatelolco), the Pacific Islands Forum (Treaty of Rarotonga), AFCONE (African NWFZ), ASEAN (Treaty of Bangkok), Central Asia's NWFZ, among other interested States and international organizations.

The paper explores strategic options to enhance and expand the NWFZs regime that could be included in the new comprehensive study of the UN, focusing on practical proposals to strengthen existing zones, possible multilateral venues in which NWS and NWFZ members could engage, and foster the establishment of new ones. This is set against the background of a volatile geopolitical landscape that poses significant challenges to global efforts aimed at arms control and disarmament, caused by rising tensions between superpowers, the erosion of trust, and the deployment of adverse weapons systems, all of which hampers the ability of the international system to provide good global governance, which in turn opens space to middle and smaller powers to step in.

NWFZs have played a crucial role in mitigating risks posed by a detrimental and unstable international environment. Historical evidence shows that the establishment of these zones has often been caused by geopolitical crises, which underscored the urgent need to oppose nuclear weapons. In this sense, the Treaty of Tlatelolco was signed following the shock of the Cuban Missile Crisis, and similarly, proposals for creating some of the other NWFZs can be linked to the

⁴ See the votes at UN documents, A/79/408 DR XXXVII adopted on 24 December 2024 with a vote (166-1-0) (A/79/PV.55 (resumed)).

⁵ NWS are recognized as such by the NPT, as those States that have tested a nuclear weapon before 1967, and coincides with the five UN Security Council permanent members, and of more importance to the formation and functioning of the NWFZ, given their status in relation to negative security assurances included in such zones.

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

heightened nuclear confrontation during the Cold War.⁶ With this historical pattern in mind, the deteriorating geopolitical landscape we are witnessing today may prove to be a catalyst for new NWFZ initiatives and an incentive for regional actors to take on leadership roles in reinforcing the non-proliferation norm and reducing nuclear risks.

1. From a Regional to a Global Approach?

NWFZs have achieved substantial regional successes by addressing the specific nuclear non-proliferation and security needs of their regions.⁷ However, a shift towards a cohesive global framework could maximize their impact and support the universal disarmament agenda, including momentum from the Treaty on the Prohibition of Nuclear Weapons (TPNW). This section explores the interests, positions, BATNA, and ZOPA of NWS and NWFZ States parties and signatories.

1.1. Interests and Positions

NWFZs States parties and signatories

Through an approach “on the basis of arrangements freely arrived at among the States of the region concerned”,⁸ NWFZ States are interested in enhancing regional security, preventing nuclear proliferation, and receiving legally binding assurances against the use and threat of use of nuclear weapons by NWS.⁹ Establishing NWFZs is not an end in itself, but a means to achieve and maintain a world free of nuclear weapons.¹⁰

For NWFZ States, international support and recognition of NWFZs' relevance for global disarmament and security efforts are important. While they seek to retain regional autonomy and flexibility, they call for the establishment of new zones, as was called upon in the outcome document of the conferences of NWFZs and Mongolia held in 2005 and 2010,¹¹ and in the final document of the 2010 NPT Review Conference.¹²

⁶ Rebecca Davis Gibbons, *The Hegemon's Toolkit: US Leadership and the Politics of the Nuclear Nonproliferation Regime*, Cornell University Press, 2022: 26, 27.

⁷ UNODA, *Nuclear-Weapon-Free Zones*, available at <https://disarmament.unoda.org/wmd/nuclear/nwzf/>

⁸ Final document of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, para. 98, p. 15, available at <https://documents.un.org/doc/undoc/gen/n10/390/21/pdf/n1039021.pdf>

⁹ Declaration for the Conference of Nuclear-Weapon-Free Zones held in 2005, available at https://www.un.org/nwzf/sites/www.un.org.nwzf/files/declaration_2005_conference_nwzf.pdf

¹⁰ Idem.

¹¹ Outcome document of the Second Conference of Nuclear-Weapon-Free Zones and Mongolia held in 2010, available at https://www.un.org/nwzf/sites/www.un.org.nwzf/files/declaration_2005_conference_nwzf.pdf

¹² Final document of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, para. 104, p. 16, available at <https://documents.un.org/doc/undoc/gen/n10/390/21/pdf/n1039021.pdf>

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

For those NNWS that are nonproliferation champions, a global approach in advancing the establishment of NWFZs could also serve as a catalyst for expanding membership of the TPNW. Due to regional, security, or political concerns, many countries that are parties to NWFZs have not yet acceded to the TPNW. Nonetheless, if the NWFZs grow in number and their geographical scope expands, this would further reinforce the shift away from nuclear weapons and strengthen the commitment to non-proliferation. In turn, it would generate a new momentum not only for joining NWFZs, but also for acceding the TPNW, making the diplomatic costs of remaining outside this framework increasingly significant.

NWS

The NWS for its part, are interested in supporting NWFZs as they ensure regional stability without compromising their strategic interests and maintain influence over nuclear policies. NWS support NWFZs when aligned with their security objectives but avoid obligations that might restrict certain nuclear practices, such as those related to extended deterrence policies or the nuclear umbrella.¹³ The commitments assumed by NWS to NWFZs by acceding to protocols on negative security assurances present reservations that limit the effectiveness of such zones.¹⁴ Even if NWS supports the existing and establishment of new NWFZs, they do so depending on their national interests first. In that regard, they rather engage bilaterally with a group of regions such as those establishing NWFZs, than compromise in multilateral fora. In other words, for NWS a global approach to strengthening, enhancing or establishing new zones is less advisable than a bilateral specific-regional approach.

1.2. Best Alternative to a Negotiated Agreement (BATNA)

For NWFZs, there is much to share about how different Zones converge, how they diverge, and how different solutions have been applied to specific challenges.¹⁵ Their starting point is that there is no “one size fits all” model.¹⁶ This conviction motivated the 33 member States of OPANAL, all of them parties to the NWFZ in Latin America and the Caribbean, to propose the adoption of the 2024 UN General Assembly resolution on a comprehensive study on such zones.¹⁷ At the same time, NWFZs are interested in continuing to foster cooperation among

¹³ A nuclear umbrella arrangement refers to military cooperation between at least two countries in which a nuclear armed state agrees to protect a non-nuclear armed state with nuclear weapons, *see* p. 1, at https://hrp.law.harvard.edu/wp-content/uploads/2018/06/Nuclear_Umbrella_Arrangements_Treaty_Prohibition.pdf

¹⁴ VCDNP, Cooperation among Nuclear-Weapon-Free Zones: History, Challenges and Recommendations, p. 10 <https://vcdnp.org/wp-content/uploads/2018/03/NWFZ-TF-Report-final-1.pdf>

¹⁵ Explanation of vote of the Permanent Mission of Brazil to the UN regarding draft resolution A/C.1/79/L.68/Rev.1, at https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com24/statements/1Nov_Brazil_L68.pdf

¹⁶ *Idem*.

¹⁷ *Idem*.

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

NWFZs, including Mongolia.¹⁸ This cooperation could be focused on defining a joint strategy to address NWFZs' concerns about common reservations issued by NWS regarding protocols included in the zone treaties.¹⁹ For NWS, engaging selectively with each NWFZ without participating in a multilateral NWFZ structure is likely the most desirable option. For NWS, a multilateral approach is less convenient than for NWFZs.

1.3. Zone of Possible Agreement (ZOPA)

An agreement on creating universal guidelines for new NWFZs based on existing zones' experiences could be feasible,²⁰ supporting regional security goals while respecting NWS strategic interests. However, these guidelines should consider the principle of an acceptable balance of mutual responsibilities and duties for the nuclear and non-nuclear possessing States recognized in UN General Assembly Resolution 2028 (XX).²¹

This could be made not by establishing a global NWFZ forum, which already exists within the framework of Conferences of NWFZs and Mongolia, but by strengthening their functioning. NWFZs conferences serve to share best practices, security standards, and non-proliferation measures; such conferences are also relevant to articulate common positions in disarmament and nonproliferation fora such as the NPT review process, the UN General Assembly First Committee, the Conference on Disarmament, and the UN Disarmament Commission, which have for decades elaborated on items relevant to the NWFZ, and associated themes, such as negative security assurances, elimination of nuclear weapons, fissile material, verification, among others. At the same time, such conferences represent opportunities for dialogue among NWFZ States and NWS to resolve longstanding concerns, including the divergent interpretations and reservations on negative security assurances.

The UN comprehensive study might include universal guidelines that reflect successful elements of existing NWFZs, creating a clear pathway for establishing new zones, especially in sensitive regions like the Middle East. For this, the Group of Experts should consider the particularities of each zone, to find common grounds among each of them, and identify overlooked features that could be relevant for further NWFZs.

¹⁸ Outcome document of the Second Conference of Nuclear-Weapon-Free Zones and Mongolia held in 2010, para 36, p. 5, available at https://www.un.org/nwzf/sites/www.un.org.nwzf/files/declaration_2005_conference_nwzf.pdf

¹⁹ VCDNP, Cooperation among Nuclear-Weapon-Free Zones: History, Challenges and Recommendations, p. 5 <https://vcdnp.org/wp-content/uploads/2018/03/NWFZ-TF-Report-final-1.pdf>

²⁰ The 1976 Comprehensive study on NWFZs adopted by the UN Conference of the Committee on Disarmament (UN doc. [A/10027/Add.1](#)) was made using the Treaty of Tlatelolco as sole reference. After the Treaty of Tlatelolco, the second NWFZ was adopted until 1985 (Treaty of Rarotonga). For that reason, a new Comprehensive study in NWFZ would include the experience of the existing 5 NWFZs and Mongolia.

²¹ O.P. 2(b) of resolution 2028 (XX) entitled "Non-proliferation of nuclear weapons", available at <https://documents.un.org/doc/resolution/gen/nr0/217/91/pdf/nr021791.pdf>

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

The comprehensive study should include recommendations to foster collaboration, share lessons from each zone, and create standardized guidelines to support the creation of new NWFZs aligned with regional and global security needs. Increased cooperation and coordination among NWFZs would amplify their collective bargaining power and improve efficiency in disarmament and non-proliferation efforts. The pending Fourth Conference of NWFZs and Mongolia offers a unique opportunity to unify positions and enhance cooperation.

A shared agreement on holding regular conferences among NWFZs that fosters cooperation without mandating rigid multilateral obligations, with the participation of NWS to find common grounds would be possible. Regular conferences among NWFZ representatives to address shared challenges, coordinate strategies, and strengthen non-proliferation policies. The group of experts could suggest in its comprehensive study on NWFZs, among other things, the establishment of a UN-managed digital platform where NWFZs can exchange resources, training materials, and technical expertise to support compliance and enforcement efforts.

The proposal is to reestablish regular NWFZ conferences, rotating the chairmanships among the different regions, along with a shared digital platform for continuous resource sharing and strategic coordination, maximizing the collective effectiveness of all NWFZs.

2. Strengthening Verification and Control Mechanisms for NWFZs

Control and verification mechanisms are essential to the credibility of a NWFZ. Control and verification measures build confidence and ensure compliance with disarmament and non-proliferation commitments. Strengthening and standardizing these mechanisms, particularly through achieving universalization of protocols open to signature to NWS, could enhance the effectiveness of NWFZs globally.

2.1. Interests and Positions

NWFZ States parties and signatories

Treaties establishing NWFZs contain robust and transparent control measures to ensure compliance and mutual accountability. Apart from acceding to the IAEA nuclear safeguards, most NWFZ treaties establish organizations that implement control systems to prevent non-compliance. These include mainly the control systems implemented by AFCONE, ASEAN, and OPANAL. However, control and verification mechanisms contained in NWFZs are addressed to the States parties, but not to the States parties to additional protocols to such treaties, namely the five NWS. Due to this imbalance, NWFZs parties would not accept any additional or updated obligation unless NWS do so, which is at the same time unlikely. For NWFZ States parties and signatories, the comprehensive study should consider an equitable approach

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

considering the principle of mutual responsibilities between NWS and non-nuclear-weapon States. While NWFZ have been at the forefront of non-proliferation efforts, NWS should do more to advance nuclear disarmament.

NWS

Continuously, NWS pressure non-nuclear-weapon States to assume new non-proliferation commitments, such as implementing increasing obligations like the IAEA Additional Protocol, acceding to instruments on nuclear safety and security, and enhancing national implementation of initiatives such as the UN Security Council Resolution 1540 (2004). Additionally, they consider nuclear disarmament as a process that needs certain conditions to be achieved, such as the universalization of the NPT.

2.2. Best Alternative to a Negotiated Agreement (BATNA)

For NWFZs, the best alternative would be to keep control and verification mechanisms oversee by existing international organizations (e.g., the IAEA, and regional bodies such as OPANAL, AFCONE, and ASEAN), with limited or no NWS involvement. Even if the NWS does not ratify additional protocols to NWFZs, the existence of such zones is relevant to nuclear disarmament. While the NWS prefer to engage on a bilateral basis with specific NWFZs, the zones could jointly address common concerns and opportunities to strengthen the regimes established by the proper treaties. For instance, the bilateral arrangement between Argentina and Brazil by means of ABACC is a regional tailor-made approach to resolve a proliferation concern among neighboring States; these lessons and experiences could be relevant for other regions including the Middle East and the Korean Peninsula.

2.3. Zone of Best Possible Agreement (ZOPA)

The new UN comprehensive study should recognize the need for control and verification measures to meet minimum standards recognized by both NWS and NWFZs, with flexibility for regional adaptation. The comprehensive study should not contain specific rules, but to recall the need for establishing NWFZs in accordance with regional needs based on minimum standards included in the NPT and based on the experience of existing zones.

3. Establishing New Nuclear-Weapon-Free Zones

Miguel Marín Bosch used to say that the world was once a nuclear-weapons-free zone; the goal of such zones is to return Planet Earth to its natural condition of nuclear-weapon-free. Expanding NWFZs to include additional regions would reinforce the global disarmament and non-proliferation regime. The most likely candidate for the next NWFZ remains the Middle East, where efforts to establish such a zone have been ongoing for decades. However, these efforts

MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE ZONES (NWFZs)

have been consistently hindered by persistent regional rivalries and the nuclear ambitions of certain actors. Beyond the Middle East, identifying new NWFZs is becoming an increasingly challenging task. One potential alternative is to recognize single-state NWFZs, following the model established by Mongolia. Nevertheless, from a long-term perspective, the rapid transformations within a shifting international order could create new opportunities for the expansion of NWFZs. One needs to look no further than the protracted interval since the 1976 Comprehensive study, and the changes that occurred in that respect. In any case, drawing from the successful establishment and operation of existing NWFZs, new zones could benefit from standardized guidelines and strategic cooperation.

3.1. Interests and Positions

NWFZ states parties and signatories

Reducing global nuclear risks, enhancing security, and contributing to universal disarmament. They support the establishment of new zones in high-risk regions. However, they defend the idea that negotiating and establishing a new NWFZ should come from the states of the region concerned. NWFZs can not be established from outside the interested region. NWFZ states parties and signatories are open to share their experiences for the benefit of establishing new zones, but not to impose them.

NWS

Every region has particular circumstances. NWS would support creating new NWFZs as they don't affect their strategic or regional influence.

3.2. Best Alternative to a Negotiated Agreement (BATNA)

For NWFZs, expand selectively, prioritizing regions with high political support is available. For NWS, maintain security assurances with current NWFZs without committing to supporting new zones.

3.3. Zone of Possible Agreement (ZOPA)

Expanding the participation of extra-regional States, NWS, and other stakeholders in international discussions on the establishment of new NWFZs, such as the UN annual conference on a zone free of nuclear weapons and other weapons of mass destruction in the Middle East, to identify conditions under which new zones could be established with NWS assurances and local political cooperation. Many lessons from the existing NWFZ could be relevant for the Middle East, and in some cases overlooked.²²

²² See Mohamed I. Shaker, The Middle East Issue; Possibilities of a Nuclear-Weapons-Free Zone, available at https://www.baselpeaceoffice.org/sites/default/files/imce/menwzf/the_middle_east_possibilities_for_a_nwfz_by_mohamed_shaker.pdf

**MEMORANDUM: ENHANCING AND EXPANDING NUCLEAR-WEAPON-FREE
ZONES (NWFZs)**

4. Conclusion

Strengthening and expanding Nuclear-Weapon-Free Zones is crucial for achieving global nuclear disarmament. Key proposals include enhancing verification mechanisms, fostering cooperation among existing NWFZs, and establishing clear guidelines for creating new zones, particularly in high-risk regions. The comprehensive study to be conducted by a UN group of experts presents an opportunity to explore new proposals.

On the other hand, the UN group of experts should recognize that each zone has a regional focus shaped by specific historical, political, and security contexts. This regional focus has contributed to their success. In this regard, NWS are not necessarily supportive of a global approach to strengthening and expanding NWFZs; instead, they tend to favor maintaining a particular connection with each zone.

The 115 States Parties and signatories of treaties establishing NWFZs represent a majority of the international community that has chosen to adopt the prohibition of nuclear weapons within their territories. If coordination and cooperation among the five NWFZs and Mongolia are strengthened, international negotiations on disarmament could benefit significantly.