

Analysis of Nuclear Nonproliferation Regime in the Middle East: Drivers and Obstacles for a Potential Nuclear-Weapon-Free Zone (NWFZ)

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1. Introduction

Along with North Korea, Iran's nuclear activities are considered a challenge to the nonproliferation regime. These two cases also have something in common: high perceptions of security threats from neighboring states, lack of security cooperation measures, absence of a Weapons of Mass Destruction-Free Zone in the region, and nuclear weapon states (US and Russia) playing a crucial role. Discussions began in 1974, with Iran proposing a resolution at the UN General Assembly that endorsed establishing a Middle East Nuclear-Weapon-Free Zone (hereafter ME NWFZ). Unfortunately, the region has made little to no progress on creating such a Zone. This paper will identify which factors have hindered the establishment of a NWFZ in the Middle East. First, it will examine whether existing treaties/agreements can be used to establish a potential ME NWFZ. Second, it will identify what key actors (Arab States, Iran, Israel, US, and Russia) perceive as obstacles. Finally, it will conclude by offering implications for the Northeast Asian region.

2. Conceptual Framework

2.1. Arms Control, Disarmament and Nonproliferation

Lexicons such as "arms control" or "disarmament" are often used in tandem with nuclear nonproliferation. These two categories are conceptual measures designed to limit arms and military activities. The United Nations define arms control as "political or legal constraints on the deployment and/or disposition of national military means," which entail freezing, limitation, reduction, and banning military capabilities. Meanwhile, disarmament is "to reduce the level of national military capabilities or to ban altogether certain categories of weapons already deployed using any provisions that eliminate national military capabilities either partially or completely, either at the macro or micro level." [1] Although the two concepts are used interchangeably, arms control is the more encompassing of the two.

The use of nuclear weapons during WWII shifted how the international community viewed Weapons of Mass Destruction (WMD). The United Nations defined WMD as "atomic explosive weapons, radioactive material weapons, lethal chemical or biological weapons, and any weapons developed in the future which have characteristics comparable in destructive

effect to those of the atomic bomb or other weapons mentioned above." [1] Nuclear weapons, in particular, became subject to numerous global control, starting with the 1968 Treaty on the Nonproliferation of Nuclear Weapons (NPT). The nuclear nonproliferation regime sought to prevent horizontal proliferation (additional states acquiring nuclear weapons) and vertical proliferation (reduction and ultimately elimination of existing nuclear weapons) through various treaties, agreements, and international organizations.

2.2. Nuclear-Weapon-Free Zone (NWFZ)

Research on nuclear weapons control focuses on bilateral agreements between the US and USSR or multilateral agreements such as the NPT. This paper focuses on regional controls, namely the nuclear-weapon-free zones (NWFZs). According to the principles and guidelines recommended by the United Nations Disarmament Commission in 1999:

- (1) NWFZ should be established on the basis of arrangements freely arrived at among the States of the region
- (2) The initiative should emanate exclusively from States within the region and be pursued by all States of that region
- (3) Nuclear weapon States should be consulted during the negotiations of each treaty and its relevant protocol(s), through which they undertake legally binding commitments to the status of the zone and not to use or threaten to use nuclear weapons against States parties to the treaty
- (4) NWFZ should not prevent the use of nuclear science and technology for peaceful purposes and could also promote, if provided for in the treaties establishing such zones, bilateral regional, and international cooperation for the peaceful use of nuclear energy in the zone.

3. Potential Middle East NWFZ

Author A potential ME NWFZ must identify States in the region and agree upon its contents. Most research agrees that the 22 States of the Arab League, Iran, and Israel should be party to the NWFZ.[3] While each NWFZ might differ slightly, the core tenets will remain similar. Of the 5 NWFZs, Pelindaba Treaty can be a starting point since 9 of the 24 Middle East region

States have either ratified or signed the treaty. The principal provisions of the Pelindaba Treaty are:

- (1) Article 3: Renunciation of nuclear explosive devices
- (2) Article 4: Prohibition of stationing nuclear explosive devices
- (3) Article 5: Prohibition of nuclear testing
- (4) Article 6: Elimination of any nuclear explosive devices
- (5) Article 9: Verification of peaceful uses through CSA concluded with the IAEA
- (6) Article 11: Prohibition of armed attacks on nuclear facilities
- (7) Annex IV: Clarification procedure through the African Commission on Nuclear Energy (AFCONE)

Articles 6 and 11 are unique to the Pelindaba Treaty, which reflects South Africa's dismantlement of nuclear weapons and the bombing of the South African nuclear power plant at Koeberg by terrorists.

Table I summarizes potential provisions that a ME NWFZ might contain using those from the Pelindaba Treaty, while Table II summarizes existing legal mandates in the Middle East.

Table I: Potential Provisions of the Middle East NWFZ [2]

Potential Provisions	Existing Mandate	Verification Agency
Renunciation of nuclear explosive devices	NPT (except for Israel) Pelindaba (for parties)	Mostly IAEA (for nuclear material-related activity)
Prohibition of the stationing of nuclear explosive devices	Pelindaba (for parties)	No established verification process
Prohibition of nuclear testing	CTBT (not in force)	CTBTO
Verification of peaceful uses	NPT, CSA, and AP (except Israel)	IAEA
Elimination of any nuclear explosive device	Pelindaba (for parties)	IAEA (expanded mandate)
Prohibition of armed attacks on nuclear facilities	Pelindaba (for parties)	No established verification process
Clarification procedure	Pelindaba (for parties)	AFCONE, IAEA
Mechanism for determining treaty compliance	NPT & IAEA safeguards agreements	IAEA, AFCONE

Table II shows the gaps in the existing legal mandates of the nuclear nonproliferation regime regarding renouncing, prohibiting the stationing, and eliminating nuclear explosive devices in the region.

However, it also highlights that the IAEA can verify many of the provisions under its current agreement. This is shown in Table II, where 22 Middle Eastern States have a Comprehensive Safeguards Agreement (CSA) and/or a Small Quantities Protocol (SQP) with the IAEA.

Table II: Existing Legal Mandate in the Middle East [2]

Category	NPT	IAEA Safeguards Agreement	IAEA Additional Protocol	CTBT (not in force)
Middle East States (24)	Ratified (13) Accession (10)	In force (22)	Signed/ In force (12) Provisionally applied (1)	Ratified (16) Signed (4)
	Non-party (Israel)	Non-party (Israel, Somalia)	Non-party (11)	Non-party (Palestine, Saudi Arabia, Somalia, Syria)

4. Drivers, Obstacles, and Key Actors of ME NWFZ

Table III summarizes the drivers and obstacles for the ME NWFZ to be negotiated based on the perception of key State actors (Arab States, Iran, Israel, the US, and Russia). [4] Although security challenges such as Israel's nuclear arsenal, Iran's nuclear program, and US policy in the region drove States to establish ME NWFZ, it also became an obstacle. For example, Iran and Israel each required the other to give up their nuclear program and nuclear arsenal for the ME NWFZ to progress. Interestingly the Arab States pointed out intra-Arab dynamics as preventing a united front. Both NPT depository States, US and Russia, showed skepticism over the efficacy of the ME NWFZ in solving regional nuclear issues. In contrast to Arab States, Iran, and Israel arguing for more US and Russian engagement, both countries anticipated a limited role in facilitating the ME NWFZ.

Table III: Drivers and Obstacles of ME NWFZ[4]

Category	Arab States	Iran	Israel	US	Russia
Security Threat	Aggressive non-Arab states, great power competition	US, Israel, unstable region	Iran and its proxy non-state actor network	Weak drive, limited role for NWFZ	Limited role for NWFZ
Obstacle	Israel's nuclear arsenal, Iran's nuclear program, Intra-Arab dynamics	Israel nuclear arsenal	Pressured into accepting, concession, require resolving regional conflict first	ME NWFZ Not solution for Iran's nuclear program, agenda of Egypt	Asymmetric capability of ME States

Role of NPT depository States (US, UK, Russia)	Inconsistent US policy in region (Iran, Iraq, Libya, Syria)	Forget or adopt contradicting position	US-Israel relations need to be re-affirmed each administration	NWFZ might need to go beyond current regime	US, UK commitment concern, efforts end in limited progress
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The perspectives of key actors offer the following implications: First, initiating a formal political agreement in a region lacking mutual cooperation can ultimately limit progress. Middle East states initiated the proposal yet failed to keep the momentum going due to diverging threat perceptions among Arab States. If a framework for a future ME NWFZ is to be proposed, a model that first fosters mutual cooperation is required. Although there is an option of simultaneously fostering political agreement alongside disarmament measures, this can often lead to adverse results if parties fail or refuse to continue the disarmament process.

Second, the establishment of ME NWFZ rests on resolving regional security issues: Israel's nuclear arsenal, Iran's nuclear program, and regional conflict between Arab and non-Arab States. However, the reverse is not true; regional security issues cannot be resolved by ME NWFZ alone. This shows the unequal dichotomy between preventing horizontal and vertical proliferation; Existing legal mandates work towards preventing additional States (Arab States) from going nuclear but cannot force States (Israel) with nuclear arsenal to give up their weapons unless security issues are resolved.

Third, the international security environment influences NPT depository States' engagement. During the negotiations of ME NWFZ, the security environment changed from a bipolar world order dominated by the Cold War to a multipolar order. This change may have played a role in the passive stance of NPT depository states. Nevertheless, US or Russia engagement can increase or decrease dialogue. However, these countries' engagement in creating a Zone fluctuates according to national interests.

5. Conclusion

For the ME NWFZ to progress, it requires mutual cooperation among regional States and the resolution of security conflicts. Meanwhile, analysis of existing legal mandates in the Middle East shows that the majority of the States fall under the purview of the nonproliferation regime. Resolving political/security issues in the region is necessary to prevent vertical nuclear proliferation. In the meantime, (1) IAEA safeguard inspections on States with CSA and AP, and (2) strict export control on dual-use and control items should continue to prevent additional States in the region from contemplating nuclear proliferation.

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