

Implementing a Korea–Japan Nuclear-Weapon-Free Zone: Precedents, Legal Forms, Governance, Scope, Domain, Verification, Compliance and Regional Benefits

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To assess the possibility of a future denuclearized Korean peninsula it is important to consider not only US and allied security interests, but also North Korean underlying security concerns. However, beyond the North–South conflict on the Korean peninsula, there is also a longer-term problem of Korean–Japanese relations. Both Japan and South Korea have the capacity to rapidly develop and acquire nuclear weapons. North Korean nuclear acquisition could well provide the rationale for either or both to acquire nuclear weapons. In the Northeast Asian region there is already a lengthy history of denuclearization proposals and even agreements. While the focus of previous proposals had concentrated on the Korean peninsula itself, an alternative way forward would be the initial establishment of a nuclear-weapon-free zone (NWFZ) between Japan and South Korea, with North Korea encouraged to join at a later date. The negotiation of a Korea–Japan NWFZ would serve to confirm and guarantee the current non-nuclear-weapon status of South Korea and Japan, while acting as an important confidence-building step to address North Korea’s underlying security concerns and enable it to subsequently join the NWFZ. Internationally, the commitment of the US Obama administration to a reduced reliance on nuclear weapons, the recent unanimous final document of the 2010 Nuclear Non-Proliferation Treaty Review Conference calling for expansion of NWFZs, and the greater openness of the USA and other nuclear powers to NWFZ establishment in areas of regional conflict, suggest that we now have a new window of opportunity for denuclearization of Northeast Asia.

Key words: *North Korea, South Korea, USA, security, nuclear-weapon-free zone, nuclear weapons, nuclear deterrence, policy.*

The Korean peninsula has experienced a succession of crises and tensions over the decades since the 1950–1953 Korean War. Over the last decade, the 2003 North

Korean withdrawal from the Non-Proliferation Treaty (NPT), the North Korean 2006 and 2009 nuclear tests, and North Korea's 2010 torpedoing of South Korea's *Cheonan* and 2011 shelling of *Yeonpyeong* Island, have created renewed tension and military confrontation on the peninsula, and regional and international concern over the growing nuclear threat in and from the region.

Yet the very risks that ongoing deterioration in relations may escalate into actual nuclear exchanges that could endanger millions of people within this densely populated region require the redoubling – rather than abandonment – of efforts to find diplomatic solutions. As Joel Wit notes:

A serious initiative to build better relations could eventually make headway. And it is very possible that, as relations improve, the North Koreans may be persuaded to accept a step-by-step process of increasingly tight, verifiable controls on their nuclear program, and on their dangerous exports. While this process would not eliminate all of North Korea's nuclear weapons right away, as trust is restored, the North may reach a point where it no longer sees them as vital to its national security. But our immediate focus should be on the journey toward denuclearization, not on the final destination . . . In the aftermath of the *Cheonan* sinking, the United States and South Korea must recognize that a return to dialogue would serve our interests. It is the only realistic way to rein in North Korea's objectionable activities.¹

Part of what needs to be considered in diplomatic initiatives to address the raft of issues creating fear and insecurity in the region is the degree to which the regional states, North Korea included, feel their very existence to be threatened. In a detailed study of US strategy towards North Korea, Wit noted the importance of considering not only US and allied security interests, but also North Korean underlying security concerns, particularly in relation to securing a peace treaty ending the Korean War. The decades-long process of military and nuclear encirclement of North Korea, coupled with implicit or external threats to use nuclear weapons against it even in the context of a conventional threat, has had its mirroring in North Korean efforts to reach nuclear self-sufficiency as a means to assuring its own survival. As Wit notes, diplomacy does not have to be predicated on an all-or-nothing stance. The Obama administration policy of “strategic patience” can become an excuse for not undertaking the difficult diplomatic work of finding incremental steps and phases that can take the region back from the brink of hostilities and potential catastrophe.

Beyond the North–South conflict on the Korean peninsula, there is a longer-term problem of Korean–Japanese relations, with or without Korean reunification. Both Japan and South Korea have the capacity to rapidly develop and acquire nuclear weapons. Indeed, South Korea has in previous years embarked on nuclear weapon

1. Joel Wit, “Don’t Sink Diplomacy,” Nautilus Institute Policy Forum Online 10-030A (27 May 2010), at <<http://www.nautilus.org/fora/security/10030Wit.html>> (searched date: 26 August 2010).

research programs.² While Japan is currently bound by its three non-nuclear principles, it has very substantial stockpiles of fissile plutonium and all the technical capacity to acquire large nuclear weapon inventories and missile delivery capabilities. North Korean nuclear acquisition could well provide the rationale, whether justified or as a pretext, for either or both to acquire nuclear weapons. Just as India initially acquired nuclear weapons in response to Chinese nuclear weapons, and then found itself locked in a deadly proliferation race with Pakistan, so South Korea and Japan may, in the not too distant future, find themselves locked in similarly ominous, if originally unintended, nuclear competition. The lack of fully-fledged reconciliation between Japan and the two Koreas following Japanese invasion and occupation of the peninsula in World War II suggests that there could be foundations for intensified nuclear rivalry between these regional states.

At the May 2010 NPT Review Conference in New York, there was unanimous agreement on the role of regional nuclear free zones (NWFZ) as an important element in contributing to regional peace and security and to the wider goal of eliminating nuclear weapons. In the 22-point action plan adopted by the conference, Point 10 calls upon “All States [to] encourage the establishment of further nuclear-weapon-free zones where appropriate on the basis of arrangements freely arrived at amongst States of the region concerned”. In the case of another major conflict region where proliferation has already occurred, the Middle East, the conference unanimously moved towards the strategy of seeking to establish a Middle East weapons-of-mass-destruction-free zone through the further convening of a regional conference on the proposal to be held in 2012. A further development evident at the Conference was a far more supportive approach to supporting and extending NWFZs on the part of the US Obama administration compared to the previous Bush administration. As US Ambassador Glyn Davies declared at the Conference on 10 May 2010:

The United States believes that Nuclear Weapon Free Zone Treaties (NWFZs) can contribute to regional as well as international peace, security, and stability. Protocols to NWFZs Treaties provide legally binding assurances to the parties to the zone against the threat or use of nuclear weapons against them. The United States makes its decisions regarding whether to sign NWFZ protocols on a case-by-case basis, taking into account a set of long-standing national criteria including the principles and guidelines for establishment of NWFZs adopted by the UN Disarmament Commission in 1999. For example, the Protocol to the Treaty of Tlatelolco has been in force for nearly three decades. Additionally, as Secretary Clinton announced last week, the United States will submit, to the United States Senate for its advice and consent to ratification, the protocols for the NWFZs that have been established in Africa and the South Pacific. Upon ratification, parties to those agreements will have a legally binding assurance that the United States will not use or threaten to use nuclear weapons against them, and will fully respect the nuclear-weapons-free status of the zones. And we are prepared to consult with the parties to the

2. Jonathan D. Pollack and Mitchell B. Reiss, *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices* (Washington, D.C.: Brookings, 2004), pp. 261–266.

nuclear-weapons-free zones in Central and Southeast Asia, in an effort to reach agreement that would allow us to sign those protocols as well.³

More specifically, in relation to North Korea, the agreed Final Document of the Conference:

strongly urged the Democratic People’s Republic of Korea to fulfill commitments under the six-party talks, including the complete and verifiable abandonment of all nuclear weapons and existing nuclear programs in accordance with the September 2005 Joint Statement. The country is also urged to return, at an early date, to the Treaty and to its adherence with IAEA safeguards.⁴

In the Northeast Asian region, there is already a lengthy history of denuclearization proposals and even agreements, such as the 1992 Joint Declaration on the Denuclearization of the Korean Peninsula. These are discussed in an earlier research paper.⁵ While the opposing sides have sometimes edged tantalizingly close to agreement, and there have been some important steps forward in easing some sources of tension (not least being the US removal of tactical nuclear weapons from deployment in South Korea in 1991–1992 following the end of the Cold War), the agreements that were achieved either formally in 1992 or in the subsequent Six-Party Talks were undermined or vitiated by weaknesses in the agreements themselves, undertakings broken or not followed through in a timely way, and recurrent patterns of distrust and recrimination constantly surfacing and resurfacing on both sides. Risking peace – at the relatively modest cost of funding diplomatic problem-solving and economic aid – has proved so much more difficult for the leaderships on both sides than risking war – through the allocation of hundreds of billions of dollars to advanced or nuclear weapon systems, forward deployed forces, and saber-rattling military exercises.

The Nautilus Institute “Korea–Japan Nuclear Weapon Free Zone” Concept Proposal

While the focus of previous Northeast Asian denuclearization proposals at a governmental level has concentrated on the Korean peninsula itself, and at a disarmament non-governmental organization level on the creation of an NWFZ

3. Glyn Davies, *US Ambassador to 2010 NPT Review Conference Statement* (10 May 2010), at <<http://www.reachingcriticalwill.org/legal/npt/revcon2010/statements.html>> (searched date: 26 August 2010).

4. “Nuclear Non-Proliferation Treaty Review Adopts Outcome Document at Last Minute,” *United Nations 2010 Non-Proliferation Treaty Review Conference Press Release*, New York (28 May 2010), at <<http://www.reachingcriticalwill.org/legal/npt/2010/index.html>> (searched date: 26 August 2010).

5. Peter Hayes and Michael Hamel-Green, “The Path Not Taken, The Way Still Open: Denuclearizing The Korean Peninsula And Northeast Asia,” *The Asia-Pacific Journal: Japan Focus*, 50-1-19 (14 December 2009), at <http://japanfocus.org/-Michael-Hamel_Green/3267> (searched date: 2 February 2011).

covering the whole Northeast Asian region, an alternative way forward would be the initial establishment of a nuclear-weapon-free zone between Japan and South Korea, with North Korea encouraged to join at a later date. This is the proposal advanced by the Nautilus Institute in its concept paper, *Korea–Japan Nuclear Weapon Free Zone (KJNWFZ) Concept Paper*.⁶

The Nautilus paper argues for building on the significant expansion and experience of other regions in the establishment of NWFZs, with zones now in force in Latin America and the Caribbean, South Pacific, Southeast Asia, Africa, Central Asia and Antarctica, and a total of 112 states now party to such zones. As required under UN Guidelines, NWFZs are legally binding treaties that obligate regional states not to develop, acquire or allow the stationing of nuclear weapons within their territories, and obligate nuclear weapon states to provide negative security guarantees to the zones in the form of signing legally binding protocols not to use or threaten to use nuclear weapons against the zone. In addition to these minimum core requirements, regional NWFZs are usually tailored to meet specific or unique conditions that exist in each region.

In the case of Northeast Asia, the Nautilus paper notes that a KJNWFZ, in addition to meeting such core aspects of NWFZ arrangements as prohibiting possession, stationing or transporting of nuclear weapons, effective verification and compliance, clear boundaries, negative security guarantees, or use of the zone for firing against third parties, would need to address a number of issues specific to the Northeast Asia region. The latter would include: current arrangements and understandings on nuclear transit and nuclear extended deterrence; potential inclusion of a denuclearized North Korea at a later stage; and alliance relationships in the region, particular China's relationships with regional states, and the US bilateral relationships with South Korea, Japan and Taiwan; missile delivery systems and associated difficulties in distinguishing military from space-launch missiles; and issues associated with the nuclear fuel cycle, particularly enrichment and reprocessing.

While the Nautilus proposal might seem at first sight not to directly address what is patently the main threat currently preoccupying the region and the international community – North Korean acquisition of nuclear weapon capabilities – it does in fact, on closer examination, serve to: (i) build on the experience of previous NWFZs in other regions in achieving longer-term denuclearization outcomes; (ii) offer immediate confidence-building benefits in achieving ways through the present impasse with North Korea; and (iii) provide longer-term security benefits in reducing or even preventing potential nuclear rivalry between Japan and the two Koreas.

6. "Korea-Japan Nuclear Weapon Free Zone (KJNWFZ) Concept Paper," *Nautilus Institute* (15 February 2010), at <<http://www.nautilus.org/initiatives/korea-japan-nwzfz>> (searched date: 26 August 2010).

The experience in Latin America was that the two main regional states with both nuclear capabilities and, at the time, military regimes entertaining nuclear weapon options, Brazil and Argentina, did not immediately agree to bring the 1967 Latin American Nuclear Weapon Free Zone Treaty into force for their countries. Similarly, it could be argued that negotiation and establishment of a KNWFZ now would similarly provide the basis for subsequent North Korean joining of the zone, either as a separate state or as a result of future reunification with South Korea. As a separate state, there would be an important motivation for North Korea to join the zone through the legally binding negative security guarantee that the US would need to provide the zone – though obviously there are wider issues of a final peace settlement of the Korean War that are of critical importance for the North in entering into such arrangements.

In the context of the current impasse between South Korea and Japan on the one side, and North Korea on the other, the Nautilus paper argues for a number of potential benefits in negotiating a Korean–Japanese NWFZ between Japan and South Korea.

Such a zone would “devalue North Korea’s nuclear weapons” at the same time as leaving the door open for a denuclearized North Korea to join later.⁷ It would confirm in a legally binding and unequivocal way the non-nuclear status of both Japan and South Korea thereby reducing threat perceptions and rationales for North Korean nuclear programs.

In terms of the existing bilateral security arrangements, it would allow for US nuclear extended deterrence for Japan and South Korea to be replaced by “a combination of existential nuclear deterrence (that is, residual nuclear deterrence that arises from the mere existence of nuclear weapons outside the zone), UNSC guarantees, and conventional extended deterrence”.⁸

In the case of China’s relationship to the region, it would provide a legally binding guarantee from China that it would not use or threaten to use nuclear weapons against Japan. This would go beyond the current Chinese commitment not to use nuclear weapons first.

It would also serve as an important confidence-building process between Japan and the Koreas and promote peaceful cooperation in nuclear fuel cycle and access to space.

Finally, it would enable the US to move ahead with reducing the role of nuclear weapons in its security arrangements by providing an alternative to extended nuclear deterrence on behalf of Japan and South Korea. In the formulation of an *Asahi Shimbun* editorial, “If the United States, China and Russia all ratify a

7. *Ibid.*

8. *Ibid.*

[Northeast Asia NWFZ] protocol that bans them from launching nuclear attacks against Japan and South Korea, a nonnuclear umbrella would be raised for the region”.⁹

Acknowledging some of the barriers and potential costs as well as the above benefits, the Nautilus KJNWFZ concept paper called for more research on a number of key aspects of the proposal, including aspects of its scope, design, political and technical feasibility, and implementation.

The following article seeks to examine some of these aspects, with particular focus on: the feasibility of the proposal in the light of precedents from previous NWFZ establishment; appropriate legal forms; negotiation forums and phases; governance; scope and domain; verification and compliance mechanisms and arrangements, including bilateral and International Atomic Energy Agency (IAEA) mechanisms; UN role in negotiations and implementation; and regional benefits of a KJNWFZ.

Precedents Provided by Existing NWFZs

The most important of the precedents from existing NWFZs is that provided by the Tlatelolco Treaty, which established an NWFZ throughout Latin America and the Caribbean. This treaty, now commanding universal adherence from all countries in the region, and securing binding guarantees not to use or threaten to use nuclear weapons against zonal states from all five of the Permanent Five nuclear weapon states (the only such binding guarantees so far extended by these states), did not achieve such adherence overnight. It was negotiated over four years from 1963 to 1967 following the 1962 Cuban Missile Crisis. The crisis, which brought the whole world to within days or even minutes of catastrophic nuclear conflagration, concentrated the minds of regional leaders on the need to prevent further stationing of nuclear weapons by the nuclear powers in their region as well as preventing horizontal proliferation within the region by states with nuclear capabilities. The result was a treaty that built on the earlier but unsuccessful Rapacki Central Europe NWFZ proposal to include provisions banning acquisition and stationing of nuclear weapon and protocols binding nuclear powers to give negative security guarantees to the zone.

Unfortunately, the advent of military regimes in the major regional states of Argentina and Brazil raised the specter of nuclear rivalry between the two states: both regimes declined to bring the treaty into force for their countries. In fact, it was not until 27 years later, in 1993–1994, that civilian governments in the two countries ratified the provisions that brought the treaty into force for them. Despite the long delay in ratification, the Tlatelolco Treaty was an important regional influence for nuclear cooperation and reassurance that brought these two major

9. *Asahi Shimbun*, “64 Years and Counting”, editorial (6 August 2009), as reprinted at <http://www.wagingpeace.org/articles/2009/08/20_asahi-64_years.php> (searched date: 2 February 2011).

Latin American powers into the non-nuclear fold, even while they were still under military-led governments: it provided the framework and principles for the cooperative steps taken in the mid-to-late 1980s that culminated in the 1991 Argentina–Brazil Agency for Accounting and Control of nuclear materials (ABACC) bilateral agreement and the 1994 final NWFZ ratification.¹⁰

The parallel with Northeast Asia lies in the nature of the process involved in establishing NWFZS and in the potential long-term benefits for averting nuclear proliferation. Political conditions in a region may mean that not all countries are ready to join a zone at the same time, even as they might accept in principle the concept of such a zone. In the case of Northeast Asia, North Korea, while it continues to regard nuclear weapons as one of its principal means of ensuring regime survival in the face of nuclear and conventional encirclement, and in the absence of a permanent Korean War peace settlement, appears unlikely to be ready to give up its nuclear weapons immediately in order to be part of such a zone. However, the establishment of a KJNWFZ on the part of its regional neighbors in a comparable way to the establishment of an NWFZ on the part of Brazil's and Argentina's regional neighbors would be an important inducement to North Korea to reconsider its security calculus.

The possible inducements for later North Korean accession to a KJNWFZ would include: (i) the framework it offers (and with which in the past North Korea has expressed in principle agreement); (ii) the concrete security benefits of potential security guarantees from the USA; (iii) an inspection regime that would extend to US bases in South Korea and Japan; and (iv) the prohibition of nuclear acquisition on the part of its two very nuclear-capable regional neighbors.

The Tlatelolco Treaty established an ingenious and innovative legal mechanism by which reluctant states could be encouraged to join the zone at a later date. First proposed by Chilean diplomats, the mechanism was drafted by the Nobel-Peace-Prize-winning Mexican diplomat, Alfonso Garcia Robles. It consists of a provision in Article 28 (3) that allows a signatory state to “waive, wholly or in part” the requirements that have the effect of bringing the treaty into force for that state at a particular time.¹¹ As Robles noted in his commentary on Article 28:

10. For a detailed account and analysis of the negotiations that led up to the ABACC agreement and the Brazilian and Argentine decision to bring the Tlatelolco Treaty into force for their countries, see John R. Redick, “Nuclear Illusions: Argentina and Brazil,” *The Henry L. Stimson Centre, Occasional Paper*, 25 (December 1995).

11. The text of this provision is as follows: “Article 28 (2). All signatory States shall have the imprescriptible right to waive, wholly or in part, the requirements laid down in the preceding paragraph. They may do so by means of a declaration which shall be annexed to their respective instrument of ratification and which may be formulated at the time of deposit of the instrument or subsequently. For those States which exercise this right, this Treaty shall enter into force upon deposit of the declaration, or as soon as those requirements have been met which have not been expressly waived. Since the treaty under Article 28 (1) required the treaty to come into force for all countries in the zone, almost all countries except Brazil and Argentina chose to waive the Article 28(1)

An eclectic system was adopted, which, while respecting the viewpoints of all signatory States, prevented nonetheless any particular State from precluding the enactment of the treaty for those which would voluntarily wish to accept the statute of military denuclearization defined therein. The Treaty of Tlatelolco has thus contributed effectively to dispel the myth that for the establishment of a nuclear-weapon-free-zone it would be an essential requirement that all States of the region concerned should become, from the very outset, parties to the treaty establishing the zone.¹²

In this way, the normative framework for a non-nuclear region can be established before all states are ready to actually implement the framework. Robles' dream of progressive denuclearization of his own region and other regions proved quite realistic, though the political skeptics and "realist school" political scientists of the day were all too ready to dismiss such approaches as idealist, utopian and doomed to irrelevance. It was fortunate, in retrospect, that far-sighted Latin American leaders were prepared to risk a potentially "doomed" search for peace rather than being doomed to continue down a deadly nuclear slope in which regional or superpower military commanders might reach for a nuclear weapon to gain an illusory advantage, as indeed both Russian and US military commanders sought to do during the Cuban Missile Crisis.

The Tlatelolco Treaty further established important precedents in the provisions that define the scope of the treaty, and in its systems of governance, control, verification, and compliance, all of which have much to offer as precedents for establishment of a KJNWFZ. Tlatelolco precedents for these aspects will be discussed more fully in the relevant sections below. But it may be noted at this point that, of all the subsequent NWFZs treaties, the Tlatelolco Treaty established the most effective governance and control mechanisms. These include: an Agency for the Prohibition of Nuclear Weapons in Latin America (OPANAL); a two-yearly General Conference meeting; a Council; and a Secretariat. OPANAL has been particularly important not only in ensuring compliance with treaty obligations, but also in an educational and advocacy role for nuclear abolition. The treaty has been further underpinned by requirements for member states to sign up to IAEA safeguards (Article 13) and by bilateral monitoring and verification arrangements, such as the very successful ABACC arrangement between Argentina and Brazil.

Governance and control mechanisms become particularly important where there is a past or current history of conflict or mistrust, as is obviously the case in Northeast Asia, which has experienced the traumatic period of World War II, Japanese occupation of the Korean peninsula, the nuclear attacks on Japanese cities, the Korean War for which there is still no permanent peace settlement, US deployment of tactical nuclear weapons on the Korean peninsula, and, most

requirement, thereby bringing the treaty into force for their countries." Alfonso Garcia Robles, "The Latin American Nuclear-Weapon-Free Zone," *The Stanley Foundation Occasional Paper*, 19 (May 1979), p. 29.

12. *Ibid.*, p. 12.

recently, North Korean nuclear tests and missile flights over Japan. The Latin American governance and verification precedents established through the Tlatelolco Treaty and the ABACC system will be elaborated further in Sections 6 and 8.

Some Precedents from Other NWFZ Are Also Relevant to a KJNWFZ

The 1985 South Pacific NWFZ (Rarotonga) Treaty embodied most but not all the core scope provisions of the Tlatelolco Treaty, but was stronger in not exempting so called “Peaceful Nuclear Explosions” (PNEs) on the grounds that there are no technical ways of distinguishing such explosions from nuclear weapons tests. It was also innovative in including a separate protocol banning testing of nuclear weapons anywhere in the zone, including international waters falling within the designated boundaries of the zone. This was introduced because of the long history of nuclear-weapon states (NWS) testing within this region, including US and British tests up until the 1963 partial test ban treaty came into force, and French testing in Polynesia right up to 1996. A KJNWFZ might similarly replicate such a protocol for P5 nuclear powers to ratify, pending the entry into force of the Comprehensive Test Ban Treaty (which would achieve the same end).

The 1995 Southeast Asian NWFZ (Bangkok) Treaty similarly embodies most of the required core prohibitions as contained in the Tlatelolco and Rarotonga treaties but also introduces a more contested precedent in that it both extends the boundaries of the zone to cover the 200-mile Exclusive Economic Zones of member states, and seeks through its associated negative security protocol to bind nuclear weapon states not only to provide non-use or threat of use guarantees against member states but also to undertake not to use or threaten to use nuclear weapons from anywhere in the zone, including the maritime exclusive economic zones (EEZ) areas. Article 2 of the Protocol specifies that:

Each State Party undertakes not to use or threaten to use nuclear weapons against any State Party to the Treaty. It further undertakes not to use or threaten to use nuclear weapons within the Southeast Asian Nuclear-Weapon-Free Zone.

The US and other P5 NWS have so far refused to sign the protocol, both on the grounds of the extension of the zone to cover EEZs and the issue of being prohibited from using nuclear weapons from transiting vessels within these extended zone boundaries. The ASEAN states have struck a blow for not only locking NWS into binding guarantees not to use or threaten to use nuclear weapons against themselves but also for seeking to prevent NWS from using their region to attack or threaten to attack other regions. As an adjacent region to Northeast Asia, this is a significant position that will reinforce the effectiveness of a KJNWFZ. Any KJNWFZ should reciprocate with similar provisions so that adjacent regions cannot be subject to nuclear attack or threat of attack from zonal waters. Given that the major nuclear powers have now removed tactical

nuclear weapons from their naval vessels and aircraft, it should now be more feasible to secure assurances in this area. As noted above, the new US Obama administration has explicitly indicated its willingness to renew consultations on the Bangkok Treaty Protocol, and may be more open to providing the undertakings sought.

The 1996 African NWFZ (Pelindaba) Treaty was the first to be negotiated with direct technical and negotiation assistance from the UN. It was also the first to be established in a region where nuclear weapons had already been acquired by one regional state, South Africa, during the period of Apartheid.¹³ In the establishment of the zone, South Africa undertook the destruction of its nuclear weapons prior to signing the treaty, and the treaty itself contains special provisions for the dismantlement of existing nuclear-weapon-related facilities. This has obvious relevance for a KJNWFZ, since this is a region, too, where one state, North Korea, has already tested nuclear weapons and another, South Korea, has in the past pursued nuclear-weapon-related research and development programs. A KJNWFZ that would envisage subsequent accession by North Korea would therefore need provisions analogous to the Pelindaba Treaty's Article 6, which requires the declaration and dismantlement, destruction or conversion of existing facilities for manufacturing nuclear weapons, and the verification of this by both the IAEA and the African Commission on Nuclear Energy.

The most recently established 2006 Central Asian NWFZ (Semipalatinsk) Treaty also covers a region that previously hosted former Soviet Union nuclear weapons and nuclear-weapon-related infrastructure. As Roscini notes, both the Pelindaba and the Semipalatinsk Treaties have established an important precedent compared to preceding NWFZs: they prohibit not only the manufacture of nuclear weapons but also research on nuclear weapons.¹⁴ In the Pelindaba Treaty this is contained in Article 3 (a), each party undertakes: (a) Not to conduct research on, develop, manufacture, stockpile or otherwise acquire, possess or have control over any nuclear explosive device by any means anywhere. Similarly, the relevant Article 3 (1) (a) in the Semipalatinsk Treaty contains exactly the same wording. The Pelindaba/Semipalatinsk precedents established in relation to research is particularly relevant for a KJNWFZ in that both North and South Korea have been involved in nuclear weapons research and development, and Japan is well placed technically and scientifically to engage in such research at very short notice.

13. For details of the negotiation and text of the African NWFZ Treaty, see: Oluyemi Adenji, *The Treaty of Pelindaba on the African Nuclear-Weapon-Free Zone* (Geneva: United Nations Institute for Disarmament Research, 2002).

14. Marco Roscini, "Something Old, Something New: The 2006 Semipalatinsk Treaty on a Nuclear Weapon-Free Zone in Central Asia," *Chinese Journal of International Law*, 7-3 (2008), pp. 593-624.

Legal Forms

Agreements and declarations may be entered into by particular administrations and governments but to have more permanence and irreversibility such that they cannot be easily reversed by ensuing administrations, they should take the form of legally binding treaties. The previous 1992 Joint Declaration of the Denuclearization of the Korean Peninsula,¹⁵ while sharing some core bans on nuclear weapon acquisition with previous NWFZ treaties and even going beyond these treaties in its inclusion of bans on nuclear reprocessing and uranium enrichment, lacked many elements of a fully-fledged treaty, such as substantive compliance mechanisms, effective verification systems (a particularly important element in the historical context of conflict and distrust on the Korean peninsula), and protocols requiring negative security guarantees from nuclear weapon states.

A KJNWFZ would need to take the legal form of a fully-fledged NWFZ treaty, with signature and ratification procedures, appropriate core provisions consistent with UN guidelines on NWFZ requirements, special provisions oriented to the needs of the region, effective governance arrangements, rigorous verification and compliance mechanisms involving regional, bilateral and international agencies and safeguards arrangements, amendment and review processes, conditions on withdrawal, and protocols seeking binding negative security guarantees from the NWS. An example of a very comprehensive legal model NWFZ treaty for the Northeast Asia region has been drafted by Hiromichi Umebayashi from Peace Depot.¹⁶ In terms of special provisions tailored to the region, special attention would need to be given to ways in which North Korea might also accede to the treaty at a later date.

Following previous NWFZ treaty precedents, a fully fledged treaty would require a preamble followed by articles on: definition of terms, zone of application, core prohibitions on nuclear weapons, specific prohibitions relevant to the region, governance processes and structures, verification and compliance mechanisms, duration and withdrawal processes and conditions, amendment processes, signature and ratification processes, and protocols for signature by nuclear weapon states and external states with territories within the zone. The preamble could be expected to include reference to UN principles and guidelines on NWFZs, the right of regional states under the NPT Article VII “to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories”, and regionally agreed denuclearization steps or principles that have already been adopted, such as the 1992 Joint Declaration on the Denuclearization of the Korean Peninsula and Japan’s Three Non-Nuclear Principles.

15. Jozef Goldblat, *Arms Control: The New Guide to Negotiations and Agreements* (London: Stockholm International Peace Research Institute, 2003).

16. Hiromichi Umebayashi, “A Model Treaty on the Northeast Asia Nuclear-Weapon-Free Zone,” (Yokohama: Peace Depot, November 2005).

The role of the UN also has legal dimensions. Endorsement by the UN General Assembly functions to gather support for the treaty prior to establishment, provides international recognition and legitimacy for the final instrument, and enables international legally binding pressure to be brought to bear on nuclear weapon states to respect the zone and the negative security guarantees to the zone.

In addition to the treaty itself, there could well be needs for ancillary legislation and protocols. Within domestic national jurisdictions, there could be the need for legislation to facilitate aspects of treaty implementation, particularly in relation to verification and inspection arrangements, and protection of international inspectors or inspection teams. There could also be the need for linked protocols or conventions of a bilateral or regional nature to implement bilateral monitoring and verification arrangements analogous to the ABACC agency in Argentina and Brazil; or to implement regional integrated nuclear fuel cycle arrangements.

Negotiation Forums and Phases

The Six-Party Talks, involving the two Koreas, Japan, Russia, China and the USA, over the period 2005 – early 2007, functioned as a negotiation forum as well as establishing a number of working groups, two of which (one dealing with the denuclearization of the Korean peninsula and another with a Northeast Peace and Security Mechanism) had potential to become negotiating forums for NWFZ arrangements.

It remains open, as discussed in the Nautilus KJNWFZ Concept Paper, for South Korea and Japan to negotiate an NWFZ without the initial participation of North Korea. As other regions have done, this might be accomplished through a joint declaration of intent by the two governments and initial consultations on the concept with the key extra-regional nuclear powers, the USA, China and Russia, and the UN. Following this declaration and consultation process, it would be appropriate to establish a negotiation process, involving a series of negotiation workshops between diplomats and technical experts from the treaty partners and the UN, with the USA, China and Russia in attendance for consultation on all aspects of the treaty, particularly the protocols. Consultations could also be held with North Korea on mechanisms for it to join the treaty at a later date.

Most treaties have taken relatively long periods to negotiate, and it is likely that the complex security arrangements and high proliferation stakes in the Northeast Asian region will mean that the negotiations will also be complex and take time to finalize. On the precedent of other zone negotiations, it is likely that the negotiations would need to be phased over 2 or more years. Even before substantive negotiations were to begin, intensive research work would need to be done on analyzing both the security and nuclear fuel cycle dimensions that would need to be addressed in the main treaty or ancillary treaty system mechanisms.

Institutional Mechanisms: Ratification, Governance, Control, Compliance and Review Processes

Ratification and Entry Into Force

The small number of states in the region would argue for a simple entry into force arrangement under which deposit of instruments of ratification (generally with the host state for the final negotiation session) by both Japan and South Korea would serve to bring the treaty into force for their territories. However, a KJNWFZ treaty that would seek to include North Korea at a later date (prior to any reunification) would need either a separate clause specifying that adjoining states might join the zone, with appropriate adjustment to zone boundaries; or a similar mechanism adopted as used in the Tlatelolco Treaty, where the zone boundaries extend to all potential zonal states and territories, but that states that are not ready to join the zone can sign a waiver that indicates their in-principle support for the zone but does not bring the zone into force for their territory. This might conceivably be of interest to North Korea given the past endorsement of such zones by North Korean leaders and representatives.

In the case of the treaty negative security guarantees, ratification would be sought from all P5 nuclear states, the USA, China, Russia, France and the UK.

Governance

Particular care would need to be given to governance structures and processes for a KJNWFZ in the context of the complexity of nuclear and security issues already mentioned. Some existing NWFZs have tended to opt for minimal governance structures, especially in the case of the Rarotonga and Semipalatinsk Treaties. Umebayashi, in his proposed Model Treaty, envisages the establishment of a Commission to oversee the implementation of the Treaty, together with an Executive Committee that would have responsibility for deciding on and implementing “requests for clarification” and “requests for fact-finding missions” as required under treaty control systems.¹⁷

Given the complexities and high proliferation risks associated with highly developed nuclear industries in the region, and the weapons proliferation that has already occurred in North Korea, a similar fully fledged governance system as implemented under the Tlatelolco Treaty would seem to be warranted for a KJNWFZ. This would require the establishment of an annual council of parties to the treaty, a specialist commission or agency with sufficient technical and professional staff to monitor and implement the treaty, and provide necessary advice to the parties; and a secretariat or executive committee empowered to act on monitoring and compliance matters in between Council meetings. In addition, as will be discussed in section 8 below, a bilateral specialist-monitoring agency with agreed

17. *Ibid.*

inspection powers similar to ABACC in Brazil and Argentina would be needed given the nature and extent of the nuclear infrastructure in Japan and Korea.

Control Systems

KJNWFZ control systems would need to be even more rigorous than those adopted in the Tlatelolco Treaty. The KJNWFZ treaty would need to include articles requiring: (i) the ability to verify that nuclear-weapon-related activities are not being pursued, whether directly, or indirectly under the guise of civilian nuclear programs; (ii) acceptance of full scope IAEA safeguards (including the Advanced Protocol Safeguards); (iii) regular semi-annual reporting on the status of nuclear activities relevant to the treaty; special reports as required by the Commission Secretary-General; and (iv) acceptance of special inspections as requested by a party to the treaty.

Compliance

The issue of compliance has proved a difficult one in the Northeast Asian context, with complaints on both sides about non-compliance with previous agreements, whether under the Joint Declaration or as part of the subsequent Six-Party Talks.

Some of the existing NWFZs in conflict-free regions are relatively weak in their compliance mechanisms, relying primarily on the high degree of trust and confidence already prevailing amongst treaty parties.

In the case of a JKNWFZ in a region that has suffered major conflicts, the compliance provisions would need to be robust. If violations of the treaty were to occur, the treaty would need to include the right of the Treaty Commission, and/or any party to the treaty, to refer the dispute to either the International Court of Justice, or to the UN Security Council through the UN Secretary-General, and to provide reports to the IAEA as might relate on the violation.

Review Mechanisms

Some existing NWFZs have made amendment and review relatively difficult due to a requirement for consensus on any amendments. Proliferation, however, may take many forms and shapes, often unanticipated at the time that a treaty is enacted. The role of uranium enrichment and nuclear fuel reprocessing was not addressed in existing nuclear-weapon-free treaties or in the 1968 Non-Proliferation Treaty, yet has now been recognized as problematic in some countries, such as Iran, where there is concern that such activities are nuclear-weapon-related rather than intended for purely civilian nuclear programs. There is also concern that NWFZs need to take account of other weapons of mass destruction, such as chemical, biological and radioactive dispersal weapons; and missile-delivery systems.

These considerations argue for an amendment and review process flexible enough to allow for necessary changes to reduce proliferation risks, and for review meetings to occur on a regular basis, such as every five years, as in the case of the NPT.

Withdrawal

North Korean withdrawal from the NPT has focused attention on the problem of withdrawal provisions that allow withdrawal on the basis of a state deciding “that extraordinary events. . . have jeopardized the supreme interests of its country” (NPT, Article 10). The Rarotonga NWFZ treaty, while weak in some respects, does have a more demanding withdrawal criterion, specifying that the treaty is “of a permanent nature and shall remain in force indefinitely, provided that in the event of a violation by any party of a provision of this Treaty essential to the achievement of the objectives of the treaty or of the spirit of the Treaty, every other party shall have the right to withdraw from the Treaty”. An even stronger withdrawal mechanism that might be used in a KJNWFZ Treaty is to insist upon UN Security Council endorsement of a member state request to withdraw.

Scope and Domain

Scope

The minimum UN requirement for the scope of all NWFZs is that they guarantee the absence of all nuclear weapons from the zone. In the two most recent NWFZs, the African and Central Asia NWFZs, the key formulation has been to prohibit not only acquisition by any means, and stationing of nuclear weapons, but also research on nuclear weapons. Given the past research programs on nuclear weapons and the technical and scientific expertise in the region, it seems prudent that research on nuclear weapons also be included in any KJNWFZ.

The minimum requirements also envisage negative security guarantees from the P5 NWS not to use or threaten to use nuclear weapons against members of the zone. These would need to be sought in a separate protocol to be signed and ratified by these NWS.

Beyond these minimum requirements, a KJNWFZ could and should build in further requirements that take into account the specific regional context.

Like the Southeast Asian NWFZ, a KJNWFZ should seek to prohibit the use of the zone for firing weapons against third parties from EEZs or territorial waters within the zone. Given that the zone initially comprises South Korea and Japan, this would give additional credence to the zone as not posing a nuclear threat to adjoining states.

There would also need to be consideration of missile delivery systems, with a ban on nuclear-capable missile systems as distinct from civilian space launch

vehicles, perhaps through separate inspection and transparency procedures governing missile manufacture, testing, use and deployment.

The scope of the treaty might further be extended to cover a requirement for cooperative and integrated monitoring and administration of nuclear fuel cycle activities, particularly enrichment, reprocessing and stockpiles of fissile materials, to ensure that there is no diversion from civilian uses. This is particularly important in the context of the large stockpiles of plutonium held by Japan, and would form a regional complement to the proposed Fissile Materials Control Treaty under negotiation in the Conference on Disarmament at Geneva.

In terms of the security guarantees to be given to the zone, these could be extended to provide positive as well as negative security guarantees. There could be automatic referral to the UN Security Council if there is any threat or actual use of nuclear weapons against the zone; and a separate protocol could be opened for universal signature that would commit signatories to provide conventional defense to the zonal states in the event of any threat or use of nuclear weapons against the zone.

Further, as Umebayashi has proposed, the zone could introduce bans on sea-disposal or air-release of radioactive materials, as has already been specified in some existing NWFZs, such as the South Pacific and African zones; and also ban armed attacks on nuclear power plants and other nuclear installations in the region.¹⁸

Domain

The minimum boundaries of the zone would be the land and territorial sea spaces of Japan and South Korea. However, if North Korea were prepared to use the Tlatelolco Treaty mechanism of signing but not bringing into force the treaty for North Korea, then the boundaries could immediately be set as including North Korean land and territorial sea spaces, and no further treaty amendment would be required at a later point when North Korea might agree to bring the treaty into force for its territory. More desirably, a KJNWFZ would follow the Bangkok Treaty precedent and extend the zone to cover the 200-mile EEZs of Japan and Korea. Admittedly, this would raise the same concerns for the NWS as the Bangkok Treaty protocol has generated. However, following John Endicott's limited NWFZ proposal,¹⁹ it is possible to envisage a compromise whereby there is a full nuclear-weapon-free zone for land and territorial seas, and a ban on tactical nuclear

18. *Ibid.*

19. John Endicott and Alan E. Gorowitz, "Track-II Cooperative Regional Security Efforts: Lessons from the Limited-Nuclear-Weapons-Free Zone for Northeast Asia," *Pacifica Review*, 11-3 (1999), pp. 3293-3324; John Endicott, "Limited Nuclear-Weapon-Free Zones: The Time Has Come," *Korean Journal of Defense Analysis*, 20-1 (March 2008), pp. 13-26; also see the following website for further details of this initiative, at <<http://www.cistp.gatech.edu/programs/nuclear-nonproliferation/weaponsfreezone.html>> (searched date: 26 August 2010).

weapons within the 200-mile EEZs. This might be more acceptable to the NWS since they have already unilaterally moved to remove their tactical nuclear weapons from surface vessels and aircraft.

Attention would need to be given to the mechanisms for additional states to join the zone, particularly in relation to Taiwan, although China would presumably welcome a permanently denuclearized Taiwan, and there could be legal formulations for recognizing Taiwan as part of the zone without entering into sovereignty issues of its relation to China. Attention would also need to be given to disputed islands within the zone. This issue has been a troublesome one both for the Southeast Asian NWFZ and the African NWFZ.

Verification and Compliance Mechanisms

Effective verification would be a *sine que non* for a KJNWFZ. All the Northeast Asian countries have the technical and scientific capacities and access to the necessary fissile materials and technologies to acquire nuclear weapons. The history of conflict and distrust in the region places a premium on very rigorous and transparent verification and compliance mechanisms, exceeding those in place for already established zones.

As discussed in the Governance section above, it would be necessary for a KJNWFZ to establish a commission and monitoring agencies with fully-fledged powers to conduct fact-finding missions and site inspections on the request of any parties, the commission itself, or the IAEA; and to require regular and timely quarterly reports to ensure transparency and details of nuclear infrastructure developments.

A KJNWFZ would need to develop a similar set of complementary verification and compliance mechanisms to the Tlatelolco Treaty. This would involve not only an obligation under the Treaty itself to enter into full-scope IAEA safeguards agreements, including the Additional Protocol IAEA Safeguards, but also the establishment of a Commission with the technical and professional skills and resources required to fully monitor all aspects of compliance and to undertake fact-finding visits and on-site inspections.

Further, in relation to the bilateral relationship between South Korea and Japan, the treaty could envisage and encourage the establishment of a bilateral verification organization between the two countries similar to ABACC in Argentina and Brazil.

The Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) was established by the two countries in 1991, and has the organizational form of a Commission and Secretariat. The commission is composed of two representatives from each of the countries, while the Secretariat involves all the technical and support staff. The latter in turn has six sectors: planning and evaluation; operations; accounting of nuclear materials; technical support; institutional relations; and administration and finance. The organization is independent in its conclusions, has highly qualified staff, and possesses state-of-

the art monitoring equipment. As noted by Seongwhun Cheon, the ABACC example has much application to the Korean context. As in the case of the two potential nuclear rivals in Latin America, Brazil and Argentina, the negotiation and formation of a bilateral agency can serve to reinforce central IAEA safeguards arrangements, reduced suspicion about each other's nuclear programs, and through the practical and scientific cooperation and confidence-building involved, facilitate and form an integral part of wider denuclearization arrangements.²⁰ While Cheon has proposed a Korean equivalent of ABACC, a KJNWFZ would obviously need to include Japan. Such an agency, in Cheon's view, would have the right to conduct its own special inspections, and thereby "increase the organization's credibility and reduce international suspicions of the two Korea's nuclear programs". Cheon has also proposed the establishment within such an agency of a division in charge of nuclear materials to be called the "Nuclear Material Supply Division", which would take control of all nuclear materials and equipment imported, exported, or produced by the parties, and would establish a single unified system of accounting, control and supply of nuclear materials and equipment.

As in the case of ABACC, such an agency would work in tandem with the proposed KJNWFZ Commission and with the existing IAEA safeguards regime and with the NPT treaty provisions. As ABACC Secretary, Carlos Feu Alvim, has noted, the decisions of Brazil and Argentina to set up ABACC, bring into force the Tlatelolco Treaty, and adopt the Quadripartite Agreement with the IAEA (Brazil, Argentina, ABACC and IAEA) all occurred within a time span of 4 years (1991–1994):

I believe the main motivation was regional. There was also the desire to demonstrate to the outside world that what we were doing in the nuclear field was for peaceful purposes. That is why we signed the bilateral agreement first. I think that the idea of a bilateral agreement was parallel to the idea of signing the Quadripartite Agreement. There was the acceptance of Tlatelolco (and OPANAL) and that was used as an example of a regional approach and as a bridge between the two countries.²¹

Discussing ABACC's experience of verification and inspections since the agency was accepted, Alvim has indicated that the agency has been very successful in working with both military and civilian sites in both Argentina and Brazil to conduct rigorous inspections. These inspections have played an important role in confirming the peaceful character of both countries' nuclear programs.

20. Seongwhun Cheon, "Applying ABACC Experiences to the Korean Peninsula: Possibilities and Action Plans," paper presented to the Institute for Science and International Security (ISIS) conference, "Building Nuclear Confidence on the Korean Peninsula," (23 July 2001), at <<http://www.isis-online.org/publications/dprk/cheon.pdf>> (searched date: 26 August 2010).

21. Carlos Feu Alvim, "Potential Application of the ABACC Model to Other Regions," paper presented to ISIS conference, "Building Nuclear Confidence on the Korean Peninsula," (23 July 2001), at <<http://isis-online.org/conferences/detail/building-nuclear-confidence-on-the-korean-peninsula-proceedings-of-the-july/10>> (searched date: 26 August 2010).

In the event of a violation detected through any of the above verification mechanisms, whether through the KJNWFZ Commission or through a bilateral monitoring agency, or through the IAEA, a KJNWFZ should provide clear and timely ways of seeking compliance with the treaty, as for example, through immediate referral mechanisms by any party or any of the detecting agencies to either the International Court of Justice or to the UN Security Council as appropriate.

Role of the United Nations

The UN has played a key role in two of the most recently negotiated NWFZ treaties, the 1996 African Treaty and the 2006 Central Asian Treaty, providing diplomatic, legal and technical assistance to negotiation teams for these treaties. It has also, at a political level, provided through the General Assembly, a forum for gathering international political support for, and subsequent endorsement of, NWFZ treaties, and a means for further mobilizing international community pressure for nuclear weapon state recognition and guarantees to specific nuclear-free zones, the only avenue for such legally binding security guarantees available to non-nuclear states (the NPT does not provide such guarantees).

In the case of a KJNWFZ, the UN could be asked to play a number of roles. The UN Secretary-General, himself from the Northeast Asia region, could be asked through his office to undertake an experts' study of the concept and ways of implementing it. Assuming interest from the relevant parties, the UN could also be asked to convene an initial conference on principles, and then subsequent negotiating sessions, providing a neutral chairing role in these discussions. It could also be asked to provide consultants and expert advice on NWFZ establishment, as it has provided to the previous African and Central Asian negotiating teams. The IAEA is an obvious UN agency for providing technical advice, especially in the area of verification. The UN Institute for Disarmament Research (UNIDIR) has considerable expertise in this area, as does the UN Regional Centre for Peace and Disarmament in Asia and the Pacific.

Assuming progress on a draft treaty, in-principle support could be sought at the UN General Assembly, and then, following signature of the treaty, endorsement and calls for early ratification of the security guarantee protocols at subsequent General Assemblies.

Conclusion

There is much at the stake in the Northeast Asia region: the presence of three nuclear-capable states, all possessing large militaries; the involvement of two major nuclear powers (the USA and China) with allies on opposing sides; a past history of major conflicts, a current history of distrust and suspicion; and the close proximity of large population concentrations highly vulnerable to both the immediate and aftermath of even a limited nuclear exchange.

The negotiation of a KJNWFZ would play a very significant regional role in acting as a circuit-breaker in the current downward spiral of mistrust. It would serve to confirm and guarantee, in a rigorously verified and transparent way, the current non-nuclear-weapon status of Japan and South Korea, while acting as an important confidence-building step that would enable North Korea to join such a zone at a later date. An entry-into-force mechanism similar to the Tlatelolco Treaty would be helpful in encouraging North Korea to sign up to the zone prior to bringing it into force for its own territory. Concurrent negotiations to reach a final settlement of the Korean War would be an important step in bringing North Korea into a KJNWFZ arrangement sooner rather than later, while the negative security guarantee offered under such a zone would be a powerful inducement for North Korea to join.

Such a zone would also have the longer-term regional benefit of defusing potential nuclear competition and rivalry between Japan and South Korea. While relations are currently cordial, the history of the two countries and the possibilities at some future date of more nationalist governments in either country would argue for locking both into binding and rigorously verified non-nuclear treaty arrangements. It would also not be beyond the possibility that North Korean nuclear weapon acquisition, limited as it is, would provide a pretext for either Japan or South Korea to themselves withdraw from the NPT and become embroiled in a nuclear arms race.

While establishment of such a zone might raise fears of losing the protection of the “nuclear umbrella” provided by US extended deterrence arrangements for Japan and South Korea, the zone would serve to provide compensating protection through both negative and positive security guarantees. Such guarantees, through protocol undertakings and the UN Security Council, would replace the current nuclear umbrella with undertakings to protect the region through conventional defense means against any threat or use of nuclear weapons by a non-zonal country. It should be noted that seeking defense through a nuclear umbrella is somewhat contradictory for this region since the fallout from nuclear explosions is likely to have devastating short- and long-term consequences for both attacking and defending countries.

The time is now ripe for the leaderships in Korea and Japan to show the same kind of vision that Brazilian and Argentinean leaders showed in the early 1990s in averting the kind of nuclear arms race that would have undermined their economic development at the same time as risking future nuclear conflict. Internationally, the commitment of the US Obama administration to a reduced reliance on nuclear weapons and an ultimately nuclear-free-world, the recent unanimous final document of the 2010 NPT Review Conference calling for expansion of NWFZs, and the greater openness of the US and other nuclear powers to NWFZ establishment, particularly in areas of regional conflict, suggest that we now have a new window of opportunity for denuclearization of Northeast Asia despite the current crisis in relations between the two Koreas.

As poet-songwriter Leonard Cohen tells us in one of his characteristically haunting songs: “There is a crack in everything . . . that’s how the light gets in!” There is now a crack, in fact many cracks, in the nuclear walls and ramparts that states have erected around themselves in the name of a questionable deterrence. The cracks are called nuclear-free-zones. That’s how the light gets in.

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