

Relevant Nuclear Arms Control Issues and Recommendations

Heinz Gärtner

1. Introduction

This text discusses several key aspects related to nuclear arms control and international agreements. The text provides insights into the complex landscape of nuclear arms control, including the history of MAD, the challenges of the INF Treaty, and the significance of the JCPOA in maintaining global security. It highlights the importance of addressing these issues to prevent nuclear proliferation and potential conflicts.

This text further discusses the prospects for denuclearization and security on the Korean Peninsula, the challenges associated with nuclear weapons prohibition, and the need for a new approach to international security. The text explores the challenges and potential solutions related to denuclearization, nuclear weapons prohibition, and international security, emphasizing the need for a fresh approach to address these pressing issues.

In the 1950s, the United States and the Soviet Union developed the concept of Mutual Assured Destruction (MAD) as a strategy to deter nuclear attacks. MAD relied on the idea that both sides possessed the capability to inflict maximum damage on each other, making a nuclear war unwinnable. It was not an effective war-fighting strategy, as it guaranteed mutual destruction. The Intermediate-Range Nuclear Forces (INF) Treaty, signed in 1987 by the US and the Soviet Union, banned ground-based missiles with ranges between 500 and 5500 km. In 2019, the US withdrew from the treaty, alleging Russian violations. This withdrawal has raised concerns about the deployment of intermediate-range missiles in Europe and Asia, potentially escalating tensions.

The Joint Comprehensive Plan of Action (JCPOA) was a 2015 agreement between Iran and major world powers to limit Iran's nuclear program and ensure it remains peaceful. The US withdrew from the JCPOA in 2018, leading to ongoing challenges in preserving the deal. The text highlights the complexity of the JCPOA's terms and verification measures.

The text then discusses the challenges in arms control, including the reluctance of nuclear powers to give up smaller nuclear weapons within their escalation ladder.

It also addresses concerns about China's missile capabilities and the potential for nuclear deployments in Europe and Asia.

The article also provides potential solutions and recommendations. It suggests that the JCPOA would have been the best solution to reduce nuclear proliferation fears, boost Iran's economy, and improve trade with Europe. Since the negotiations entered into a stalemate, the alternatives would be the possibility of regional arms control talks and confidence-building measures.

The text argues that attempts to denuclearize North Korea will fail unless there are political conditions in place to guarantee the country's independence. It questions whether the unification of the two Koreas is a viable solution and suggests that a more realistic path to unification could be through neutrality. The text references the Finnish and Austrian models as potential approaches for achieving a neutral position in the Korean context. "Finlandization" involves changing North Korea's mutual defense treaty with China to resemble the one the Soviet Union had with Finland. This would guarantee North Korea's independence and security without posing a threat to China. Meanwhile, South Korea could aspire to follow an Austrian model of neutrality, which involved military disengagement and a nuclear-weapons-free status.

After the critique of nuclear deterrence, the text suggests the Treaty on the Prohibition of Nuclear Weapons (TPNW) as an alternative norm. Nuclear deterrence would promote hostility, encourage conventional wars, and lead to nuclear proliferation. In addition, nuclear deterrence bears inherent risks, such as miscalculations and technical accidents.

The TPNW was adopted by 122 state parties in 2017 and entered into force in 2021. Notably, none of the nuclear-armed states or their allies participated in the vote, except for the Netherlands, which voted against the Treaty. The TPNW expresses concern about the humanitarian consequences of nuclear weapons and calls for their complete elimination. The Treaty highlights the divergence between nuclear-armed states, which rely on the concept of nuclear deterrence, and non-nuclear-armed states, which seek the prohibition of nuclear weapons. The nuclear-armed states argue that the global elimination of nuclear weapons is not realistic and that deterrence is necessary for their security. They oppose the TPNW. The text concludes by expressing concern about the resurgence of nuclear threats and arms races. It suggests that a new approach to international security is needed, citing the Helsinki Final Act of 1975 and the Congress of Vienna in 1815 as historical examples of successful peace-building efforts. It emphasizes the importance of cooperative

security, humanitarian values, and the involvement of neutral and non-aligned states in shaping future security arrangements.

2. Nuclear Arms Control Issues

Mutual Assured Destruction (MAD)

In the 1950s, the nuclear superpowers, the United States and the Soviet Union, developed the strategy of Mutual Assured Destruction (MAD). It boiled down to the capacity to inflict maximum damage on an adversary. It was meant to deter the nuclear adversary from an attack. Deterrence means "the persuasion of a potential enemy to avoid certain actions in his own interest." (Schelling 1960, p. 9). Deterrence is linked to the capability to retaliate if attacked or threatened with a nuclear attack. However, the concept of MAD as a war-fighting strategy was ineffective. If one side started a nuclear war and the other responded symmetrically, no side would survive in the end. Mutually assured destruction was guaranteed.

To avoid this dilemma, mutual deterrence had to be organized in a certain sophisticated way. Nuclear weapons became smaller. Several strategies were developed to control a possible escalation. NATO adopted the strategy of "flexible response": small tactical nukes should be used against a conventional attack by the Warsaw Pact; retaliation could escalate in several steps (for example, through the deployment of intermediate and later of strategic nuclear weapons). The aim was to achieve escalation dominance—not only to be capable of striking first but also striking last. Missiles with multiple warheads (MIRVs—multiple independently targetable re-entry vehicles), deeply buried in silos and transportable on tracks and trucks, were expected to survive the first strike. Again, there was no guarantee that one side could ever reach this aim.

3. The INF Treaty Is Dead; Small Nuclear Weapons Emerge; the War in Ukraine

In line with this thinking, the USSR developed ground-based ballistic missiles (SS-20) which were about to be deployed on the territory of Eastern European allies in the seventies. The USA had medium-range ballistic missiles (Pershing II) and cruise missiles available to be deployed in Western Europe. This led to NATO's "double-track decision" in 1979 to station these missiles and simultaneously begin negotiations on these missiles with the Soviet Union. Soon the Europeans discovered that they could become the war theater of a nuclear exchange between the two superpowers, which, in turn, might come out of such battle unscathed. The intention of the Europeans thus was to prevent any possibility of a limited nuclear war on

their continent, which in turn triggered a massive peace movement against the planned deployment of intermediate-range missiles. These developments led to the conclusion of the INF Treaty in 1987. It was signed by US President Ronald Reagan and Soviet General Secretary Michael Gorbachev and prohibited ground-based missiles with a range between 500 and 5500 km.

In February 2019, US President Trump suspended the Treaty and withdrew from it in August. Russia followed suit. The US and Russia blamed each other of having violated the Treaty. The US claimed that Russia's SSC-8 missiles had a range of 2000 kilometers, which Russia denied. In turn, Russia accused the USA that their missile defense systems deployed in Poland and Romania could easily be loaded with nuclear-capable Tomahawk cruise missiles, which are currently sea-based.

These technological deficiencies could probably have been fixed by enhanced verification mechanisms and some update of the Treaty. The real reasons for leaving the INF Treaty can be found elsewhere. First, nuclear superpowers are not willing to renounce smaller nuclear weapons within their escalation ladder. In its Nuclear Posture Review (NPR) of 2018, the US announced a new generation of low-yield nuclear weapons: "Expanding flexible U.S. nuclear options now, to include low-yield options, is important for the preservation of credible deterrence against regional aggression." (Department of Defense 2018). The NPR argues that this flexible nuclear option would raise the nuclear threshold. This might be true, but at the same time, it makes the use of nuclear weapons more likely. According to the Pentagon, Russia developed a strategy of "escalation to deescalate", which is based on the same idea of using small nuclear weapons until the other side blinks. The second reason for the abandonment of the INF Treaty is China's arsenal of medium-range missiles. China relies heavily on ground-based medium-range missiles, which constitute 80% of its missile program. The US is not the only one who now feels free from constraints to deploy intermediate-range missiles in Asia. Already in 2007 at the Munich Security Conference, Russian President Putin complained about the existence of Chinese medium-range missiles. Russian officials repeated these complaints time and time again.

After the abandonment of the INF Treaty the US and Russia are now free to deploy these types of missiles in Europe and in Asia. Russian missiles can be deployed in the Russian enclave Kaliningrad; they also can be stationed in Russia's Far East. In June 2023, Russian President Vladimir Putin announced that Russia would deploy some of its smaller nuclear weapons to Belarus.

The USA can deploy their missiles on the territory of certain NATO allies. Some of them, such as Poland and the Baltic states, have already hinted that they would

be willing to do so. Poland stated in July 2023 that it would participate in nuclear sharing with the US. It might deploy B61 nuclear bombs and the Polish Air Force would operate them. Other nuclear sharing agreements are those between the United States and its NATO partners Belgium, Germany, Italy, the Netherlands, and Turkey. If tensions between NATO—with the US in the driving seat—and Russia exacerbate, Europe could be considered once again a theater for a nuclear exchange. So far, no political protest or organized peace movement against this development, as in the 1980s, is visible.

The US already announced in August 2019, immediately after the Treaty officially expired, that it would deploy cruise missiles to Asia. This would also be possible on the territory of Japanese and South Korean allies, from where they could reach China.

For Russia, with the deployment of missiles with a warning time of a couple of minutes, the situation would look like a Cuba crisis of 1962 reversed, when Soviet missiles on Cuba could have reached US territory within minutes. Russia argued that, with its invasion in Ukraine, it wanted to prevent nuclear missiles from being stationed in the country. Ever since, President Putin has made references to Russia's own nuclear weapons.

The US president's idea to negotiate a major new deal with the inclusion not only of the US and Russia but also of China, India, and Iran is no more than window dressing. China cannot negotiate 80% of its missiles. India and Pakistan have refused to negotiate their nuclear weapons since they started testing them in 1998. There still is a UN Security Council Resolution in place (1172) that prohibits all further nuclear weapons activities of the two countries. They ignored the Resolution, and the UN tacitly did not implement the related sanctions. This is in sharp contrast to "the maximum pressure" of the US towards other countries. Israel will not negotiate its nuclear weapons in this large multilateral context. After all, why should the US embrace such a cumbersome multilateral treaty when other international treaties and multilateralism have been largely dispended?

The rejection of constraining treaties also included the New START Treaty of 2011, which limits the number of intercontinental strategic nuclear warheads to 1550 and their launchers to 700. It was suspended by Russia in 2023. This Treaty would have been a limitation to "escalation dominance". "Escalation dominance" should ensure that the US controls every step of a nuclear escalation until the last strike. Nuclear weapon powers want to reserve themselves not only the first strike capability with small weapons but also the last strike on the strategic level. A limitation of strategic weapons might be an obstacle to control the escalation on the highest level.

4. The Iran Nuclear Deal (JCPOA) Is Being Suffocated; Nuclear-Weapon-Free Zones (NWFZs)

In July 2015, in Vienna, the EU-3 (France, Germany, and the United Kingdom) and three other UN Security Council members (US, China, and Russia) negotiated an agreement with Iran that limited Iran's nuclear program. Besides major restrictions on Iran's uranium enrichment, the agreement includes very intrusive verification provisions. Every full stop and comma have been agreed upon. The lifting of nuclear-related sanctions allowing for a normalization of trade and economic relations with Iran constitutes an essential part of the JCPOA. The Joint Comprehensive Plan of Action is, with its 164 pages, the best-negotiated arms control agreement in history.

The agreement contains no time limits on Iran's capability to acquire nuclear weapons. The timeframe for some restrictions is limited from ten to thirty years. Critics of the JCPOA, like the Trump administration and Israel, called them "sunset clauses". Other provisions, like those concerning verification in the framework of the Treaty on the Nonproliferation of Nuclear Weapons (NPT), do not have a time limit. There is a ten-year restriction on new centrifuges, which does not expire until 2025. The twenty-year limit on the monitoring of centrifuges by the IAEA will not expire before 2035. Iran's uranium stockpile is reduced by 98% and must not be exceeded until 2031, and its enrichment must be kept below 3.67% for fifteen years. Research and development must take place only at Natanz until 2024. The underground facility Fordo will be converted into a research center and no enrichment will be permitted there until 2031. The twenty-five-year limit on uranium ore monitoring expires in 2040.

The implementation of the Additional Protocol, which is part of the agreement, would allow for unannounced inspections to be at first provisional and later permanent. As long as Iran remains a party to the NPT, its consent not to proliferate and to allow unrestricted access to its nuclear sites for the IAEA will never expire. Furthermore, in the preamble of the JCPOA, the parties to the Agreement "ensure that Iran's nuclear program will be exclusively peaceful" and "Iran reaffirms that under no circumstances" will it "ever seek, develop or acquire any nuclear weapons". In addition, the JCPOA was endorsed by Resolution 2231 of the United Nations Security Council (UNSC), which made it legally binding under international law. Consequently, the unilateral withdrawal of the US from the JCPOA is a violation of international law.

It is not an exaggeration to say that no other existing arms control agreement reaches the level of the JCPOA in the detail and profoundness of its verification

provisions. If the United States had not stepped out of the deal, its importance would have been similar to that of the NPT, concluded in 1968. The JCPOA could also have become a model agreement for other denuclearization cases, such as resolving the situation around the North Korean nuclear program.

US President Trump withdrew the US from the JCPOA in May 2018 and signed a presidential memorandum to re-impose all US sanctions lifted or waived in connection with the Iran deal. This move is in contradiction with the UNSC Resolution 2231, which requests that "the development of normal economic and trade contacts and cooperation with Iran" be promoted and facilitated as an essential part of the JCPOA.

The European efforts to protect the JCPOA from the effects of the US's withdrawal, with the activation of a European financial mechanism (the Instrument in Support of Trade Exchanges or INSTEX) which was designed to counter the impact of US sanctions, failed. European companies, buckling under US pressure, have dragged out INSTEX's implementation and have reduced its initial scope in hopes of avoiding a punitive response from the Trump administration. Although the European Union does not recognize the extra-territorial application of laws adopted by third countries, such as the United States, it failed to apply this so-called blocking statute.

There were two controversial issues that remained. First, Iran wanted more guarantees if the US unilaterally terminated the agreement again. However, Iran's demand for watertight guarantees cannot exist. Great powers always have a tendency to break treaties, even international law.

Second, the International Atomic Energy Agency's (IAEA) clarification of the contaminated particles within the framework of the "safeguards agreements" in connection with the so-called past military activities (PMAs) remained open. In August 2022, the High Representative of the EU submitted a text as a compromise proposal. This conflict, which should have been settled outside of the JCPOA, threatened to become the JCPOA's stumbling block. However, Iran demanded that the PMA case with the IAEA be closed.

Subsequent reports by the IAEA noted that Iran had stockpiled enough 60 percent-enriched uranium to make a weapon. However, Iran would need to be enriched to ninety percent, something Iran had ruled out. This was not surprising, as Iran had announced since early August 2022 that it would be feeding hexafluoride gas into the new centrifuges. Iran had four tons of enriched uranium in storage at the time. In the 2015 agreement, Iran was only given about three hundred kilograms of uranium with a degree of enrichment of 3.67%.

In June 2023, Director General of the IAEA Raphael Grossi accepted Iran's explanation of one of the contaminated traces as plausible but did not "close" the case. At the Board of Governments Meeting of the IAEA in June 2023, Germany, France, and Great Britain in a joint statement accused Iran of endangering the international nuclear agreement but confirmed that they remained committed to the JCPOA. At this point, the talks threatened to collapse altogether.

5. Potential Solutions and Recommendations for Regional Arms Control

Iran, instead of withdrawing step by step from the agreement, as it started to do in summer 2019, could have offered some proposals for the talks with the US. Iran could suggest regional arms control negotiations that address the missile issue also outside the JCPOA (Gärtner 2019). They could include other regional powers. Other heavy weapons could be included as well. A model could be the 1990 CFE Treaty on conventional forces in Europe. The talks could be accompanied by confidence-building measures, such as exchange of military information and notification of certain military activities. The provisions of the Vienna document could serve as an example. The European signatory states of the JCPOA could make efforts to promote a security dialogue. Already from 1992 to 1994, many Middle Eastern states, including Israel, were engaged in arms control and regional security talks, which failed, however, because of the Egyptian–Israeli conflict over nuclear disarmament (Erästö 2018).

There is no reasonable alternative to the nuclear deal. The deal may be a more effective way of preventing an Iranian nuclear weapon than no deal. The success of the negotiations can significantly reduce fears of nuclear proliferation, significantly improve Iran's economy, normalize trade with Europe, and help ease Europe's energy crisis.

A failure of the Vienna negotiations and their implementation could have far-reaching consequences. Iran would continue to expand its nuclear program without directly building a nuclear weapon. That would be enough for Israel to attack the nuclear facilities and other targets and try to drag the US into the conflict. As the US midterm elections of November 2022 approached, President Biden became increasingly reluctant to even discuss the deal in Congress.

Both the USA and Iran would be responsible for a failure of the agreement. They continued to harden their positions during the negotiations. The US has offered no incentives to Iran and has instead imposed more and more sanctions. Iran, in turn, has demanded an impossible full resolution of obstacles and has

led the modernization of its nuclear program close to nuclear weapons capability (Gärtner 2022).

6. Can the Korean Peninsula Be Neutralized and Denuclearized?

All attempts to denuclearize North Korea will fail as long as international political conditions to guarantee the independence of North Korea are missing. Solving the nuclear issue presupposes its political prerequisites to be addressed. Will this be possible within a divided peninsula, or should the unification of the two countries be aspired for?

When discussing Korean reunification, it is often the German experience of 1989-90 that is cited as a model for the peninsula. Obviously, there are parallels: a people with one language and shared history, divided by decades of separation, with two separate economies, political systems, and opposing ideologies. However, the geopolitical situations between Germany and Korea are very different. The unification of Germany became possible only because the Soviet Union disappeared. The geopolitical context in Northeast Asia, by and large, has stayed the same since the end of the Korean War of 1953. Therefore, the situation of the Koreas today should be compared to the situation in Central Europe in the early days of the Cold War, not its end. A realistic path to unification is the one Germany explicitly rejected, namely through neutrality.

The question is not whether a reunified Korea should be neutral, but how to achieve that. The concepts of "Finlandization" and "Austriazation" are a way for unification if both Koreas took steps toward neutralization separately at the beginning (Lottaz and Gärtner 2023).

First, one can discuss the "Finlandization" of North Korea. What is meant with this is a change in the DPRK–China mutual defense treaty toward a security agreement akin to the one the Soviet Union used to have with Finland, guaranteeing Moscow that Finnish territory would not only be off-limits to its adversaries but that the Finns were contractually, but not universally, bound to the defense of the Soviet Union.

For North Korea, one can reason in analogous terms. Since China is a great power with a nuclear triad and all possible capabilities of self-defense, the only real danger Beijing faces from the Korean peninsula is the stationing of hostile nuclear or conventional assets near its southern border. To China, North Korea's strategic value is the buffer function it plays.

Secondly, South Korea could aspire to follow an Austrian model to achieve a neutral position of its own. In the immediate aftermath of World War II, Austria

was divided into four major zones and jointly occupied by the United States, Britain, and France in the West and South and the Soviet Union in the East of the country. Therefore, a danger of partition existed, similar to the one in Germany. This development was accepted by the Soviet Union, mainly because Austria did not become a member of NATO.

In terms of military capabilities, some neutral countries—foremost Sweden and Switzerland—experimented with the development of nuclear weapons, reasoning that such capabilities would be necessary to independently defend their territories in case of a hostile (Soviet) intervention. Austria, in contrast, quickly became a model for the concept of a Central European nuclear-weapons-free zone (NWFZ), a concept that gained momentum through the so-called Rapacki Plan (named after a Polish foreign minister), prescribing military disengagement from the blocs and a nuclear-free status of the participating states.

The Korean Peninsula would eventually be a nuclear-weapons-free zone (NWFZ). NWFZs are linked to Negative Security Assurances (NSAs), which are the commitment by nuclear weapons states not to use or threaten to use nuclear weapons against a nuclear-weapons-free state. NSAs are the opposite of extended deterrence, which is the promise to use nuclear weapons if an ally (e.g., South Korea) is attacked or threatened by attack.

7. Can Nuclear Weapons Be Prohibited?

At a United Nations Conference on 7 July 2017, 122 state parties voted in favor of a Treaty that prohibited nuclear weapons (TPNW). The Treaty entered into force in January 2021. None of the nuclear-armed states, or their allies, participated in the vote (with the exception of the Netherlands, which voted against the Treaty). The Ban Treaty expresses concern about the catastrophic humanitarian consequences of the use of nuclear weapons and calls for their complete elimination. The Treaty calls for the full implementation of the Non-Proliferation Treaty (NPT), including the disarmament obligations of nuclear-armed states (Article VI). The Treaty should close the gap between the commitment of non-nuclear-armed states and their actions. However, it is very unlikely that the nuclear states will give up their nuclear weapons anytime soon (Gärtner 2018).

Ultimately, the positions of states who want to keep nuclear weapons and those who want to abolish them are not compatible. Even though the catastrophic consequences of the use of nuclear weapons are widely recognized, nuclear-armed states remain convinced by the concept of nuclear deterrence, which they believe protects them from a nuclear or massive conventional attack. Nuclear weapon states

emphasize the importance of deterrence. NATO allies rely on nuclear weapons. NATO's Deterrence and Defence Posture Review of 20 May 2012 states "As long as nuclear weapons exist, NATO will remain a nuclear alliance." (NATO 2012). This phrase has been reiterated in every NATO Communique ever since.

Therefore, nuclear weapon states and all NATO states oppose the Ban Treaty. Their main arguments are that the global elimination of nuclear weapons is not realistic (North Korea is cited as an example), and that the knowledge of nuclear fission and fusion would not disappear—meaning that any country could at any given moment reintroduce nuclear weapons (Kamp 2017). While the Washington Treaty, NATO's founding treaty, contains a mutual defense commitment (Article V), there is no reference to nuclear deterrence. NATO members strongly believe that nuclear deterrence does work, because there was no nuclear war between the United States and the Soviet Union. In contrast, proponents of the Ban Treaty argue that we do not know if this is true, since the negative, i.e., something that did not happen, cannot be proven. The avoidance of nuclear war between the two Cold War superpowers likely resulted from a combination of political and military factors, including détente, arms control negotiations, confidence-building measures, and cooperative security.

Indeed, mutual deterrence and complete disarmament are opposing concepts. Nuclear-armed states agree that nuclear war should be prevented, but they do not rule out that nuclear weapons should be used in self-defense "only in the most extreme circumstances". (Office of the Secretary of Defense 2018). They argue that with the Ban Treaty in place, the effectiveness of deterrence would be lost (Kamp 2017).

The Ban Treaty expresses concern about the catastrophic humanitarian consequences of the use of nuclear weapons and calls for their complete elimination. Advocates of the Treaty think that nuclear deterrence is only credible if the nuclear-armed adversaries permanently demonstrate that they are serious about using nuclear weapons. This relies on the principle of mutually assured destruction, which, as explained earlier, threatens with self-destruction. Indeed, the lessons of mutual nuclear deterrence, in both theory and practice, demonstrate that deterrence has several problems:

- The announced intention to annihilate large parts of humanity is both unlawful and immoral.
- Nuclear deterrence is only credible if the adversaries permanently demonstrate that they are serious about using nuclear weapons.

- Deterrence does not prevent conventional wars. Nuclear powers were involved in conventional wars in Korea, Vietnam, the Falklands, Israel, Afghanistan, and Iraq. Ukraine did not feel deterred by Russian nuclear threats. Two nuclear powers, India and Pakistan, went to war in 1999. Moreover, possession of nuclear weapons could encourage conventional provocation or backing for terrorist groups. Russia might have felt invincible as a nuclear weapons state when it attacked Ukraine in 2022.
- Nuclear deterrence is not necessary to avoid a nuclear war if there is a nuclear-weapons-free world. No nuclear weapons can prevent a nuclear war better.
- The concept only works with rational actors. It requires adversaries to rely on each other to respect deterrence and adhere to its principles. Furthermore, they have to communicate with each other and understand each other's signals.
- Deterrence promotes hostility and mistrust when adversaries permanently threaten each other.
- Reliance on mutual deterrence causes nuclear proliferation and arms races. This was evident during the Cold War, but it is also true for other regional conflicts, such as India–Pakistan.
- Deterrence can create instability and dangerous situations through miscalculations, miscommunication, and technical accidents.
- The threat of nuclear retaliation is useless against terrorists.
- Mutual deterrence is expensive because it requires continuous modernization and the development and production of new weapons to close real and assumed loopholes in the system.
- If a nuclear war broke out, which deterrence was supposed to prevent, it would be a global disaster.

The argument that the TPNW has flaws is hypercritical. There is no perfect arms control treaty. The Treaty on Strategic Offensive Forces Reduction (SORT) of 2002 contains almost no inspection provisions; the Vienna nuclear agreement with Iran (JCPOA) has a very intrusive verification mechanism and, nevertheless, the US Administration and Israeli Prime Minister Netanyahu have expressed serious concerns about it; the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) operates a far-reaching verification regime, even though the treaty itself is not in force yet; the Chemical Weapons Convention has an elaborate inspection system and yet chemical weapons can be hidden and produced relatively easily. It seems plausible that by focusing on its alleged shortcomings, some critics are seeking to divert attention from the broader goals of the Ban Treaty.

Is there a way forward? It appears that nuclear-armed states will not join the TPNW anytime soon, nor give up their nuclear weapons. Is there room for compromise? What could they offer to non-nuclear weapon states instead? Nuclear states could promise not to use nuclear weapons against non-nuclear states. These NSAs are enshrined in the documents of the NPT Review conferences and in the US Nuclear Posture Review. This is not asking for too much. NSAs are less of a commitment than non-first-use pledges. An unconditional NSA commitment by nuclear weapon states would remove all non-nuclear weapon states from the target list. In contrast, a true non-first-use doctrine would have to remove conventional, chemical, and biological weapons from the target list and would apply to non-nuclear and nuclear states alike. These NSAs must be legally binding in order to be meaningful. Nuclear weapons states would have to sign and ratify the legally binding protocols of the treaties on nuclear-weapons-free zones (NWFZs), which contain NSAs. These NSAs are the only commitments of nuclear weapons states to these treaties.

8. Conclusion: A New Security and Cooperation Final Act, or a New Vienna Congress

The use of nuclear weapons seems to become a frightening possibility again. International arms control treaties are being discarded. The INF Treaty is dead, new nuclear weapons are being deployed in Europe, the negotiations of JCPOA are locked in stalemate, and the New START Treaty has been suspended. North Korea will not give up its nuclear weapons before appropriate political conditions are fulfilled. Neutrality for Korea might be a long-term solution. The war of Russia against Ukraine is accompanied with nuclear threats. The TPNW is largely ignored by nuclear weapon states. A new peace movement is not visible yet. However, political solutions to reduce tensions would be possible.

Advocates of deterrence strongly believe that nuclear deterrence does work because there was no nuclear war between the United States and the Soviet Union. But the avoidance of nuclear war between the two Cold War superpowers also necessitated factors such as arms control negotiations, confidence-building measures, and cooperation in the Conference on Security and Co-operation in Europe and in other regimes and institutions. A world without nuclear weapons, which the TPNW aims to bring about, would be the best guarantee to avoid nuclear war.

The nuclear arms race and increasing tensions in Europe have led to the idea of reversing this tendency. Increasing security by intensifying military capacity would exacerbate the offensive–defensive security dilemma. Instead, security should be

enhanced by reducing the threat level. Once the war in Ukraine is over, new security arrangements will have to be considered. The Helsinki Final Act of 1975 and the subsequent process could provide a guideline for resolving current conflicts without copying them.

The Helsinki Final Act of 1975 contains instruments beyond pure power politics which were successful in the past and still are very timely. It expresses European values best. It does not identify enemies, not even opponents or adversaries, while most security and defense strategies define other states as "opponents", "adversaries", and "enemies". The document requests cooperative security and views security as indivisible. It develops a Decalogue of humanitarian values and supports economic cooperation. It allows for the changing of borders, but only peacefully and with consensus.

The CSCE (Conference on Security and Co-operation in Europe) process would not have been possible without the mediation of the neutral and non-aligned (N+N) states of Austria, Finland, Sweden, Switzerland, and Yugoslavia. For such a future conference on security and cooperation, neutral and non-aligned states (also from the Global South) will be indispensable. The location will not be Helsinki anymore, because Finland joined the military alliance NATO, but another neutral place.

Another historical analogy is the Congress of Vienna of 1815. After the Napoleonic Wars, all major European powers designed a European peace order which kept the peace for hundred years, with the interruption of the wars of unification in the middle of the century. The system was based on a mix between a balance of power and common norms.

Funding: This research received no external funding.

Conflicts of Interest: The author declares no conflicts of interest.

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