



The Political Reckoning in a Post-Nuclear Use Landscape

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ABSTRACT

The international landscape, particularly in Northeast Asia, is portrayed as volatile due to the presence of nuclear-armed states, territorial disputes, and escalating geopolitical tensions. Considering this reality, this paper delves into the political ramifications of potential nuclear use in the Northeast Asia . It scrutinizes conceivable power shifts, the evolving role of anti-nuclear groups, and the broader impact on security policies. The exploration extends to scenarios post-nuclear use, encompassing positive, negative, and complex outcomes. The paper concludes by offering recommendations to policymakers, underscoring the imperative of substantive dialogues on arms control and conflict resolution to avert catastrophic nuclear events. Overall, the paper provides a comprehensive analysis of the multifaceted challenges posed by nuclear weapons in Northeast Asia and offers valuable insights for crafting a more secure global environment. Recent developments point towards a disconcerting unraveling of arms control structures and a growing threat to the nonproliferation regime. The paper underscores the dynamic evolution of nuclear deterrence, highlighting the strategic use of emerging technologies by states to reshape the balance of vulnerabilities.

KEYWORDS

Nuclear weapons; Asia-Pacific; North Korea; arms control; deterrence



INTRODUCTION

The unraveling of the global arms control architecture and the ensuing risks of unrestricted competition have brought us to a perilous juncture. The elimination of the Intermediate-Range Nuclear Forces (INF) Treaty in 2019 (Trenin 2020) was a particularly alarming shift, casting a shadow over East Asia and beyond. This change compels us to face a deeply unsettling question: What would be the consequences if nuclear weapons were used in this region? The potential repercussions are nothing short of catastrophic. A nuclear conflict in East Asia would not only devastate the immediate area but also send shockwaves across the entire world, disrupting lives and altering the course of history. It is imperative that we grasp the full scope of these risks to safeguard our collective future. That deterrence has not failed thus far does not guarantee its continued effectiveness. The foundational assumptions that support the theory of the nuclear revolution¹ are facing greater challenges than ever before (Lieber and Press 2017).

The world is witnessing a shift in the traditional approaches to nuclear deterrence. In an effort to tilt the balance of vulnerabilities² in their favor, countries are increasingly focused on exploiting emerging technologies that offer precision and remote sensing capabilities. This desire to leverage new technologies to alter the offense-defense balance with a bilateral deterrence equation is indicative of a failure to fully comprehend the significance of the nuclear revolution and the potentially cataclysmic consequences of nuclear war. In other words, if nuclear possessors had accepted that secure second-strike capabilities have indeed eliminated their security dilemmas, they wouldn't have embroiled themselves in nuclear and conventional arms racing.

The international climate is far from peaceful, as geopolitical tensions continue to simmer and escalate, creating additional triggers for crises, with potentially catastrophic nuclear implications. The probability of intentional or inadvertent nuclear incidents escalates in periods of uncertainty and crisis. This risk is exacerbated by inadequate crisis communication systems and potential misjudgments arising from the chaos of warfare and misinformation.

One region where such crises could have devastating consequences is Northeast Asia. This region has emerged as an area of significant concern due to the presence of nuclear-armed states China, Russia, North Korea, and the United States, which exerts its considerable influence in the region.

It is imperative to approach the issue with both a comprehensive and nuanced understanding of the evolving dynamics between countries in the region. While the existence of nuclear weapons makes the stakes incredibly high, other factors fuel tensions in the region, including territorial disputes, hegemonic ambitions, and nationalist sentiments.

1 This theory argues that the destructive capacity of nuclear weapons, combined with the possession of secure and survivable second-strike capabilities, has made mutual vulnerabilities an inescapable and stabilizing phenomenon. In other words, the theory argues that nuclear weapons eliminate or significantly reduce security dilemmas, make military victories impossible to achieve, and, consequently, add to general stability.

2 Bilateral deterrence equations are strengthened when both countries achieve a degree of balance in terms of vulnerabilities. However, one side feels a tad less vulnerable, this delicate balance is disturbed, incentivizing the state which feels less vulnerable to use force against the other.



In 2021, the Asia-Pacific Leadership Network for Nuclear Non-Proliferation and Disarmament (APLN), the Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA), and the Nautilus Institute for Security and Sustainability launched a project on *Reducing the Risk of Nuclear Weapon Use in Northeast Asia (NU-NEA)*. In an effort to assist policymakers in mitigating tensions and preventing nuclear conflicts, the Project has primarily concentrated on illuminating the various pathways to nuclear deployment and the resulting physical ramifications within the region (APLN).

Supported by the findings of years 1 and 2 of the project, this paper delves into the profound political ramifications of nuclear use in Northeast Asia. Its aim is to grasp how the employment of nuclear weapons could potentially change the equilibrium of power between states with nuclear weapons and those without these weapons, within the region and beyond. Additionally, this paper critically evaluates the potential transformations in the role and significance of anti-nuclear groups that may arise as a consequence of nuclear use. Moreover, it analyzes the far-reaching impacts of nuclear use on the security policies of key stakeholders and allies, as well as its influence on the delicate equilibrium between those advocating for war and those striving for peace. In a world after nuclear weapons have been used, the international community would face substantial transformations and new challenges. This paper examines those transformations through the good, the bad and the ugly scenarios post-nuclear use and how nuclear weapons are perceived in the new normal. Lastly, the paper gives recommendations to policymakers to prevent nuclear use, including the need to engage in substantive dialogues on arms control and conflict resolution.

NUCLEAR USE AND THE PERMANENT ASCENDANCY OF ANTI-NUCLEAR GROUPS

The 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) successfully achieved consensus on a final document, which marked a remarkable milestone in its history. The document noted deep concerns by the state parties' about "the continued risk for humanity represented by the possibility that these weapons could be used and the catastrophic humanitarian consequences that would result from the use of nuclear weapons" (Arms Control Association 2023). The inclusion of the humanitarian aspect in the discussion on NPT's Article VI was followed by a new wave of activities that focused on the deleterious humanitarian repercussions of nuclear use. This paved the way for organizations like the International Campaign to Abolish Nuclear Weapons (ICAN) to rally support for an international treaty to stigmatize, prohibit, and eliminate nuclear weapons.

These efforts resulted in the negotiation, adoption, and entry into force of the Treaty on the Prohibition of Nuclear Weapons (TPNW). As of September 2023, 93 countries had signed the TPNW, showing its wider international acceptability (ICAN 2024). Also known as the Ban Treaty, TPNW is, unlike the NPT, a non-discriminatory Treaty requiring all signatories to give up their nuclear weapons. All state parties to the TPNW not only have to eliminate all their nuclear stockpiles but also commit to not amassing them again.³ Its entry into force has strengthened the position of

³ "United Nations Treaty Collection," accessed November 16, 2023, https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26.



disarmament advocates who remind Nuclear Weapon States (NWS) recognized by the NPT of their disarmament commitments. However, the Treaty is often criticized for its ineffectiveness, as none of the nuclear weapon states have signed it. While the likelihood of nuclear weapon use in Northeast Asia is low (Gilholm 2022), any such occurrence would embolden anti-nuclear campaigners as the consequences of using nuclear weapons, irrespective of other factors, would be too catastrophic to disregard, amplifying their arguments against them.

The second year of the NU-NEA project thoroughly dissects the short- and long-term impacts of nuclear use. More specifically, the project's report on *Humanitarian Impacts of Nuclear Weapons Use in Northeast Asia* produces quantitative estimates of direct and delayed deaths that various nuclear use cases could induce (APLN 2023). The findings of the report speak to the implications of nuclear use. According to the report's estimates, even in "the most limited of nuclear conflicts, deaths were in the tens or hundreds of thousands, with the more extensive conflicts resulting in millions of deaths and hundreds of thousands of cancer deaths" (APLN 2023, iv).

To provide a more thorough evaluation and forecast, the report examines various physical effects, encompassing thermal radiation (fluence), firestorms, and fallout. This comprehensive analysis enhances our understanding and enables us to make more accurate projections. Such are the grotesque effects of nuclear use that even a DPRK initiated⁴ "demonstration nuclear attack on a small ROK coastal community for the main purpose of driving the United States, the ROK, and the international community to the bargaining table" and limited conventional and nuclear responses by the United States, will result in approximately 60,000 deaths, both direct and radiation-induced in the short-to-long term (APLN 2023, 57-58).

The report examines other potential scenarios involving nuclear use, particularly those with multiple nuclear attacks. These scenarios paint a grim picture of immense destruction and loss of life. Alarming, a three-way nuclear exchange between the United States, North Korea, and China could result in the death of nearly a million people. Similarly, if a terrorist organization were to detonate a nuclear warhead in Central Tokyo, it is projected that around 600,000 lives could be lost in the long run (APLN 2023, 69).

These various projections illustrate the chaos and devastation that would accompany any path towards nuclear use. That nuclear weapons cause both immediate and long-term human casualties provides ample justification for anti-nuclear campaigners, humanitarian organizations, and peace activists to unite and oppose their existence. Encouraged by the extensive backing of the TPNW and the humanitarian agenda within the NPT, organizations such as ICAN would amplify their advocacy and campaigns against nuclear weapons. This surge in support would drive their efforts to new heights, as they strive to create a world free from the threat of nuclear arms. The dissemination of graphic images across mainstream and social media platforms serves not only to intensify public abhorrence towards nuclear weapons and their wielders but also to rally support for organizations dedicated to eradicating such weapons.

4 For a thorough analysis of a DPRK led first-strike see Quester (2006). For a comprehensive analysis of the strategic and ethical considerations surrounding North Korean nuclear first use, see Erin and Scouras (2020); and for a detailed exploration of North Korea's nuclear threat, see Fitzpatrick (2009).





ICAN campaigners protest outside Australia's permanent mission to the UN at Geneva, during the May session of the UN open-ended working group on nuclear disarmament. Australia was among a handful of nations that voiced opposition to a ban on nuclear weapons. Wikimedia Commons

Consequently, mounting pressure will be exerted on nuclear weapon states (NWS) to undertake three crucial actions, both within the framework of the NPT review cycle and within the United Nations.

First, the pressure to fulfill their disarmament commitments in Article VI of the NPT would intensify even further. The existing divisions within the NPT framework would be further exacerbated, with most Non-Nuclear Weapon States (NNWS) asserting their authority against the retention and modernization of nuclear forces. Even NNWS that benefit from the provision of extended deterrence will also be pushed to reevaluate their positions on nuclear weapons. Political blocs within the NPT, such as the Non-Aligned Movement (NAM), will embark on a diplomatic offensive against all NWS.

Second, NNWS would request the implementation of universal, verifiable, and non-discriminatory negative security assurances (NSAs). NWS will have limited flexibility to remain noncommittal during Preparatory Committee meetings (PrepComs) and Review Conferences (RevCons) following a nuclear use incident. Consequently, intense pressure will be exerted on NWS to commit to no-first use (NFU) policies, both at the declarative and operational levels, as a significant confidence-building measure.

Third, NWS will be urged to uphold their commitments in establishing nuclear-weapons free zones, particularly in the Middle East. Moreover, nuclear possessors outside of the NPT will be pressured to support the establishment of nuclear-weapons free zones, especially in Northeast Asia. Further, the pressure on NWS to sign the Additional Protocol of the Treaty of Bangkok would only mount going forward. It would be difficult for NWS to avoid signing it by citing ambiguities in the Treaty's language. Although, it is highly improbable that NWS will adhere to these demands, even if nuclear weapons have been employed. Consequently, the review process of the NPT may once again



succumb to the complexities of politics, impeding progress. While NNWS are already concerned about the aforementioned issues, they will intensify their efforts in response to any nuclear use incident. In a post-nuclear-use world, they will find themselves in a much stronger bargaining position vis-à-vis NWS, inside and outside of the NPT setting.

A nuclear use event will confirm a bevy of skepticisms against the possession of nuclear weapons. During the 78th session of the United Nations General Assembly's First Committee on Disarmament and International Security, delegates from various countries argued against the continued and entrenched belief in nuclear deterrence, arguing that so long as it remains integral to states' national security strategies, nuclear risks cannot be mitigated (United Nations 2023).

In addition to these efforts, organizations dedicated to the goal of nuclear abolition are likely to garner increased support from various entities, including the United Nations. By championing this cause, they can foster greater unity and collaboration towards achieving our shared objective (UNODA 2023). The young activists, currently engaged in disarmament advocacy by recreating images and reviving memories of the devastating nuclear bombings in Hiroshima and Nagasaki, will undoubtedly garner sympathy, recognition, and widespread support. They will get another set of nuclear use incidents to build a narrative against nuclear weapons. Therefore, many perceive their efforts as a noble fight for a just cause.

Overall, regardless of the circumstances in which nuclear weapons may be employed, the resulting devastation would amplify the influence of anti-nuclear activists. Proponents of disarmament and supporters of the TPNW will be vindicated as they accumulate even greater moral and political authority. They will rightfully reference the destructive consequences of nuclear utilization to not only stigmatize these weapons, but also construct a compelling argument against nuclear deterrence. They will contend that since the concept of nuclear deterrence relies on the threat of nuclear use and annihilation, it is inherently dangerous and risky. Moreover, they will express their strong opposition to nuclear weapons and the concept of deterrence from a moral standpoint. Anti-nuclear advocacy groups would emphasize the immorality of safeguarding oneself by threatening innocent civilians with catastrophic consequences. Should there be a nuclear incident in Northeast Asia or elsewhere, the use of nuclear weapons would be widely condemned as abhorrent to humanity.

Following the various analysis and simulation of nuclear use incidents researched in this Project, peace activists, civil society, and a majority of NNWS would attribute nuclear risks solely to the possession of such weapons. These groups will continue to consider nuclear risk-reduction efforts meaningless so long as NWS do not start the process of disarmament.

AN ELUSIVE GLOBAL UNITY?

The use of nuclear weapons represents a significant threat to international peace and security, with repercussions that are both immediate and long-lasting. In the event of such a catastrophic event, the international community would undoubtedly respond with a great deal of attention and resources. Organizations such as the United Nations (UN) would be called upon to aid the millions of victims impacted by nuclear use. Furthermore, in the case of countries engaging in nuclear warfare, there would be an increased level of international scrutiny and tension.



The UN, through its subsidiary bodies such as the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), would lead the global effort to provide relief to victims of the nuclear attack. One of the agencies that would play a central role in this humanitarian response is the International Committee of the Red Cross (ICRC). The ICRC has significant experience in responding to such crises and should, along with disaster relief organizations around the world, help mitigate the immediate aftermath of a nuclear attack (Convoy of Hope 2024).

Responsible countries will undertake some kinds of disaster relief efforts. However, despite the expectations of global actors, they may choose to engage in blame-shifting rather than participate in meaningful dialogue to resolve disputes for a greater good of humanity. This will mar the ability of the UN and its agencies to carry out rescue, relief, and rehabilitation operations. Additionally, fulfilling the critical expectations of the international community in a time of such dire need is far from certain. The complex and multi-faceted nature of the humanitarian crisis caused by a nuclear attack makes it an incredibly challenging situation, further complicated by political, social, and legal strains.



Rescue Team searching operation on debris and mud covered at Tsunami hit Destroyed city in Rikuzentakata on March 20, 2011, Japan. iStock/RyuSeungil

In the wake of such an attack, the engagement of great powers - the five NWS - in humanitarian relief efforts would be influenced by a range of political and strategic considerations. A key determinant of their level of involvement would be the question of which state was responsible for initiating the use of nuclear weapons. This is not surprising because geopolitics often trumps humanitarian concerns.



The scenario of nuclear use by a great power is one that must be approached with great caution, both in terms of the immediate consequences for the victims and in terms of the long-term implications for alliances and security policies going forward. The United States, as a leading world power, must respond to such situations with a level of responsibility and accountability that recognizes the gravity of nuclear use and the need to mitigate harm for all those affected.

The year-1 report of this project adeptly outlined plausible scenarios involving nuclear use simulating China as the first user in Taiwan (RECNA-Nagasaki University, Asia Pacific Leadership Network, and Nautilus Institute 2022). Should this scenario occur, it is expected that the United States would take a leading role in rallying support both domestically and internationally against China and in support of the innocent victims of Chinese nuclear-led aggression. In order to facilitate such efforts, the White House would work closely with Congress and US government agencies to prepare a comprehensive relief package for those affected by the attack.

However, it is important to note that if the United States were to be the first user of nuclear weapons in a conflict, relief efforts could be hindered by both the inability and refusal to take responsibility for the initial use of such weapons. This may impede rescue, relief, and rehabilitation work, leaving these efforts vulnerable to the various exigencies and geopolitical rivalries that are present in the post-nuclear use world. In such a situation, the way that great powers, particularly the United States, deals with these challenges in providing relief activities will have a considerable impact on alliances going forward.

After the use of nuclear weapon(s), it is reasonable to assume that allies will alter their security policies as they assess how their nuclear umbrella-providers acted in the aftermath of a nuclear crisis. In the event that the United States were to fulfill its commitments and act in good faith during a major nuclear crisis between North Korea and South Korea, for instance, the latter might still not be confident in retaining its non-nuclear status in a hostile environment. Further, it is possible that both Seoul and Tokyo will start questioning the reliability of Washington's ability to offer extended deterrence. This concern is already a valid one, owing to greater public support for South Korea having an independent nuclear deterrent (Friedhoff, Dalton, and Kim 2022). While, for now, South Koreans are confident about the United States coming good on its commitments, scholars are worried about the weakening of Washington-Seoul relations (Council on Foreign Relations 2023).

As the year-1 report insightfully points out, the United States might assess that the risk of a nuclear attack on the US homeland will increase if any crisis were to escalate to nuclear levels in Northeast Asia. Given these considerations, allies may be inclined to at least modify their conventional force deployments, even in a post-nuclear use world. Voices that speak to the need for having independent nuclear forces will likely get louder (Gallo 2023).

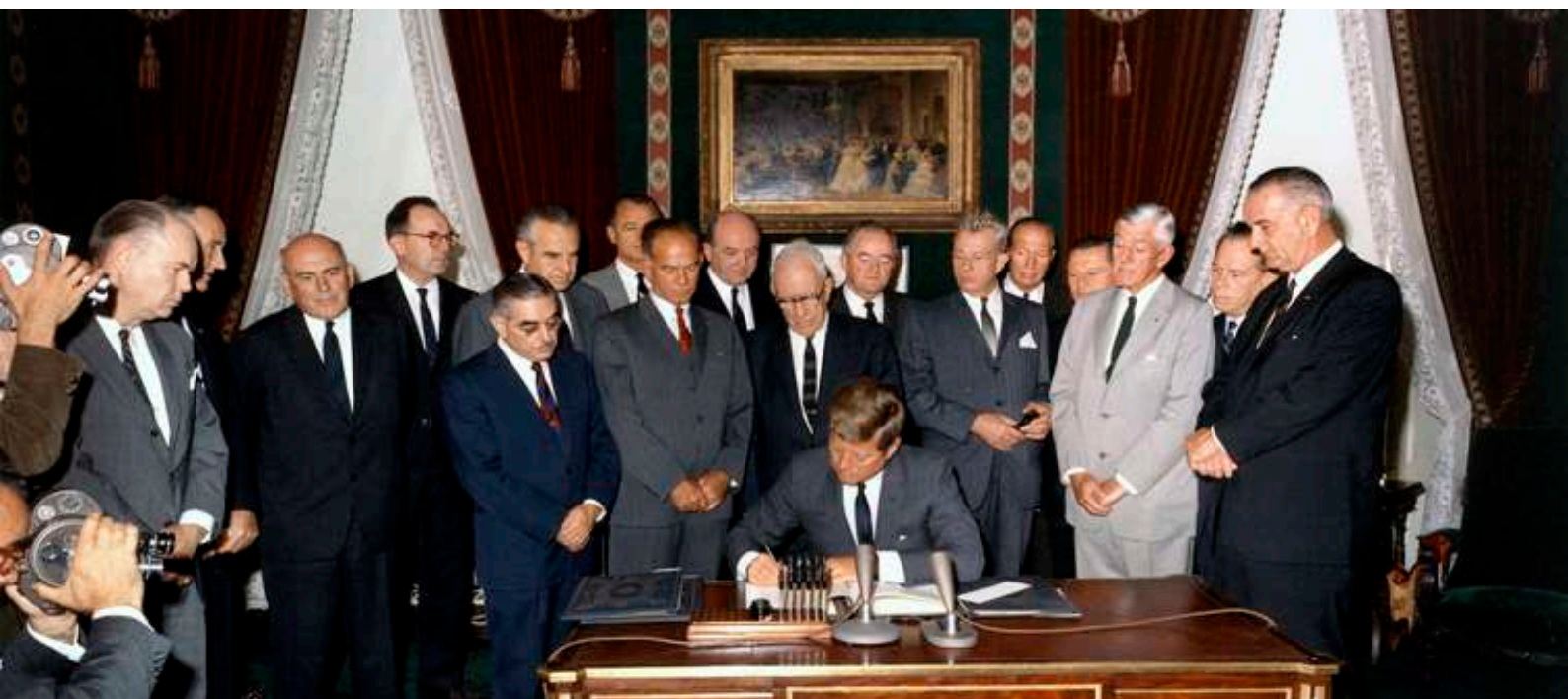
THE GOOD, THE BAD AND THE UGLY IN A POST-NUCLEAR WORLD

In the post-nuclear world, there are three potential outcomes that may come to fruition as a result of nuclear use: the good, the bad, and the ugly. The first scenario is “the good scenario,” which involves the successful implementation of comprehensive arms control and disarmament measures that effectively mitigate the risks of further nuclear use and proliferation. The second scenario, referred to as “the bad scenario,” involves the disillusionment and loss of faith in the efficacy of nuclear deterrence as a viable means of preventing global nuclear war. Finally, the third and most concerning scenario, is “the ugly scenario,” which involves the embrace of destructive ideologies and beliefs that normalizes nuclear conflict.



1. The Good Scenario: The Post-nuclear Future will Belong to Arms Control and Disarmament

The year-1 report of this project presents plausible scenarios for nuclear use. However, the state of political interactions between the hostile nuclear dyads do not instill confidence in their ability to resolve conflicts effectively. Nonetheless, there remains a glimmer of hope that rational minds will unite in their commitment to preventing the use of nuclear weapons. The Cuban Missile Crisis of 1962 brought the United States and the former Soviet Union perilously close to a catastrophic nuclear confrontation. However, through a fortuitous blend of luck and astute leadership, the world was spared an immense calamity (Vaughan 2022). The close call in Cuba led to advancements in arms control and nonproliferation. The Partial Test-Ban Treaty was signed just a year after the incident, followed by the commencement of the Strategic Arms Limitation Talks (SALT-1) in 1969. While a dangerous crisis in its own right, the Cuban Missile Crisis would be dwarfed by even a limited use of nuclear weapons in Northeast Asia. The potential aftermath of any nuclear use in Northeast Asia would be an undeniable realization that the living would envy the dead. This could force world leaders to think about their collective futures, and take concrete steps towards arms control, confidence-building, and multi-pronged cooperation on key regional and global issues. Should Moscow, Washington, and Beijing come to realize the potentially catastrophic consequences of another nuclear confrontation, it is conceivable that they would convene in a trilateral setting to engage in a **comprehensive dialogue on various arms control strategies**. The overall effort to buttress arms control would most likely be different to the one made during the Cold War, mainly because the pressure to get things right will be greater in a post-nuclear use world. Therefore, they could, for example, agree on adopting more stringent transparency and verification mechanisms, remaining fully committed to New START, and establishing better crisis communication frameworks.



KN-C30095 07 October 1963 President Kennedy the Limited Nuclear Test Ban Treaty. L-R: William Hopkins, Sen. Mike Mansfield, John J. McCloy, Adrian S. Fisher, Sen. John Pastore, W. Averell Harriman, Sen. George Smathers, Sen. J.W. Fulbright, Sec. of State Dean Rusk, Sen. George Aiken, President Kennedy, Sen. Hubert H. Humphrey, Sen. Everett Dirksen, William C. Foster, Sen. Howard W. Cannon, Sen. Leverett Saltonstall, Sen. Thomas H. Kuchel, Vice President Johnson. White House, Treaty Room. Wikimedia Commons



When it comes to North Korea, it would be most beneficial for the United States to approach it as an arms control matter, rather than as a nonproliferation one (CSSPR 2020). All variants of North Korea-specific nuclear use cases identified in the year-1 report speak to the reality and severity of Pyongyang's nuclear challenge. A valuable lesson that can be gleaned from a potential nuclear exchange with North Korea is that coercive measures cannot disarm the country. However, if the United States were to engage in **arms control negotiations with North Korea**, there is a possibility of a favorable outcome as far as nuclear risk-reduction is concerned. In other words, Pyongyang would be more open to negotiating an arms control agreement than giving up its bomb. This is primarily because entering into arms control arrangements with the United States will increase North Korea's prestige and security. It will stand to lose both counts if they commit to disarmament.

Furthermore, it will be imperative for NWS to embark on a fresh start and reaffirm their dedication to nuclear disarmament. Such a step would play a crucial role in halting the erosion of trust among the state parties of the NPT. In addition, bolstering disarmament and nonproliferation education, which has recently become a focal point of the NPT review process, would be a valuable complement to this endeavor. This can foster lively debates and nuanced discussions on the humanitarian impact of nuclear use. Future generations can leverage these platforms to promote lasting peace by advocating for nuclear disarmament.

Leveraging technological advancements in disarmament will also present a promising avenue for addressing the security challenges of a post-nuclear use world. One possible interest of NWS would be investment in the use of AI and other emerging technologies that could help streamline and improve global arms control and disarmament.

The advancement of AI-enabled tools for identifying, tracking, and monitoring nuclear weapons and materials has the potential to greatly enhance existing systems, preventing their proliferation. Concomitantly, NWS must address the vulnerabilities of these AI-driven systems. One of the biggest challenges that AI-based systems bring to the table is an increase in the number of cyber attacks (Malwarebytes n.d.). Therefore, NWS should work towards establishing joint mechanisms to enhance the security of these systems. In fact, it should become an important arms control measure going forward. In a world scarred by the shared experience of nuclear devastation, there will be a need for interconnected disarmament mechanisms that would effectively address the diverse requirements of different states. Such mechanisms would be a valuable asset in promoting peace and security on a global scale. By embedding emerging technologies in such a shared system, a framework can be established that fosters trust, transparency, and cooperation among states, ultimately contributing to a more secure global order which would ensure nuclear weapons are never used again.

2. The Bad Scenario: Embracing the Unthinkable

The potential use of nuclear weapons in Northeast Asia would have catastrophic consequences for global security. It would signify a failure of deterrence and break the long-held nuclear taboo (Tannenwald 2021), endangering the current framework of international norms and regulations which govern the responsible use of nuclear weapons. Moreover, it may embolden NWS, such as the United States, Russia, and China as they could draw some wrong lessons from the instances of nuclear use. The illusion of emerging relatively unscathed from a nuclear conflict may induce a dangerous sense of confidence that a nuclear war is indeed winnable.



Such erroneous views, if propagated, could be fatal and instigate another nuclear weapon use. NWS may perceive the use of nuclear weapons as legitimate and feasible means to attain strategic objectives on the battlefield, thereby advancing the reckless view that they can be employed, despite severe consequences. This notion is inherently destabilizing, particularly in times of crisis, as it encourages risk-taking behaviors prone to miscalculation that would trigger accidental or deliberate use. For example, decapitation strikes by the United States, which are military operations targeting an adversary's leadership or strategic assets, could be viewed as a means of disarming a nuclear-armed North Korea. However, the use of such weapons under these circumstances would exacerbate the fragility of deterrence and crisis stability, further heightening the risk of conflict escalation.

Conversely, if the United States were to find itself in a world where Russia or China employed nuclear weapons first, it may perceive a heightened need for nuclear modernization. Such an approach could result in the development of destabilizing technologies (Hersman 2020), increasing the risk of nuclear weapon use. Aegis missile defense systems and hypersonic glide vehicles offer examples of such technologies, which could be deployed by the United States to counter any perceived imbalances in nuclear capabilities. The use of such disruptive technologies could lead to escalating tensions between states. This situation may further aggravate the risks of deliberate or unintentional nuclear weapon use even in a world which has seen nuclear devastation.

3. The Ugly Scenario: Losing Faith in the Religion of Nuclear Deterrence

The year-1 report brings attention to a worrisome reality that the aggressors initiated the use of nuclear weapons without being deterred by the possibility of nuclear retaliation from their adversaries. In a post-nuclear world, this could establish an unfavorable precedent. Observing the failure of deterrence and the actual use of nuclear weapons, both participating states and observers may begin to question the significance and effectiveness of nuclear deterrence.

There are two unsettling consequences that will arise from this. First, states may once again choose to allocate resources towards conventional forces, incentivizing increased internal conflicts and clashes.

Second, states will be motivated to elude and bypass nuclear deterrence measures that will remain at their disposal in a post-nuclear use world. The prevalence of emerging technologies has created a more conducive environment for such actions. The repercussions of this phenomenon would manifest as heightened uncertainty, an escalation in arms competition, and a deepening sense of distrust.

The nuclear use scenarios presented in the year-1 report depict a world fraught with instability and chaos, where the risk of armed conflict, both conventional and nuclear, looms large. A world where the concept of deterrence will become increasingly fragile with states leaning towards employing force as a tool of policy. As a result, the nuclear order will find itself in a state of disarray, with non-nuclear weapon states feeling more vulnerable while nuclear weapon states remaining steadfast in their refusal to disarm.



CONCLUSION

The potential use of nuclear weapons in Northeast Asia is undoubtedly one of the gravest threats to human existence today. The region, with its strategic importance and significant players, has the potential to become the epicenter of a catastrophic nuclear battlefield, triggering mass destruction and loss of life. The global repercussions of any such event would be far-reaching, creating a world that is unpredictable, unstable, and dangerous.

As argued in this paper, the aftermath of any nuclear event in Northeast Asia would be shaped by the actions of the major players. In such a scenario, it is imperative that global leaders take responsibility for their inaction and make concerted efforts towards building confidence and trust, implementing arms control measures, and establishing substantive cooperation. The stakes are high, and the future of our planet is on the line.

The first step in preventing nuclear use in Northeast Asia is to acknowledge the gravity of the situation and the need for action. This acknowledgment should come from all nuclear possessors and their allies, not least because political ownership will be absolutely critical to addressing nuclear use-related concerns. This requires a widespread understanding of the threat and a willingness to collaborate on solutions. A crucial factor in achieving this is the willingness of major powers like the United States, China, and Russia to engage in **meaningful dialogue and negotiations**. Efforts to pave the way for peaceful resolutions must be pursued vigorously, even if the prospect of success seems slim. Members of the civil society, peace activists, and global multilateral fora must pressure great powers into engaging with one another.

The **establishment of mechanisms for arms control and reduction** is another key component in preventing nuclear use in Northeast Asia. As outlined in the year-1 report, one possible scenario involves China as the first user in Taiwan, which would require the United States to mobilize support against Chinese aggression. However, in the event of US first use, the situation could be quite different, complicating relief efforts and falling prey to geopolitical rivalries. In either scenario, it is essential to have arms control mechanisms and policies in place that prevent the escalation of nuclear use.

In addition to arms control measures, **substantive cooperation between regional powers** is crucial in preventing nuclear use. The ability to collaborate on non-nuclear issues such as trade, climate change concerns, and counterterrorism can help build relationships, trust, and confidence between nations. Such efforts may seem secondary to the issue of nuclear use, but they can play a pivotal role in overall regional stability.

Looking forward, it is imperative that global leaders work together to prevent nuclear use in Northeast Asia. The potential consequences of inaction are too catastrophic to ignore. There are no guarantees of success, but concerted efforts towards confidence-building measures, arms control mechanisms, and substantive cooperation can create a more stable and secure region and world. The lesson from any such crisis would be that we should never forget the enormity of our responsibilities as global citizens, especially when the stakes are so high.



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NOTES ON CONTRIBUTOR

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REFERENCES

- APLN. 2022. "APLN Joint Project on Nuclear Weapon Use Risk Reduction," APLN, June 21, 2022. <https://apln.network/projects/nuclear-weapon-use-risk-reduction/apln-joint-project-on-nuclear-weapon-use-risk-reduction>.
- APLN. 2023. "Humanitarian Impacts of Nuclear Weapons Use in Northeast Asia: Implications for Reducing Nuclear Risk," APLN, March 31, 2023. <https://www.apln.network/projects/nuclear-weapon-use-risk-reduction/humanitarian-impacts-of-nuclear-weapons-use-in-northeast-asia-implications-for-reducing-nuclear-risk>.
- Arms Control Association. 2023. "The Treaty on the Prohibition of Nuclear Weapons At A Glance," Arms Control Association. <https://www.armscontrol.org/factsheets/nuclearprohibition>.
- Council on Foreign Relations. 2023. "U.S.-South Korea Alliance Must Not Fail, Warns Scott Snyder in New Book," Council on Foreign Relations, December 6, 2023. <https://www.cfr.org/news-releases/us-south-korea-alliance-must-not-fail-warns-scott-snyder-new-book>.



- Convoy of Hope. 2024. “Disaster Relief Organizations: Which Are the Best?” Convoy of Hope, January 2, 2024. <https://convoyofhope.org/articles/disaster-relief-organizations/>.
- CSSPR. 2020. “SISS Faculty Conversation Series: Book Talk with Ankit Panda on His Book ‘Kim Jong Un and the Bomb,’” Center for Security, Strategy and Policy Research (CSSPR), University of Lahore, October 23, 2020. <https://www.youtube.com/watch?v=4OhK2H6f2T0>.
- Fitzpatrick, Mark. 2009. “Stopping Nuclear North Korea,” *Survival* 51 (4): 5-12. <https://doi.org/10.1080/00396330903168782>.
- Friedhoff, Karl, Toby Dalton, and Lami Kim. 2022. “Thinking Nuclear: South Korean Attitudes on Nuclear Weapons,” The Chicago Council on Global Affairs. <https://globalaffairs.org/research/public-opinion-survey/thinking-nuclear-south-korean-attitudes-nuclear-weapons>.
- Gilholm, Andrew. 2022. “Planning for Geopolitical Flashpoints: A Northeast Asia Perspective,” Control Risks, April 4, 2022. <https://www.controlrisks.com/our-thinking/insights/planning-for-geopolitical-flashpoints-a-northeast-asia-perspective>.
- Gallo, William. 2023. “Why South Korea’s President Is Talking About Nuclear Weapons,” *Voice of America*, January 16, 2023. <https://www.voanews.com/a/why-south-korea-s-president-is-talking-about-nuclear-weapons/6919962.html>.
- Hahn, Erin and James Scouras. 2020. *Responding to North Korean Nuclear First Use: So Many Imperatives, So Little Time. National Security Report*. Johns Hopkins University Applied Physics Laboratory. <https://www.jhuapl.edu/sites/default/files/2022-12/NorthKoreanNuclearFirstUse.pdf>.
- Hersman, Rebecca. 2020. “Wormhole Escalation in the New Nuclear Age,” *Texas National Security Review*, July 9, 2020. <https://tnsr.org/2020/07/wormhole-escalation-in-the-new-nuclear-age/>.
- ICAN. 2024. “TPNW Signature and Ratification Status,” ICAN. https://www.icanw.org/signature_and_ratification_status.
- Lieber, Keir A. and Daryl G. Press. 2017. “The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence,” *International Security* 41 (4): 9–49. https://doi.org/10.1162/ISEC_a_00273.
- Malwarebytes. n.d. “AI in Cyber Security: Risks of AI,” Malwarebytes. <https://www.malwarebytes.com/cybersecurity/basics/risks-of-ai-in-cyber-security>.
- RECNA-Nagasaki University, Asia Pacific Leadership Network, and Nautilus Institute. 2022. *Possible Nuclear Use Cases in Northeast Asia: Implications for Reducing Nuclear Risk*. https://cms.apln.network/wp-content/uploads/2022/01/Year-1-Report_Possible-Nuclear-Use-Cases-in-NEA.pdf.
- Quester, George. 2006. *Nuclear First Strike: Consequences of a Broken Taboo*. Johns Hopkins University Press
- Tannenwald, Nina. 2021. “23 Years of Nonuse,” *Stimson Center* (blog), February 22, 2021. <https://www.stimson.org/2021/23-years-of-nonuse/>.



- Trenin, Dimitri. 2020. “Stability amid Strategic Deregulation: Managing the End of Nuclear Arms Control,” *The Washington Quarterly* 43(3): 161–175. <https://doi.org/10.1080/0163660X.2020.1813401>.
- United Nations. 2023. “Entrenched Belief in Nuclear Deterrence as Defence Keeps Fear of Annihilation Alive, First Committee Hears in Thematic Debate | UN Press,” October 13, 2023. <https://press.un.org/en/2023/gadis3718.doc.htm>.
- UNODA. 2023. “UNODA and Japan reach agreement on the terms for a new programme “Youth Leader Fund for a World Without Nuclear Weapons,” United Nations Office for Disarmament Affairs, March 14, 2023. <https://disarmament.unoda.org/update/unoda-and-japan-reach-agreement-on-the-terms-for-a-new-programme-youth-leader-fund-for-a-world-without-nuclear-weapons/>.
- Vaughan, Tom. 2022. “Nuclear War: Does It Take Luck or Reasoning to Avoid It? Lessons from the Cuban Missile Crisis, 60 Years On,” *The Conversation*, October 4, 2022. <http://theconversation.com/nuclear-war-does-it-take-luck-or-reasoning-to-avoid-it-lessons-from-the-cuban-missile-crisis-60-years-on-191239>.





The Asia-Pacific Leadership Network for Nuclear Non-Proliferation and Disarmament (APLN) is a Seoul-based organisation and network of political, military, and diplomatic leaders and experts from across the Asia-Pacific region working to address global security challenges, with a particular focus on reducing and eliminating nuclear weapons risks.

The mission of APLN is to inform and stimulate debate, influence action, and propose policy recommendations designed to address regional security threats, with an emphasis on nuclear and other WMD (weapon of mass destruction) threats, and to do everything possible to achieve a world in which nuclear weapons and other WMDs are contained, diminished, and eventually eliminated.



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Nagasaki University is the only university in the world that has inherited a medical college having experienced the atomic bombing. Achieving a “world free from nuclear weapons” is thus a paramount concern to the University. Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA), located in a city that was attacked by an atomic bomb, is an educational and research institute which is the interdisciplinary center of local academia with a firsthand experience of the horror of nuclear weapons. Founded in 2012, its objectives encompass a twofold mission: firstly, through rigorous academic inquiry and analysis, to redefine the significance of Hiroshima and Nagasaki experiences in the light of the current world trend, and disseminate information and make proposals from various aspects towards abolishing nuclear weapons; secondly, to make best use of such a process and outcomes of its research and analysis, and contribute to university education. RECNA, as a think tank open to the local community longing for nuclear weapons abolition, operates in close cooperation with partners including Nagasaki City and Nagasaki Prefecture.



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Since its founding in 1992, the Nautilus Institute has evolved into a thriving public policy think-tank and community resource. Along the way it has addressed critical security and sustainability issues such as US nuclear policy, especially in Korea, energy insecurity in Northeast Asia, and the effect of the U.S.-China relationship on environmental insecurity. The Institute has built a reputation not only for innovative research and analysis of critical global problems, it also translates ideas into practical solutions, often with high impact. Nautilus Institute holds that the key to reducing global insecurity—in short, to making the world peaceful, equitable, and sustainable—lies in the creation of a global civil society committed to joint problem-solving. The Nautilus community is a global network built around this strategy serving thousands of people in over fifty countries and working with partners in every country in the region.



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