



International Law and the Regulation of Nuclear Weapons: Contemporary Challenges and Prospects

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Abstract:

By tracing the historical evolution of the nuclear arms control system and interpreting its changes within the framework of the shift from a bipolar to a multipolar international system, this study seeks to analyze the nuclear arms control crisis in light of current international tensions. The study also aims to investigate how the efficacy of the nuclear arms control system is affected by regional crises like the Iranian nuclear program, North Korea, as well as the competition between the major powers, especially the United States, Russia and China.

The analysis comes to the conclusion that the current crisis in the nuclear weapons control system is a reflection of a deeper structural change in the structure of the international system rather than being restricted to the breakdown of specific agreements or the failure of negotiations. The conventional legal and institutional frameworks for arms control have been undermined by the deterioration of confidence between major powers, the intensification of geopolitical conflicts, and the growing dependence on nuclear deterrent. The study also shows that the nuclear arms control environment has become more complex due to the emergence of new nuclear actors and the interaction between regional dynamics and global strategic competition.

Keywords: Nuclear Arms Reduction, Nuclear Deterrence, International Treaties, Disarmament.

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Introduction :

The nature of contacts between major countries has changed significantly in the last few decades due to fundamental changes in the international system, especially in light of growing geopolitical tensions and the swift advancement of military technology. As a crucial component of preserving global peace and security, the topic of nuclear weapons control has once again gained international attention. The nuclear arms control system was built on a bipolar equilibrium during the Cold War, relying on legally binding agreements and mutual deterrence to help manage the arms race and reduce its hazards.

However, because of the deterioration of its underpinnings, this system is today experiencing a serious crisis. The emergence of new nuclear powers like China, the worsening of regional nuclear proliferation-related problems like those in the Middle East and the Korean Peninsula, and the deteriorating relations between major countries, particularly the United States and Russia, are the causes of this erosion. As a result, international agreements have become less effective, verification processes have been disrupted, and the use of nuclear deterrent as a conflict management strategy has grown.

In order to comprehend the nature of the changes occurring in the global nuclear system and determine the degree to which conventional arms control frameworks can continue in an international setting marked by multipolarity and instability, it is becoming more and more crucial to examine the nuclear arms reduction crisis in light of current international tensions.

1.1. Problem Statement of the Study:

The issue this study attempts to address is the growing indications of the nuclear arms control system's degradation, whether through the suspension or collapse of some important agreements, the intensification of arms races, or the erosion of confidence among nuclear powers, all within a tense and conflict-ridden international environment. This circumstance calls into question the system's sustained efficacy and its capacity to adjust to continuous changes.

Thus, the primary question this study aims to address is:

To What Degree Do Current International Tensions Reflect A Fundamental Crisis In The Nuclear Arms Control System?

This central question branches into several sub-questions, the most important of which are:

- How has the nuclear arms control system historically evolved, and what are its main phases?
- What are the most prominent manifestations of the crisis facing this system in the contemporary period (2022–2026)?
- How have tensions between the major powers (the United States, Russia, and China) affected nuclear arms control efforts?



- What role did regional crises (such as those involving Iran, North Korea) play in exacerbating this crisis?

- To what extent can the nuclear arms control system adapt to the shift toward a multipolar international order?

1.2. Research Objectives:

This research attempts to accomplish a number of goals, chief among them being:

- Outlining the critical phases of the nuclear weapons control system's historical evolution.

- Keeping an eye on and evaluating the system's crisis in light of current international tensions.

- Describing how major powers' contacts affect the success of weapons control initiatives.

- Analyzing how regional crises threaten the system of nuclear weapons control and non-proliferation.

- Evaluating the nuclear weapons control system's future in the context of the transition to multipolarity.

- Provide a framework for analysis to comprehend the nature of the changes occurring in the global nuclear system.

1.3. Methodology:

Using a historical-analytical methodology, this paper examines current changes in the global environment while also qualitatively analyzing the historical evolution of the nuclear weapons control system. Additionally, it makes use of international systems analysis to comprehend how shifts in the international system's structure—specifically, the shift from bipolarity to multipolarity—affect the efficacy of arms control measures.

In order to demonstrate the influence of regional and global tensions on the nuclear arms control system, the study also uses a case study methodology by examining a number of current cases, including the Russian-Ukrainian War, the US-China rivalry, the Iranian nuclear crisis, and North Korea's nuclear program.

By using this analytical framework, the study hopes to offer a thorough analysis that connects the historical aspect with recent advancements, thereby advancing knowledge of the nuclear arms control issue in the current global setting.



THE FIRST TOPIC : THE ORIGINS, EVOLUTION AND CRISIS OF NUCLEAR ARMS CONTROL: FROM COMPREHENSIVE DISARMAMENT TO STRATEGIC BILATERALISM (1925- 2026):

THE FIRST REQUIREMEN : Definition Of Nuclear Arms Control:

West Germany pledged “not to manufacture in its territory atomic, biological, and chemical weapons” in the 1954 Modified Brussels Treaty, which established the Western European Union, contains one of the first legal definitions of a nuclear weapon. An atomic weapon is defined as “any weapon which contains, or is designed to contain or utilize, nuclear fuel or radioactive isotopes and which, by explosion or other uncontrolled nuclear transformation of the nuclear fuel, or by radioactivity of the nuclear fuel or radioactive isotopes, is capable of mass destruction, mass injury, or mass poisoning” in Annex II of the treaty¹.

The ability to produce explosive energy, the potential for mass destruction, or the potential for use in combat have all been mentioned in the majority of previous attempts to define a nuclear weapon. For instance, a nuclear weapon is defined as “any device which is capable of releasing nuclear energy in an uncontrolled manner and which has a group of characteristics that are appropriate for use for warlike purposes” in the 1967 Treaty of Tlatelolco, which creates a nuclear-weapon-free zone in Latin America and the Caribbean². The definitions used in other nuclear-weapon-free-zone agreements are essentially the same as those in the Treaty of Tlatelolco. A nuclear weapon is defined as a “weapon assembly that is capable of producing an explosion and massive damage and destruction by the sudden release of energy instantaneously released from self-sustaining nuclear fission and/or fusion”, The working group of the five nuclear-weapon states established the most recent lexicon of important nuclear words under the nuclear nonproliferation treaty, which was originally released in 2015 and enlarged in 2022³.

Nuclear arms stand apart, setting themselves apart from any prior weapon technologies due to their immense strength and the extensive, enduring ramifications of their deployment, which can be assessed on both worldwide and historical levels. From an ethical standpoint, nuclear arms represent a technology capable of inflicting devastating or even survival-threatening damage to humanity and Earth. The extraordinary capacity for destruction and the unmatched fallout

¹ Modified Brussels Treaty, October 23, 1954.

² Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, February 14, 1967, 634 U.N.T.S. 9068.

³ Alexander Glaser, Toward Verifiable Definitions of a Nuclear Weapon, Arms Control Today, 2023, available at/ <https://www.armscontrol.org/act/2023-07/features/toward-verifiable-definitions-nuclear-weapon>



from their employment compel us to engage in serious contemplation regarding the morality of owning, strategizing, and deploying nuclear arms⁴.

SECOND REQUIREMENT: Early Comprehensive Disarmament Efforts (1925- 1958):

Prior to 1945, the majority of disarmament accords were not voluntarily negotiated but rather the result of subsequent compulsion. League of Nations disarmament efforts between 1926 and 1934 concentrated on restricting armaments, particularly naval forces, and outlawing poison gas and bacteriological weapons⁵. An early multilateral framework for weapons control diplomacy was created by these initiatives. Despite these efforts, arsenals continued to expand in scale and lethality⁶.

Proposals for arms control and disarmament in the wake of the 1945 Hiroshima nuclear explosion contained provisions pertaining to the timing of disarmament—that is, the rate and sequence of weapons elimination—and the decrease of armed forces without a corresponding weakening of any one country's security⁷. The world struggled with “[t]he inherent difficulty of promoting the peaceful uses of the atom, without easing the proliferation of nuclear weapons, [which] ultimately led the Truman administration to propose the Baruch [P]lan....”⁸.

Bernard Baruch suggested a worldwide body to manage atomic resources and supervise the abolition of nuclear weapons in 1946⁹.

Range, accuracy, and destructive power were all improved by developments in ballistic missiles and warhead design¹⁰. Nuclear multipolarity began with the Soviet Union's nuclear test on August 29, 1949¹¹. As a result, the Cold War competitors, the US and the USSR, started their fierce competition to create more deadly weapons that could be used with more sophisticated delivery methods. The

⁴ Joan Rohlfing, The Myth of “Just” Nuclear Deterrence: Time for a New Strategy to Protect Humanity from Existential Nuclear Risk, *Ethics & International Affairs*, Vol. 37, Issue 1, 2023, P. 39.

⁵ U.S. Arms Control & Disarmament Agency, *Arms Control and Disarmament Agreements (ACDA): Texts and Histories of the Negotiations*, 1996, PP. 1- 2.

⁶ Joseph Keith Lyou, *The Social Psychology of U.S.-Soviet Arms Control Negotiations: The Role and Experience of the U.S. Negotiator and Delegation*, unpublished Ph.D. dissertation, University of California Santa Cruz, June 1990, PP. 11- 13.

⁷ ACDA, Op, Cit, P. 3.

⁸ Thomas Graham and Damien J. Lavera, *Cornerstones of Security: Arms Control Treaties in the Nuclear Era*, University of Washington, 2003, P. 2.

⁹ *The American Atom: A Documentary History of Nuclear Policies from the Discovery of Fission to the Present (1939-1984)*, University of Pennsylvania Press, Philadelphia, 2ed, 1991, P. 70.

¹⁰ Notburga K. Calvo Goller and Michel A. Calvo, *The Salt Agreements: Content, Application, Verification*, Martinus Nijhoff, Boston, 1987, P. 56.

¹¹ ACDA, Op, Cit, P. 3.



nuclear arms race began in 1953 when these competitors had and detonated hydrogen bombs.

The counterintuitive premise that strategic rivalry might maintain peace was the foundation of the deterrence-based strategy to arms limitation. John Foster Dulles's 1954 doctrine of massive retaliation, which aimed to prevent aggression by preserving the ability to launch an overwhelming nuclear reaction, was based on this reasoning¹². Concerns about radioactive fallout, mishaps, incorrect calculations, and unauthorized use were also raised by nuclear testing¹³.

The United States demonstrated the conflict between peaceful nuclear cooperation and proliferation threats by exporting civilian nuclear technology under safeguards through Atoms for Peace¹⁴.

THIRD REQUIREMENT: The Shift to Partial Nuclear Arms Control Measures (1959- 1968):

A more limited approach of partial arms control and deterrence had replaced the dream of complete disarmament by the late 1950s. The development of intercontinental ballistic missiles increased the need to reduce nuclear risks and reduced delivery times from hours to minutes. Policymakers began to favor limited, practical agreements over general disarmament plans as the arms race quickened and more governments gained or approached nuclear capability¹⁵.

By the mid-1960s, the accelerating arms race between the United States and the Soviet Union made some form of limitation increasingly necessary. Meanwhile, the United Kingdom, France, and the People's Republic of China had previously tested nuclear bombs, and dozens of other nations were capable of producing these lethal weapons¹⁶. The risks of clandestine stockpiles and covert weapons production underscored the need for more flexible and pragmatic arms control arrangements. Consequently, attempts to negotiate restricted or partial acts became the primary focus of negotiations. The fundamental idea behind this emphasis was that the nuclear arms threat could be broken up into "pieces" and progress toward full disarmament could be made gradually by limiting the scope of agreements¹⁷.

In a 1985 Congressional Report titled *The Fundamentals of Nuclear Arms Control*, nuclear arms control agreements were generally classified into three categories: (1) non-armament agreements that prevent militarization in certain

¹² The American Atom, Op, Cit, PP. 193- 194.

¹³ ACDA, Op, Cit, P. 88.

¹⁴ Lyou, Op, Cit, PP. 14- 15.

Also See: Graham and Lavera, Op, Cit, P. 2.

¹⁵ The American Atom, Op, Cit, P. 194.

¹⁶ aham and Lavera, Op, Cit, P. 2.

¹⁷ ACDA, Op, Cit, PP. 3- 4.



regions; (2) actions that increase confidence and reduce the likelihood of war; and (3) arms control agreements, which restrict the advancement, testing, and application of nuclear weapons technology¹⁸.

Firstly: Non-Armament Agreements:

Between 1959 and 1968, several non-armament agreements were reached through multilateral negotiations. For example, the 1959 multilateral Antarctic Treaty established a non-armament agreement that demilitarized the Antarctic and set aside area for peaceful uses. The purpose of these non-armament treaties was to “keep free from conflict and nuclear weaponry the environments that science has made newly accessible and significant, and whose resources must be preserved for all—for example, outer space or the seabed—or geographic regions where nuclear weapons have not been introduced—Antarctica and Latin America”¹⁹. The 1967 Outer Space Treaty, which forbade WMDs in space, the 1968 Nuclear Non-Proliferation Treaty (NPT), which aimed to stop the spread of nuclear weapons, Other important agreements included the 1967 Latin American Nuclear-Free Zone Treaty, which prohibited the introduction and use of nuclear weapons in Latin America.

The first nuclear weapon-free-zone (NWFZ) treaty was the Latin American Nuclear-Free Zone Treaty of 1967, sometimes referred to as the Treaty of Tlatelolco²⁰. These agreements were created:

[T]o strengthen international nuclear arms regulation by designating regions that prohibit the testing, ownership, and stationing of nuclear weapons. ... [to] reduce the risk that states in [that] region [] will be compelled to seek nuclear weapons in response to a neighbor, hence reducing the likelihood that they will engage in a nuclear battle²¹.

Ambassador Thomas Graham, Jr. described the NWFZ model as “the backdoor route toward the elimination of nuclear weapons” and “a regional security idea to limit the risk that others near you may obtain nuclear arms”²².

On July 1, 1968, the United States joined the Nuclear Non-Proliferation Treaty (NPT). The first major effort by the international community to limit the spread of WMDs was the NPT. For instance, governments were permitted to create NWFZs within their borders under Article VII of the treaty²³. The United States, the United Kingdom, the Soviet Union, China, and France came to be recognized

¹⁸ Fundamentals of Nuclear Arms Control Report, Vol. 8, 1985, P. 99.

¹⁹ ACDA, Op, Cit, PP. 3- 4.

²⁰ Graham and Lavera, Op, Cit, PP. 3- 4.

²¹ Ibid, P. 41.

²² Thomas Graham and Paul H. Nitze, Disarmament Sketches: Three Decades of Arms Control and International Law, University of Washington Press, 2002, P. 19.

²³ Treaty on the Non-Proliferation of Nuclear Weapons, 1 July 1968.



as the five nuclear- weapon states by the late 1960s, and there was rising international fear that this number could rise. Even though the number of nuclear weapon states—both declared and undeclared—has increased since 1970, the NPT, which has more than 180 parties and is the most widely adhered arms control agreement in history, remains the cornerstone of global efforts to prevent the future spread of nuclear weapons²⁴.

A deal between nuclear-weapon and non-nuclear-weapon states was formalized by the NPT: the former promised not to transfer nuclear weapons and to pursue disarmament talks under Article VI, while the latter agreed not to acquire such weapons and to accept safeguards on peaceful nuclear activities²⁵.

This multilateral agreement committed nuclear- weapon nations “to engage in disarmament negotiations aimed at the ultimate elimination of nuclear weapons and to share the benefits of peaceful nuclear technology”²⁶.

Secondly: Arms-Limitation Agreements:

The environment of arms-control negotiations was altered by the 1962 Cuban Missile Crisis. This pivotal moment increased the sense of urgency and gave a clearer picture of the dangers and potential outcomes. The public's understanding of and worry over the threat presented by nuclear weapons led to support for an international collective accord.

A Japanese fishing vessel in the South Pacific was hit by radioactive material due to fallout from U.S. and Soviet testing incidents in the mid-1950s (the U.S. test), while Japan itself experienced “rain containing radioactive debris” (the Soviet test)²⁷. The Limited Test Ban Treaty (LTBT) of 1963 (Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water) was established as a result of the United States, Soviet Union, United Kingdom, China, and France starting negotiations to put an end to nuclear testing²⁸. The treaty subsequently attracted broad international adherence²⁹.

At first, the parties couldn't agree on provisions for compliance verification, such as the system of controls and inspection³⁰. Concern over “clandestine violations” stemming from insufficient seismic detectors or verification

²⁴ Lawrence Scheinman, Article IV of the NPT: Background, Problems, Some Prospects, No. 5, 2004, PP. 1- 12.

²⁵ Lisa M. Schenck and Robert A. Youmans, From Start to Finish: A Historical Review of Nuclear Arms Control Treaties and Starting Over with the New Start, GW Law Faculty Publications & Other Works, 2012, P. 409.

²⁶ Nuclear Non-Proliferation Treaty, Op, Cit, Art II.

²⁷ ACDA, Op, Cit, P. 27.

²⁸ Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water. Moscow, August 5, 1963.

²⁹ Graham and Lavera, Op, Cit, P. 31.

³⁰ ACDA, Op, Cit, P. 25.



capabilities to detect subterranean testing was the driving force for this dispute³¹. The Soviet Union opposed onsite inspections, However, the US insisted on “onsite inspection to detect covert testing, especially underground”³². Following high-level, three-power negotiations with the US, the USSR, and France, President Kennedy proposed excluding subterranean testing from the agreement's purview, and the parties resolved the verification impasse³³.

As a result, Nuclear testing and other nuclear explosions that could produce “radioactive debris . . . outside the borders of the state conducting the explosion” in the atmosphere, space, undersea, or anyplace else are prohibited by the LTBT. To avoid “the difficulty of differentiating between weapon test explosions and peaceful explosions without additional controls”, the latter distinction was made³⁴.

Although partial and multilateral legal restrictions on nuclear dangers were established during the 1959–1968 period, a long-lasting strategic framework for restricting superpower arsenals was not yet developed. Only the bilateral SALT procedure, which started in 1969 and was codified in 1972, gave rise to that structure.

Thirdly: The Development Of Us-Soviet/Russian Nuclear Arms Control (1972- 2001)

1-The SALT Process:

As part of the SALT negotiations, which were initiated by US and Soviet delegations in late 1969, an Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms and a Treaty on the Limitation of Anti-Ballistic Missile Systems, also known as the ABM Treaty, were signed in May 1972³⁵. The Interim Agreement froze the quantity of fixed land-based ICBM launchers and restricted the number of submarine-launched ballistic missiles (SLBMs) and SLBM-capable submarines that each party possessed. At the same time, the ABM Treaty sought to curb a major technological force behind the arms race: the emerging potential to use ballistic missiles to shoot down enemy missiles while they were in flight, which posed a threat to strategic stability³⁶. After the first technological developments under the U.S. Sentinel program in the 1960s, ballistic missile defense became widely recognized as a viable means of achieving strategic invulnerability. Because of this, the ABM Treaty allowed both parties to use a strategic missile defense system with up to 100 interceptor missiles to defend a

³¹ Graham and Lavera, Op, Cit, PP. 29- 30.

³² Nuclear Arms Control Report, 1985, Op, Cit, P. 99.

³³ Graham and Lavera, Op, Cit, P. 30.

³⁴ ACDA, Op, Cit, P. 27.

Mathew J. Ambrose, *The Control Agenda: A History of the Strategic Arms Limitation Talks*, Cornell University Press, London, 2018, P. 45.

³⁶ Thoms C. Schelling, *What Went Wrong With Arms Control?*, 1985, Available at: <https://www.foreignaffairs.com/articles/russian-federation/1985-12-01/what-went-wrong-arms-control>.



specific target. The parties agreed to verify both agreements using their respective National Technical Means (NTMs). Looking back, the SALT talks were significant because they addressed the two nations' increasingly challenging offense-defense relationship and signaled the beginning of a process.

Given that détente had reduced overall political tensions, it was evident that both parties were eager to protect the SALT negotiations from political interference. But even though the U.S. bombing campaign in Vietnam made the last stages of the negotiations more difficult, both sides were still able to reach an agreement, it became evident that everyone was prepared to defend the arms control procedure³⁷. Republican President Richard Nixon was able to secure bipartisan support for his arms control policy at home by building détente on the relatively accommodative policies of his Democratic predecessor regarding the USSR. Furthermore, President John F. Kennedy created the Arms Control and Disarmament Agency (ACDA) in 1961 as an independent U.S. agency that answered directly to the president. The agency led an effective interagency negotiation team that was able to overcome the Department of Defense's reservations. Both parties were prepared to address the security ramifications of technical advancement through arms control on the vertical and horizontal dispersion of technologically innovative offensive and defensive missile capabilities. By the end of the 1960s, Washington was concerned about the Soviet Union's growing ability to utilize ABM defenses in response to the U.S. Sentinel program, while Moscow was more concerned about the U.S. technological edge in offensive strategic weapons³⁸.

SALT II, a follow-up agreement, was negotiated in November 1972 and inked in June of 1979. However, by that time, the factors that had previously enabled success had changed. First, both nations' willingness to safeguard weapons control from political disruptions had sharply declined as détente waned and the Soviet invasion of Afghanistan occurred in December 1979. Bilateral relations quickly worsened. Support for arms control was also under attack at the domestic level in the United States. Ronald Reagan, the Republican nominee for president, fiercely disagreed with President Jimmy Carter's approach to the USSR and ran on a platform of confronting the USSR, including by refusing to ratify SALT II (a pledge he kept once in office). The SALT process was further undermined by the impact of technological advancement on offensive missile capabilities and the continued vertical dispersion of missiles. The vertical distribution of new missile systems with multiple warheads on both sides in the second part of the 1970s caused the United States to finally recognize a “window of vulnerability”

³⁷ Ambrose, Op, Cit, P. 47.

³⁸ Alexey Arbatov, Mad Momentum Redux? The Rise and Fall of Nuclear Arms Control, Vol. 61, Issue 3, 2019, PP. 7- 38.



(launchers had been limited by SALT I in conjunction with the constraints set by the ABM Treaty)³⁹. The sub-strategic level would soon be impacted by this tit-for-tat logic as well. Meanwhile, U.S. allies were worried about a “missile gap” in Europe due to the Soviet Union's concurrent launch and development of new intermediate-range missiles, contributing to an extended period of arms control stagnation. Both parties mostly adhered to the restrictions that SALT II would have imposed, despite the agreement never coming into effect⁴⁰.

2- The INF Treaty:

The historic INF Treaty, which both parties signed in 1987, outlawed all ground-launched missiles and their launchers with a range of 500–5500 kilometers. In addition to outlawing a whole class of U.S.-Soviet weaponry, the Treaty also established asymmetric reductions, requiring Moscow to destroy more than twice as many missiles as the United States. Additionally, a completely new set of invasive verification procedures, including on-site inspections, were required under the Treaty. Bilateral INF negotiations had started in Geneva in 1981 prior to the Treaty. The previously cited discussion of a “missile gap”, which separated the United States from its allies, provided the justification for negotiating restrictions on sub-strategic systems. That conversation had been triggered by the Soviet Union's new triple-warhead SS-20 ballistic missile, which could strike targets in Western Europe from deep within Soviet territory. The weapon was seen by European NATO members as creating a destabilizing gap in NATO's deterrent stance since they lacked comparable capability to address the threat⁴¹. The dual-track decision, which offered the Soviet leadership arms control negotiations with the aim of reversing the Soviet lead in intermediate-range missiles while concurrently threatening Moscow with the deployment of new Pershing II ballistic missiles and ground-launched cruise missiles (GLCMs), was the result of this threat perception.

Both Sides' initial commitment to protect arms control negotiations from political interruptions, like the stationing of American missiles in Western Europe, was insufficient to stop the talks from ultimately collapsing. The Soviet delegation left the Geneva INF discussions in November 1983 as NATO allies started bringing new INF-range weaponry to Europe. Reagan's INF strategy in Washington was criticized domestically by Democrats and the media. What came next was not so much an abrogation of the process as it was a brief halt. When the

³⁹ Robert H. Johnson, *Periods of Peril: The Window of Vulnerability and Other Myths*, Vol. 61, Issue 4, 1983, PP. 950- 970.

⁴⁰ Joseph Cirincione, *Bomb Scare: The History and Future of Nuclear Weapons*, Columbia University Press, 2007, P. 40.

⁴¹ Philipp Gassert, Hermann Wentker and Tim Geiger, *The INF treaty of 1987: A Reappraisal*, Vandenhoeck & Ruprecht, Göttingen, 2020, P. 145.



parties resumed negotiations in 1985, their readiness to defend the process persisted even after the United States confronted Russia for violating the ABM Treaty because Moscow had constructed a forbidden phased-array radar intended for battle management at the Krasnoyarsk site⁴². Mikhail Gorbachev's nomination as General Secretary of the Communist Party of the Soviet Union's Central Committee in March 1985, together with his Perestroika and Glasnost programs, would soon lead to a general decrease in hostilities between the superpowers. At home, the Democratic majorities in Congress did not significantly oppose Reagan's apparent policy reversal on arms limitation with the Soviet Union starting in the mid-1980s⁴³. Similarly, over those six years, there were differences in the vertical and horizontal proliferation of advanced offensive and defensive systems. The Soviet decision to withdraw from the INF discussions was further influenced by the Reagan administration's formal introduction of the Strategic Defense Initiative (SDI) in March 1983, which at the time promised to advance American missile defense capabilities to a completely new technological level. From the Soviet point of view, SDI posed a threat to the ABM agreement, creating the possibility of U.S. strategic invulnerability and extending the country's already-existing technological advantage⁴⁴. But only two years later, the parties once again agreed to work together on the missile defense issue as part of their bilateral arms control process. A new tripartite negotiation model that separately handles missile defense, strategic offensive weapons, and INF-range weapons would culminate in the INF Treaty and START I.

3-The START Process and the PNIs:

Gorbachev and George H. W. Bush, the Republican successor to Reagan, signed the START I agreement on July 31, 1991, which led to reciprocal reductions in strategic nuclear weapons for the first time. START I established an aggregate limit of 6000 warheads and 1600 delivery vehicles each, in addition to further sub-limits for the nuclear triad⁴⁵. On-site inspections, data and specific telemetry exchanges, and surveillance of ICBM production facilities from both sides were all part of the thorough verification technique. The Treaty was intended to last for fifteen years.

In the context of the peaceful end of the Cold War, the significant reductions outlined by START I represented relatively strong bilateral political relations. At

⁴² Jon Wolfsthal, Russian Cheating Is Not New—Neither is Compelling Them Back Into Treaty Compliance, Middlebury Institute of International Studies at Monterey, James Martin Center for Nonproliferation, 2014, Available at: <https://nonproliferation.org/russian-cheating-treaty-compliance/>.

⁴³ Ronald J. Granieri, It's Only Easy in Retrospect: The American Road to INF, 1986–1987, V& R eLibrary, 2020, PP. 55- 70.

⁴⁴ Arbatov, Op, Cit, PP. 7- 38.

⁴⁵ Ulrich Kühn, The Crisis of Nuclear Arms Control, Zeitschrift für Friedens- und Konfliktforschung, Vol. 10, 2021, P. 324.



the same time, despite the significant changes in power brought about by the fall of the Warsaw Pact and the disintegration of the Soviet Union, the parties' readiness to protect the START process from political interference persisted. Nevertheless, these disruptions had political repercussions that made START I's implementation more difficult. After difficult negotiations, Ukraine, Belarus, and Kazakhstan were designated as non-nuclear-weapons countries under the Treaty on the Non-Proliferation of nuclear weapons (NPT), which resulted in the transfer of all Soviet nuclear weapons to Russia. In the 1994 Budapest Memorandum, Russia, the United States, and the United Kingdom provided Ukraine with additional security assurances. Among these assurances was respect for Ukraine's territorial integrity. Due to the back and forth between Washington, Moscow, and Kyiv, START I didn't go into effect for three years until December 5, 1994. President Bush's START program could build on broad domestic bipartisan support, as evidenced by the fact that Democrat Bill Clinton, who succeeded him, would later get the necessary two-thirds majority for the Treaty's ratification by the U.S. Senate⁴⁶. In terms of the impact of the vertical and horizontal spread of technologically advanced offensive and defensive missile capabilities, the START process benefited from the lowering of U.S. missile defense measures. The SDI program was scaled back by Bush and renamed Global Protection Against Limited Strikes (GPALS), a project that Clinton ultimately terminated. Additionally, under the newly renamed Ballistic Missile Defense Organization (BMDO), Clinton ensured that the United States would continue to develop missile defenses.

In the same year that START I was signed, U.S. President Bush announced the unilateral withdrawal of thousands of tactical nuclear weapons (TNWs) from Europe and East Asia in what would become known as the first phase of the Presidential Nuclear Initiatives (PNIs). In response, Gorbachev took similar actions a few weeks later with the goal of lowering the number of Soviet TNWs. Following the dissolution of the USSR in early 1992, Boris Yeltsin, the newly elected Russian president, adopted fresh measures and reiterated Russia's commitment to the PNIs. The Initiatives were unique in that they were unilateral, voluntary, and unverifiable; as a result, they were not subject to a potentially difficult negotiation or ratification process in Washington and Moscow. The PNIs turned out to be politically significant even if they could not be verified. According to estimates, they resulted in the removal of 17,000 TNWs from service and the complete elimination of various weapon categories, including U.S. ground-launched TNWs⁴⁷.

⁴⁶ Cirincione, Op, Cit, P. 42.

⁴⁷ Jeremy Faust, Cooperating Unilaterally: The 1991-1992 Presidential Nuclear Initiatives. In End of an Era: the United States, Russia and Nuclear Nonproliferation, Edited by: Sarah Bidgood and William C. Potter, James Martin Center for Nonproliferation Studies Nonproliferation, 2021, P. 132.



The willingness of both sides to protect the initiatives from political interference was just as strong as it had been during the START process. Despite the chaos in the disintegrating Soviet Union, Yeltsin himself advanced the Initiatives. Domestic backing for the PNI was also strong in the United States, particularly when President Bush prioritized reducing Soviet TNWs in the wake of the August 1991 coup attempt against Gorbachev and American worries about “loose Soviet nukes”⁴⁸. The U.S. Senate vote against funding new U.S. missiles in order to save money helped to create an environment where both sides could reengage on ballistic missile defense in terms of the impact of the vertical and horizontal diffusion of technologically novel offensive and defensive missile capabilities. “The U.S. proposal for limiting non-nuclear ABM systems” was mentioned briefly in the Yeltsin-Bush PNI of 1992. The Ross-Mamedov Talks, a high-level U.S.-Russian committee, were established six months later to investigate President Yeltsin's proposal for the creation of a combined Russian-U.S. worldwide anti-ballistic missile system⁴⁹.

Only a year later, all parties added to START I in an attempt to set even more lax constraints on strategic nuclear weapons in a START II agreement. The Treaty would have set a cap of 3000–3500 strategic nuclear weapons per party. Even though the Treaty was ratified by the U.S. Senate in 1996, a number of factors ultimately contributed to its demise.

The mid- to late-1990s saw a series of changes that started to eclipse the partnership in terms of each side's willingness to protect weapons control from political upheavals. Most notably, Moscow was deeply concerned about the unpredictable consequences of U.S. global domination following NATO's eastward expansion and the U.S. military intervention in Kosovo⁵⁰. Yeltsin referred to “the eastward expansion of NATO [...] a mistake and a serious one at that” during a bilateral meeting in 1997⁵¹. Despite Yeltsin and Clinton's stated desire to protect the START process, it became more challenging due to disparities in their overall bilateral relations. At the same time, the domestic conversation in Congress over America's nonproliferation and weapons control policy started to be dominated by party politics. Despite Russia's ongoing interest, the Clinton administration's

⁴⁸ Susan J. Koch, *The Presidential Nuclear Initiatives of 1991–1992*, Center for the Study of Weapons of Mass Destruction Case Study 5, National Defense University Press, Washington, 2012, PP. 19- 21.

⁴⁹ Andrei Shoumikhin, *Evolving Russian Perspectives on Missile Defense: The Emerging Accommodation*, Taylor & Francis Online, Vol. 21, Issue 4, 2002, PP. 311- 336.

⁵⁰ Vladimir Baranovsky, *The Kosovo Factor in Russia's Foreign Policy*, Italian Journal of International Affairs, Vol. 35, Issue 2, 2000, PP. 113- 130.

⁵¹ Thomas W. Lippman, *Clinton, Yeltsin Agree on Arms Cuts and NATO*, Washington Post, 1997, Available at: <https://www.washingtonpost.com/wp-srv/inatl/longterm/summit/summit.htm>.



decision to terminate the Ross-Mamedov talks exacerbated bilateral tensions⁵². In a vote in October 1999, the Senate rejected the Treaty. The horizontal diffusion of medium- and long-range missiles during the 1990s, particularly by North Korea, Iran, and Iraq, had an impact on the START process in relation to the implications of both vertical and horizontal diffusion of technologically superior offensive and defensive missile capabilities. In order to defend against these purported “rogue states”, U.S. Republicans in Congress insisted that a National Missile Defense (NMD) system be installed by 2003. However, Moscow believed that the United States was using the claim of worldwide horizontal missile proliferation as a pretext to repeal the ABM Treaty. The signing of the U.S.-Russian Demarcation Agreement in 1997, which set limits and regulations for TMD—that is, below strategic ranges—testing and deployment in order to ensure the continued viability of the ABM Treaty, was the only way to temporarily relieve the pressure that ongoing U.S. interest in the development of theater missile defense (TMD) had placed on the bilateral arms control agenda. Moscow reacted negatively when the Clinton administration suggested amending the ABM Treaty to allow NMD in response to growing domestic pressure. The search for NMD would be “a serious threat to the whole process of limiting nuclear weapons and to the stability of a strategic situation which has taken decades of international agreements to build up”, according to an official Russian statement issued on March 18, 1999. “The ABM treaty and the START treaties are two component parts of one whole”, according to Moscow as a result, Russia informed Washington that if the US installed an NMD system, it would leave the START agreements⁵³.

In this complex context, a third START accord, which was envisioned under the 1997 START III "Framework Agreement" and called for reductions in the overall number of strategic nuclear warheads to 2000–2500 per side, never happened. Even though the Russian Duma eventually ratified START II, Moscow declared that same year that it no longer saw itself as bound by its obligations under the agreement due to the U.S. Senate's refusal to ratify the Demarcation Agreement and the United States' subsequent withdrawal from the ABM Treaty, which went into effect in June 2002. The first START process came to an end at that point.

Fourthly: Twenty Years of Crisis (2001–2021):

The 20-year bilateral nuclear arms control crisis from 2001 to 2021 is the subject of this section, which is divided into three periods: (1) the end of the ABM Treaty and the Strategic Offensive Reductions Treaty (SORT); (2) a longer interim

⁵² Craig Cerniello, Senate Rejects Comprehensive Test Ban Treaty; Clinton Vows to Continue Moratorium, Arms Control Association, 1999, Available at: <https://www.armscontrol.org/act/1999-09/press-releases/senate-rejects-comprehensive-test-ban-treaty-clinton-vows-continue>.

⁵³ Kühn, Op, Cit, P. 327.



period of deteriorating bilateral general relations that nevertheless led to New START; and (3) a period of rapidly deteriorating arms control relations during Donald J. Trump's presidency.

1-The Conclusion of SORT and the Termination of the ABM Pact:

The deployment of missile defenses became a major national security goal for the United States once President George W. Bush took office (Congressional Research Service)⁵⁴. On December 13, 2001, Bush announced the United States' withdrawal from the ABM Treaty, which went into force in 2002, along with increased financing for missile defense programs. "The Bush Administration's argument for abrogating the ABM Treaty centered around a different strategic environment from 1972 when the Treaty was signed: Soviet forces no longer threatened the United States and the greater threat came from the proliferation of ballistic missiles and weapons of mass destruction from other countries", according to the U.S. Congressional Research Service. Following 9/11, rogue states and terrorism were given particular attention⁵⁵. The parties had signed the SORT just one month prior to the ABM Treaty's expiration. Entering into effect in 2003, this agreement—also known as the Moscow Treaty—required both parties to limit their deployed strategic offensive weapons to 1700–2200 warheads each, while retaining the autonomy to choose the makeup of their strategic forces. SORT did not even identify which warheads were to be decreased or how reductions were to be made, nor did it contain any verification measures⁵⁶. It was intended to last until the end of 2012.

The Year of 2002 presented a mixed picture in terms of both sides' commitment to protect bilateral arms control from political disturbances, including incidents of non-compliance and worsening general bilateral relations. On the one hand, despite significant (and still ongoing) political upheavals like the 9/11 attacks, the beginning of the U.S. war on terror, and the ensuing open Russian disagreements with President Bush's Iraq policy, both sides were able to reach a new arms control agreement. Concluding the deal demonstrated a rather practical attitude to arms control, even though SORT was unable to match the caliber of the earlier bilateral accords⁵⁷. However, SORT was also impacted by the United States' decision to stop protecting the vital defensive capabilities, which addressed a portion of the bilateral arms control agenda. The long-term consequences of the

⁵⁴ Steven A. Hildreth and Amy F. Woolf, *Ballistic Missile Defense and Offensive Arms Reductions: A Review of the Historical Record*, Congressional Research Service, 2010, P. 15.

⁵⁵ Hildreth and Woolf, Op, Cit, P. 16.

⁵⁶ Daryl G. Kimbal, *The Strategic Offensive Reductions Treaty (SORT) At a Glance*, Arms Control Association, 2017, Available at: <https://www.armscontrol.org/factsheets/strategic-offensive-reductions-treaty-sort-glance>.

⁵⁷ Shoumikhin, Op, Cit, PP. 311- 336.



end of the Cold War should be considered in combination with this development. The United States no longer confronted a comparable worldwide force or threat after the end of the Cold War and the collapse of the Soviet Union⁵⁸. Parts of the U.S. political elite lost interest in securing survival through bilateral arms control as a result of the ensuing unipolarity. Republican neoconservative leaders in particular no longer believed that limiting important aspects of American military might in concert with Russia would be beneficial⁵⁹. At least not while such limitations kept the US from deploying a national missile defense system. In 2001, a longtime observer of American foreign policy observed that “the philosophy and practice of traditional arms control [were] no longer contributing effectively to the goal of reducing threats to U.S. national security”⁶⁰. In 2003, Michael McFaul, a former U.S. ambassador to Russia, said that “Bush could threaten to withdraw unilaterally from the ABM Treaty [...] because Russia was too weak to do anything about it”⁶¹. This was undoubtedly the case; by 2001, Russia's economy and military had been steadily declining for ten years. It was no longer the United States' peer rival, and Washington was becoming less enthusiastic about its need to maintain the arms control framework in order to restrain the U.S. nuclear stockpile⁶². Despite largely positive bilateral relations, a developing weapons control crisis and subsequent war between the two nations were caused by commensurate power shifts and divergent goals in arms control.

After approving pleas from powerful U.S. officials to make the agreement legally binding, President Bush could build on a bipartisan majority in domestic U.S. support and opposition to bilateral weapons control when bringing SORT to the Senate for advise and approval. The ABM Treaty's fate was essentially guaranteed by conservative U.S. politicians who were fiercely opposed to adopting the same bilateral weapons control system that had been used in the 1990s. As mentioned in the previous section, the Clinton administration's plan to limit weaponry had already been repeatedly challenged by the Republican-controlled U.S. Senate in the late 1990s⁶³. “We [...] have internal divisions, which seem to turn virtually every element of our policy into a monumental struggle—whether ratification of a treaty like the comprehensive test ban, engagement on non-

⁵⁸ Stephen Wertheim, *Tomorrow, the World. The Birth of U.S. Global Supremacy*, Harvard University Press, Cambridge, 2020, P. 63.

⁵⁹ Florian Boller, *Brakeman or Booster? Presidents, Ideological Polarization, Reciprocity, and the Politics of US Arms Control*, *International Politics*, Vol. 59, 2022, PP. 725- 748.

⁶⁰ Richard D. Sokolsky, *Renovating U.S. Strategic Arms Control Policy*, *Strategic Forum*, Issue 178, February 2001, P. 4.

⁶¹ James M. Goldgeier and Michael McFaul, *Power and Purpose: U.S. Policy Toward Russia After the Cold War*, Brookings Institution Press, Washington, 2003, P. 312.

⁶² Shoumikhin, Op, Cit, PP. 311- 336.

⁶³ Boller, Op, Cit, PP. 725- 748.



proliferation with a country like China, sufficient funds to pursue effective diplomacy, or anything else”, said the former director of ACDA in 1998⁶⁴. ACDA itself was one of the Republicans' main targets. Republicans like Helms, who took credit for ACDA's dissolution in 1997, were aware that future U.S. arms control measures would be far weaker in the interagency process in the absence of this independent body⁶⁵. In the meantime, the Republicans' demand on NMD was accepted by the Democrats, who have historically been more against missile defense initiatives. By the year 2000, “a cataclysmic break in U.S.-Russian relations” had occurred as the Republicans had finally gained the upper hand in the domestic missile defense debate⁶⁶.

Lastly, Russia “wanted [SORT] to contain a statement noting U.S. missile defenses would not undermine the effectiveness of Russia's offensive forces” regarding the vertical and horizontal diffusion of technologically advanced defensive and offensive missile capabilities in the event that the ABM Treaty is no longer in effect⁶⁷, which the US rejected. President Bush signed National Security Presidential Directive 23 in December 2002, outlining a plan to start installing new operational U.S. ballistic missile defenses by 2004, including at a European location near Russian territory. This directive served as the backdrop for this rejection. This choice was impacted by two events. First, adversarial nations like North Korea, Iran, and Iraq had advanced significantly in their missile capabilities, endangering U.S. regional allies and raising the possibility that, should those technological advancements continue unchecked in the future, the U.S. homeland might also be in danger. In opposition to the latter forecast, NMD supporters contended that a smaller U.S. missile defense system that could have protected the continental United States from a small number of incoming missiles would have been adequate. Second, the restricted U.S. missile defense program of the 1990s was supposed to begin fulfilling that objective despite numerous technological difficulties. Five ground-based interceptors for a limited NMD system against long-range missiles were first deployed in silos in Alaska by December 2004. However, there was still debate over the system's operability⁶⁸.

2-The Interim Period:

Following the termination of SORT and the ABM Treaty in 2002, there was a 14-year intermediate period that culminated in the election of Donald J. Trump as

⁶⁴ John D. Holum, Arms Control Agenda After ACDA, Arms Control Association, 1998, Available at: <https://www.armscontrol.org/act/1999-03/features/arms-control-agenda-after-acda>.

⁶⁵ Spurgeon M. Keeny, 'Not with a bang but a whimper', Arms Control Arms, 1998, Available at: <https://www.armscontrol.org/act/1998-10/issue-briefs/not-bang-whimper>.

⁶⁶ Goldgeier and McFaul, Op, Cit, P. 312.

⁶⁷ Amy F. Woolf, Nonstrategic Nuclear Weapons, Congressional Research Service, 2022, P. 35.

⁶⁸ Hildreth and Woolf, Op, Cit, PP. 14- 16.



president in 2016. The last bilateral agreement between Washington and Moscow to jointly control their nuclear arsenals was reached eight years after 2002. On April 8, 2010, Presidents Barack Obama and Dmitry Medvedev signed the New START accord, which replaced SORT after START I expired in December 2009. The new agreement limited each side to 1550 deployed strategic warheads and set an aggregate maximum of 800 for deployed and non-deployed nuclear triad systems. It was legally binding once again and contained extensive verification and compliance procedures. The ten-year Treaty was once again extended for five more years in February 2021 by the incoming Biden administration.

Due to the Obama administration's efforts to "reset" relations with Russia, there was a brief lull in bilateral tensions during which New START was negotiated. Despite wider issues and developing compliance disputes, this short-term improvement left little political room for a new arms control pact. In the preceding years, Russia had begun to reinvest in its antiquated military, notably in the nuclear arena, and had recovered some of its economic and military might. The 2008 war between Russia and Georgia and NATO's ongoing expansion were two examples of Russia's more assertive approach to tense ties in its immediate area. Before New START, there had been a steady rise in political disputes with the US over these events and US Middle East policies. In 2010, both parties were able to reach an agreement on New START, which restored the traditional arms control bilateralism of carefully negotiated, legally enforceable, and intrusively verifiable strategic nuclear reductions, despite these broad political divides. From the West's intervention in Libya in 2011 in response to Russian protests to the White House's announcement of its "Pivot to East Asia" geopolitical strategy in 2012, the ensuing years saw even more significant political upheavals and disputes⁶⁹. The 2014 unlawful annexation of Crimea by Russia, which violated Ukraine's territorial integrity as promised by Russia in the 1994 "Budapest Memorandum", marked the height of these disruptions⁷⁰. In the same year, the Obama administration openly accused Russia of violating the INF Treaty by conducting flight tests of a GLCM at ranges prohibited by the treaty⁷¹. In order to prevent Russia from pursuing a possible land grab in Eastern Europe, NATO allies decided at their 2016 Warsaw Summit to establish a "trip wire" force in Poland and the three Baltic States. This indicated a long-term shift in American strategy toward Asia⁷². Despite all of this,

⁶⁹ Janine Davidson, The U.S. "Pivot to Asia", *American Journal of Chinese Studies*, Vol. 21, Special Issue, June 2014, PP. 77- 82.

⁷⁰ David S. Yost, The Budapest Memorandum and Russia's intervention in Ukraine, *International Affairs*, Vol. 91, Issue 3, May 2015, PP. 505- 538.

⁷¹ Amy F. Woolf, Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress, Congressional Research Service, 2019, Available at: <https://www.congress.gov/crs-product/R43832>.

⁷² Robert Legvold, *Return to Cold War*, Polity Press, Cambridge & Malden, 2014, P. 28.



all parties were still prepared to defend the ongoing implementation of New START.

During the Obama administration, it became more challenging to secure bipartisan domestic support for bilateral weapons control in the United States. It took ten months for the U.S. Senate to approve New START, despite numerous high-ranking military commanders' repeated declarations that doing so would be in the country's best security interests⁷³. The fervor with which Republican senators opposed the ratification of the New START agreement in 2010 cannot be explained by their divergent views on national security, given the parade of senior U.S. military officials and former GOP grandees who testified before Congress that the Treaty would be in the country's best interests. Even if another part of the political struggle was getting major financial concessions from the Obama administration to fund the modernization of the U.S. nuclear weapons complex⁷⁴, Republican opposition to Democratic-negotiated arms control accords established a clear long-term pattern that would persist even after President Obama's two years in office. The weak SORT deal, which had been mocked as "the shortest disarmament treaty in history", can be explained by another domestic trend that precedes the Obama administration: the ongoing decline in Republican interest in arms control⁷⁵, and Republican opposition to the CTBT's ratification. In contrast to earlier decades, when Republican and Democratic administrations worked together when needed to use arms control to restrict the Soviet Union (and later Russia), both domestic movements stand in stark contrast. The bilateral nuclear weapons control relationship suffered as a result of these tendencies.

In terms of the vertical and horizontal diffusion of technologically advanced offensive and defensive missile capabilities, the ongoing U.S. pursuit of missile defenses against escalating missile threats from North Korea and Iran continued to have a negative impact on the bilateral arms control agenda. In September 2009, President Obama replaced the Bush program with the European Phased Adaptive Approach to missile defense against Iranian missile threats. Washington aimed to reassure Moscow that Russia's strategic deterrence would not be compromised by the system⁷⁶. However, Moscow was unable to use the New START deal to create a legally enforceable mechanism to limit U.S. aspirations. Ultimately, it ratified

⁷³ Marco Fey, Vier Jahre Obama sind nicht genug!. Die US-Nuklearwaffenpolitik am Scheideweg, HSFK-Standpunkt, 2012, Available at: https://www.prif.org/fileadmin/Daten/Publikationen/HSFK_Standpunkte/2012/Standpunkt_03_2012_Vier_Jahre_Obama_sind_nicht_genug.pdf.

⁷⁴ Ibid.

⁷⁵ Harald Muller and Niklas Schornig, Rüstungsdynamik und Rüstungskontrolle, Nomos, Baden-Baden, 2006, P. 172.

Jaganath Sankaran, The United States' European Phased Adaptive Approach Missile Defense System, ⁷⁶ National Security Research Division, 2015, PP. 39- 40.



and signed New START. However, New START “may be effective and viable only in conditions where there is no qualitative or quantitative build-up in the missile defense system capabilities of the United States of America”, according to a unilateral Russian statement appended to the Treaty. Former US arms control official Steven Pifer argued that The Obama administration considered Russia's request for a legislative guarantee on missile defense to be unfeasible. It would need to be documented in a treaty and ratified by the Senate. Anything that even remotely resembled missile defense limitations had no chance of passing the Senate, as was made evident during the 2010 ratification fight over New START. U.S. officials informed their Russian counterparts that the country was ready to provide a formal, high-level-signed political guarantee that U.S. missile defenses were not aimed at Russia. They stated unequivocally that they were unable to reach a legally enforceable agreement to restrict missile defense⁷⁷.

By 2010, missile defense had established itself as a key component of American security strategy. Its pursuit was viewed as “non-negotiable” in domestic U.S. politics and was marked by an unyielding posture toward Russia. In terms of the vertical and horizontal diffusion of technologically advanced offensive and defensive missile capabilities, the ongoing U.S. pursuit of missile defenses against escalating missile threats from North Korea and Iran continued to have a negative impact on the bilateral arms control agenda. In September 2009, President Obama replaced the Bush program with the European Phased Adaptive Approach to missile defense against Iranian missile threats⁷⁸.

FOURTH REQUIREMENT: The Failure of Nuclear Arms Control in a Conflict-Driven, Multipolar Environment (2022– 2026):

A significant turning point in the history of nuclear arms control occurred between 2022 and 2026, marked not only by the deterioration of particular agreements but also by the fundamental breakdown of the entire regulatory structure regulating nuclear competition. The dissolution of legal restrictions, the escalation of geopolitical tensions, and the conversion of the nuclear order into a multipolar system are the three interconnected dynamics that are coming together in this era.

Firstly: The Erosion and Expiration of New START:

At first, the extension of New START appeared to preserve a degree of strategic stability between the US and Russia after the New START Treaty was extended in February 2021. But this steadiness turned out to be short-lived. In 2023, Russia announced the suspension of its participation in the treaty, so stopping important verification processes including data transfers and inspections.

⁷⁷ Steven Pifer, *Missile Defense in Europe: Cooperation or Contention?*, The Brookings Institute, May 2012, P. 12.

⁷⁸ Woolf, Op, Cit, P. 27.



With the treaty's expiration in 2026, the two biggest nuclear arsenals in the world were no longer subject to any legally binding accord for the first time in more than 50 years.

This development signals the collapse of the last surviving pillar of bilateral weapons control, not just the end of a single treaty. Analysts point out that the lack of legally binding restrictions and the increasing danger of unrestricted nuclear competitiveness characterize the post-2026 situation⁷⁹.

Secondly: The Russia-Ukraine War's Effects:

The Russian invasion of Ukraine in 2022 fundamentally reshaped the strategic context of arms control. The conflict accelerated the breakdown of trust between Russia and the West and reintroduced nuclear signaling as a visible and explicit instrument of coercive diplomacy. Russian references to nuclear capabilities during the conflict, coupled with Western responses, blurred the line between deterrence and compellence.

Additionally, the war interfered with pre-existing procedures for arms control, especially verification systems. Institutional communication channels deteriorated and on-site inspections were halted. As a result, the crisis showed that agreements pertaining to arms control are heavily reliant on wider political ties and cannot be maintained in the face of ongoing geopolitical conflict⁸⁰.

Thirdly: China's Ascent and the Demise of Bilateralism:

China's emergence as a significant nuclear actor is a defining characteristic of the current arms control issue. The current nuclear competition's comeback, which was predicated on U.S.-Soviet bilateralism. The conventional framework of strategic stability is under threat from China's quick development of its nuclear weapons and its unwillingness to participate in trilateral arms control talks.

The underlying rationale of previous agreements, which presumed that restricting the arsenals of two superpowers would be adequate to uphold international nuclear order, is undermined by this change. Such bilateral arrangements seem more and more insufficient in a multipolar setting⁸¹.

Fourthly: Unconstrained Nuclear Competition:

A competitive nuclear environment marked by modernization, expansion, and the lack of binding restraints has resurfaced as a result of these developments taken

⁷⁹ Amy Woolf, *Beyond New START: What Happens Next in Nuclear Arms Control?*, RUSI, October 2025, Available at: <https://www.rusi.org/explore-our-research/publications/commentary/beyond-new-start-what-happens-next-nuclear-arms-control>.

⁸⁰ Nadezhda Arbatova, George Perkovich and Paul van Hooft, *The Future of Nuclear Arms Control and the Impact of the Russia-Ukraine War*, American Academy of Arts & Sciences, Cambridge, Massachusetts, 2024, PP. 21- 25.

⁸¹ Report on Deterrence in a World of Nuclear Multipolarity, International Security Advisory Board, October 2023, Available at: https://www.state.gov/wp-content/uploads/2023/11/ISAB-Report-on-Deterrence-in-a-World-of-Nuclear-Multipolarity_Final-Accessible.pdf, PP. 1- 10.



together. The establishment of new arms control frameworks is made more difficult by the significant investments made by major nations in new technology, including as enhanced missile defenses and hypersonic delivery systems.

At the same time, there are fewer incentives for collaboration due to internal political differences and dwindling trust in global institutions. Geopolitical rivalry is increasingly seen as taking precedence over arms limitation, which was long thought to be a key component of strategic stability⁸².

It is impossible to interpret the current nuclear weapons control crisis as a transient disturbance or the collapse in specific agreements. Instead, it is a reflection of a more profound structural change in the international nuclear system. The historical underpinnings of weapons control have been undermined by the shift from a bipolar, treaty-based regime to a fragmented, multipolar environment.

In a period characterized by geopolitical rivalry, technological advancement, and regional instability, the challenge in this setting is no longer restricted to reestablishing particular accords but rather entails reconsidering the fundamental logic of arms control.

THE SECOND TOPIC :THE IMPACT OF CONTEMPORARY TENSIONS ON NUCLEAR ARMS REDUCTION EFFORTS: THE FIRST REQUIREMENT :UKRAINIAN-RUSSIAN TENSIONS:

Firstly: Russian Nuclear Signals as a Deterrent:

In an apparent attempt to prevent Western military intervention against Russia in retaliation for its invasion of Ukraine, President Putin has used Russia's strategic capabilities, including its nuclear weapons, since February 2022. The Russian military has participated in military operations near the borders of the United States and its NATO allies, as well as demonstrated and exercised its nuclear and nuclear-capable systems. Among other signals to the West, Putin also announced that Russia has placed nuclear weapons in Belarus and halted the implementation of the U.S.-Russian New START arms limitation deal. This strategy shows an increasing reliance on nuclear deterrence, which makes nuclear weapons control initiatives more difficult.

Russia's "strategic deterrence" political military doctrine, which includes a variety of nonmilitary and military (nuclear and nuclear) operations intended to deter and manage threats to Russia in peacetime, crisis, and conflict, seems to be fairly consistent with Russian signaling thus far. As part of Russian escalation management or intrawar deterrence in regional and international conflicts, strategic deterrence may theoretically also entail activities in space and cyberspace as well as the targeting of an adversary's vital infrastructure.

⁸² Alessandro Leonardi, Not just about Ukraine: Russia's Invasion As the Final Nail in the Arms Control Coffin?, *Journal of Transatlantic Studies*, September 2025, PP. 286- 309.



“Russia almost certainly does not want a direct military conflict with U.S. and NATO forces”, according to a 2024 assessment by the U.S. intelligence community. As a result, Russia may have attempted to counter with asymmetric actions, such as allegedly supporting the **Secondly: The Credibility of the Russian Nuclear Threat:**

The President decides whether to use nuclear weapons in accordance with Russian declared policy. Based on open-source data, it is still unclear if Putin has seriously contemplated using nuclear weapons since February 2022, either for military targets or for signaling, and if so, whether Western or other international efforts have been successful in deterring him.

While acknowledging that they have limited U.S. and NATO measures in support of Ukraine, U.S. and NATO officials have disputed the veracity of Russian nuclear threats.

“Russia's inability to achieve quick and decisive battlefield wins, coupled with Ukrainian strikes within Russia, continues to drive concerns that Putin might use nuclear weapons”, according to a 2024 assessment by the U.S. intelligence community.

Some Russian analysts have called for limited nuclear use, arguing that, while Russian threats may have successfully deterred direct U.S. and NATO intervention, Russian efforts to limit Western aid to Ukraine have failed⁸³.

Thirdly: Evolution of Russian Nuclear Doctrine:

Putin declared in September 2024 that he would consider Western nations' approval of Ukraine's use of long-range precision attack systems on targets inside Russia to be direct involvement in the conflict. The Russian military has long been concerned about the possibility of an assault on Russia using Western aerospace equipment. Putin revealed modifications to Russia's nuclear declaratory strategy during a different meeting in September.

Formalized in November 2024, these modifications expanded the range of scenarios for the use of nuclear weapons to include situations in which Russia responds to a conventional attack against Russia or Belarus that “creates a critical threat to their sovereignty and (or) territorial integrity” or receives “reliable information about” the start of a massed aerospace attack. Additionally, “an aggression” by “any nonnuclear state, but with participation or with support from a nuclear state”—a “joint attack” by these states—is taken into account by the new doctrine. It is unclear how Russia's nuclear employment plans will include this declaratory stance⁸⁴.

⁸³ Fink, Op, Cit, P. 2.

⁸⁴ Ibid, PP. 2- 3.



Fourthly: Risks of Nuclear Escalation as the War Continues:

Russia's progress in Ukraine was so sluggish that it did not appear to be on the verge of taking over the whole nation. If Ukraine's economy failed and the country was unable to sustain a strong defense, it might begin to gain ground more quickly. Nonetheless, Ukraine received a \$106 billion loan from Europe in December 2025, which is expected to meet its military requirements for an additional year or two. Because of this, it is highly improbable that Russia will go past Ukraine and join NATO in the near future.

As an alternative, Russia might invade NATO territory without fully subjugating Ukraine. Disrupting the NATO alliance would be a clear goal; if Russia seizes even a small portion of NATO territory and NATO does not uniformly react, it might be an indication of the union's demise. Russia could accomplish this without annexing Ukraine.

Russia's military failure, rather than its accomplishment, poses another risk of nuclear escalation. Russia has achieved limited territorial gains in Ukraine, but at a significantly high cost, and it may have failed to achieve other objectives, such as reestablishing Russia's position as a great power and aligning Ukraine's leadership with Russia rather than the West. Its financial reserves and military stockpiles are still being depleted.

In many cases, a fading power poses a greater threat than a rising one. Vladimir Putin is about to enter a window of greatest risk due to an economic downturn and exhausted conventional forces. According to a recent RUSI editorial by William Dixon and Maksym Beznosiuk, Russia may resort to intensified hybrid warfare against NATO nations, such as sabotage of European military supply chains that are bound for Ukraine or nuclear threats meant to put pressure on Ukraine's allies to retreat. Some of this has already been done by Russia, and more could be done⁸⁵.

A nuclear strike would be a huge danger since it could escalate into a full-scale conflict that would completely destroy Russia. Some analyses suggest that if Putin's hold on power at home is threatened by war defeats, this might be seen as a reasonable risk. Putin has maintained a high level of domestic support during the war, with a current rating of 85%. Unless things change, this reduces the likelihood of the nuclear gamble.

One of the biggest current obstacles to nuclear weapons control efforts is the Russian-Ukrainian War, which has significantly reduced trust between the main nuclear countries, especially the US and Russia. One of the most significant strategic nuclear weapons control accords, the New START Treaty, was suspended

⁸⁵ Seth Baum, Ukraine and Nuclear War, Global Catastrophic Risk Institute (GCRI), February 2026, Available at: <https://gcri.org/publications/commentary/ukraine-nuclear-war-2026>.



by Russia as a result of this. Additionally, the arms control system has been undermined by the escalation of nuclear threats and their use as a tool for political pressure, which has caused the emphasis to shift from lowering nuclear arsenals to bolstering nuclear deterrence. The worldwide nuclear arms control system is in a condition of stagnation as a result of the ongoing tensions, which make it more difficult to resume talks or negotiate new agreements⁸⁶.

THE SECOND REQUIREMENT: US-CHINA TENSIONS:

Firstly: Overarching Challenges:

In general, a large number of China-US nuclear concerns stem from the absence of meaningful discussions between the two countries on this subject. Beijing's motivation and enthusiasm to participate in China-US risk reduction interactions are greatly diminished by two broad issues, which should be discussed before getting into the specific hazards.

The first relates to the consequences of the 1999 Cox Committee Report, a US congressional document that said China had compromised US national security by obtaining vital US military and nuclear technologies through espionage. Between 1995 and 1998, Sandia National Laboratories, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, and their Chinese counterparts took part in a lab-to-lab technological exchange initiative known as the US-China Arms Control technological Exchange. The program, a US initiative, aimed to improve relations with China in the areas of arms control verification, nuclear materials protection, and nonproliferation⁸⁷. However, a number of pertinent meetings and events were canceled following the Cox Report, which resulted in the termination of the lab-to-lab interchange. China stated that it would be willing to restart the lab-to-lab program as long as the United States could agree that it was lawful and mutually beneficial, but the United States has been hesitant to agree, despite the Cox Report being widely criticized by both the Chinese and American policy communities as inflammatory and poorly supported⁸⁸. The Cox Report's effects are still felt today in the areas of nuclear discussions and scientific collaboration between the US and China. The second major issue is disagreements between the US and China over how risks should be discussed. While Washington focuses on the technical elements of certain scenarios and prefers to address risk management, Beijing typically stresses the "root cause" of hazards and prefers to talk risk avoidance. According to some Chinese experts, addressing US emphasis is like

⁸⁶ Ibid.

⁸⁷ Alastair Iain Johnston, W. K. H. Panofsky, Marco Di Capua and Lewis R. Franklin, *The Cox Committee Report: An Assessment*, Center for International Security and Cooperation, December 1999, P. 15.

⁸⁸ Hui Zhang, *China's Nuclear Security: Progress, Challenges, and Next Steps*, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2016, P. 30.



placing a seat belt on the US so that the US feels comfortable engaging in risky actions against China⁸⁹. As a result, China has generally shown little interest in talking to the US about risk reduction. This also applies to traditional-level crisis management exchanges between the US and China, like marine and mid-air crisis management.

Secondly:Nuclear Escalation Risk (Crisis Stability):

Nuclear escalation may occur accidentally or on purpose during a crisis. In the past, there was no chance of a purposeful escalation between the US and China. The underlying logic is that China had little intention of striking first due to its limited arsenal and NFU policy, and the United States was also unlikely to strike first due to China's minimum deterrent, which experts believe either meant secured second strike capabilities or first-strike uncertainty. Additionally, the United States used to be far more powerful than China, which further decreased the likelihood of nuclear use.

The risks of deliberate escalation, however, seem to have escalated recently. The US's propensity to deploy more nuclear warheads, particularly in the Asia-Pacific region, the increased talks in Washington on nuclear use in Taiwan Strait scenarios, the increased discussions on nuclear sharing with its Asian allies, and the perceived US lowering of the nuclear threshold as indicated by its nuclear doctrines have all contributed to China's increased anxiety about its security environment and concern about US nuclear use. However, given the apparent acceleration of China's nuclear buildup in terms of amount, kind, and features, the United States has been closely reevaluating China's intent and desire to employ nuclear weapons first⁹⁰.

Regarding the inadvertent escalation, Wu Riqiang meticulously categorized three models under the China-US framework: the damage limitation technique, the unauthorized/accidental mode, and the “use it or lose it” mode. According to the first model, the conventional-nuclear entanglement of some Chinese weapon systems could lead to an unintentional strike by the United States against Chinese nuclear forces. Such strikes might be interpreted by Chinese leadership as a purposeful disarmament of China's nuclear forces, putting pressure on Beijing to either use it or lose it. Two eventualities are mentioned in the second model: (1) China may pre-authorize the use of nuclear weapons by theater-level commanders because to concerns about the viability of its Nuclear Command, Control, and Communications (NC3) systems. Commanders may choose to employ such weapons in a crisis due to erroneous or insufficient information. (2) A false alert

⁸⁹ Bo Hu, Systemic Obstacles and Possible Solutions to Crisis Management Between China and the US, *China International Strategy*, Vol. 3, Issue 2, November 2021, PP. 261- 277.

⁹⁰ Qiyang Niu, Nuclear Weapons and China's National Security: Consistency, Evolvment and Risk Management, *Journal for Peace and Nuclear Disarmament*, Vol. 8, Issue 1, 2025, PP. 80- 81.



could cause the unintentional escalation if China takes a launch-on-warning (LOW) stance. The third model states that because of the United States' enhanced damage limitation capabilities, China's concern about US nuclear disarming blackmail, and China's concern about the survivability of its nuclear arsenal, Beijing may increase its alert level and conduct counter-blackmail operations through strategies like mobilizing its forces and launching exercises in a crisis. Washington might misread Beijing's signal as a result, which could lead to US damage limitation strikes.

From a Chinese point of view, the recent progress has decreased rather than raised the dangers of unintentional escalation under the three models. Beijing is less concerned about Washington disarming its nuclear forces as a result of the expansion of its arsenal, which lessens the possibility of the first and third models. According to Chinese experts, Beijing is less likely to adopt a LOW posture under the second model because a country would only be inclined to do so if it had a very tiny arsenal and therefore insecure reprisal capabilities. China should be less inclined to switch to LOW now that it has a larger arsenal. Regarding China's NC3, Wu Riqiang contends that it is heavily centralized and concentrated on preventing launch errors rather than guaranteeing launches. The United States is unlikely to share this Chinese viewpoint, though. One may contend that there is still a significant risk of unintentional escalation because risks are influenced by both sides' perceptions, and the US view of China's buildup is very different⁹¹.

Thirdly: Arms Race Risk:

A nuclear weapons race appears to be more likely than a nuclear escalation of hostilities. To put it loosely, the precursor to an arms race has already been finished. According to SIPRI, China's nuclear arsenal increased from 410 warheads in January 2023 to 500 in January 2024. The Pentagon's prediction of 1000 warheads by 2030 does not need to be repeated⁹². According to the most recent US Nuclear Employment Strategy, existing US force capability, posture, composition, and size may all be modified. Senior US officials have openly said that the US will increase the number of deployed warheads in the future⁹³. According to the Final Report of the Congressional Commission on the Strategic Posture of the United States, prominent US experts from both parties have likewise come to a consensus over China's nuclear danger. These experts recommend that the United States

⁹¹ Niu, Op, Cit, P. 81.

⁹² Stockholm International Peace Research Institute, Role of Nuclear Weapons Grows as Geopolitical Relations Deteriorate, 17 June 2024.

⁹³ Arms Control Association, Adapting the U.S. Approach to Arms Control and Nonproliferation to a New Era, 7 June 2024, Available at: <https://www.armscontrol.org/2024AnnualMeeting/Pranay-Vaddi-remarks>.



immediately adjust its theater nuclear force posture by deploying theater nuclear forces in the Asia-Pacific area and offering nuclear response options⁹⁴.

Beijing has maintained that it “has always kept its nuclear force at the minimum level required for national security” and that it has no intention of seeking nuclear arms limitation⁹⁵. An arms race, however, is a two-way street. In actuality, the dynamic is greatly impacted by the opposing side's response. Over the past few decades, both sides could have taken a number of steps to stop an arms race. For example, China could have increased its transparency and engaged in regular military-to-military nuclear dialogue, and the United States could have recognized mutual vulnerability with China and limited its missile defense systems. Unfortunately, none of these acts were treated seriously. Meanwhile, the risks of a weapons race and escalation are significantly increased by misunderstandings and miscalculations between the two countries in the context of deteriorating bilateral ties and elevated geopolitics⁹⁶.

One major barrier to efforts to limit nuclear weapons is the rising strategic competition between the United States and China. The likelihood of achieving legally binding agreements is weakened by the lack of consistent communication, growing mistrust, and growing nuclear arsenals. Furthermore, attempts to create a stable and cooperative framework for weapons control between the two countries are made more difficult by the possibility of mistake and escalation.

THE THIRD REQUIREMENT:TENSIONS BETWEEN NORTH KOREA AND IRAN:

Firstly: The Nuclear Program of North Korea and the Failure of Arms Control Initiatives:

North Korea's disarmament policies have long been a complicated matter, especially in light of its nuclear weapons programs. A major cause of stress in East Asia and a threat to international security has been North Korea's quest for nuclear weapons.

North Korea officially exited the Nuclear Non-Proliferation Treaty (NPT) in 2003. This was an important step that signaled its ambition to pursue nuclear weapons capabilities outside of international agreements. In addition to its initial

⁹⁴ Madelyn R. Creedon et al, American Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States, October 2023, P. viii.

⁹⁵ Ministry of Foreign Affairs of the People's Republic of China, Statement by Ambassador Shen Jian at the Thematic Debate on Nuclear Weapons at the 79th Session of UNGA First Committee, 22 October 2024b, Available at: https://www.mfa.gov.cn/eng/wjb/zzjg_663340/jks_665232/kjfywj_665252/202410/t20241022_11511172.html.

⁹⁶ Niu, Op, Cit, PP. 81- 82.



nuclear test in 2006, it conducted additional tests in 2009, 2013, 2016, and 2017⁹⁷. Tighter sanctions against North Korea were imposed as a result of the international community being alarmed by these tests, which showed advancements in its nuclear capability⁹⁸. North Korea's nuclear program shown progress in both missile technology and nuclear weapons capabilities throughout time, as seen by the development of long-range ballistic missiles, the shrinking of warheads, and improvements in nuclear weapon design. North Korea has persisted in its nuclear operations despite sporadic negotiations and diplomatic contacts aimed at disarmament. The government views nuclear weapons as a crucial part of its national security strategy because they serve as a deterrent to perceived threats from the US and its allies⁹⁹. The expansion of North Korea's nuclear program has significantly increased geopolitical tensions and efforts to persuade the country to abandon its nuclear ambitions in exchange for financial and diplomatic rewards¹⁰⁰.

Heinonen and Wehner (2017) believed that the Six-Party Talks served as the main platform for diplomatic discussions on North Korea's nuclear program. North and South Korea, the United States, China, Russia, and Japan were all involved. The primary objectives of the first phase of negotiations were to establish guidelines for North Korea's disarmament and to provide financial and energy help in exchange for abandoning its nuclear development. Among other things, North Korea pledged to abandon its nuclear weapons program in exchange for security assurances and support in the September 2005 Joint Statement. The negotiations encountered difficulties despite some progress, such as differences over the order of disarmament measures and verification techniques. The goal of high-profile summits between North Korean leader Kim Jong-un and former US President Donald Trump, like the Singapore Summit in 2018 and the Hanoi Summit in 2019, was to begin disarmament negotiations¹⁰¹. Although these summits attracted interest from throughout the world, they ultimately failed to produce tangible, long-lasting denuclearization commitments.

Secondly: North Korea's Nuclear Deterrence and Regime Survival:

In reaction to North Korea's nuclear tests and missile launches, the UN Security Council slapped several rounds of sanctions on the country. The goal of

⁹⁷ Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East*, Princeton University Press, 2017, PP. 89- 102.

⁹⁸ Timo Kivimäki, *The Long Peace of East Asia*, Routledge, 2016, PP. 45- 50.

⁹⁹ Scott Douglas Sagan, Kenneth Neal Waltz, *The Spread of Nuclear Weapons: An Enduring Debate*, W.W. Norton & Company, 2013, PP. 18- 25.

¹⁰⁰ Ramesh Thakur, *Nuclear Weapons and International Security Collected Essays*, Routledge, 2015, PP. 39- 47.

¹⁰¹ Owen R. Coté Jr., Graham Allison, Steven E. Miller and Richard A Falkenrath, *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material*, The MIT Press, 2016, PP. 32- 41.



these sanctions was to put pressure on North Korea to give up its nuclear development. Significant progress toward North Korea's full disarmament has proven elusive despite multiple diplomatic initiatives over the years. This is due to North Korea's historical experience, particularly the destruction and pain of the Korean War (1950–1953), which has led to its view of nuclear weapons as an essential aspect of its national security strategy and as a deterrent to anticipated threats¹⁰². The Korean Peninsula is still officially in a state of war because the conflict concluded with an armistice rather than a peace treaty. North Korea sees the US and its allies—particularly South Korea and Japan—as possible enemies. North Korea's perception of foreign threats is influenced by ongoing military drills, the presence of US personnel in the area, and past crises. Additionally, North Korea views nuclear weapons as a formidable deterrent against possible external attacks or attempts to overthrow its government. According to the regime, having nuclear weapons improves its military posture and lessens the possibility of outside interference¹⁰³. Nuclear weapons are seen by North Korea's leadership, especially the Kim dynasty, as vital to the survival of their rule¹⁰⁴.

The significance of nuclear weapons for their security has been repeatedly underlined by North Korean officials. Propaganda, speeches, and official declarations emphasize how nuclear weapons protect North Korea's sovereignty and ward off alleged dangers. It is believed that North Korea has demonstrated its military prowess by conducting numerous nuclear tests and missile launches¹⁰⁵. The impression of North Korea's strength and preparedness to defend itself against outside threats is strengthened by these moves. North Korea frequently bases its negotiating tactics on the idea of protecting national security. It looks for assurances of non-aggression and security guarantees in any disarmament talks. North Korea's aim for economic concessions in exchange for disarmament and its quest for international legitimacy as a nuclear state have been central to its diplomatic strategy. North Korea has alternated between periods of provocations (such as missile launches or nuclear tests) and offers of communication or talks. This tactic seeks to build a sense of urgency and force other countries to hold negotiations in response to North Korea's demands. North Korea aims to gain concessions from other nations by demonstrating its nuclear capability and determination to further its program. These compromises could take the form of

¹⁰² Allison et al, PP. 32- 41.

¹⁰³ Cha, Op, Cit, PP. 45- 98.

¹⁰⁴ Nyenwe Emem and Uchendu Jennifer Matthew, Politics of Disarmament: A Case Study of North Korea and Iran, International Journal of Entrepreneurial Development, Education and Science Research, Vol. 8, Issue 1, April 2024, PP. 92- 109.

¹⁰⁵ John W. Garver, China and Iran: Ancient Partners in a Post-Imperial World, University of Washington Press, Seattle, 2006, PP. 70- 74.



financial assistance, the lifting of sanctions, assurances of security, or diplomatic recognition¹⁰⁶. According to Downs & Jones (2019), North Korea sees its ballistic missile program and nuclear arsenal as significant sources of political leverage when interacting with more powerful nations. These initiatives have strengthened what would otherwise be a poor bargaining position in relation to the rest of the world community and enabled a small, economically devastated nation to command international attention.

In the case of North Korea, this dilemma illustrates how difficult it is to achieve effective nuclear arms control.

Thirdly: Iran's Nuclear Program and Obstacles to Arms Control Accords:

Iran's disarmament politics, particularly with regard to its nuclear program, have been a complicated and divisive global subject characterized by accords, discussions, sanctions, and tensions in the area. Despite Iran's public claims that its nuclear endeavors were for peaceful purposes, there remained speculation that the country was engaging in covert activities to create nuclear weapons. International scrutiny and concern were sparked by reports and intelligence that indicated possible weaponization attempts. These factors make it more difficult to guarantee adherence to international arms control accords¹⁰⁷.

The international community and the International Atomic Energy Agency (IAEA) closely monitored Iran's nuclear activities. In order to confirm that the program complies with international safeguards, North Korea's aim for economic concessions in exchange for disarmament and its quest for international legitimacy as a nuclear state have been central to its diplomatic strategy. North Korea has alternated between periods of provocations (such as missile launches or nuclear tests) and offers of communication or talks. Iran was required to abide by safeguards and IAEA inspections as part of its participation in the Nuclear Non-proliferation Treaty (NPT). When Iran did not completely comply with certain of these criteria, concerns arose over the peaceful nature of its nuclear activities. It is still difficult to ensure Iran complies with nuclear accords, especially when it comes to permitting thorough inspections and openness of its nuclear operations. Effective monitoring of Iran's nuclear program necessitates a strong verification system. Iran's economy has been severely harmed by the sanctions imposed on it, especially by the United States. It is a difficult balancing act to reach a deal that addresses concerns about Iran's regional operations while guaranteeing sanctions relief in exchange for verifiable measures toward denuclearization¹⁰⁸.

¹⁰⁶ Kivimäki, Op, Cit, PP. 45- 50.

¹⁰⁷ Emem and Matthew, Op, Cit, PP. 92- 109.

¹⁰⁸ Ibid, PP. 92- 109.



The Iran nuclear deal, also known as the Joint Comprehensive Plan of Action (JCPOA), was an agreement between Iran and a number of international countries to reduce Iran's nuclear program in return for the relaxation of economic sanctions. This agreement was reached in 2015, but it suffered a major blow when the Trump administration unilaterally withdrew from it in 2018 and reinstated sanctions on Iran. The United States, China, Russia, France, Germany, and the United Kingdom were among the nations that participated in the multinational JCPOA. Its objective was to guarantee the peaceful continuation of Iran's nuclear activities. Iran resumed some of its nuclear programs following the US exit, blaming other signatories' inability to deliver the deal's promised economic benefits. There are efforts to revive the JCPOA, with negotiations between Iran and the remaining signatories (China, Russia, France, Germany, and the UK), as well as indirect talks with the United States. Rebuilding confidence, reaching a mutually agreeable agreement, and resolving concerns regarding Iran's nuclear programs while offering financial respite from sanctions are the challenges¹⁰⁹.

Another critique of the nuclear non-proliferation regime is reflected in the situation in Iran: some may believe that the institutions that oversee, carry out, and enforce non-proliferation measures prioritize political objectives above sincere non-proliferation concerns. Some Iranian authorities feel that political factors could have an impact on foreign organizations.

Kang (2017) asserts that the broader geopolitical dynamics in the Middle East, such as Iran's participation in regional crises and tensions with neighboring nations, complicate negotiations. It is difficult to address regional security issues while having nuclear talks. Reaching an agreement on terms and obligations for negotiations is hampered by Iran's internal political dynamics, which include hardline forces opposed to making concessions on the nuclear program.

The politics of disarmament are intricately entwined with intricate geopolitical, security, and domestic factors in both North Korea and Iran. Navigating these obstacles, fostering trust, resolving security issues, and striking a careful balance between diplomatic rewards and sanctions to encourage adherence to international commitments are all necessary for making significant progress toward disarmament¹¹⁰.

Since both North Korea and Iran believe that having nuclear weapons is necessary to maintain their regimes, their nuclear programs pose serious obstacles to international arms control initiatives. The efficacy of international disarmament attempts is still threatened by the failure of agreements, enduring mistrust, and challenges with verification and enforcement.

¹⁰⁹ Kivimäki, Op, Cit, PP. 45- 50.

¹¹⁰ Emem and Matthew, Op, Cit, PP. 92- 109.



Conclusion:

Rather than being a brief disruption confined to certain agreements, the current nuclear weapons control crisis signals a significant shift in the dynamics and structure of the international system. The bipolarity, mutual deterrence, and legally binding treaties that formerly underpinned nuclear rivalry have gradually crumbled under the weight of rapidly advancing technology, shifting power dynamics, and dwindling confidence among major nations.

The study has shown that the foundations of traditional arms control have been seriously undermined by the decline in U.S.-Russian relations, the suspension and expiration of important agreements like New START, and the growing reliance on nuclear signaling in conflicts like the Russia-Ukraine war. The effectiveness of bilateral arrangements has also been called into question by China's emergence as a significant nuclear actor, underscoring the shortcomings of current institutions in a multipolar setting.

Additionally, regional dynamics—especially in the Middle East and the Korean Peninsula—have shown how nuclear threats are becoming more integrated into smaller conflicts, where military escalation, coercive diplomacy, and deterrence frequently prevail over negotiated restraint. The North Korea, and Iran are examples of the increasing challenges of upholding efficient verification systems and international collaboration in the face of profound political hostility.

All things considered, the results show that the current nuclear arms control regime is experiencing a structural crisis marked by institutional framework weakness, fragmentation, and the return of unrestrained nuclear rivalry. In this situation, the development of new strategies that can handle the complexity of a multipolar and conflict-driven international system is more important for the future of arms control than the reinstatement of previous methods. These strategies call for increased global cooperation, fresh initiatives to foster confidence, and flexible frameworks that can adapt to changing geopolitical conditions as well as technology advancements.

Therefore, in order to maintain international security and stop the growth of nuclear hazards in the twenty-first century, it has become imperative to reconsider the rationale, scope, and methods of nuclear arms control.

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