THESSISMUN

20TH EDITION

Disarmament and International Security Committee (DISEC)

First Committee of the General Assembly

Topic Area B

The role of nuclear weapons after the Russo-Ukrainian war.

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Study Guide

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Table of Contents

1. Welcoming Letter

Dear Participants,

We are more than excited and happy to welcome you in this year's ThessISMUN 2023 and in particular to our committee, the United Nations 1st Committee of the General Assembly, also known as the Disarmament and International Security Committee (DISEC). We are sure that you also have this passion and enthusiasm in you and that you will show it through your participation in this simulation. It is of utmost importance and also honor for us to serve as the Board of this year's simulation of DISEC, a committee that plays a crucial role in the international security agenda.

Our agenda this year, contains intriguing topics of debate, which mainly concern the international community given its difficulty in handling and solving them. Concerning the first topic of our Agenda, we aim at creating a framework and policies regarding the ongoing critical issue of the demilitarization of the Middle East, on the occasion of the armed conflict that has been plaguing Yemen for over a decade. Our objective is to examine the various component of the problem, pinpoint its causes and create effective strategies to cut its thread in multiple stages. It is a matter that requires multidimensional analysis as it is interwoven with our globalized security.

Regarding Topic Area B, we are going to focus on the ongoing situation of the Russo-Ukrainian war, and how that conflict is affecting the nuclear weapons and power in general, not limited only to these two countries but also to the rest of the states that have nuclear power in their possession. The status of nuclear weapons has always been a crucial issue not only for the agenda of this committee but for the whole global community in general. Thus, we expect from you to come with ideas and solutions for this topic of utmost importance.

We do hope you find this Study Guide useful. We have strived to provide you with the fundamental background information, as well as with summarized details and further bibliography, for those wishing to further expand their knowledge in preparation for the conference. Through this, we hope that you will be ready for an exciting experience with heated and vivid debates.

Finally, we want to ask all of you to not only carefully read this guide, but also the Rules of Procedure (RoP), as you cannot play the game if don't know the rules. It goes without saying that we are very much looking forward to meeting each and every one of you in person; it is in these conferences where amazing memories are forged and strong friendships are built. As your chairing team we cannot wait for it to start!

Kind regards,

Board of the 1st committee of the General Assembly

Nikolaos Tsironis, *Chairperson*

Olga Rodatou, *Vice-Chair*

Adriani Nikolaou, *Vice-Chair*

2. The 1st Committee of the General Assembly

The 1st Committee of the General Assembly (Disarmament and International Security Committee) was established in 1993 and constitutes one of the main committees of the GA. The role of the committee is circumscribed in Article 11, Chapter IV of the United Nations Charter.

"The General Assembly may consider the general principles of cooperation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments and ***may make recommendations*** *with regard to such principles to the Members or to the Security Council or to both". As per this article, the mandate of the 1st Committee of the General Assembly is highlighted as,* ***"to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and economic resources."***

. The body's pivotal responsibilities are interconnected with issues of disarmament, global challenges and threats to peace, all of which greatly affect the international community. The Committee further seeks out solutions to the challenges in the international security regime. Any arising disarmament and international security matter falls within the ambit of the Charter relating to the powers and functions of the 1st Committee. It implements the following principles when drafting its documents or in session:

• The general principles of cooperation in the maintenance of international peace and security.

• Principles governing disarmament and the regulation of armaments.

• And, last but not least, the promotion of cooperative arrangements and measures aimed at strengthening stability through lower levels of armaments.

The Committee works closely together with the United Nations Disarmament Commission and the Geneva-based Conference on Disarmament. Moreover, it is the only Main Committee of the General Assembly entitled to verbatim records coverage.

3. Introduction to the Topic

Since the emergence of nuclear weapons in 1945, they have played a crucial part in world affairs. Until today, the USA remains the only nation to have ever used nuclear weapons in history, which resulted in numerous lives to be lost in Nagasaki and Hiroshima[1]. During the Cold War era[2], however, the USA and the USSR engaged in a frenetic nuclear arms race, ultimately imposing a balance of terror on the planet. The enormous nuclear arsenals of the two opposing sides were essential to the bipolar strategic relationship that dominated geopolitics for more than half of a century throughout the Cold War. Furthermore, the impact of nuclear weapons on world events did not diminish after the demise of the Soviet Union.

Considering nuclear weapons are the most lethal on earth and their very nature deems them hazardous, their proliferation poses a significant threat to global security. For this reason, during Cold War, both opposing sides - the USA and the USSR - gradually realized the need to control this new super weapon, making certain moves to limit it through the signing of a series of treaties which are still in force today.

Unfortunately, more than half of a century after the Cuban Missile Crisis in 1962, the "nightmare" of a global nuclear war is resurfacing, against the backdrop of the conflict in Ukraine and Russian threats to use nuclear weapons[3]. In addition to the Russian dangerous behavior regarding the usage of "tactical nuclear weapons" on Ukraine, there

[1] History com Editors, "Bombing of Hiroshima and Nagasaki," HISTORY, accessed January 14, 2023, https://www.history.com/topics/world-war-ii/bombing-of-hiroshima-and-nagasaki.
[2] Erik Gartzke and Matthew Kroenig, "A Strategic Approach to Nuclear Proliferation," Journal of Conflict Resolution 53, no. 2 (April 1, 2009): 151–60, https://doi.org/10.1177/0022002708330039
[3] "Putin Warns Nuclear Risk Is Increasing and War in Ukraine Is Going to 'take a While' | CNN," accessed January 14, 2023, https://edition.cnn.com/2022/12/07/europe/putin-ukraine-russia-nuclear-intl-hnk/index.html.

are other players that posed- and still pose- a threat to the stability of the international system. North Korea's provocative stance[4] concerning its nuclear weapon tests, as well as Iran's aspirations on acquiring nuclear weaponry weaponry[5] has widely concerned the international community.

Therefore, in spite of the fact that, as mentioned above, there are many barriers created towards non-proliferation of nuclear weapons and the denuclearization across the world, states that already possess nuclear weapons keep investing in maintaining and expanding their nuclear arsenals, while other states still try to acquire them, in order to advance their security or use their nuclear weaponry as a symbol of power in the international chessboard. Now, as the war in Ukraine progresses, nuclear security has once again surfaced as an issue. The Russian threats on using nuclear weapons in Ukraine and especially, the possible deployment of such weapons, would not only force other nuclear countries to be directly involved in the crisis but also, this behavior could stand as an excuse for other states to either seek or increase their nuclear weaponry or adopt a more autonomous and aggressive policy regarding the use of atomic weapons by disregarding their imperative responsibilities stated in the non- proliferation treaties.

Thus, as the maintenance of international peace and security[6] are the fundamental principle of the United Nations, the war in Ukraine proves the vulnerability of international stability once nuclear weapons come to the foreground. Therefore, it is crucial to promote solutions for the preservation of nuclear security as it is vital for our planet and human life itself.

[4] The Associated Press, "North Korea's Kim Orders 'exponential' Expansion of Nuclear Arsenal," NPR, January 1, 2023, sec. Asia, https://www.npr.org/2023/01/01/1146503945/north-korea-kim-nuclear-arsenal.
[5] intern, "Iran Building Nuclear Weapons | Institute for Science and International Security," Text, accessed January 14, 2023, https://isis-online.org/isis-reports/detail/iran-building-nuclear-weapons.
[6] San Francisco, "STATUTE OF THE INTERNATIONAL COURT OF JUSTICE," n.d.

4. Definitions

Before proceeding with the agenda analysis, it is critical to define all individual key terms related to the Topic Area under discussion. As a result, both the argumentation and the national policy research shall be conducted in a clear and clarified way.

a. **Nuclear Weapons**[7]: A bomb or other warhead delivered by an airplane, missile, or other system, that generates its power from nuclear fusion, nuclear fission, or both. Contrary to fission weapons, which release energy by fracturing the nuclei of uranium or plutonium atoms, fusion weapons, also known as hydrogen bombs or thermonuclear bombs, do so by fusing the nuclei of hydrogen isotopes like tritium and deuterium. Actually, most nuclear weapons utilize both techniques. The most lethal weapons ever developed are nuclear bombs. Along with a blast equivalent to thousands of tons of TNT(trinitrotoluol), their disastrous consequences also include blinding light, scorching heat, and fatal nuclear contamination. On July 16, 1945, **the United States** conducted the first nuclear bomb test under the code-name Trinity, in the Alamogordo Bombing Range in south-central New Mexico. Today, the world's combined inventory of nuclear warheads is roughly 12,700 warheads[8].

b. **Nuclear Security:** According to the International Atomic Energy Agency (IAEA) Nuclear Security Series No. 20[9] the Nuclear Security focuses on "the prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities. Other acts determined by the State to have an adverse impact on nuclear security should be dealt with

[7] Cochran, T. B. and Norris, . Robert S.. "nuclear weapon." Encyclopedia Britannica, November 15, 2022. https://www.britannica.com/technology/nuclear-weapon.

[8] "Status of World Nuclear Forces," Federation Of American Scientists (blog), accessed December 29, 2022, https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/.

[9] INTERNATIONAL ATOMIC ENERGY AGENCY, "IAEA Nuclear Security Series No. 20 Objective and Essential Elements of a State's Nuclear Security Regime" (VIENNA, 2013), https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1590_web.pdf.

appropriately.". Nuclear security is closely related with nuclear safety as both strive to protect human life, property, the environment and the society as a whole. Both security measures and safety measures have to work in an integrated manner by developing synergy between these two areas.

c. **Atomic Diplomacy:** The use of nuclear threats to wage war in order to achieve diplomatic goals[10]. After the first test of the nuclear bomb in 1945, the possibilities offered by the new superweapon as a means of pressure to arrange and manage diplomatic relations on an international scale were realized. The United States of America is the best-known example[11] of nuclear diplomacy, particularly after 1945, due to its monopoly on nuclear weapons at the time. Today, nuclear weapons are still used in the field of diplomacy, especially in times of crisis.

d. **Nuclear-weapon State[12]**: Five States are officially recognized as nuclear-weapon states (NWS) under the terms of the Treaty on the Non-Proliferation of nuclear weapons (NPT). The original nuclear-weapon states are the United States, Russia (the successor of the former Soviet Union), the United Kingdom, France, and China. In addition, the nuclear-weapon states that do not align themselves with the NPT are India, Pakistan, Israel and North Korea.

e. **Nuclear Deterrence[13]**: A political and psychological strategy that emerged during the Cold War. Mutually assured annihilation and the avoidance of the of nuclear weapons are its core elements. According to this theory, a party will be discouraged from using nuclear weapons first if they think the cost of an attacked nation using nuclear weapons in retaliation will be high.

[10] Office of the Historian, "Milestones: 1945–1952 - Office of the Historian," State.gov, 2019, https://history.state.gov/milestones/1945-1952/atomic.

[11] Longley Robert, "The Art of Atomic Diplomacy," ThoughtCo, 2019, https://www.thoughtco.com/atomic-diplomacy-4134609.

[12] Kelsey Davenport, "Nuclear Weapons: Who Has What at a Glance | Arms Control Association," Armscontrol.org, January 2022, https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat.

[13] Robert Powell, "The Theoretical Foundations of Strategic Nuclear Deterrence," Political Science Quarterly 100, no. 1 (1985): 75, https://doi.org/10.2307/2150861.

5. Historical Background

5.1. The historical approach of nuclear weapons

The first steps towards the production of nuclear energy were noticed since the Second World War. The Americans, the Germans as well as the Soviets were toying around with the idea of creating an atomic bomb. Nevertheless, the Soviet scientific community had discussed the possibility of an atomic bomb throughout the 1930s[14], even making a specific proposal to develop such a weapon in 1940. This program, however, was not implemented until World War II.

Specifically, the US led the Manhattan Project[15] with the support of the United Kingdom and Canada from 1942 to 1946 - a program with a prominent scientific figure the nuclear physicist Robert Oppenheimer- who produced the first nuclear bomb. Within this context, an important part of the Manhattan Project was the Trinity test[16], the first nuclear device ever detonated, as well as the Little Boy and Fatman bombs, which were used on Hiroshima and Nagasaki[17], which demonstrated the danger of the new super weapon as it was an act of mass destruction that killed thousands of people.

By 1942 the Soviet Union, although somewhat behind the US, had begun their first plans for the construction and production of a nuclear arsenal, called the Soviet Atomic Bomb Project[18], recognizing in this new super weapon a prominent strategic importance. In 1949, though, they managed to test their first nuclear device, called RDS-1 or "First Lightning" (codenamed "Joe-1" by the United States). Not long after the US started its own program to build a Hydrogen Bomb, the Soviets in turn started

[14] "Soviet Atomic Program - 1946 - Nuclear Museum," Https://Ahf.Nuclearmuseum.Org/ (blog), accessed January 13, 2023, https://ahf.nuclearmuseum.org/ahf/history/soviet-atomic-program-1946/.
[15] "Manhattan Project | Definition, Scientists, Timeline, Locations, Facts, & Significance | Britannica," accessed January 13, 2023, https://www.britannica.com/event/Manhattan-Project.
[16] "Remembering Trinity, the World's First Nuclear Test | CTBTO," accessed January 13, 2023, https://www.ctbto.org/news-and-events/news/remembering-trinity-worlds-first-nuclear-test.
[17] "The Atomic Bombing of Hiroshima and Nagasaki, August 1945," National Archives, August 4, 2020, https://www.archives.gov/news/topics/hiroshima-nagasaki-75.
[18] "The Soviet Atomic Bomb," accessed January 13, 2023, https://www.atomicarchive.com/history/cold-war/page-3.html.

theirs. For the next two years, however, the USSR paused its atomic bomb tests. But a series of tests followed, culminating in 1961.

After 1946 and while the wounds of the war were still evident, the Atomic Energy Commission[19] was established by the first General Assembly of the United Nations. One of the central aims of this commission was the elimination of weapons of mass destruction including the nuclear bomb. At that time, the Baruch Plan[20] was proposed by the US and submitted to the UN. Its inspiration was the American representative to the UN International Commission on Atomic Energy. Under this, nuclear research would come under the auspices of the UN, which would promote, and control research aimed at the civilian use of energy. The USSR, however, rejected this program as it would allow the United States to gain military superiority and stop the Soviet nuclear program. The USSR, thus, proposed the total destruction and prohibition of nuclear weapons. The UN ultimately did not adopt any of the proposals.

During the Cold War era, nuclear weapons were a field of constant development and intense competition between the two blocs that dominated at the time - the USA and the USSR. By the 1960s both had developed intercontinental ballistic missiles which could be launched far away from their target, and submarine-launched missiles, which could sneak up without any radar warning. This concept was addressed as Mutually Assured Destruction (MAD)[21] or 'deterrence'. According to this theory, if a conflict erupted, both nations would be damaged to the point of collapse. The result of this theory was that both sides recognized that a war would be suicidal to humanity thus no one would risk it. However, instead of keeping the arms race under control, MAD provoked the production of thousands of nuclear weapons by both superpowers.

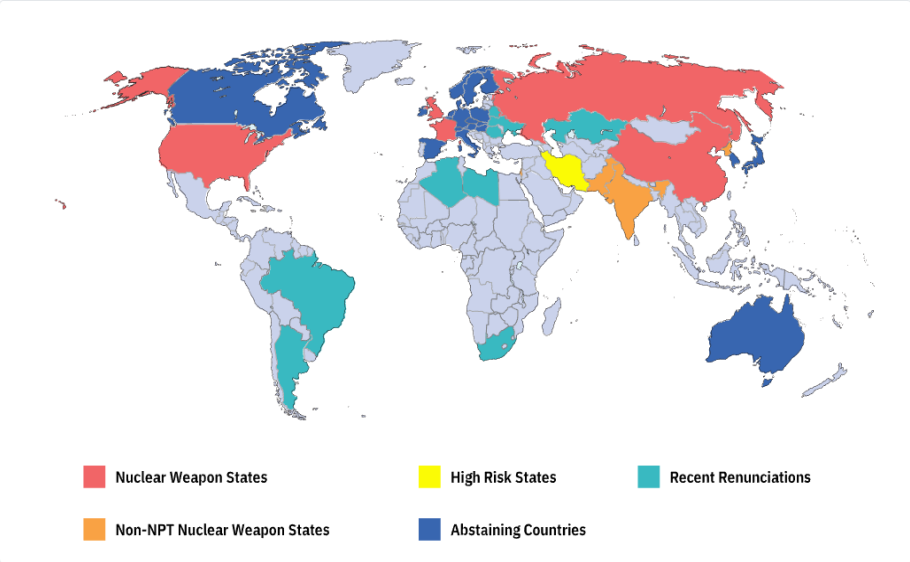
[19] A.L. Buck, "A History of the Atomic Energy Commission," July 1, 1983, https://doi.org/10.2172/5977409.
[20] "The Baruch Plan," accessed January 13, 2023, https://www.atomicarchive.com/history/manhattan-project/p6s5.html.
[21] "Mutual Assured Destruction | Definition, History, & Facts | Britannica," accessed January 13, 2023, https://www.britannica.com/topic/mutual-assured-destruction.

At the same time, however, some powers already existed while others appeared on the international chessboard, which either possessed or sought and succeeded in possessing nuclear weapons. The United Kingdom detonated its first atomic device named 'Hurricane' in 1952[22]. In 1954, Churchill announced that Britain was about to enter the age of the Hydrogen Bomb. In 1957, the first British Hydrogen Bomb was successfully detonated in the Atlantic. After WWII, France[23] also launched its nuclear test which was carried out in Algeria under the name "Gerboise Bleue". Testing then moved to the South Pacific, where in 1968 their first thermonuclear device was used. France continued atmospheric testing until 1974. As for China[24], with the support of the Soviets, the country entered the nuclear era in 1950. Notably in the 1960s, despite the withdrawal of the Soviet aid, the Chinese conducted their first test in 1964 and only in 1967 did it detonate its own Hydrogen Bomb.

As the research and the heated competition in the field of nuclear arsenal continued, great turmoil and concern flourished in public opinion about the effects of radioactive fallout on the environment and on human life itself. In 1962, the Cuban Missile Crisis[25] acted as a beneficial factor for future negotiations between the US and the Soviet Union in the area of control of the weapons systems of the two superpowers. Shortly after the end of the crisis, the Limited Test Ban Treaty was signed, followed by the Treaty on the Non-Proliferation of nuclear weapons in 1968[26].

[22] "Britain Goes Nuclear," accessed January 13, 2023, https://www.atomicarchive.com/history/cold-war/page-10.html.
[23] "France Joins the Club," accessed January 13, 2023, https://www.atomicarchive.com/history/cold-war/page-11.html.
[24] "Chinese Becomes A Nuclear Nation," accessed January 13, 2023, https://www.atomicarchive.com/history/cold-war/page-12.html.
[25] "Nuclear Close Calls: The Cuban Missile Crisis - Nuclear Museum," Https://Ahf.Nuclearmuseum.Org/ (blog), accessed January 13, 2023, https://ahf.nuclearmuseum.org/ahf/history/nuclear-close-calls-cuban-missile-crisis/
[26] "Nuclear Arms Control Treaties," www.atomicarchive.com, n.d., https://www.atomicarchive.com/resources/treaties/index.html.

By the end of the 20th century, the original five nuclear states had lost their monopoly as other countries had emerged that possessed nuclear weapons as well. India[27] conducted its first nuclear explosive test in 1974 and possesses nuclear weapons. This came out in, Pakistan[28]- India's regional rival- to test its first nuclear test in 1998. On the other hand, Israel[29] developed its own nuclear program - the most powerful in the Middle East - for the protection of the country towards the end of the 1950s. With the support of France, it started its missile program in the 1960s. Until today, Israel never declared openly that it possesses nuclear weapons. Lastly, North Korea announced it had successfully conducted its first nuclear test in 2006 and only one year later, the North Korean[30] government further confirmed that it had nuclear weapons.



World's Nuclear States (2020)

[27] "The Peaceful Explosion," accessed January 13, 2023, https://www.atomicarchive.com/history/cold-war/page-17.html.

[28] Marvin Kalb, "The Agonizing Problem of Pakistan's Nukes," Brookings (blog), September 28, 2021, https://www.brookings.edu/blog/order-from-chaos/2021/09/28/the-agonizing-problem-of-pakistans-nukes/.

[29] "Nations on the Threshold," accessed January 13, 2023, https://www.atomicarchive.com/history/cold-war/page-24.html.

[30] Jonathan D. Pollack, No Exit: North Korea, Nuclear Weapons, and International Security, Google Books (Routledge, 2017), https://books.google.gr/books?hl=el&lr=&id=o0g4DwAAQBAJ&oi=fnd&pg=PT8&dq=north+korea+and+nuclear+weapons&ots=oye8pJrfHB&sig=UReOVt-6SqzZ6PgiWf6AxsBtThc&redir_esc=y#v=onepage&q=north%20korea%20and%20nuclear%20weapons&f=false

5.2. The Russo-Ukrainian Situation

In the 1970s, there were talks between the USA and the Soviet Union aimed at both countries limiting their nuclear arsenals. The negotiations became formal in 1982 with the creation of the Strategic Arms Limitation Talks I (START I) program. In July 1991 the negotiations concluded with a significant nuclear arsenal reduction agreement between US President George W. Bush and USSR Leader Mikhail Gorbachev[31]. However, after the division of the Soviet Union in December 1991, there were thousands of soviet nuclear warheads left in four new independent states of the former Union, Belarus, Kazakhstan, the Russian Federation and, of course, Ukraine.[32]

After Ukraine gained its independence, it became the world's third biggest nuclear state, possessing about 1/3 of the former Soviet Union's nuclear arsenal and delivery system. However, Ukraine did not have control over those nuclear warheads, which led to, the signature of the Lisbon Protocol on May 23rd, 1992, alongside Belarus and Kazakhstan. According to the Protocol, so as to have only one nuclear successor state (the Russian Federation) instead of four, the three countries would have to destroy or return the nuclear warheads to Russia by the end of 1996. Under the Protocol, all the aforementioned states became parties to the START I Program, while also Ukraine, Belarus and Kazakhstan promised to sign and ratify the NPT as 'non-nuclear states in the shortest time possible'[33]. On January 14th, 1993, a Trilateral Statement was signed by U.S. President Bill Clinton, Russian President Boris Yeltsin, and Ukrainian President Leonid Kravchuk, which 'allowed Ukraine to observe the transfer of weapons from its territory to Russia', a transfer that would be complete in the span on 7 years. Russia also committed to return the uranium from the dismembered missiles back to Ukraine to be used as fuel. The Statement also included economic aid and security

[31] 'Strategic Arms Reduction Talks | International Arms Control Negotiations | Britannica'. Accessed 13 January 2023. https://www.britannica.com/event/Strategic-Arms-Reduction-Talks.

[32] 'Did Ukraine Give up Nuclear Weapons?', ICAN, accessed 13 January 2023, https://www.icanw.org/did_ukraine_give_up_nuclear_weapons.

[33] 'The Lisbon Protocol At a Glance | Arms Control Association', accessed 13 January 2023, https://www.armscontrol.org/node/3289.

insurance from Russia towards Ukraine[34]. On February 3rd, 1993, Ukraine officially ratified START I and in December of the same year submitted its candidacy as a non-nuclear weapon state to the NPT. By November 1996, all strategic weapons were returned to Russia.

To further ensure that Ukraine's security would be protected, the USA, the UK, the Russian Federation and Ukraine signed the Budapest Memorandum on Security Assurances on December 5, 1994. According to the Memorandum, which includes 'security assurances against the threat or use of force against Ukraine's territory or political independence', the signing parties would have to respect Ukraine's territory and sovereignty[35]. Similar memoranda were signed for Belarus and Kazakhstan as well. In 2009, after the expiration of the START I program, the USA and the Russian Federation released a 'joint statement', declaring that the security assurances from the 1994 Budapest Memorandum would still be valid. Despite all previous security assurances, in March 2014 Russian troops invaded the Ukrainian peninsula of Crimea. The signing parties of the 1994 Budapest Memorandum (UK, USA, and Ukraine) called upon the Memorandum and the assurances made by Russia to protect Ukraine.

On February 24, 2022, the Russian Federation proceeded to invade Ukraine again, on a much bigger scale this time, with air and land strikes, and mistle attacks against large Ukrainian cities.

[34] 'Trilateral Statement by the Presidents of the United States, Russia, Ukraine', Harvard Ukrainian Studies 20 (1996): 313–16.
[35] 'Ukraine, Nuclear Weapons, and Security Assurances at a Glance | Arms Control Association', accessed 13 January 2023, https://www.armscontrol.org/factsheets/Ukraine-Nuclear-Weapons.

6. Legal Framework

6.1. Treaty on the Prohibition of Nuclear Weapons

The Treaty on the Prohibition of Nuclear Weapons includes a thorough set of restrictions on engaging in any nuclear weapon-related activity. These commitments include a promise not to create, test, manufacture, obtain, possess, stockpile, use, or threaten to use nuclear weapons. The Treaty forbids the placement of nuclear weapons on national soil, as well as aiding another State in involving in forbidden acts. Any conduct that is forbidden by the TPNW and carried out by individuals or on land under their control or jurisdiction must be prevented and suppressed by the state parties. The Treaty also binds States parties to take necessary and appropriate steps for environmental remediation in areas under their jurisdiction or control that have been contaminated as a result of activities related to the testing or use of nuclear weapons. States parties are also required to provide adequate assistance to people affected by the use or testing of nuclear weapons.

The Treaty was adopted by the Conference (by a vote of 122 States in favor, with one vote against and one abstention) at the United Nations on 7 July 2017 and opened for signature by the Secretary-General of the United Nations on 20 September 2017. Following the deposit with the Secretary-General of the 50th instrument of ratification or accession of the Treaty on 24 October 2020, it entered into force on 22 January 2021 in accordance with its article 15.[36]

6.2. Limited Test Ban Treaty

On August 5, 1963, the United States, the Soviet Union, and the United Kingdom signed the Nuclear Test-Ban Treaty in Moscow, officially known as the Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space, and Under Water. This treaty prohibited all nuclear weapon tests, with the exception of those carried out

[36] "Treaty on the Prohibition of Nuclear Weapons – UNODA," accessed January 7, 2023, https://www.un.org/disarmament/wmd/nuclear/tpnw/.

underground. The risk presented by atmospheric radioactive fallout caused by nuclear weapons testing above ground was the primary impetus for the creation of the pact.[37]

To construct a system of controls and inspection that might prevent testing in secret, particularly with regard to subterranean explosions, was the main and most persistent obstacle to a Treaty on the suspension of tests. The Western nations were committed to making sure that no agreement was open to covert infringement. They believed that accepting straightforward promises without a way to be certain that they would be followed would be hazardous to their security during discussions for a test moratorium as well as other weapons control initiatives.

Furthermore, it was thought that such commitments would deceive a worried global public by creating the appearance of assured disarmament progress.[38]

6.3. Non-Proliferation Treaty

The Non-Proliferation Treaty (NPT) is a remarkable international agreement which aims at preventing the proliferation of nuclear weapons and nuclear weapons technology, promoting cooperation in the peaceful uses of nuclear energy, and furthering the goals of nuclear disarmament and general and complete disarmament. The multilateral treaty is the only legally binding to achieve the goal of disarming nuclear-weapon states. Opened for signature in 1968, the treaty entered into force in 1970. On May 11, 1995, the treaty was extended indefinitely. The treaty has 191 parties, including five nuclear-weapon states. More countries have ratified the NPT than any other arms restriction and disarmament treaty, proving its importance.

This treaty is the cornerstone of the world's nuclear non-proliferation regime and is considered an essential foundation for the pursuit of nuclear disarmament. It was designed to prevent the proliferation of nuclear weapons, advance the goals of nuclear

[37] "Nuclear Test-Ban Treaty | Definition, History, Significance, & Facts | Britannica," accessed January 7, 2023, https://www.britannica.com/event/Nuclear-Test-Ban-Treaty.

[38] "Limited Test Ban Treaty (LTBT)," U.S. Department of State, accessed January 7, 2023, //2009-2017.state.gov/t/avc/trty/199116.htm.

disarmament and general and complete disarmament, and promote cooperation in the peaceful uses of nuclear energy.

In furtherance of non-proliferation goals and as a confidence-building measure between Parties, the Convention provides for a safeguards system under the responsibility of the International Atomic Energy Agency (IAEA). Safeguards are used to verify compliance with treaties through inspections conducted by the IAEA. The treaty promotes cooperation in the field of peaceful nuclear technology and equal access for all parties to this technology, while providing safeguards to prevent the diversion of fissile material for weapons purposes.[39]

Although the IAEA is not a party to the NPT, it has important oversight responsibilities under the NPT. Each non-nuclear-weapon state, under Article 3 of the Non-Proliferation Treaty, will enter into a Comprehensive Safeguards Agreement (CSA) with the IAEA to enable the IAEA to verify compliance with its obligations under the Treaty on the Prevention of Diversion need to do it. From peaceful uses of nuclear energy to uses in nuclear weapons or other nuclear explosive devices.

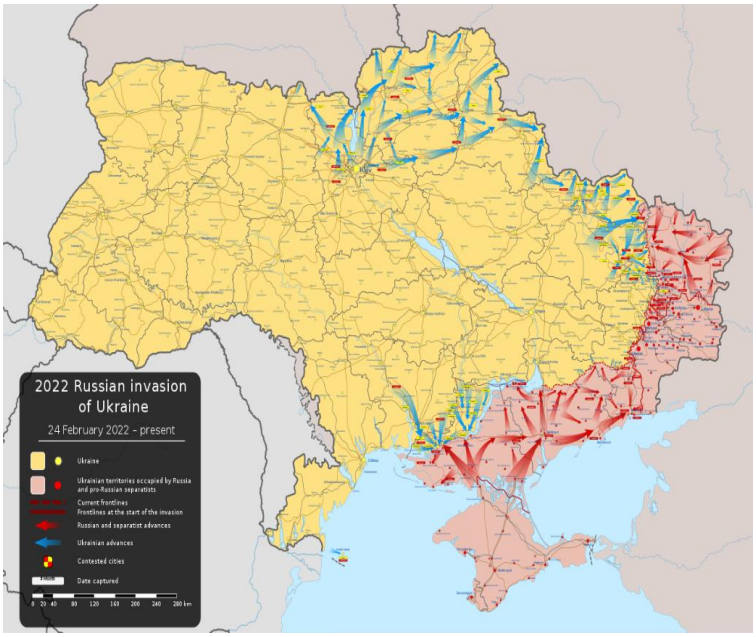
As an international surveillance and inspection body, the IAEA has is a special verification function, namely verification of the non-nuclear-weapon states' compliance with their obligations under the Nuclear Non-Proliferation Treaty. As of September 2021, 178 non-nuclear-weapon states parties to the treaty have implemented CSA as required by the treaty, eight of which have not yet done so.[40]

[39] "Treaty on the Non-Proliferation of Nuclear Weapons (NPT) – UNODA," accessed January 7, 2023, https://www.un.org/disarmament/wmd/nuclear/npt/.
[40] "The IAEA and the Non-Proliferation Treaty," Text (IAEA, June 8, 2016), https://www.iaea.org/topics/non-proliferation-treaty.

7. Nuclear Security Today in the Russo-Ukrainian Territory

7.1. Case studies of the Ukrainian situation

Between October and November 2021, Russia started to develop armed forces and military equipment in its border with Ukraine. Over the following months, additional forces were dispatched to Belarus (ostensibly for joint exercises with Belarusian personnel), the Russian-backed separatist enclave of Transdniestria in Moldova, and Russian-occupied Crimea. In February 2022, western defense analysts mentioned that no less than 190,000 Russian troops surrounded and warned that a Russian incursion was imminent. Putin denied these accusations and claimed that a Russian naval in the Black Sea was an exercise previously. As Western leaders consulted with both and Putin in an effort to avoid a Russian invasion seemed inevitable, Putin issued demands that included a de facto veto over expansion of NATO the confinement of NATO forces in countries that were members of it before 1997. This would have the effect of removing the umbrella of NATO from Eastern Europe and from the South only from the Baltic States. These proposals were categorically rejected. On February 21, 2022, Putin responded by recognizing self-proclaimed people's republics of Donetsk and Luhansk.



Putin ordered Russian troops to enter the Ukrainian as "peacekeepers"[41], and Russian military in the Donbass - ongoing since but constantly repudiated by the Kremlin - is finally manifest.[42]

This situation does not only cause the loss of many people and creates instability in the state of Ukraine but also develops nuclear insecurity since Ukraine is a key-role "player" in the global nuclear market.

This was exemplified in the attack by Russian forces on the city of Zaporizhzhya where a series of airstrikes by Russian forces occurred which resulted in the Russians taking control of the city's nearby nuclear power plant.

"Russia carried out a deadly salvo of missile attacks on the southern Ukrainian city of Zaporizhzhia early Thursday, just hours after the Kremlin said it was formally seizing a massive nuclear power plant nearby… More missile strikes were reported after sunrise, prompting local officials to urge residents of the city along the Dnipro River to take shelter. The city of Zaporizhzhia is not far from the front lines of the conflict. Though the city is under Ukrainian control, about 75% of the greater Zaporizhzhia region is occupied by Russian forces. That region is one of four Ukrainian territories Russia is annexing in violation of international law. The other three are Donetsk and Luhansk in the east and Kherson in the south[43]. ", as journalists comment on the attack.

[41] "February 23, 2022 Ukraine-Russia News," accessed January 7, 2023, https://edition.cnn.com/europe/live-news/ukraine-russia-news-02-23-22/h_82bf44af2f01ad57f81c0760c6cb697c.

[42] "Ukraine - The Russian Invasion of Ukraine | Britannica," accessed January 7, 2023, https://www.britannica.com/place/Ukraine/The-Russian-invasion-of-Ukraine.

[43] Olga Voitovych Berlinger Joshua, "Deadly Russian Strikes in Zaporizhzhia as Putin Moves to Take Full Control of Nearby Nuclear Plant," CNN, October 6, 2022, https://www.cnn.com/2022/10/06/europe/russia-ukraine-zaporizhzhia-city-plant-intl/index.html.

The effects of such an attack are of utmost importance as the presence of Russian military forces at the Zaporizhzhia Nuclear Power Plant prevents the operator and the Ukrainian authorities from fulfilling their nuclear and radiation safety obligations in accordance with international conventions and IAEA safety standards, and prevents the IAEA from fulfilling its safeguards mandate, as IAEA is mentioning along with the United Nations Security Council.[44]

The International Atomic Energy Agency along with several other countries issued a Joint Statement dated on 12 August 2022 on the situation at Zaporizhzia Nuclear Power Plant that clearly states that: *" We urge the Russian Federation to immediately withdraw its military forces and all other unauthorized personnel from the Zaporizhzhia Nuclear Power Plant, its immediate surroundings, and all of Ukraine so that the operator and the Ukrainian authorities can resume their sovereign responsibilities within Ukraine's internationally recognized borders and the legitimate operating staff can conduct their duties without outside interference, threat, or unacceptably harsh working conditions. This will also enable the IAEA to carry out its verification pursuant to Ukraine's safeguards obligations under safe and secure conditions and in a timely manner."*[45]

[44] "Zaporizhzhia Plant Must Have Security Protection Zone Around It to Avoid Nuclear Catastrophe, International Atomic Energy Agency Director Warns Security Council | UN Press," accessed January 7, 2023, https://press.un.org/en/2022/sc15020.doc.htm.

[45] "Ukraine-Joint Statement on the Situation at the Zaporizhzhia Nuclear Power Plant | EEAS Website," accessed January 7, 2023, https://www.eeas.europa.eu/delegations/vienna-international-organisations/ukraine-joint-statement-situation-zaporizhzhia_en.

As can be clearly seen from the above, the situation after the Russian attack and eventual conquest of the Ukrainian city of Zaporizhzhya and its nuclear power plant, results not only in insecurity and instability of the region but also in jeopardizing global nuclear security, which has been protected for decades by a series of international conventions.

7.2. Threats of a nuclear crisis

Nuclear weapons are the most dangerous and fatal weapons ever produced by humanity. The case of Hiroshima and Nagasaki in 1945[46] has been the only time so far that nuclear weapons have been used. Their consequences were disastrous. These occasions along with the atmospheric nuclear testing and nuclear power accidents stood as the basis of our knowledge regarding the catastrophic repercussions [47] of their application. Unfortunately, one tactical nuclear strike or a retribution nuclear exchange between two countries could escalate to an all-out nuclear war ending with the immediate and utter destruction of both countries. This catastrophe would not be limited to those two belligerents and their allies, but it would be developed on a worldwide scale including more players in the crisis.

Unmistakably, modern nuclear weapons possess greater explosive power than they used to, with more dreadful effects towards human life and the environment. The most direct effects[48] of a nuclear explosion are known to be radiation, extreme heat, and blast effects that will result in many quick fatalities. The blast damage[49], caused by the shock wave of the nuclear explosion, can lead to many objects becoming airborne, and produce further destruction of buildings. Under these circumstances, serious injury or even death can occur from both the collapsed structures above, which can crush or

[46] "Humanitarian Impacts and Risks of Use of Nuclear Weapons," Report, August 28, 2020, https://www.icrc.org/en/document/humanitarian-impacts-and-risks-use-nuclear-weapons.
[47] cnd_volunteer, "The Effects of Nuclear Weapons -," April 3, 2018, https://cnduk.org/the-effects-of-nuclear-weapons/.
[48] The MIT Press Reader, "The Devastating Effects of Nuclear Weapons," The MIT Press Reader (blog), March 2, 2022, https://thereader.mitpress.mit.edu/devastating-effects-of-nuclear-weapons-war/.
[49] "Blast Effects on Humans," accessed January 14, 2023, https://www.atomicarchive.com/science/effects/blast-effects-humans.html.

suffocate those caught inside, and the impact inflicted on the body by being thrown in the air.

A detonation of a nuclear weapon in or near a populated area would not only produce an overwhelming number of people in need of treatment, but it would also destroy the majority of the local medical infrastructure and services[50]. This situation would result in limited medical assistance, which would have to be exposed to ionizing radiation as well while struggling to provide help to the victims. Alas, according to the International Committee of the Red Cross (ICRC)[51], an international and national response is still quite unprepared as most countries possess little capacity and no realistic or coordinated plan to deal with these tremendous challenges.

In addition to these immense short-term effects, a nuclear war could cause long-term damage[52] to our planet and to human life. Those individuals who survived the explosion may suffer from radiation illness throughout the following days, weeks, and months, whereas others might have a greater likelihood of developing specific cancers in their later years. Lastly, such a lethal weapon's detonation may radically alter the earth's natural biosphere and lower global temperatures, which then would result in severe food scarcity all across the planet with devastating repercussions on every living being.

[50] "Nuclear Weapons - an Intolerable Threat to Humanity," August 7, 2018, https://www.icrc.org/en/nuclear-weapons-a-threat-to-humanity.
[51] Ibid 5
[52] "Long Term Impact," ICAN, accessed January 14, 2023, https://www.icanw.org/catastrophic_harm_long_term_impact.

8. The Nuclear Security from a Worldwide Approach

8.1.Iran

International diplomacy has long focused on Iran's nuclear aspirations. Faced with allegations that it was pursuing nuclear weapons in violation of its NPT (Non-Proliferation Treaty) commitments; Iran came to a deal in 2015 known as the JCPOA (Joint Comprehensive Plan of Action) to curtail its nuclear program. The deal's survival, however, is in doubt in light of the U.S. exit from it in 2018 and Iranian breaches that followed.[53]

Since 2011, Iran's Bushehr nuclear power plant (NPP), which was constructed using Russian technology, has been in operation. It is the region's first nuclear energy production facility used for civilian purposes. The Bushehr NPP is now run by a single 915MW reactor unit and is controlled by the Islamist Republic of Iran through its nuclear branch, Atomic Energy Organization of Iran (AEOI). In April 2020, the unit was briefly taken offline for maintenance and a fuel change. In June 2020, the unit was refueled and linked to the grid for the first time by Iranian specialists working without assistance from the Russians. Compared to 2018, Busher-1 produced 5,865 GWh less power in 2019. Two more Russian reactors, each with a 1,057MW capacity, are being added to the Bushehr nuclear power plant. The construction works for the Bushehr NPP expansion were started in October 2017, while the main construction of the Bushehr-2 reactor unit was started in September 2019.[54]

The recent situation in Iran can be captured in the following events, as they are presented by the World Nuclear Association:

- *One nuclear power reactor is operating in Iran, after many years' construction.*
- *Construction commenced on a second large Russian-designed unit at the Bushehr site in November 2019, and a third unit is planned.*

[53] "Iran," The Nuclear Threat Initiative (blog), accessed January 9, 2023, https://www.nti.org/countries/iran/.

[54] "Bushehr Nuclear Power Plant, Halileh, Bushehr, Iran," accessed January 9, 2023, https://www.nsenergybusiness.com/projects/bushehr-nuclear-power-plant/.

- *The country also has a major programme developing uranium enrichment, which was concealed for many years.*
- *Iran began limiting its enrichment-related activities and ceasing its work on heavy water-related projects under the internationally agreed Joint Comprehensive Plan of Action. However, following the USA's withdrawal from the agreement in 2018, the country began enriching uranium again.*[55]

Iran's nuclear program could be in many ways, a global threat causing, not only instability in the international community but also nuclear insecurity along with a possible rise of international terrorism and organized crime. The Bushehr facility in Iran is a hybrid German-Russian reactor that looks almost like a petri dish of jumbled machinery and outdated technology. Iran cannot learn from other nations' safety experiences due to the reactor's unique characteristics. Even before the reactor was put into action, issues originating from this condition began to surface. All four of the reactor's emergency cooling pumps were harmed during tests in February 2011, which caused small metal shavings to enter the cooling water. A nuclear accident at Bushehr would have an impact on the surrounding area. The emission of radioactive material might pose a serious hazard to neighboring Persian Gulf nations given that the predominant wind in Bushehr is from the south or southwest. Tehran is farther away from Bushehr than it is from the capitals of Kuwait, the United Arab Emirates, Qatar, Oman, Bahrain, and Saudi Arabia's oil-rich eastern region. The emission of highly radioactive fission products would be very harmful to human health and the environment, and the cost of cleaning, medical treatment, energy loss, and population relocation might exceed hundreds of billions of dollars over decades.[56]

[55] "Nuclear Power in Iran - World Nuclear Association," accessed January 9, 2023, https://world-nuclear.org/information-library/country-profiles/countries-g-n/iran.aspx.

[56] Ali Vaez Sadjadpour Karim, "Iran's Nuclear Odyssey: Costs and Risks," Carnegie Endowment for International Peace, accessed January 9, 2023, https://carnegieendowment.org/2013/04/02/iran-s-nuclear-odyssey-costs-and-risks-pub-51346.

With its nuclear program and power plant, Iran has for sure a strong "card" in the game of international diplomacy, but it seems that it lacks the experience and the professionalism it needs to use it. The situation has definitely an international footprint and it can cause many devastating results.

8.2 India – Pakistan

The tension between India and Pakistan dates back to 1930 when a call for establishing an independent Islamic state on the Indian subcontinent is traced to a 1930 speech by Sir Muhammad Iqbal, a poet-philosopher. Pakistan achieved independence within the English commonwealth in 1943. Besides the problems with organizing the new state, Pakistan's government had to face the crisis in Jammu and Kashmir, which led to war almost immediately after Pakistan and India achieved their independence. India cut flows of industrial materials towards Pakistan, creating a financial and humanitarian crisis in the latter.

A ceasefire was arranged by the UN in January 1949, with the agreement of Pakistan controlling 1/3 of the state of Jammu and Kashmir, with Pakistani officials claiming that the area was semi-autonomous. The rest of the area was under the direct control of the Pakistani Government. In 1956 the Pakistani government launched the country's nuclear energy program, with intentions to boost the country's security and to be ready for any attacks, which could be explained, since the program started its operation in the heart of the Cold War era.

On September 17, 1971, the Simla Agreement was signed, which designated the new ceasefire line between the countries or, as it was called, the 'Line of Control' (LoC). Neither side was supposed to alter or disrespect the line, nor both parliaments ratified the Agreement in 1972. After almost 20 years of peace in the Jammu & Kashmir region, in 1989 an armed insurgency began, with Pakistan 'morally supporting the Muslim militants', even though it is believed that the Pakistani side provided them with military

aid, food and shelter. The armed conflict continued throughout the 1990s, with the ever-growing tension between India and Pakistan leading to the nuclear events of 1998.[57]

In 1998 India detonated 5 nuclear devices at Pokhran, about 110 kilometers away from the Indo-Pakistani border. Pakistan responded with the detonation of 6 nuclear devices in the area of the Changhai Hills. Both nations got under severe scrutiny and were faced with international sanctions, while also becoming the newest Nuclear-Armed nation.[58]

In the decade that followed, the two sides often tried to de-escalate the situation, with often formal meetings and agreements, and with both sides mutually agreeing to reduce their military presence in Jammu & Kashmir. However, all efforts were put to a halt, when on November 26, 2008, armed gunmen opened fire on civilians at several places in Mumbai, India. The attack led to more than 160 people losing their lives. The only attacker captured alive, confessed that the attack was planned and executed by the Pakistani Terrorist organization LeT, with calls and directions leading back directly to Islamabad. India officially cut off all communications with Pakistan.

In the years that followed, both countries launched multiple attacks against each other, with the Pakistani-based terrorist organizations JeT and JeM also being responsible for several lethal attacks in India. The conflict is centered on the State of Jammu & Kashmir but also the LoC. Despite efforts made by the UN, both sides continue to carry out military-grade attacks against each other, even involving F-16 fighter jets, capturing soldiers, and unleashing nuclear threats.[59]

It is important to highlight that neither India nor Pakistan have signed or ratified the TPNW, nor did they participate in the negotiations for the same Treaty in New York in 2017. Both countries abstained from the voting procedure. According to the

[57] 'Pakistan - History | Britannica'. Accessed 13 January 2023. https://www.britannica.com/place/Pakistan/History.

[58] 'Indo-Pak Relations'. Accessed 12 January 2023. https://www.efsas.org/topics/indo-pak-relations.html.

[59] ANI News. 'Pak Minister Shazia Marri Threatens India with "Nuclear War"'. Accessed 13 January 2023. https://www.aninews.in/news/world/asia/pak-minister-shazia-marri-threatens-india-with-nuclear-war20221217215731/.

International Campaign to Abolish Nuclear Weapons (ICAN), '*India possesses approximately 160 nuclear weapons, which it can launch from missiles and, most likely, aircraft. It may also be able to launch them from submarines. India conducted a total of three nuclear tests in 1974 and 1998. In 2021, India spent an estimated US$2.3 billion to build and maintain its nuclear forces.*[60] *' Pakistan, on the other hand ', possesses approximately 165 nuclear weapons, which it can launch from missiles and aircraft. It is also developing its capability to launch them from submarines. Pakistan conducted two nuclear tests in 1998. In 2021, Pakistan spent an estimated US$1.1 billion to build and maintain its nuclear weapons.*[61]'

Both nations have a high nuclear capacity, with no intention of limiting or stopping their nuclear activities, despite international discontent. Their denial to ratify the TPNW and the tension between them puts the whole of humanity at risk for a new nuclear war, with the consequences being more devastating than anyone has imagined.

8.3. Democratic People's Republic of Korea (DPRK)

The nuclear program of DPRK or as it is more widely known, North Korea, began in 1956, with Soviet scientists tutoring their North Korean counterparts and providing them with the ground knowledge to create a nuclear arsenal. In 1959 North Korea and the USSR signed a Nuclear Cooperation Agreement, with North Korea officially operating their first Nuclear Scientific Research Centre, 3 years later (The Yongbyon Nuclear Scientific Research Center). In the following years, the research reactor evolved significantly, reaching several power rating milestones, while in the mid-1970s the country started its first uranium mining operations.

The decade of 1980 found DPRK's nuclear program blossoming, with the country creating new plutonium and chemical labs and constructing new reactors. However, the fall of the Soviet Union in 1989, also meant that soviet financial and technical aid would

[60] 'India', ICAN, accessed 13 January 2023, https://www.icanw.org/india.
[61] 'Pakistan', ICAN, accessed 13 January 2023, https://www.icanw.org/pakistan.

come to a halt. In 1985 North Korea signed the Nuclear Non-Proliferation Treaty (NPT), yet they declined any further inspections on their ground.

In May of 1992, North Korea allowed a team of investigators from the International Atomic Energy Agency (IAEA) to investigate in order to ensure that North Korea's nuclear declarations are valid. However, the IAEA team found significant differences between DPRK's declarations and the nation's true nuclear capacity. It was also suspected that North Korea was using their reactor to construct plutonium-based weapons. The next investigation teams were denied entry to Korea, which further raised suspicions about North Korea's true nuclear capacity. This led to North Korea threatening to leave the NPT in 1993, a threat that was withdrawn after negotiations with the US. The IAEA continued to suspect that North Korea had a full-on plutonium arsenal under construction.

In the early 2000s, it was highly suspected that DPRK was working on uranium reactors, while also developing a missile program. After many meetings, US officials continue to accuse the North of acquiring a nuclear arsenal, with President George W. Bush, on November 14, 2002, threatening to stop oil trade with North Korea, unless the country's nuclear programme ceases to exist. The situation escalated further when, on December 11, North Korean missiles are found on a ship sailing towards Yemen. The last drop was North Korea's withdrawal from the NPT on January 10, 2003, a decision that provoked global fear for the Regime's future nuclear plans. During the rest of the decade, North Korea continued to construct more complex uranium and plutonium reactors, while also testing missiles in the Sea of Japan and the South China Sea.

After many unsuccessful attempts of communication between the US and DPRK, North Korean and U.S. officials met in Beijing in late February 2012, with the negotiations ending with a pledge from the North to 'cease uranium enrichments of its reactors and stop missile testing' in exchange for food aid from the US. However, in April 2012 North Korea tested a rocket once again and in December of the same year, they

launched a satellite successfully into Earth's orbit; debris from the rocket fell into the Sea of the Philippines, with the UN Security Council condemning the launch[62]. In November of 2013, North Korea conducted its 'third successful underground nuclear test', while in 2016 the country conducted a hydrogen bomb test, test-fired hundreds of ballistic missiles and detonated a very powerful nuclear weapon. Despite UN sanctions and restrictions on the trade of coil, in July 2017 Pyongyang proceeded to successfully test 'two intercontinental ballistic missiles[63], with a range of over 5,000 miles.

Since then, North Korea has continued to develop its nuclear program, by announcing 'very important tests' and conducting more intercontinental ballistic missile tests, missiles that were also showcased in the country's notorious military parade on October 10th, 2020, with CNN reporting that it is one of 'the world's biggest road-mobile ballistic missiles'. According to ICAN,' *North Korea possesses approximately 20 nuclear weapons, which it may be able to launch from missiles. It conducted six nuclear tests between 2006 and 2017 and is the only state to have conducted such tests in the 21st century. In 2021, North Korea spent an estimated US$642 million to build and maintain its nuclear forces[64]*.' North Korea did not participate in the 2017 negotiations of the TPNW.

It is evident that DPRK's nuclear capacity is much bigger than expected, but what is more unsettling is the country's denial to negotiate or understand that those tests not only pose a threat to international security but could also lead to a profound disaster.

[62] 'North Korea - Acceleration of North Korea's Nuclear Program | Britannica', accessed 13 January 2023, https://www.britannica.com/place/North-Korea/Acceleration-of-North-Koreas-nuclear-program.
[63] 'North Korea Unveils Massive New Ballistic Missile in Military Parade | CNN', accessed 13 January 2023, https://edition.cnn.com/2020/10/10/asia/north-korea-military-parade-new-missiles-intl-hnk/index.html.
[64] 'North Korea and the Treaty on the Prohibition of Nuclear Weapons', accessed 13 January 2023, https://www.icanw.org/north_korea.

9. Closing Remarks

On the night of February 23, 2022[65], Russian forces infiltrated Ukraine with the intention of seizing Kyiv in a matter of days. Vladimir Putin, the President of Russia, declared the start of a "special military operation" a few hours later. In his speech, the Kremlin leader threatened those who tried to hinder Russia with "never seen" repercussions; many perceived this as a thinly concealed threat to use nuclear weapons. In the following weeks, references to nuclear power intensified. Western remarks, criticisms, and counter-threats were issued in response to Moscow's nuclear warnings. The Russian allusions most importantly provoked an open dialogue about how such narratives should be perceived and what responses they demanded in numerous Western countries.

The Russian nuclear threats sparked uncertainty in the global community as the memories of the atomic bombs used in Hiroshima and Nagasaki in 1945 prove the disastrous effects[66] of such weapons. In addition to that, the use of nuclear weapons would possibly result in the escalation of the conflict and completely change the nature of the war. Moreover, some states would use Russia's threatening behaviour either as an excuse to seek or increase their nuclear arsenal to protect their national security or as a chance to mimic Russia's stance and therefore, act provocatively towards other states by using the threat of nuclear weapons in order to benefit themselves diplomatically.

These reasons and their consequences put the preservation of Nuclear Security at the center of everyone's attention. Today we are called to deal with a crisis that does not limit itself to the usage of standard weaponry but since the beginning, it has opened the possibilities for the most dangerous escalation in human history- a nuclear war. Therefore, it is in such times that we should act in a concrete, concise and responsible

[65] Anna_Clara Arndt and Liviu Horovitz, "Nuclear Rhetoric and Escalation Management in Russia's War against Ukraine: A Chronology," n.d.

[66] "Hiroshima and Nagasaki Bombings - ICAN," accessed January 14, 2023, https://www.icanw.org/hiroshima_and_nagasaki_bombings.

manner. The importance of maintaining nuclear security is not only a matter of national security but also a duty towards human life and our planet.

10. Points to be addressed

1. Is the existent legal framework regarding the nuclear proliferation adequate and effective against the threat of a nuclear crisis?
2. What measures can be taken to face the tremendous challenges and counter the disastrous consequences of a nuclear escalation?
3. How can be ensured that Russia's nuclear threats will not be used as an excuse by nuclear and non-nuclear weapon states and other actors in order to acquire or increase their nuclear arsenal?
4. Are there any possible measures to ensure the non-usage of nuclear weapons in Ukraine? If yes, how can states in favour of disarmament increase peer pressure towards the maintenance of the nuclear security in the face of the current nuclear threat?
5. How can nuclear facilities be protected amid a crisis, such as the Russo-Ukrainian war, from being weaponized as a threat towards international security?
6. Given the fact that the Indo-Pakistani crisis is counting almost 80 years of tension, with occasional wars, and that both parties are nuclear states, how can a future nuclear war be avoided?
7. How could the DISEC Committee approach the DPRK regarding the state's nuclear program limitation, given the fact that they are not a member of the NPT and they have shown limited signs of cooperation in the past?
8. How do the security assurances from the 1994 Budapest Memorandum protect Ukraine after the Russian Annexation of Crimea and during the Russo-Ukrainian War?
9. How could the 4 nuclear states that do not align themselves with the NPT find common ground with the signing parties, and most importantly, with the nuclear-weapon states?

11. Bibliography

1. Editors, History com. “Bombing of Hiroshima and Nagasaki.” HISTORY. Accessed January 14, 2023. https://www.history.com/topics/world-war-ii/bombing-of-hiroshima-and-nagasaki.
2. Gartzke, Erik, and Matthew Kroenig. “A Strategic Approach to Nuclear Proliferation.” Journal of Conflict Resolution 53, no. 2 (April 1, 2009): 151–60. https://doi.org/10.1177/0022002708330039.
3. Francisco, San. “STATUTE OF THE INTERNATIONAL COURT OF JUSTICE,” n.d.
4. “Putin Warns Nuclear Risk Is Increasing and War in Ukraine Is Going to ‘take a While’ | CNN.” Accessed January 14, 2023. https://edition.cnn.com/2022/12/07/europe/putin-ukraine-russia-nuclear-intl-hnk/index.html.
5. Press, The Associated. “North Korea’s Kim Orders ‘exponential’ Expansion of Nuclear Arsenal.” NPR, January 1, 2023, sec. Asia. https://www.npr.org/2023/01/01/1146503945/north-korea-kim-nuclear-arsenal.
6. intern. “Iran Building Nuclear Weapons | Institute for Science and International Security.” Text. Accessed January 14, 2023. https://isis-online.org/isis-reports/detail/iran-building-nuclear-weapons.
7. Cochran, Thomas B, and Robert S Norris. “Nuclear Weapon | History, Facts, Types, & Effects.” In Encyclopædia Britannica, October 15, 2018. https://www.britannica.com/technology/nuclear-weapon.
8. INTERNATIONAL ATOMIC ENERGY AGENCY. “IAEA Nuclear Security Series No. 20 Objective and Essential Elements of a State’s Nuclear Security Regime.” VIENNA, 2013. https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1590_web.pdf.

9. Office of the Historian. “Milestones: 1945–1952 - Office of the Historian.” State.gov, 2019. https://history.state.gov/milestones/1945-1952/atomic.
10. Longley Robert. “The Art of Atomic Diplomacy.” ThoughtCo, 2019. https://www.thoughtco.com/atomic-diplomacy-4134609.
11. Davenport, Kelsey. “Nuclear Weapons: Who Has What at a Glance | Arms Control Association.” Armscontrol.org, January 2022. https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat.
12. Powell, Robert. “The Theoretical Foundations of Strategic Nuclear Deterrence.” Political Science Quarterly 100, no. 1 (1985): 75. https://doi.org/10.2307/2150861.
13. https://ahf.nuclearmuseum.org/. “Soviet Atomic Program - 1946 - Nuclear Museum.” Accessed January 13, 2023. https://ahf.nuclearmuseum.org/ahf/history/soviet-atomic-program-1946/.
14. “Manhattan Project | Definition, Scientists, Timeline, Locations, Facts, & Significance | Britannica.” Accessed January 13, 2023. https://www.britannica.com/event/Manhattan-Project.
15. “Remembering Trinity, the World’s First Nuclear Test | CTBTO.” Accessed January 13, 2023. https://www.ctbto.org/news-and-events/news/remembering-trinity-worlds-first-nuclear-test.
16. National Archives. “The Atomic Bombing of Hiroshima and Nagasaki, August 1945,” August 4, 2020. https://www.archives.gov/news/topics/hiroshima-nagasaki-75.
17. “The Soviet Atomic Bomb.” Accessed January 13, 2023. https://www.atomicarchive.com/history/cold-war/page-3.html.
18. Buck, A.L. “A History of the Atomic Energy Commission,” July 1, 1983. https://doi.org/10.2172/5977409.
19. “The Baruch Plan.” Accessed January 13, 2023. https://www.atomicarchive.com/history/manhattan-project/p6s5.html.

20. "Mutual Assured Destruction | Definition, History, & Facts | Britannica." Accessed January 13, 2023. https://www.britannica.com/topic/mutual-assured-destruction.
21. "Britain Goes Nuclear." Accessed January 13, 2023. https://www.atomicarchive.com/history/cold-war/page-10.html.
22. "France Joins the Club." Accessed January 13, 2023. https://www.atomicarchive.com/history/cold-war/page-11.html.
23. "Chinese Becomes A Nuclear Nation," Accessed January 13, 2023. https://www.atomicarchive.com/history/cold-war/page-12.html.
24. https://ahf.nuclearmuseum.org/. "Nuclear Close Calls: The Cuban Missile Crisis - Nuclear Museum." Accessed January 13, 2023. https://ahf.nuclearmuseum.org/ahf/history/nuclear-close-calls-cuban-missile-crisis/.
25. "The Peaceful Explosion." Accessed January 13, 2023. https://www.atomicarchive.com/history/cold-war/page-17.html.
26. Kalb, Marvin. "The Agonizing Problem of Pakistan's Nukes." Brookings (blog), September 28, 2021. https://www.brookings.edu/blog/order-from-chaos/2021/09/28/the-agonizing-problem-of-pakistans-nukes/.
27. "Nations on the Threshold." Accessed January 13, 2023. https://www.atomicarchive.com/history/cold-war/page-24.html.
28. Pollack, Jonathan D. No Exit: North Korea, nuclear weapons, and International Security. Google Books. Routledge, 2017. https://books.google.gr/books?hl=el&lr=&id=o0g4DwAAQBAJ&oi=fnd&pg=PT8&dq=north+korea+and+nuclear+weapons&ots=oye8pJrfHB&sig=UReOVt-6SqzZ6PgiWf6AxsBtThc&redir_esc=y#v=onepage&q=north%20korea%20and%20nuclear%20weapons&f=false.

29. "Humanitarian Impacts and Risks of Use of Nuclear Weapons." Report, August 28, 2020. https://www.icrc.org/en/document/humanitarian-impacts-and-risks-use-nuclear-weapons.
30. cnd_volunteer. "The Effects of Nuclear Weapons -," April 3, 2018. https://cnduk.org/the-effects-of-nuclear-weapons/.
31. Reader, The MIT Press. "The Devastating Effects of Nuclear Weapons." The MIT Press Reader (blog), March 2, 2022. https://thereader.mitpress.mit.edu/devastating-effects-of-nuclear-weapons-war/.
32. "Blast Effects on Humans." Accessed January 14, 2023. https://www.atomicarchive.com/science/effects/blast-effects-humans.html.
33. "Nuclear Weapons - an Intolerable Threat to Humanity," August 7, 2018. https://www.icrc.org/en/nuclear-weapons-a-threat-to-humanity.
34. ICAN. "Long Term Impact." Accessed January 14, 2023. https://www.icanw.org/catastrophic_harm_long_term_impact.
35. "Hiroshima and Nagasaki Bombings - ICAN," accessed January 14, 2023. https://www.icanw.org/hiroshima_and_nagasaki_bombings.
36. ICAN. 'India'. Accessed 13 January 2023. https://www.icanw.org/india.
37. 'Indo-Pak Relations'. Accessed 12 January 2023. https://www.efsas.org/topics/indo-pak-relations.html.
38. ANI News. 'Pak Minister Shazia Marri Threatens India with "Nuclear War"'. Accessed 13 January 2023. https://www.aninews.in/news/world/asia/pak-minister-shazia-marri-threatens-india-with-nuclear-war20221217215731/.
39. ICAN. 'Pakistan'. Accessed 13 January 2023. https://www.icanw.org/pakistan.
40. 'Pakistan - History | Britannica'. Accessed 13 January 2023. https://www.britannica.com/place/Pakistan/History.
41. ICAN. 'Did Ukraine Give up Nuclear Weapons?' Accessed 13 January 2023. https://www.icanw.org/did_ukraine_give_up_nuclear_weapons.

42. ‘Strategic Arms Reduction Talks | International Arms Control Negotiations | Britannica’. Accessed 13 January 2023. https://www.britannica.com/event/Strategic-Arms-Reduction-Talks.
43. ‘The Lisbon Protocol At a Glance | Arms Control Association’. Accessed 13 January 2023. https://www.armscontrol.org/node/3289.
44. ‘Trilateral Statement by the Presidents of the United States, Russia, Ukraine’. Harvard Ukrainian Studies 20 (1996): 313–16.
45. ‘Ukraine and Soviet Nuclear History | Wilson Center’. Accessed 13 January 2023. https://www.wilsoncenter.org/publication/ukraine-and-soviet-nuclear-history.
46. ‘Ukraine, Nuclear Weapons, and Security Assurances at a Glance | Arms Control Association’. Accessed 13 January 2023. https://www.armscontrol.org/factsheets/Ukraine-Nuclear-Weapons.
47. ‘North Korea - Acceleration of North Korea’s Nuclear Program | Britannica’. Accessed 13 January 2023. https://www.britannica.com/place/North-Korea/Acceleration-of-North-Koreas-nuclear-program.
48. ‘North Korea - Engagement with South Korea and the United States | Britannica’. Accessed 13 January 2023. https://www.britannica.com/place/North-Korea/Acceleration-of-North-Koreas-nuclear-program.
49. ‘North Korea and the Treaty on the Prohibition of Nuclear Weapons’. Accessed 13 January 2023. https://www.icanw.org/north_korea.
50. ‘North Korea Unveils Massive New Ballistic Missile in Military Parade | CNN’. Accessed 13 January 2023. https://edition.cnn.com/2020/10/10/asia/north-korea-military-parade-new-missiles-intl-hnk/index.html.
51. Berlinger, Olga Voitovych, Joshua. “Deadly Russian Strikes in Zaporizhzhia as Putin Moves to Take Full Control of Nearby Nuclear Plant.” CNN, October 6, 2022. https://www.cnn.com/2022/10/06/europe/russia-ukraine-zaporizhzhia-city-plant-intl/index.html.

52. "Bushehr Nuclear Power Plant, Halileh, Bushehr, Iran." Accessed January 9, 2023. https://www.nsenergybusiness.com/projects/bushehr-nuclear-power-plant/.
53. "February 23, 2022 Ukraine-Russia News." Accessed January 7, 2023. https://edition.cnn.com/europe/live-news/ukraine-russia-news-02-23-22/h_82bf44af2f01ad57f81c0760c6cb697c.
54. The Nuclear Threat Initiative. "Iran." Accessed January 9, 2023. https://www.nti.org/countries/iran/.
55. U.S. Department of State. "Limited Test Ban Treaty (LTBT)." Accessed January 7, 2023. //2009-2017.state.gov/t/avc/trty/199116.htm.
56. "Nuclear Power in Iran - World Nuclear Association." Accessed January 9, 2023. https://world-nuclear.org/information-library/country-profiles/countries-g-n/iran.aspx.
57. "Nuclear Test-Ban Treaty | Definition, History, Significance, & Facts | Britannica." Accessed January 7, 2023. https://www.britannica.com/event/Nuclear-Test-Ban-Treaty.
58. Sadjadpour, Ali Vaez, Karim. "Iran's Nuclear Odyssey: Costs and Risks." Carnegie Endowment for International Peace. Accessed January 9, 2023. https://carnegieendowment.org/2013/04/02/iran-s-nuclear-odyssey-costs-and-risks-pub-51346.
59. "The IAEA and the Non-Proliferation Treaty." Text. IAEA, June 8, 2016. https://www.iaea.org/topics/non-proliferation-treaty.
60. "Treaty on the Non-Proliferation of Nuclear Weapons (NPT) – UNODA." Accessed January 7, 2023. https://www.un.org/disarmament/wmd/nuclear/npt/.
61. "Treaty on the Prohibition of Nuclear Weapons – UNODA." Accessed January 7, 2023. https://www.un.org/disarmament/wmd/nuclear/tpnw/.

62. "Ukraine - The Russian Invasion of Ukraine | Britannica." Accessed January 7, 2023. https://www.britannica.com/place/Ukraine/The-Russian-invasion-of-Ukraine.
63. "Ukraine-Joint Statement on the Situation at the Zaporizhzhia Nuclear Power Plant | EEAS Website." Accessed January 7, 2023. https://www.eeas.europa.eu/delegations/vienna-international-organisations/ukraine-joint-statement-situation-zaporizhzhia_en.
64. "Zaporizhzhia Plant Must Have Security Protection Zone Around It to Avoid Nuclear Catastrophe, International Atomic Energy Agency Director Warns Security Council | UN Press." Accessed January 7, 2023. https://press.un.org/en/2022/sc15020.doc.htm.
65. "Nuclear Arms Control Treaties," n.d. https://www.atomicarchive.com/resources/treaties/index.html.

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