



---

## STUDY GUIDE



### General Assembly

Reducing nuclear danger

**Nina Štefúnová**

President of the General Assembly

**Barbora Hýblová**

Director General



## LETTER FROM CHAIRS

Distinguished delegates,

It is a great honour to be able to meet you all as the President of the General Assembly and Director General and try to find the best solution to this issue together. Last year we got to practice this position as the Vice PGA and Vice SG and we believe that this year we are more than ready to succeed.

Our past mistakes will never be erased and are slowly eating us away and soon there will be no way back. This topic has some roots in our not so distant history that we are still recovering from. Instead of paying the cowardly price for all the errors, we should get off our high horse and work rationally as a group. It might seem challenging and untouchable, however, as a generation full of bright, perceptive and sharp humans, we put our expectations and standards even higher, aiming for the best outcome possible with this year's GA held in the town of Žilina.

We strongly believe that this conference will bring us an eye-opening debate, since we could not be more fortunate with such an open-minded generation of young ambitious people alert to injustice in society and aware of all the prevalent issues that are rapidly consuming our society. Some might say that dedicating that much time to a model debate is useless, as there are more severe issues occurring, but that is simply an ignorant stance in the long run, invalidating the power of practice and the beauty of the MUN conferences all around the world.

Best of luck and looking forward to seeing you,

Nina Štefúnová & Barbora Hýblová

President of the General Assembly and the Director General



## **TABLE OF CONTENTS**

<b>LETTER FROM CHAIRS</b>	<b>2</b>
<b>TABLE OF CONTENTS</b>	<b>3</b>
<b>COMMITTEE STRUCTURE</b>	<b>4</b>
<b>INTRODUCTION</b>	<b>5</b>
<b>HISTORY</b>	<b>6</b>
<b>WHAT IS NUCLEAR ENERGY</b>	<b>7</b>
<b>WHAT IS A NUCLEAR WEAPON</b>	<b>9</b>
<b>COUNTRIES WITH NUCLEAR WEAPONS</b>	<b>10</b>
<b>NUCLEAR WEAPON RISK REDUCTION</b>	<b>12</b>
<b>USEFUL SOURCES</b>	<b>13</b>
<b>POSITION PAPER</b>	<b>14</b>



## COMMITTEE STRUCTURE

The ZAMUN2023 United Nations General Assembly will have a slightly different structure than the one some of you are already used to. There will be no voting upon the resolutions made in the separate committees. All the Delegates are to adhere to the Rules of Procedure, including the Delegates of the Historical Security Council, which will join the Delegation, which is the modern version of their respected country, e.g. the Delegate of the USSR shall join the delegation of the Russian Federation at the General Assembly. The rule "1 Delegation = 1 vote" shall apply for all voting procedures carried out during the session.



## INTRODUCTION

Reducing nuclear danger is a critical issue the world has been facing for decades. Nuclear energy is a crucial source of low-carbon electricity, and its use brings significant benefits to the environment, including reducing CO2 emissions. However, the potential for a nuclear catastrophe is a constant threat to global security. If handled without due diligence and care, nuclear energy may prove disastrous to vast ecosystems and human-inhabited areas, events we have witnessed, most notably in Chernobyl and Fukushima Nuclear Power Plants. War and conflict are still used as a solution to many issues, and the presence of nuclear danger always looms as a possibility that could end in a self-destructing catastrophe, especially in these days when we hear reports of threats of nuclear weapons from the most powerful men and women in the world.

The United Nations has been a leader in the efforts to reduce nuclear danger through various initiatives, including the [Non-Proliferation Treaty](#) (NPT), the [Comprehensive Nuclear-Test-Ban Treaty](#) (CTBT), and the [International Atomic Energy Agency](#) (IAEA).

The NPT, which entered into force in 1970, aims to prevent the spread of nuclear weapons and promote nuclear disarmament. It has been signed by nearly all countries in the world, with the exception of India, Pakistan, Israel, South Sudan and North Korea. The NPT has played a critical role in reducing the number of nuclear-armed states and preventing the use of nuclear weapons proven by its effect which shattered any prognosis regarding the spread of nuclear weapons.

Another important initiative is the aforementioned Comprehensive Nuclear-Test-Ban Treaty (CTBT), which was adopted by the United Nations General Assembly in 1996. The CTBT bans all nuclear explosions, whether for military or civilian purposes. Although the treaty has not yet entered into force, it has been signed by 185 countries and ratified by 170. The CTBT has been instrumental in preventing nuclear proliferation and reducing the risk of nuclear war including the reduction of negative effects of nuclear tests on the population and the environment.

The International Atomic Energy Agency (IAEA) is a specialized agency of the United Nations, was established in 1957 to promote the peaceful use of nuclear energy and prevent its use for military purposes. The IAEA provides guidance and assistance to countries that wish to develop nuclear energy for peaceful purposes, while also monitoring nuclear facilities to ensure that they are not being used for weapons development.



In addition to these treaties, the United Nations has also supported arms control agreements, such as the [Strategic Arms Reduction Treaty](#) (START) and the New START Treaty. These agreements aim to reduce the number of nuclear weapons held by the United States and Russia, the two largest nuclear powers. They have helped to reduce the risk of accidental nuclear war and prevent the use of nuclear weapons.

## HISTORY

While still remaining a controversial practice, mostly due to its dark origin in the form of Project Manhattan and the more recent events watching countries publicly advocating against its use, there is an undeniable positive effect of nuclear energy. Encompassing many fields including research and industry, medicine and energy, visible progress has been made in the safe and diligent use of this hazardous technology. Alas, the morbidly alluring nature of nuclear fission and its effects on anything living in large radii has proven far too seductive for the most powerful from among our kind.

The atrocious events which took place in August 1945 on the Japanese islands will forever remain a harsh reminder of the unstoppable force of human will and ingenuity with destruction. These events have marked the beginning of an era and their aftershocks planted fear into the hearts of men, women and children for decades to come. And the race began.

The Cold War has seen some of the most tense and alarming relations between the two nuclear superpowers, threatening to eradicate the human species in an ideological war. The Cuban Crisis is to this day considered to be one of the most nerve-racking events in human history, with the world on the brink of a global nuclear conflict.

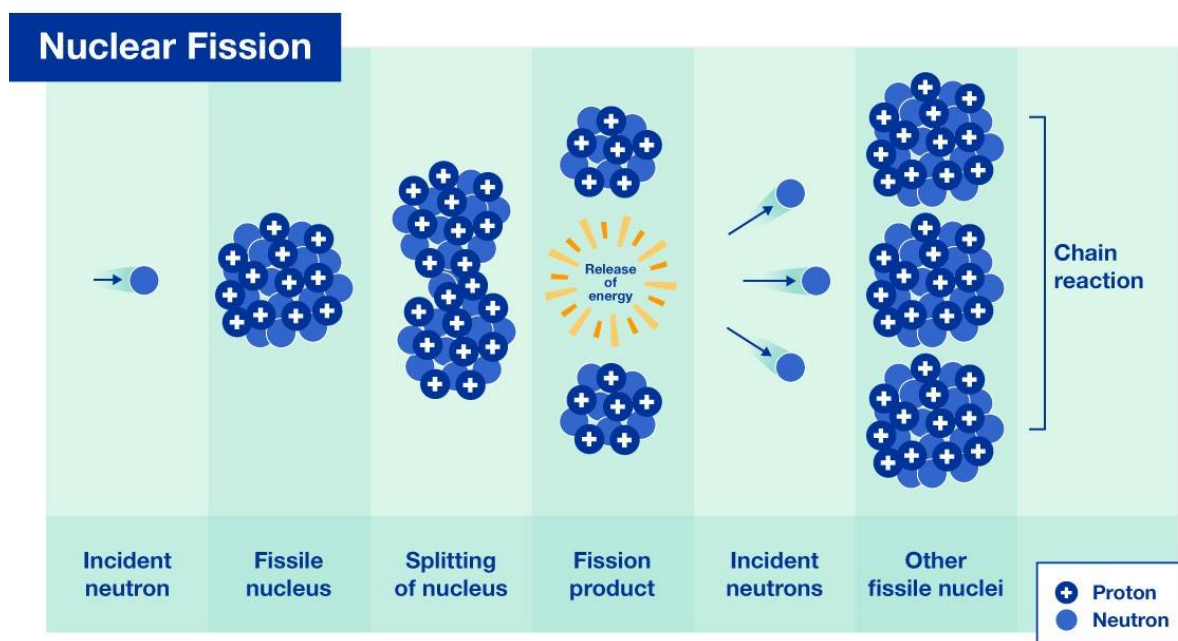
All these events inspired the creation of various international tools and organisations aimed at the reduction and the eventual eradication of the threat of use of Nuclear Weapons in international conflicts. Chief among them, the United Nations Organisation has initiated, endorsed and facilitated the emergence of a series of international treaties and ancillary sub-bodies focused solely on the endeavours to ensure world peace through demilitarisation and non-proliferation of nuclear arsenal.



## WHAT IS NUCLEAR ENERGY

Nuclear energy is the energy in the atomic nucleus or within the nucleus. Nuclear energy can be used to generate electricity, but it must first be released from atoms.

A nuclear reactor or power plant is a set of machines that can control nuclear fission to produce electricity. The fuel that nuclear reactors use to cause fission is pellets of the element uranium. Inside the reactor, the uranium atoms are forced to disassemble. When an atom splits, it releases small particles called fission products. The fission products split other uranium atoms and start chain reactions. The energy released in this chain reaction produces heat.



As of 2011, approximately 15% of the world's electricity is generated by nuclear power plants. For example in the United States there are more than 100 nuclear reactors, even though most of their electricity is produced by hydroelectric power and fossil fuels. Countries such as Lithuania, France and Slovakia generate almost all their electricity from nuclear power plants. Nuclear power plants produce renewable and clean energy. It does not pollute the air or emit greenhouse gasses. They can be built in urban or rural areas and do not drastically change the surrounding environment.



However, a by-product of nuclear energy is radioactive material. A radioactive substance is a collection of unstable atomic nuclei. These nuclei lose energy and can affect many substances around them, including living organisms and the environment. Radioactive materials are highly toxic, cause burns, and increase the

risk of cancer, bone decay and blood diseases. Radioactive waste is the residue from the operation of nuclear reactors. Radioactive waste consists primarily of protective clothing worn by workers, tools, and other materials that come in contact with radioactive dust. Radioactive waste is incredibly long-lasting, materials such as clothing and tools can remain radioactive for thousands of years. The government regulates how these materials should be disposed of so that they do not contaminate anything.



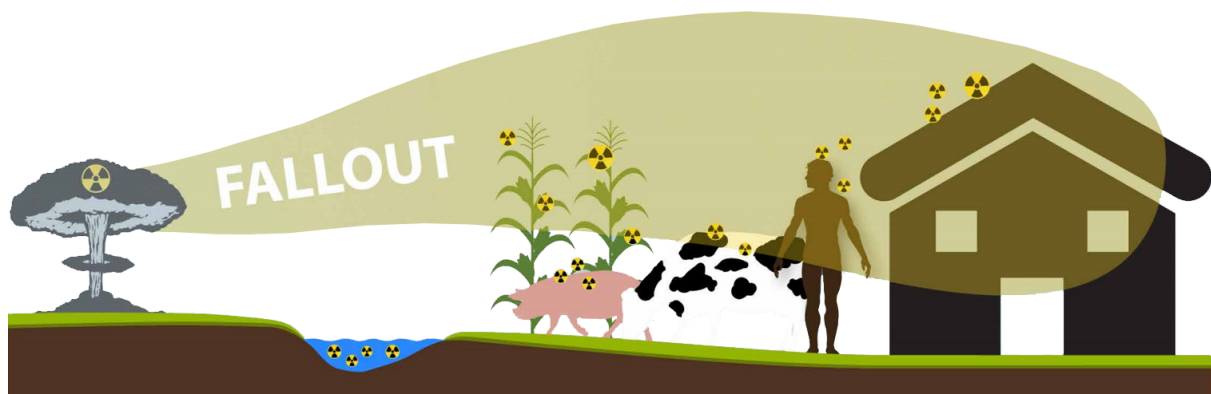


## WHAT IS A NUCLEAR WEAPON

*"A nuclear weapon is a device that uses a nuclear reaction to create an explosion. This explosion is much more powerful than that of conventional explosives (like TNT). When a nuclear weapon explodes, it gives off four types of energy: a blast wave, intense light, heat, and radiation. Nuclear weapons can be in the form of bombs or missiles.*

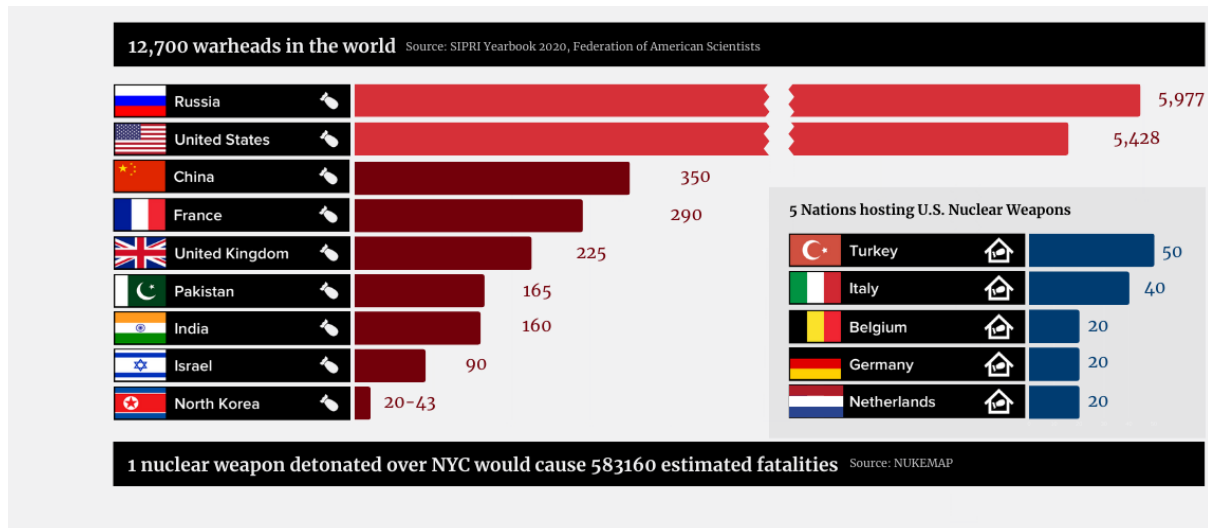
*When a nuclear weapon explodes, a large fireball is created. Everything inside of this fireball vaporizes and is carried upward. This creates a mushroom-shaped cloud. The material in the cloud cools into dust-like particles and drops back to the earth as fallout. Fallout can be carried by the wind and can end up miles from the site of the explosion. Fallout is radioactive and can contaminate anything it lands on."*

[https://www.cdc.gov/nceh/multimedia/infographics/nuclear\\_weapon.html](https://www.cdc.gov/nceh/multimedia/infographics/nuclear_weapon.html)





## COUNTRIES WITH NUCLEAR WEAPONS



Countries that possess nuclear weapons:

- Russia
- United States
- China
- France
- United Kingdom
- Pakistan
- India
- Israel
- North Korea

Summing it up these states have 12,700 nuclear warheads altogether that are known of, and 9,400 of them are in military inventories. Even though this is a significant drop from the roughly estimated 70,000 warheads possessed during the Cold War, it is expected for the nuclear arsenals to rise again over the upcoming decade, making today's armed forces much more capable.

A single nuclear warhead can kill hundreds of thousands of people, with lasting and devastating humanitarian and environmental consequences. An estimated 583,160 people would be killed from a single detonation of a nuke over New York alone. Russia, the United States, the United Kingdom, France, China, India, Pakistan, Israel



and North Korea together are estimated to possess a total of about 13,000 nuclear weapons, most of which are many times more powerful than the ones dropped on

Hiroshima. Thirty-two other countries are also part of the problem, with 5 having nuclear weapons and another 27 advocating their use.

**TACTICAL NUCLEAR WEAPONS**, small nuclear warheads and delivery systems intended for use on the battlefield or for a limited strike. Less powerful than strategic nuclear weapons, tactical nuclear weapons are intended to devastate enemy targets in a specific area without causing widespread destruction and radioactive fallout.

( <https://www.britannica.com/technology/tactical-nuclear-weapon> )

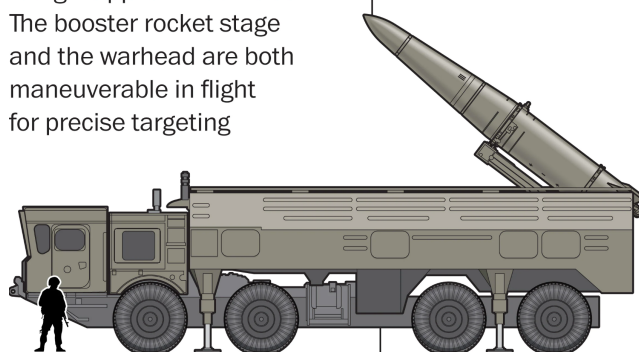
Tactical nuclear weapons are weapons that are not classified as "strategic" under the U.S.-Russian Arms Control Agreement. The Federation of American Scientists currently estimates Russia's number of non-strategic nuclear warheads at 1,912, and about 100 US non-strategic nuclear warheads are deployed in five other European countries. These are often called "small" or "low-yield" nuclear weapons, meaning they do less damage, but these warheads can have a yield of up to 300 kilotons, or 20 times more than the bomb that destroyed Hiroshima.

### A 'small' nuclear missile

The 9K720 Iskander missile system, known to NATO forces as the SS-26, is capable of delivering "tactical" nuclear weapons as well as standard explosive warheads. The Russians appear to have Iskanders deployed in Ukraine.

#### **9M723 Ballistic Missile**

Range: Approx. 300 miles  
The booster rocket stage and the warhead are both maneuverable in flight for precise targeting



**MZKT launch/support truck**

Sources: Federation of American Scientists;  
U.S. Department of Defense; GlobalSecurity.org



## NUCLEAR WEAPON RISK REDUCTION

Risk reduction includes a range of activities aimed at improving the security of nuclear weapons, reducing the risk of accidents, and preventing terrorists from obtaining nuclear material. Identifying these and other common goals that may form the basis for practical engagement and cooperation is important in and of itself, as well as for nuclear disarmament (another component of mission risk reduction). In fact, advances in risk mitigation can open up another venue for collaboration, increase trust and promote mutual understanding. This could contribute to a situation in which nuclear-armed states agree to reduce the importance of these weapons in their policies and doctrines and are likely to negotiate verifiable reductions in existing nuclear weapons and fission weapons material.

Existing risk reduction proposals tend to target individual aspects of nuclear weapons risk and prescribe point-by-point solutions. This work is certainly admirable and provides an important foundation. However, such proposals generally reflect individual state or professional concerns. What is missing in recent discussions on nuclear risk reduction is a comprehensive and thoughtful structure that also takes into account the nuclear characteristics of specific regions and the varying nature of risk scenarios in specific contexts of the broader security environment.

Developing a comprehensive mapping of current nuclear risk reduction ideas, analyzing practical and attainable ways to reduce nuclear risk based on the above comprehensive mapping, and providing alternative choices tailored specifically to the states and a set of options for regional nuclear risk reduction measures depending on contexts, specific scenarios and different time horizons of given states are activities that could help identify areas of common interest in global risk reduction for both nuclear-armed and non-nuclear-armed states, and new applicable frameworks helping them respond in a constructive way.



## USEFUL SOURCES

<https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/nuclear-accidents-fact-sheet#:~:text=At%20high%20doses%2C%20ionizing%20radiation,cata racts%2C%20as%20well%20as%20cancer>.

[https://www.icanw.org/nuclear\\_arsenals](https://www.icanw.org/nuclear_arsenals)

<https://ourworldindata.org/nuclear-weapons-risk>

<https://education.nationalgeographic.org/resource/nuclear-energy/>

<https://www.cdc.gov/nceh/radiation/emergencies/contamination.htm#:~:text=Radioactive%20contamination%20occurs%20when%20radioactive,or%20animals%20to%20become%20contaminated>.



## POSITION PAPER

Delegates are expected to write their position papers which will be structured as such:

- A. Intro, general overview of the topic
- B. Position that their country holds in relation to the topic
- C. Specifics that the delegate would like to solve by the end of the session

The position paper should be approximately one page long, but shouldn't exceed two pages.

The deadline for the Position Paper is the 19th of April, until midnight.

Please submit your Position Papers to the official Žilina MUN [mymun.com](http://mymun.com) website.