



Prevention and Control of Mass Destruction Weapons' Proliferation

**TALMUN'24**

**Agenda Item:** Prevention and Control of Mass Destruction Weapons' Proliferation

## **TABLE OF CONTENTS**

### **1. Welcoming Letters**

- a. Letter from the Head of Academy
- b. Letter from the USG of the DISEC

### **2. Introduction to the Committee**

### **3. Introduction to the Agenda Item**

- a. Mass Destruction Weapons
  - i. Biological Weapons
  - ii. Chemical Weapons
  - iii. Nuclear Weapons

### **4. Critical Countries' Views on Mass Destruction Weapons**

USA, North Korea, France, Israel, Germany, Russian Federation, People's Republic of China, Iran, UK, India, Pakistan

### **5. History of Mass Destruction Weapons**

- a. How were they invented?
- b. Which wars were they used in?

### **6. WMDs in International Law**

- a. International Agreements
  - i. Geneva Conventions
  - ii. International Code of Conduct Against Ballistic Missile Proliferation
  - iii. Nuclear Non-Proliferation Treaty (NPT)
  - iv. Treaty on the Prohibition of Nuclear Weapons (TPNW)

### **7. Questions to Ponder**

### **8. Bibliography**

## **Letter from the Head of Academy**

Dear Delegates,

It is with great pleasure and enthusiasm that I welcome you to our school's inaugural Model United Nations conference, focusing on DISEC. As the Head of Academy, I am excited to witness the intellectual prowess and diplomatic skills that each of you will bring to the table.

This conference serves as a platform for dynamic discourse, collaboration, and innovative problem-solving. DISEC's mandate is critical in addressing global challenges, and I am confident that your engagement will contribute to meaningful resolutions.

As delegates, you embody the spirit of diplomacy and critical thinking. Your commitment to researching, debating, and negotiating will not only enhance your personal growth but also enrich the overall MUN experience for everyone involved.

I encourage you to approach this conference with an open mind, fostering cooperation and seeking common ground. Remember, the solutions you develop here may inspire real-world action in addressing international issues.

Wishing you insightful deliberations and an unforgettable MUN experience.  
If you have any problems do not hesitate to contact me.

Best regards,

Serdar Uğur MALKOÇ  
Head of the Academy  
[serdarmalkoctr@outlook.com](mailto:serdarmalkoctr@outlook.com)

## **Letter from the Under Secretary General of DISEC**

Dear delegates;

I'm Ayşenaz Anıç and I'm the Under Secretary General of DISEC Committee. I'm so honored to take part in this prestigious conference with all of you.

For all of the first timers; I assure you that this TALMUN'24 will be the best experience for you. As the DISEC Academy Team, we all worked our heads off to prepare this study guide for you in the easiest and the most understandable way to read. As the whole team of TALMUN'24; we are looking forward to see your smiling faces so we are trying our best to give you an unforgettable experience.

I would like to thank Ms. Tutku AYDEMİR for helping us in every possible way and making our dreams about MUN come true. Also, I'm so thankful to the Academy Team Members; Minel ÖZGER, Yiğit YILMAZ, Havin YILDIRIM, and of course our Academy Head; Serdar Uğur MALKOÇ for their hard work. We are so pleased to welcome you all.

If you have any questions about the conference, do not hesitate asking me. You can contact me via the e-mail address below.

Wishing you a great conference.

Sincerely;

Ayşenaz ANIÇ  
Under Secretary General  
[anicayse91@gmail.com](mailto:anicayse91@gmail.com)

## **2. Introduction to the Committee: GA-1, the Disarmament and International Security Committee**

It is the first committee of the United Nations General Assembly. The First Committee deals with disarmament, global challenges, and threats to peace that affect the international community and seeks out solutions to the challenges in the international security regime.

It considers all disarmament and international security matters within the scope of the Charter or relating to the powers and functions of any other organ of the United Nations; the general principles of cooperation in the maintenance of international peace and security, as well as principles governing disarmament and the regulation of armaments; promotion of cooperative arrangements and measures aimed at strengthening stability through lower levels of armaments.

## **3. Introduction to the Agenda Item: Mass Destruction Weapons**

### **a. Biological Weapons**

Biological and toxin weapons are either microorganisms like viruses, bacteria, or fungi, or toxic substances produced by living organisms that are produced and released deliberately to cause disease and death in humans, animals, or plants.

Biological weapons disseminate disease-causing organisms or toxins to harm or kill humans, animals, or plants. They generally consist of two parts – a weaponized agent and a delivery mechanism. In addition to strategic or tactical military applications, biological weapons can be used for political assassinations, the infection of livestock or agricultural produce to cause food shortages and economic loss, the creation of environmental catastrophes, and the introduction of widespread illness, fear, and mistrust among the public.

Biological agents like anthrax, botulinum toxin, and plague can pose a difficult public health challenge causing large numbers of deaths in a short amount of time. Biological agents which are capable of secondary transmission can lead to epidemics. An attack involving a biological agent may mimic a natural event, which may complicate the public health assessment and response. In case of war and conflict, high-threat pathogens laboratories can be targeted, which might lead to serious public health consequences.

### **b. Chemical Weapons**

Chemical weapons are considered weapons of mass destruction and their use in armed conflict is a violation of international law. Primary forms of chemical weapons include nerve agents, blister agents, choking agents, and blood agents. These agents are categorized based on how they affect the human body.

The modern use of chemical weapons began with World War I when both sides of the conflict used poisonous gas to inflict agonizing suffering and to cause significant battlefield

casualties. Such weapons basically consisted of well known commercial chemicals put into standard munitions such as grenades and artillery shells. Chlorine, phosgene (a choking agent), and mustard gas (which inflicts painful burns on the skin) were among the chemicals used. The results were indiscriminate and often devastating. Nearly 100,000 deaths resulted. Since World War I, chemical weapons have caused more than one million casualties globally.

The Cold War period saw significant development, manufacture, and stockpiling of chemical weapons. By the 1970s and 80s, an estimated 25 States were developing chemical weapons capabilities. But since the end of World War II, chemical weapons have reportedly been used in only a few cases, notably by Iraq in the 1980s against Islam.

### **c. Nuclear Weapons**

Nuclear weapons are the most dangerous weapons on earth. One can destroy a whole city, potentially killing millions, and jeopardizing the natural environment and lives of future generations through its long-term catastrophic effects. The dangers of such weapons arise from their very existence. Although nuclear weapons have only been used twice in warfare—in the bombings of Hiroshima and Nagasaki in 1945—about 13,400 reportedly remain in our world today and there have been over 2,000 nuclear tests conducted to date. Disarmament is the best protection against such dangers, but achieving this goal has been a tremendously difficult challenge.

Regional Nuclear-Weapon-Free Zones (NWFZ) have been established to strengthen global nuclear non-proliferation and disarmament norms and consolidate international efforts towards peace and security.

## **4. Critical Countries' Views on Mass Destruction Weapons**

### **United States of America**

The United States is known to have possessed three types of weapons of mass destruction: nuclear weapons, chemical weapons, and biological weapons. The U.S. was the only country to have used nuclear weapons on another country when it detonated two atomic bombs over two Japanese cities of Hiroshima and Nagasaki during World War II. It had secretly developed the earliest form of the atomic weapon during the 1940s under the title "Manhattan Project". The United States pioneered the development of both nuclear fission and hydrogen bombs (the latter involving nuclear fusion). It was the world's first and only nuclear power for four years, from 1945 until 1949, when the Soviet Union produced its nuclear weapon. The United States has the second-largest number of nuclear weapons in the world, after the Russian Federation.

Nuclear Weapons: The United States was the first country to manufacture nuclear weapons and is the only country to have used them in combat, with the bombings of Hiroshima and Nagasaki in World War II. Before and during the Cold War, it conducted 1,054 nuclear tests and tested many long-range nuclear weapons delivery systems. Between 1940 and 1996, the U.S. federal government spent at least US\$10.9 trillion in present-day terms on nuclear weapons, including platform development (aircraft, rockets, and facilities), command and

control, maintenance, waste management, and administrative costs. It is estimated that the United States produced more than 70,000 nuclear warheads since 1945, more than all other nuclear weapon states combined. Until November 1962, the vast majority of U.S. nuclear tests were above ground. After the acceptance of the Partial Nuclear Test Ban Treaty, all testing was relegated underground, in order to prevent the dispersion of nuclear fallout. By 1998, at least US\$759 million had been paid to the Marshall Islanders in compensation for their exposure to U.S. nuclear testing. By March 2021 over US\$2.5 billion in compensation had been paid to U.S. citizens exposed to nuclear hazards as a result of the U.S. nuclear weapons program. In 2019, the U.S. and Russia possessed a comparable number of nuclear warheads; together, these two nations possess more than 90% of the world's nuclear weapons stockpile. As of 2020, the United States had a stockpile of 3,750 active and inactive nuclear warheads plus approximately 2,000 warheads retired and awaiting dismantlement. Of the stockpiled warheads, the U.S. stated in its March 2019 New START declaration that 1,365 were deployed on 656 ICBMs, SLBMs, and strategic bombers. The projected costs for maintaining U.S. nuclear forces are \$60 billion per year during the 2021–2030 period.

**Biological Weapons:** The United States biological weapons program officially began in the spring of 1943 on orders from U.S. President Franklin Roosevelt. Research continued following World War II as the U.S. built up a large stockpile of biological agents and weapons. Throughout its 27-year history, the program weaponized and stockpiled the following seven bio-agents (and pursued basic research on many more):

- *Bacillus anthracis* (anthrax)
- *Francisella tularensis* (tularemia)
- *Brucella* spp (brucellosis)
- *Coxiella burnetii* (Q-fever)
- Venezuelan equine encephalitis virus
- Botulinum toxin (botulism)
- Staphylococcal enterotoxin B

Throughout its history, the U.S. bioweapons program was secret. It was later revealed that laboratory and field testing (some of the latter using simulants on non-consenting individuals) had been common. The official policy of the United States was first to deter the use of bio-weapons against U.S. forces and secondarily to retaliate if deterrence failed. In 1969, President Richard Nixon ended all offensive (i.e., non-defensive) aspects of the U.S. bioweapons program. In 1975 the U.S. ratified both the 1925 Geneva Protocol and the 1972 Biological Weapons Convention (BWC)—international treaties outlawing biological warfare. Recent U.S. biodefense programs, however, have raised concerns that the U.S. may be pursuing research that is outlawed by the United Nations.

**Chemical Weapons:** The United States chemical weapons program began in 1917 during World War I with the creation of the U.S. Army's Gas Service Section and ended 73 years later in 1990 with the country's practical adoption of the Chemical Weapons Convention (signed 1993; entered into force, 1997). Destruction of stockpiled chemical weapons began in 1986 and was completed on July 7, 2023. The U.S. Army Medical Research Institute of

Chemical Defense (USAMRICD), at Aberdeen Proving Ground, Maryland, continues to operate.

## North Korea

North Korea has a military nuclear weapons program and, as of early 2020, is estimated to have an arsenal of approximately 30 to 40 nuclear weapons and sufficient production of fissile material for six to seven nuclear weapons per year. North Korea has also stockpiled a significant quantity of chemical and biological weapons.

Nuclear Weapons: North Korea (aka the Democratic People's Republic of Korea or DPRK) is the only country to have withdrawn from the Treaty on the Nonproliferation of Nuclear Weapons (NPT) to pursue a nuclear weapons program and possesses an increasingly sophisticated nuclear arsenal. The DPRK remains outside of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and has repeatedly violated the international norm against nuclear testing by conducting tests in 2006, 2009, and 2013, two tests in 2016, and a test in 2017. North Korea claimed its sixth nuclear test, in September 2017, was of a thermonuclear device.<sup>1</sup> The United Nations Security Council has passed numerous resolutions condemning North Korea's nuclear activities and has imposed increasingly harsh sanctions on the North Korean military and economy.

Biological Weapons: North Korea, is a party to both the Biological and Toxin Weapons Convention (BTWC) and the Geneva Protocol. The DPRK is suspected of maintaining an ongoing biological weapons (BW) program in violation of its international commitments, but there is no definitive information about the program's status.

Chemical Weapons: The 2017 assassination of North Korean leader Kim Jong-un's half-brother in a Malaysian airport with the chemical nerve agent VX, an attack widely linked to the regime in Pyongyang, drew international attention to the topic of North Korea's chemical weapons capabilities. Several countries, including G7 states, have assessed that North Korea has a chemical weapons program, posing a threat to regional and global security. This three-year project, a joint initiative of RUSI's Proliferation and Nuclear Policy (PNP) and Open Source Intelligence Analysis (OSIA) teams, seeks to provide a new and unique open source assessment of North Korea's chemical weapons capability. Using remote sensing and other open source tools, RUSI researchers will conduct a review of key facilities to produce a networked overview of North Korea's chemical industry. This will inform an assessment of North Korea's chemical weapons production potential

## United Kingdom

The UK is one of the five official nuclear weapon states under the Treaty on the Non-Proliferation of Nuclear Weapons. Currently, the UK has memberships to provide healthy maintenance and peaceful use in nuclear energy such as NPT, BWC, CWC, CTBT, and CASD.

We can divide the history of the UK into 7 sections:

Post-World War I, League of Nations was established in order to promote peace and to prevent future conflicts. The UK had a significant role in disarmament discussions during this time. Interwar Period and Naval Treaties The UK participated in naval disarmament negotiations which included the Washington Naval Conference which was held in 1921 and 1922. Pre-World War II: While having disarmament discussions to prevent the rearmament of Germany and the outbreak of World War II, the 1930's had a huge failure here. The founding of the UN happened after World War II in the lead of the UK in 1945. Nuclear Weapons and Cold War The UK became a significant country in disarmament since it became a nuclear-armed state by the development of their nuclear weapons in the early 1950's. NPT was signed by the UK in 1968 and ratified in 1969 in order to commit to nuclear disarmament and the prevention of the spread of nuclear weapons. End of the Cold War in the late 1980's United Kingdom faced calls for substantial reductions in nuclear arsenals along with other nuclear-armed countries.

**Nuclear Weapons:** The United Kingdom has been a nuclear weapon state since 1952. In March 2021 the UK established a document called Integrated Review which titled Global Britain in Competitive Age. The document announced that the cap for the UK's stockpile of nuclear warheads would rise from 180 to 260 due to the evolving security environment. This rise is a first since the Cold War era. **The Trident System:** The UK's nuclear deterrent system is centered around these missiles and Vanguard-class submarines. They are equipped with nuclear warheads and form a crucial part of the UK's nuclear deterrent. **Continuous at-Sea Deterrent (CASD):** The UK strictly follows the policy of CASD. The main cause of this policy is to maintain a credible and continuous nuclear deterrent. They also use the Successor program.

**Biological Weapons:** The UK weaponized and experimented with biological weapons from 1934 to 1956. After the war, the developments in biological weapons continued with tests of tularemia, plague, brucellosis, equine encephalomyelitis, and vaccinia viruses. In 1956 the program was cancelled and in 1974 biological weapons were banned and the United Kingdom ratified the Biological and Toxin Weapons Convention in March 1975. Now they maintain a biodefense program.

**Chemical Weapons:** The UK, has committed to the complete elimination of their chemical weapons stockpiles. The UK has undertaken efforts to destroy its declared chemical weapons stockpiles, following the requirements of the CWC. The United Kingdom has used their chemical weapons mostly in World War I. In World War II they used stockpiled phosgene, lewisite, and mustard gas. Shortly after that, they destroyed their chemical weapon program.

## India

India is a part of CWC and BWC but they remain outside of the NPT and CTBT which views them as discriminatory.

We can divide India's disarmament history into 4 sections. From 1947 to 1974 they developed a peaceful nuclear program that included the fission device described as PNE. From 1974 to 1998 they continued to support efforts for nuclear disarmament in the late 1980's they authorized weaponization of their nuclear capability as a response to oblique nuclear threats issued by Pakistan in 1986 and 1987 as the Brasstacks Crisis. From 1998 to 2009 India became an emerging nuclear power in the world as a result of the India-Pakistan Conflict. 2009 to Present India has officially become an established nuclear power. To address the concerns and give imputes to the nuclear power industry, India ratified the IAEA Convention on Supplementary Compensation for Nuclear Damage in 2016. By 2019, India had put a total of 26 reactors under IAEA safeguards.

Additionally, India continues to participate in international nuclear trade and has signed agreements with Canada, Kazakhstan, and Australia. They have a sizable and growing nuclear arsenal, primarily due to decades of conflict with its nuclear-armed neighbor Pakistan which causes regional security concerns.

**Nuclear Weapons:** India conducted a test code named "Smiling Buddha" in May 1974 which was India's first ever nuclear explosive test. They possess nuclear weapons, full nuclear fuel cycle capabilities, and a variety of nuclear delivery systems. They have declared a nuclear No-First-Use Policy. India is working towards establishing a nuclear triad that involves the capability to launch nuclear weapons from land, sea, and air. These are some of India's nuclear arsenal: Fission and Fusion Weapons, Gravity Bombs, Hydrogen Bombs, Delivery Systems, Ballistic Missiles, Sea-Based Deterrence

**Biological Weapons:** India has one of the world's largest pharmaceutical industries and extensive dual-use capabilities. They also possess advanced bio-defense capabilities. India participates in international efforts to strengthen biosecurity and prevent the misuse of biological agents since they don't develop any biological weapons.

**Chemical Weapons:** India has announced that they've destroyed all of their chemical weapons stocks in March 2009. India, as a signatory, has undertaken steps, such as CWC's requirements for member states to declare and destroy any stockpiles of chemical weapons that they may have possessed, in order to fulfill their obligations under this treaty. India's future outlook in disarmament will likely involve a delicate balance between ensuring their national security interests and actively participating in global efforts to create a safer and more stable world.

## Russian Federation

The Soviet Union's 1991 collapse made Russia the inheritor of the vast majority of the USSR's weapons of mass destruction. Although Russia has substantially reduced its stockpiles from Cold War peaks, it still controls one of the world's largest and deadliest nuclear forces, and deteriorating relations with the United States have stalled further arms control diplomacy.

## **Russia Releases Nuclear Deterrence Policy:**

Russia publicly expanded on the circumstances under which it might employ nuclear weapons in a policy document on nuclear deterrence signed by President Vladimir Putin on June 2.

The 2020 document, called “Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence,” marks the first time Russia has consolidated and publicly released its nuclear deterrence policy, which previously was classified.

The document presents four scenarios that might warrant nuclear use, two of which did not appear in the 2014, 2010, and 2000 versions of Russia’s military doctrine.

As stated in the two most recent versions of the military doctrine, two of the scenarios in which Russia “reserves the right to use nuclear weapons” include when Moscow is acting “in response to the use of nuclear and other types of weapons of mass destruction against it and/or its allies, as well as in the event of aggression against the Russian Federation with the use of conventional weapons when the very existence of the state is in jeopardy.” The 2000 military doctrine differed slightly in its description of the latter scenario, as it instead allowed nuclear use in response to conventional attacks in “situations critical to the national security of the Russian Federation.”

The two additional scenarios contained in the 2020 document include an “arrival [of] reliable data on a launch of ballistic missiles attacking the territory of the Russian Federation and/or its allies” or an “attack by [an] adversary against critical governmental or military sites of the Russian Federation, disruption of which would undermine nuclear forces response actions.”

The two new scenarios had not yet been included in formal policy, but other documents or statements by government officials, including Putin, have hinted at their inclusion, said Olga Oliker, program director for Europe and Central Asia at International Crisis Group, in a June 4 analysis.

Divided into four sections, the document leads with how Russia defines its state policy on nuclear deterrence, which it calls “defensive by nature.” The goal of deterrence is “to prevent aggression against the Russian Federation and/or its allies.”

## **Arms Control and Proliferation**

As of early 2023, Russia’s nuclear arsenal is estimated to comprise 5,889 warheads, including approximately 1,400 that have been retired and are awaiting dismantlement. It is estimated that of the 4,489 warheads in Russia’s nuclear arsenal, 1,674 strategic warheads are deployed. 834 of which are land-based ballistic missiles, 640 on submarine-launched ballistic missiles, and potentially 200 at heavy bomber bases. 999 warheads are in storage and the remaining 1,816 are nonstrategic according to the Federation of Atomic Scientists.

- 5,889 Estimated nuclear warheads
- ~1,400 Estimated nuclear warheads awaiting dismantlement
- ~1,674 Deployed strategic nuclear warheads

- 497 Intercontinental ballistic missiles (ICBMs) and submarine-launched ballistic missiles (SLBMs)

## **Strategic Nuclear Weapons Capabilities:**

### **Land-Based:**

As of April 2018, Russia deployed approximately 286 ICBMs of five variants, which collectively could field 958 warheads. Several Soviet-era ICBMs are gradually being phased out, with plans to complete the process by the early 2020s. Replacement systems include the Topol-M (SS-27 Mod. 1) and RS-24 Yars (SS-27 Mod. 2), both of which come in silo-based and road-mobile variants. Deployment of the Topol-M was completed in 2012, with deployment of the silo-based version beginning in 1997 and in 2006 for the road-mobile version. Unlike the Topol-M, which carries only one warhead, the RS-24 Yars is equipped with multiple independently targeted reentry vehicles (MIRV). Deployment of the RS-24 Yars began in 2010.

### **Sea-based:**

Russia's sea-based deterrent has traditionally played a more marginal role in Russian strategic planning than its strategic rocket forces.

The Delta III submarine is equipped with sixteen RSM-50 Stingray (SS-N-18) SLBMs, which carry three warheads. Having entered into service between 1976 and 1982, these submarines are being withdrawn from active deployment. The Delta IV class currently forms the backbone of Russia's naval deterrent. Each Delta IV submarine is equipped with sixteen RSM-54 Sineva (SS-N-23) SLBMs, which carry up to four warheads each. The new Borey-class SSBNs will house sixteen RSM-56 Bulava (SS-N-32) SLBMs, which can carry six warheads each. In addition, Russia has several Typhoon-class SSBNs based with the Northern Fleet at Litsa Guba. While none of the Typhoon-class vessels are operational, one is being used as a testing platform for the new Bulava missile.

### **Air-based:**

Russia fields two heavy bombers as part of the air-based leg of its strategic nuclear triad. Since Russia no longer officially declares the number of bombers captured under arms control agreements, uncertainty exists regarding their operational status. One open-source estimate from April 2018 put the figure at 68 strategic bombers, including 13 Tu-160 Blackjacks, 29 Tu-95 MS6s, and 30 Tu-95 MS16s.

## **People's Republic of China:**

In 1964 China became the world's fifth nuclear-weapon state, formally recognized under the Nuclear Nonproliferation Treaty (NPT). China has recently increased its warhead count while modernizing its strategic missile forces and nuclear submarine fleet, making its stockpile the world's third largest (although much smaller than that of the U.S. or Russia).

## **Engaging China on Multilateral Arms Control:**

Future efforts to maintain and strengthen multilateral arms control will have to take China into account. Beijing has abandoned its previous restraint and is actively shaping the global security order of the 21st century.

Under President Xi Jinping, shown here at the Chinese Communist Party Central Committee in October, China has evinced some ambivalent policies on arms control and nonproliferation. Even so, future efforts to strengthen multilateral arms control will have to take China into account. With China's constructive participation, it will be much easier to manage challenges to international arms control and the international order, such as those posed by Iran and North Korea. Efforts to further develop the multilateral arms control architecture also will be more effective and sustainable if Beijing is on board.

In August, China's growing importance and more assertive stance on arms control, disarmament, and nonproliferation became abundantly clear at the 10th review conference of the Nuclear Nonproliferation Treaty (NPT), where it pursued its interests and significantly shaped the meeting's agenda. China highlighted its concerns about the nuclear submarine cooperation among Australia, the United Kingdom, and the United States. It opposed any increased commitments on nuclear transparency and successfully rebuffed calls for a fissile material moratorium that could impinge on its own nuclear arms buildup.

- ~410 Nuclear warheads
- ~140 Intercontinental ballistic missiles (ICBMs)
- ~350 New ballistic missile silos revealed in 2021-2022
- 2020 Enacted export control law which controls dual-use items

## **The Future of China's Nuclear Modernization**

There is much speculation that China's nuclear modernization program may be geared toward developing the capacity to move from a strategy of minimum deterrence to one of limited deterrence. Under a "limited deterrence" doctrine, China would need to target nuclear forces in addition to cities, which would require expanded deployments. However, such a limited deterrence capability may still be a long way off.

China is working to expand its nuclear deterrent by developing an SSBN force. According to the Department of Defense's 2013 Annual Report to Congress on the Military and Security Developments of the People's Republic of China, these developments will give the PLA Navy its "first credible sea-based nuclear deterrent."

Meanwhile, tensions between China and Taiwan have declined, and in the wake of Japan's 2011 nuclear crisis, China and Taiwan are taking concrete measures to cooperate on nuclear safety issues. Such cross-strait cooperation includes establishing a formal nuclear safety agreement and an official contact mechanism between the two sides, which will be used to facilitate information exchanges and emergency responses in case of an accident. While China's decreased threat perception may not slow its nuclear modernization efforts, which are seen simply as representing the replacement of obsolete equipment, it does have the potential to slow acquisitions in key areas — for example, the buildup of short-range missiles. If

sustained, the shift may also make both sides more amenable to nonproliferation efforts such as ratification of the Comprehensive Nuclear Test Ban Treaty.

## Iran

Iran's nuclear ambitions have been a focus of international diplomacy for decades. Faced with accusations of nuclear weapons pursuits in violation of its NPT commitments, Iran concluded a 2015 agreement, the JCPOA, to restrict its nuclear program. However, the 2018 U.S. withdrawal from the deal and subsequent Iranian violations cast doubt on the deal's future.

- 128.3 kg Uranium enriched to 60% as of October 2023
- 4,486.8 kg Total stockpile of enriched uranium as of October 2023
- 2,000 km Self-imposed range limit on ballistic missiles

There is no simple or reliable way to characterize Iran's ability to acquire weapons of mass destruction (WMDs) and the means to deliver them. Iran is attempting to acquire long-range ballistic missiles and cruise missiles, but it has never indicated that such weapons would have chemical, biological, radiological, or nuclear warheads. Iran has never properly declared its holdings of chemical weapons, and the status of its biological weapons programs is unknown. And, although the Iranian leadership has consistently argued that its nuclear research efforts are designed for peaceful purposes, Iran's actions have raised serious concerns about its nuclear ambitions.

This latest work by Anthony Cordesman and Khalid Al-Rodhan covers all facets of Iran's weapons of mass destruction. The authors analyze Iran's motivation for acquiring WMD capabilities; the history of its WMD program; its chemical, biological, and nuclear capabilities; and its delivery options, including its missile program, air force, and Revolutionary Guards. They also examine the spectrum of diplomatic and economic sanctions available to make Iran comply with the UN Security Council, as well as military options and the different ways Iran might respond. In addition, the authors explore the geostrategic implications of these options on regional stability, energy security, and the struggle against terrorism. Up to date through May 2006, this is the most current and comprehensive reference available on Iran's weapons of mass destruction

Iran's parliament and Guardian Council passed [legislation](#) Dec. 2 requiring Iran to take significant steps to ratchet up its nuclear activities in 60 days if certain sanctions relief measures are not met. The Nov. 27 assassination of Mohsen Fakhrizadeh, regarded as among Iran's top nuclear scientists, likely accelerated the legislation.

The legislation, which is expected to become law in the coming days, will require the Atomic Energy Organization of Iran to cease implementing the [additional protocol](#) to its safeguards agreement 60 days after enactment if certain sanctions on banking and oil are not lifted—leaving a narrow window of time for President-elect Joe Biden to demonstrate his commitment to returning all parties to full compliance with the 2015 nuclear deal, known as the Joint Comprehensive Plan of Action (JCPOA).

If Tehran were to take this step International Atomic Energy Agency (IAEA) inspectors would still be present in Iran to implement [legally-required safeguards](#), but inspectors would have fewer tools and less access to verify if Iran's nuclear program is peaceful.

Iran's possible development of nuclear weapons has now come front and center in U.S. foreign policy, as well as in consideration overall of preventing the spread of weapons of mass destruction. It has assumed particular importance because of its potential to reshape the security and politics of an already turbulent and critical region. In the middle of the Middle East, such a capability would at the very least lead to a basic reassessment by countries near and far of a full range of security, political, and other issues.

As the saga of a widely presumed but not admitted Iranian nuclear weapons program unfolds, with its on-again, off-again character, something else is happening: the need for a reassessment of nonproliferation—both how to prevent proliferation and what to do if prevention fails. There is dwindling confidence that a country bent on developing nuclear weapons can forever be prevented from doing so by the now-traditional technological safeguards. In particular, it appears less possible to block the indigenous development of either plutonium or highly enriched uranium, the essential materials for nuclear weapons. Talent and knowledge are not a constraint and access to fissionable materials may be an ever-decreasing one to a country's nuclear ambitions.

## Pakistan

Pakistan is one of nine states that possess nuclear weapons. They are a part of BWC, CWC, and CPPNM but not a part of NPT.

**Nuclear Weapons:** Pakistan began developing its nuclear weapons in January 1972. India conducted a series of nuclear tests and then Pakistan conducted its first successful nuclear weapons test in May 1998 to its regional cover, India, in response. Here are some of the nuclear arsenals that Pakistan uses: Warheads: Pakistan is estimated to have a stockpile of approximately 165 warheads which makes them the 6th largest nuclear arsenal in the world. Delivery systems: Pakistan has developed their delivery systems such as in ballistic and cruise missiles, aircraft, and submarines. The country is still developing its nuclear weapons and expecting some projects.

**Biological Weapons:** Pakistan is a signatory of the BTWC, which prohibits the development, production, and stockpiling of biological weapons. There is no evidence that Pakistan has any offensive biological weapons program. Pakistan has taken some measures to improve its biosecurity and biosafety, such as issuing biosafety rules in 2005, drafting legislation to prohibit biological weapons in 2011, and joining the MTBR in 2016. However, Pakistan still faces challenges in ensuring the security and control of its biological materials and facilities.

**Chemical Weapons:** Pakistan is not known to have ever possessed a chemical weapons program, and has signed and ratified the CWC. They have a well-developed chemical industry that could produce some chemicals that could be used to make chemical weapons. They have taken some steps to improve their chemical security and safety by joining MTBR.

Pakistan plays an active role in the OPCW and supports provisions to increase trade and assistance for the peaceful development of chemical industries.

## Germany

### Nuclear:

- Germany has the technical capability to produce weapons of mass destruction (WMD), including nuclear weapons, but has refrained from producing those weapons since World War II. However, Germany participates in the NATO nuclear weapons sharing arrangements and trains for delivering United States nuclear weapons. Officially, 20 US nuclear weapons are stationed in Büchel, Germany. Germany is among the powers which possess the ability to create nuclear weapons but has agreed not to do so under the Treaty on the Non-Proliferation of Nuclear Weapons and the Two Plus Four Treaty. Along with most other industrial nations, Germany produces components that can be used for creating deadly agents, chemical weapons, and other WMD. During World War II, Germany conducted an unsuccessful project to develop nuclear weapons with French associates.
- **Nuclear Weapons Policies:** In the 2018 Brussels Summit, NATO reaffirmed that the fundamental purpose of NATO's nuclear forces is deterrence and that as long as nuclear weapons exist, NATO will remain a nuclear alliance. Germany is a member of the Non-Proliferation and Disarmament Initiative (NPDI), a group of non-nuclear weapon states dedicated to disarmament, non-proliferation, and peaceful nuclear activities as outlined in the NPT and the 2010 NPT Review Conference. Germany, as a NATO country that hosts the U.S.'s nuclear weapons, does not support the Treaty on the Prohibition of Nuclear Weapons (TPNW). It believes U.S. nuclear weapons are vital to Germany's security. Germany reaffirmed its support for nuclear deterrence after the Ukraine War.

### Chemical:

Germany is a signatory to the Chemical Weapons Convention (CWC), which is a multilateral disarmament and arms control treaty that aims to prohibit chemical weapons worldwide and destroy all existing stockpiles of chemical weapons. Germany has the technical capability to produce chemical weapons but has refrained from producing those weapons since World War II. During World War I, Germany was the first to develop and use chemical weapons such as mustard gas and phosgene. These kinds of weapons were subsequently also employed by the Allies. The first nerve gas, tabun, was invented by the German researcher Gerhard Schrader in 1937. During the war, Germany stockpiled tabun, sarin, and soman but refrained from their use on the battlefield. In total, Germany produced about 78,000 tons of chemical weapons.

### Biological:

- **World War I:** Germany was the first to use large-scale chemical weapons, such as chlorine gas and mustard gas, against Allied forces. Germany also experimented with biological agents, such as anthrax and glanders, but did not use them in combat.
- **World War II:** Germany had a secret biological weapons program that aimed to sabotage the enemy's economy and agriculture. The program was led by the infamous SS physician Dr. Kurt Blome, who conducted experiments on concentration camp prisoners and other human subjects to test the efficacy of various pathogens, such as anthrax, glanders, and Q fever. Blome also planned to use mosquitoes infected with malaria to attack Allied troops and

civilians. However, the program was plagued by technical difficulties, lack of resources, and internal rivalries, and was eventually abandoned in 1944. Germany also captured and shipped thousands of tons of chemical weapons from other countries, such as Japan and the Soviet Union, and used them against Allied forces in Europe and Africa. After the war, many German scientists and technicians involved in the biological and chemical weapons programs were recruited by the United States and the Soviet Union for their expertise.

- **Post-war years:** Germany was a signatory to the 1925 Geneva Protocol and the 1972 Biological Weapons Convention. Germany also cooperated with the Allies to destroy the remaining stockpiles of German chemical weapons, some of which were dumped into the sea. Germany also prioritized biosecurity and biodefense as part of its national security strategy and its role in the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction.

## Israel

### Chemical:

- **CW Capabilities:** Israel is widely believed to have developed an offensive CW program in the 1950s and 1960s, and to possess a stockpile of CW agents and delivery systems. However, the exact size and nature of its CW arsenal are unknown, and Israel has never officially confirmed or denied having a CW program.

- **CW Policies:** Israel signed the CWC in 1993, but has not ratified it, citing security concerns and the lack of regional disarmament. Israel maintains a policy of ambiguity regarding its CW capabilities and has not declared any CW-related facilities or activities to the Organisation for the Prohibition of Chemical Weapons (OPCW). Israel has expressed support for the CWC's goals and has cooperated with the OPCW on some issues, such as assistance and protection against CW attacks.

### Biological:

- **History:** Israel is suspected of having developed an offensive BW program in the 1950s and 1960s, but there is no conclusive evidence of its existence or current status. Israel has never confirmed or denied having a BW program.

- **Capabilities:** Israel is believed to have the scientific and technological expertise to produce and weaponize various biological agents, such as anthrax, plague, and botulinum toxin. Israel also has advanced biotechnology and pharmaceutical industries that could support a BW program.

- **International Obligations:** Israel is not a party to the Biological Weapons Convention (BWC), but has signed the Geneva Protocol of 1925. Israel has stated that it supports the objectives of the BWC and would consider joining it if the regional security situation improves.

**Nuclear:** • NW Capabilities: Israel is thought to possess nuclear weapons, though the country neither acknowledges nor denies the existence of a nuclear arsenal. Israel is not a party to the NPT and has not accepted IAEA safeguards on some of its principal

nuclear activities. Their policy of nuclear opacity has been generally tolerated by both allies and adversaries. • Israel's Arsenal: Most estimates posit that Israel possesses about 90 plutonium-based nuclear warheads and has produced enough plutonium for 100-200 weapons. These estimates have been fairly consistent for decades, which points to a nuclear posture defined by Israel's deterrence needs. Israel appears focused strictly on survival and does not seek to threaten other nuclear-armed states.

## France

### Nuclear:

- **France's Nuclear History:** France tested its first nuclear weapon in 1960 in Algeria, and conducted 210 tests in total until 1996. France signed and ratified the Comprehensive Nuclear Test Ban Treaty in 1998.
- **France's Nuclear Arsenal:** France has reduced its nuclear stockpile from about 540 to around 290 weapons since the end of the Cold War. France no longer has a nuclear triad, as it deactivated its land-based missiles in 1996. France relies on its nuclear-powered submarines and modernized air and sea based delivery vehicles for its nuclear deterrence.
- **France's Nuclear Policy:** France is one of the five nuclear-weapon states recognized under the Nuclear Non-Proliferation Treaty (NPT). France's nuclear forces are independent from NATO's command structure, but France is the only remaining nuclear-weapon state in the European Union.
- **Disarmament:** Historically, France has adopted a conservative approach towards nuclear disarmament. This can be seen today in the more cautious approach taken by French officials in comparison to their British and American counterparts. Such conservatism can be explained by the strong link that exists between the possession of nuclear weapons and feelings of national independence, something that is reflected in a general public that is relatively pro-nuclear. A big percentage of the population believes France requires nuclear in order to defend itself. French officials have expressed support for the eventual goal of complete nuclear disarmament, but have been reticent to push for multilateral negotiations towards this end, emphasizing that "the strategic context that allows for it," does not yet exist. This perspective stems in part from a sense of doubt by the French that disarmament will result in increased security.

### Biological:

France's past biological weapons activities are not well-known but reportedly included research on anthrax, botulinum toxin, cholera, ricin, rinderpest, and salmonella between 1921 and 1940. However, France is not suspected of having a current offensive biological weapons program, and it is illegal to produce or stockpile these weapons under France's 1972 Law on the Prohibition of Biological Weapons. France continues to uphold its 2004 Code of Defense, which prohibits the development, production, possession, stockpiling, acquisition, and transfer of microbiological agents, other biological agents, and biological toxins that are not suited for prophylactic, protection, or other pacific purposes. France acceded to the Biological Weapons Convention (BWC) on September 27, 1984, and is also a member of the

Australia Group. France maintains a biodefense program that it claims is in strict compliance with the BWC.

#### **Chemical:**

During World War I, France produced and used mustard gas and phosgene. They maintained stockpiles of these weapons at the beginning of World War II but did not use them. After World War II, France resumed offensive chemical weapons research and testing, and in the 1960s they manufactured Sarin and VX nerve agents. However, France destroyed its stockpiles of chemical weapons prior to 1988, and President François Mitterrand claimed, in a 1988 speech to the United Nations, that France no longer had any chemical weapons and ended production. France signed the Chemical Weapons Convention (CWC) in Paris in 1993 and ratified it in 1995. It also holds that it displays “exemplary” cooperation with the Organisation for the Prohibition of Chemical Weapons (OPCW). Regarding international WMD treaties, France has ratified the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the Biological Weapons Convention (BWC). France has not ratified the Chemical Weapons Convention (CWC), citing security concerns and the lack of regional disarmament. France has also expressed support for the Fissile Material Cutoff Treaty (FMCT) and the Treaty on the Prohibition of Nuclear Weapons (TPNW) but has not yet signed or ratified them. France has called for the establishment of a Middle East WMD Free Zone but has also emphasized the need for regional security and confidence-building measures.

## **5. History of Mass Destruction Weapons**

The history of weapons of mass destruction (WMDs) is a dark and winding path, one paved with human ambition, scientific progress, and devastating consequences. From the rudimentary explosives of ancient times to the nuclear arsenals of the modern era, these weapons have cast a long shadow over humanity, their existence a constant reminder of our capacity for both creation and destruction.

#### **Early Glimmers of Mass Destruction:**

- Ancient Explosives: The quest for explosive power dates back millennia. Early civilizations in China and the Middle East experimented with gunpowder, a concoction of sulfur, charcoal, and saltpeter, leading to the development of rudimentary bombs and rockets. While not technically WMDs in the modern sense, these early explosives laid the foundation for future destructive technologies.
- Chemical Warfare: The deliberate use of chemicals to harm enemies also has a long history. Poisoned arrows and tainted water sources were employed in warfare as early as 300 BCE. However, the widespread use of chemical weapons truly emerged in the 19th century, with chlorine gas being deployed during World War I, marking a grim turning point in the evolution of WMDs.

### **The Atomic Age and the Dawn of Nuclear Terror:**

- Nuclear Fission and the Manhattan Project: The 20th century witnessed the most significant leap in WMD development with the discovery of nuclear fission in 1938. Recognizing the weapon's immense destructive potential, the United States embarked on the Manhattan Project, a top-secret initiative to develop the first atomic bomb during World War II.
- Hiroshima and Nagasaki: The culmination of the Manhattan Project came in August 1945 with the atomic bombings of Hiroshima and Nagasaki in Japan. These devastating attacks, resulting in hundreds of thousands of casualties, ushered in the nuclear age and forever altered the landscape of international politics and warfare.
- The Cold War Arms Race: The fear of nuclear annihilation became a defining feature of the Cold War. The United States and the Soviet Union engaged in a relentless arms race, stockpiling ever-increasing numbers of nuclear warheads, each capable of inflicting unimaginable destruction.

### **Beyond the Atom: Expanding the WMD Arsenal:**

- Chemical Weapons Revisited: Despite international treaties banning their use, chemical weapons continued to be employed in conflicts throughout the 20th and 21st centuries. The use of sarin gas by Iraq against Iranian Kurds in the 1980s and the Syrian government's chemical attacks on its own people during the ongoing civil war are stark reminders of the ongoing threat posed by these weapons.
- Biological Weapons: Nature's Arsenal: The potential of biological agents like bacteria, viruses, and toxins as weapons of mass destruction was recognized early on. However, the ethical and technical challenges associated with their development and deployment limited their widespread use. However, concerns remain about the potential misuse of biological agents by state and non-state actors.

### **The Present and the Future: Living with the Shadow of WMDs:**

- Non-Proliferation Efforts: Recognizing the catastrophic consequences of WMD proliferation, the international community has established treaties and institutions aimed at preventing the spread of these weapons. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the Chemical Weapons Convention are notable examples of these efforts.
- Challenges and Uncertainties: Despite these efforts, the threat of WMDs remains a pressing concern. Rogue states, terrorist groups, and the potential for accidental detonation all pose real dangers. The emergence of new technologies, such as cyber warfare and biotechnology, further complicates the landscape of mass destruction.

## **Conclusion:**

The history of WMDs is a complex and sobering one. It is a story of scientific ingenuity turned towards the darkest of purposes, a testament to our capacity for both progress and barbarity. As we move forward, we must constantly grapple with the legacy of these weapons, remembering the human cost of their use and striving for a future free from the threat of mass destruction.

## **6. WMDs in International Law**

### **a. International Agreements**

#### **i. Geneva Conventions**

The Geneva Conventions are a set of international treaties that establish the humanitarian rules of war. They consist of four treaties, with the first three conventions focusing on the treatment of wounded and sick soldiers on the battlefield, the shipwrecked at sea, and prisoners of war. The fourth convention addresses the protection of civilians during times of armed conflict.

While the Geneva Conventions do not specifically address weapons of mass destruction, they do contain general principles that prohibit the use of weapons and methods of warfare that cause excessive or unnecessary suffering. The use of any weapon that violates the principles of humanity and the dictates of public conscience is prohibited under customary international humanitarian law.

It's important to note that the Geneva Conventions, as primarily humanitarian law treaties, focus on the protection of individuals who are not or are no longer participating in hostilities. The regulation of specific weapons, especially weapons of mass destruction, is typically addressed in other arms control and disarmament treaties.

#### **ii. International Code of Conduct Against Ballistic Missile Proliferation**

The Hague Code of Conduct against Ballistic Missile Proliferation (HCOC) is an international agreement that aims to regulate the spread of ballistic missiles capable of carrying weapons of mass destruction.

It is a politically binding agreement that requires subscribing states to provide pre-launch notifications on ballistic missile and space-launch vehicle launches and test flights, as well as submit an annual declaration of their country's policies on ballistic missiles and space-launch vehicles.

The HCOC is the only multilateral transparency and confidence-building instrument concerning the spread of ballistic missiles, along with the Missile Technology Control Regime (MTCR). Since its signing in November 2002, the number of signatories has increased from 93 to 144.

Annual Regular Meetings of Subscribing States to the HCOC have been held in Vienna since the entry into force of the HCOC in November 2002. It's not a legally binding treaty but rather a voluntary code of conduct.

Here are some of the key points about HCOC:

- **Scope:** The HCOC focuses on the restraint of the proliferation of ballistic missiles capable of delivering weapons of mass destruction (WMD). It encourages member states to exercise maximum possible restraint in developing, testing, and deploying such missiles.
- **Transparency Measures:** Participating states commit to confidence-building measures, including submitting annual declarations on their ballistic missile activities. These declarations are intended to enhance transparency and build trust among member states.
- **Communication and Consultation:** The HCOC promotes communication and consultation among member states to address concerns and enhance mutual understanding. It is designed to facilitate dialogue and cooperation in the realm of ballistic missile non-proliferation.
- **Voluntary Nature:** States voluntarily decide to join the HCOC, and there are currently over 140 subscribing states. Not all countries with ballistic missile capabilities are parties to the HCOC.

### iii. Nuclear Non-Proliferation Treaty (NPT)

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is a global agreement that aims to prevent the spread of nuclear weapons and weapons technology, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament. The NPT was opened for signature in 1968 and entered into force on 5 March 1970. With 191 States parties, it is the most widely adhered to treaty in the field of nuclear non-proliferation, peaceful uses of nuclear energy, and nuclear disarmament.

Under the NPT, non-nuclear-weapon States parties have committed themselves not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices while nuclear-weapon States parties have committed not to in any way assist, encourage, or induce any non-nuclear-weapon State party to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices. The International Atomic Energy Agency (IAEA) is entrusted with key verification responsibilities under the Treaty. Each non-nuclear-weapon State party is required under Article III of the NPT to conclude a comprehensive safeguards agreement (CSA) with the IAEA to enable the IAEA to verify the fulfillment of their obligation under the Treaty with a view to preventing the diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices.

The IAEA therefore has a specific verification role as the international safeguards inspectorate, namely to verify the fulfillment of obligations assumed under the NPT by non-nuclear-weapon States parties. By 3 May 2023, 182 non-nuclear-weapon States parties to the Treaty have brought into force CSAs required by the Treaty and 4 of them have yet to do so. The NPT is a crucial instrument in ensuring global peace and security by preventing the spread of nuclear weapons and promoting the peaceful use of nuclear energy

### iv. Treaty on the Prohibition of Nuclear Weapons (TPNW)

The Treaty on the Prohibition of Nuclear Weapons (TPNW) bans the use, possession, testing, and transfer of nuclear weapons under international law.

## **Background:**

Efforts to outlaw nuclear weapons date back to the beginning of the atomic age. However, the Treaty on the Prohibition of Nuclear Weapons has its origins in the Humanitarian Initiative, a group of non-nuclear weapons states that have sought to push nuclear disarmament forward by focusing on the severe humanitarian consequences of nuclear war. As the movement gained support among the international community, backers of the Humanitarian Initiative had high hopes that the 2015 Review Conference on the Nonproliferation of Nuclear Weapons (NPT) would achieve substantial progress toward nuclear disarmament.

Although 160 states endorsed the Humanitarian Initiative at the 2015 NPT Review Conference, the conference failed to adopt a consensus final document. Many countries were dissatisfied with this outcome and sought to shift efforts to advance the disarmament agenda to an open-ended working group (OEWG) on nuclear disarmament within the United Nations General Assembly. For many advocates of nuclear disarmament, the UN General Assembly was a preferable negotiating forum, as it reached a decision by a majority vote of member states rather than consensus.

At the three open-ended working group meetings in Geneva in 2016, participating states discussed strategies for moving the nuclear disarmament agenda forward. Many states, such as Algeria, Brazil, Indonesia, and South Africa, spoke in favor of opening negotiations for a ban treaty. Nuclear-reliant states present opposed this fast-tracked approach to disarmament, speaking in favor of the “building-blocks,” or “progressive,” approach. The proponents of a ban were successful, and at the third session of the OEWG, States voted to adopt the final report recommending the UN General Assembly convene a conference in 2017 to prohibit nuclear weapons. The vote was 68-22, with 13 countries abstaining. All nine states possessing nuclear weapons boycotted the OEWG, and all dissenting votes came from United States allies. The U.S., which did not attend the OEWG sessions, rejected the final report, calling such efforts to ban nuclear weapons “unrealistic.”

On 27 October 2016, The First Committee of the General Assembly adopted resolution [A/C.1/71/L.41](#) to convene negotiations on a nuclear weapons ban in 2017, and the full General Assembly approved the resolution on 23 December 2016. Opening negotiations took place in New York from 27-31 March 2017 and from 15 June – 7 July 2017.

The Treaty was adopted on 7 July 2017, after two rounds of negotiations at the UN General Assembly. Both rounds were boycotted by all nuclear weapons-possessing states, most NATO countries, and many military allies of nuclear weapons states.

As outlined in Article 15 of the Treaty Text, the TPNW shall enter into force 90 days after the depositing of the fiftieth instrument of ratification. The TPNW achieved this milestone on October 24, 2020, with the ratification of the treaty by the Republic of Honduras. As a result, the treaty entered into force on January 22, 2021, and nuclear weapons joined the ranks of chemical and biological weapons as WMDs proscribed by international law. Supporters of the treaty have celebrated this as a key milestone towards the elimination of nuclear weapons. Opponents of the treaty, however, have maintained that the TPNW is divisive, could undermine the NPT, and risks further entrenchment of divisions present in extant international nonproliferation and disarmament fora that may hinder further progress.

## **Treaty Obligations:**

The Treaty on the Prohibition of Nuclear Weapons (TPNW) prohibits States Parties from developing, testing, producing, manufacturing, acquiring, possessing, or stockpiling nuclear weapons or other nuclear explosive devices. Signatories are barred from transferring or receiving nuclear weapons and other nuclear explosive devices, control over such weapons, or any assistance with activities prohibited under the Treaty. States are also prohibited from using or threatening to use nuclear weapons and other nuclear explosive devices. Lastly, States Parties cannot allow the stationing, installation, or deployment of nuclear weapons and other nuclear explosive devices in their territory. In addition to the Treaty's prohibitions, States Parties are obligated to provide victim assistance and help with environmental remediation efforts.

## **Verification and Compliance:**

The Treaty on the Prohibition of Nuclear Weapons does not contain a verification regime. Each State Party must maintain its existing safeguards agreements with the International Atomic Energy Agency (IAEA). State Parties that have not yet done so must, at a minimum, conclude a comprehensive safeguards agreement (INFCIRC/153).

## **Amendments:**

Any State Party may propose an amendment to the Treaty at any time after its entry into force. The UN Secretary-General shall circulate the proposal to all States Parties for consideration. If a majority of States Parties register their support for the proposal within 90 days of circulation, it will be considered at the next meeting of States Parties or review conference. The amendment may be adopted by an affirmative vote of two-thirds of States Parties.

## **Withdrawal:**

Each State Party has the right to withdraw from the Treaty if it decides that extraordinary events related to the subject matter of the Treaty have jeopardized the supreme interests of its country. Withdrawal will take effect twelve months after the receipt of notification of withdrawal by the Depository. If the withdrawing State Party is involved in an armed conflict, it will remain bound by the obligations of the Treaty until it is no longer involved in the conflict.

## **Review Conference:**

The first conference to review the status of the Treaty will convene after a period of five years following its entry into force. Subsequent review conferences will be held every six years.

## **7. TOPICS THAT RESOLUTION SHOULD ADDRESS**

1. How can the international community balance security concerns with the peaceful use of nuclear energy, especially in the context of preventing nuclear proliferation?
2. What diplomatic initiatives can be taken to encourage states to ratify and comply with existing disarmament treaties?
3. In what ways can the international community promote responsible STEM education to prevent the misuse of knowledge in WMD development?
4. What financial and economic measures can be implemented to deter states and entities from engaging in WMD proliferation?
5. How can the UN and other international organizations support states in developing effective national strategies to counter WMD proliferation?
6. What are the current challenges and threats associated with the potential weaponization of outer space, and how do these challenges impact global security?
7. How can the committee balance the effectiveness of sanctions with the potential humanitarian impact on the civilian population, and what measures can be taken to minimize negative consequences?
8. What progress has been made by nuclear-armed states towards fulfilling their commitments to nuclear disarmament, and how can the international community encourage further steps in this direction?
9. In considering border control measures, how can states enhance cooperation in securing and monitoring their borders to prevent the movement of WMDs and related materials?
10. Considering the rapid advancements in biotechnology and the potential for misuse, how can the committee encourage international cooperation in monitoring and regulating emerging technologies with dual-use potential in the biological and chemical weapons domain?

## 8. Bibliography

[https://en.wikipedia.org/wiki/United\\_States\\_and\\_weapons\\_of\\_mass\\_destruction](https://en.wikipedia.org/wiki/United_States_and_weapons_of_mass_destruction)

<https://www.nti.org/analysis/articles/north-korea-nuclear/>

<https://rusi.org/explore-our-research/projects/assessing-north-koreas-chemical-weapons-capability>

<https://www.nti.org/analysis/articles/north-korea-biological/>

<https://disarmament.unoda.org/wmd/chemical/>

<https://www.un.org/en/ga/first/index.shtml>

[https://www.who.int/health-topics/biological-weapons#tab=tab\\_1](https://www.who.int/health-topics/biological-weapons#tab=tab_1)

[https://www.eeas.europa.eu/eeas/what-are-biological-weapons\\_en](https://www.eeas.europa.eu/eeas/what-are-biological-weapons_en)

<https://www.armscontrol.org/factsheets/Chemical-Weapons-Frequently-Asked-Questions#:~:text=Chemical%20weapons%20are%20considered%20weapons,they%20affect%20the%20human%20body.>

<https://www.armscontrol.org/act/2020-07/news/russia-releases-nuclear-deterrence-policy>

<https://www.armscontrol.org/factsheets/russiaprofile>

<https://www.nti.org/analysis/articles/russia-nuclear/>

<https://www.armscontrol.org/act/2022-12/features/engaging-china-multilateral-arms-control>

<https://www.nti.org/analysis/articles/china-nuclear/>

<https://www.armscontrol.org/blog/2020-12/p4-1-iran-nuclear-deal-alert>

<https://www.nti.org/education-center/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons/>