

Topic A: Preventing Proliferation of Mass Destruction Weapons



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Introduction to the Committee

The Security Council is one of the six main organs that form the United Nations. It has 15 members whose main objective is to preserve peace and security worldwide without using violence. Its responsibility is to determine when and where the United Nations peace operation can be deployed. To achieve peace, the Security Council members can dispute and recommend agreements or actions that prevent or eradicate threats to international peace. The council is formed by 15 States: the G5 permanent members, China, France, the Russian Federation, the United Kingdom and the United States of America, which all have veto power; and 10 nonpermanent members (United Nations Security Council, n.d.). This year's nonpermanent members are: Estonia, India, Ireland, Kenya, Mexico, Niger, Norway, Saint Vincent and the Grenadines, Tunisia, and Viet Nam.

Introduction to the Topic

Although there is no single definition, a Mass Destruction Weapon (WMD) is understood as a nuclear, chemical, biological, or any other kind of device that "is intended to harm a large number of people" (Homeland Security, 2018). There are three main types of mass destruction weapons generally agreed upon: nuclear, biological, and chemical, with some sources adding radiological weapons to the list.

Nuclear weapons are the most dangerous of all; one bomb can be enough to cause the death of millions of civilians (United Nations Regional Center for

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Peace and Disarmament [UNRCPD], 2020). Unlike chemical or biological weapons, they are the only ones capable of destroying civilian or military property. The dangers of these weapons are not constrained to their immediate effects; long-term damage to the environment can lead to drastic changes in the lives of future generations (United Nations Office for Disarmament Affairs, [UNODA], n.d.-b).

Biological weapons, on the other hand, "disseminate disease-causing organisms or toxins to harm or kill humans, animals or plants" (UNODA, n.d.-a). They are also used to contaminate any resources that can be consumed, such as water, food, and air, causing economic loss and widespread panic. This type of WMD is not confined to international borders and can be quickly spread throughout the world and, unlike nuclear and chemical weapons, their damage is not immediate. According to the Eastern Kentucky University (2020), There are three main ways for these weapons to spread: contact with skin, inhalation (pulmonary), and ingestion (gastrointestinal).

For their part, chemical weapons are the ones that use toxic substances to hurt living beings or damage the environment (Hurtado, 2017). "Types of chemical weapons include blister agents, blood agents, choking hazard agents, nerve agents, tear gas, vomiting agents and psychiatric compounds" (Eastern Kentucky University, 2020). The damage to the affected area can leave it uninhabitable for long periods of time given the difficulty to properly clean and decontaminate it. Although their long term effects on DNA remain unknown, some experts worry about the threat they pose to future generations.

It is this way that the proliferation of mass destruction weapons is defined as the multiplication or growth in the number of firearms that are distributed and

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created. The control and supervision of the proliferation of firearms are significant, not only for WMD. For this, every weapon has its threat, mainly if they are used in armed groups attacks. It became a problem before the 20th century, especially during World War I and II, as there is some evidence that biological and chemical weapons were used.

With time, WMD threats have changed and new technologies have been emerging that may have a significant impact on the future development of these kinds of weapons. Artificial intelligence (AI), biotechnology, quantum systems, and additive manufacturing (AM) are examples of disruptive technologies that may make the creation and acquisition of WMD more accessible. Furthermore, the development of new delivery vehicles such as hypersonic missiles, nuclear-propelled strike systems, and unmanned systems enable a better strategy for the delivery and payment of WMD (Caves, Jr & Seth Carus, 2021).

In addition, violent groups are evolving. Armed groups have clearer access to the development of instruments and weapons to achieve their goals due to the accessibility of scientific knowledge regarding their production. The lack of international policies regarding WMD terrorism has represented a challenge for government to fight against. The use of nuclear, biological, and chemical armament by armed groups is called NBC terrorism. The AIVD (2003) defines this term as:

Committing or threatening violence aimed at human lives, or inflicting serious damage with a disruptive effect on society, by the dispersal or release of nuclear, biological, or chemical material, with the aim to enforce social changes or to influence political decision-making.

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According to the WEF Global Risks Report 2021, the main threats of the next decade are cyberattacks, weapons of mass destruction, and climate change. WMD attacks are the first existential threat in the long-term years (5-10 years) category, and, along with climate change failure and infectious diseases, WMD are in the top 3 global risks.



International issues that represent a risk in short, medium and long term (World Economic Forum, 2021)

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Top international issues that represent a risk according to likelihood and impact

(World Economic Forum, 2021)

Historical Background

The term "weapons of mass destruction" was popularized during the Second World War. The first time the term was used was in 1937 after an aerial attack from the German air forces to Guernica, Spain, as part of an experiment to test the damage these weaponry could make. For approximately 3 hours, twenty-five German bombers dropped around 100,000 pounds of high explosive and incendiary bombs. In such a situation, the term "weapons of mass destruction" describes the high amount of casualties and damage the bombing caused. However, this new term was not used as a way to describe a

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non-conventional weapon that by itself can cause massive destruction. As it is known nowadays, the term was used for the first time after the nuclear bombing of Hiroshima and Nagasaki, with its popularity rapidly growing during the Cold War.

Nuclear Warfare. As mentioned above, the weapons of mass destruction can be classified with particular names for each type. For their part, nuclear weapons are the most destructive and dangerous weapons that have been created. Atomic warfare is one of the most known nowadays. Nevertheless, humanity has only faced the usage of such weapons during the bombings of Hiroshima and Nagasaki on August 6 and 9, 1945. "Little Boy," the name of the 9,000 pound uranium-235 bomb that dropped over Hiroshima, destroyed five square miles of the city and immediately caused the loss of over 140,000 human lives. After Japan refused to surrender, three days later the 10,000 pound plutonium bomb "Fat Man" was dropped over Nagasaki, destroying 2.6 square miles of the city. Over 70,000 human lives were lost that day (History.com Editors, 2009).

Most of the infrastructure in the cities was destroyed and, as doctors would later discover, cancer and chronic disease rates among survivors skyrocketed due to radiation. After this demonstration of the massive destructive capability of nuclear weapons, concern and tensions around the world increased. Although World War II was practically over, people worried about what would happen if another international armed conflict began.

These tensions aggravated during the Cold War when both the United States of America and the Soviet Union considerably increased their nuclear weapon arsenals. The situation became critical when the United States of America installed nuclear missiles in Turkey in 1961 and the Soviet Union secretly installed missiles in Cuba in 1962. On October 15, 1962, US spy planes

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discovered the Soviet missiles in Cuba, triggering the Cuban Missile Crisis. On October 22, John F. Kennedy, the then president of the U.S, announced the discovery of the rockets, his decision to blockade Cuba to prevent the arrival of more Soviet missiles, and that any attack launched from Cuba would be regarded as an attack on the U.S by the USSR. The situation became dire on October 26, 1962, when a U2 airplane sent by the U.S to photograph the military bases in Cuba was shot down by the USSR armed forces. The imminent threat of a nuclear conflict concerned the whole international community, but both countries eventually agreed on removing their missiles from Turkey and Cuba, thus ending the Cuban Missile Crisis.

Biological Warfare. Biological warfare dates back to the smallpox of 1763, brought by the English colonizers to America when British officers gave natives blankets infected with the virus. The attacks were intended to weaken and decimate the native population during the French and Indian War.

Biological weapons are commonly used during armed conflicts and, sometimes, in armed groups acts. One example of those cases was the release of cholera, anthrax, epidemic typhus, and typhoid fever pathogens in water supplies during the civil war in Southern Rhodesia in the late 1970s. Around 10,000 people were infected and 182 deaths were reported. Kate Leeson (2000) established that the Rhodesian army spread the virus from the air to the guerrilla zones to kill the cattle of the tribesmen aiding the guerrillas or to infect the guerrillas themselves. During the same decade, in 1985, Iraq began a program of biological weapons. Iraqi scientists developed bombs filled with anthrax, botulinum, and aflatoxin. Despite this, there is no evidence that Iraq ever attempted to use its biological weapons (Nuclear Threat Initiative, 2015a).

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Later, in 2001, anonymous letters contaminated with anthrax spores were mailed to media companies and congressional offices in the U.S. The CNN reported that 4.8 million masks and 88 million gloves were purchased for the Postal Service employees and 300 of their facilities were tested for anthrax. Additionally, around 32,000 people were suspected to have been exposed to this illness, who then had to start a medical treatment. There were only 5 reported fatalities (CNN Editorial Research, 2021).

Chemical Warfare. Since World War I, just as other WMD, chemical weapons have been extensively developed and used for military purposes. One of the biggest projects was Operation Ranch Hand, which took place from 1962 to 1971 in Southeast Asia, Vietnam, to expose the roads and trails used by the communist guerrilla force named Viet Cong. In 1961, the Southern Vietnam President, Ngo Dinh Diem, asked the United Nations assistant to send planes with herbicides and spray them in his country to damage the jungle where the Viet Cong was hiding and destroy their crops. The US Air Force dumped about 19 million gallons of herbicides, using the so-called Agent Orange to defoliate. As a result of its use, health problems appeared in the communities that lived near the region. These problems included skin rashes, cancer, birth defects, abnormally high incidence of miscarriages, and congenital malformations (Buckingham, 1982).

The U.S was not the only country experimenting with chemical weapons during that time. In the early 1960s, Iraq started developing a chemical weapons program, which had the purpose of synthesizing tabun and mustard gas, among other chemical warfare (CW) agents, into chemical weapons. It was not until June 1981, however, that the program was used for the Iran-Iraq War. The Ministry of Defense created Project 922 to produce and expand their armament. By 1989, they had already produced thousands of tons of CW agents, including tear gas, tabun, and mustard gas (Nuclear Threat Initiative,

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2015). From 1980 to 1988, mustard gas was used in trench warfare, causing nearly 20,000 casualties and injuring over 100,000 people. In March 1988, the Kurdish town of Halabja was attacked with sarin gas, resulting in a death toll bigger than 6,000, and more than 7,000 wounded civilians (Kane, 2018). On April 3, 1991, due to Iraq's defeat in the Gulf War, the UN Security Council Resolution 687 was approved, ordering the immediate and total dismantling of Iraq's WMD program.

Tabun and sarin are part of the main nerve agents. These are the most dangerous type of chemical weapons due to their rapid action and lack of odor. Proof of this was the Sarin gas attack in Tokyo trains on March 20, 1995. The Aum Shinrikyos doomsday cult's plan to place bags filled with a liquid nerve agent on central train lines left 13 casualties and 5,000 severely injured victims. Another important nerve agent is the Novichok Agents, developed by the USSR after the Cold War, which is considered as one of the deadliest chemical weapons ever made (BBC News, 2018).

Radiological Warfare. Radiological dispersion devices (RDD), also known as dirty bombs, are cheaper and easier to get than nuclear weapons. Despite this, RDD are not commonly used by armed groups since they have the same blast effect as a conventional explosive, like TNT or dynamite. The first attempt of creating a radiological weapon was the secret Air Force experiment, Green Run. This program took place in Hanford, a site where the plutonium for the nuclear bomb of Nagasaki was produced. Besides being a production facility, Hanford tested the effects of radiation on animals, sometimes feeding them iodine-131. On December 2, 1949, scientists released 7,000 to 12,000 curies of iodine-131 into the air. From 1949 to 1952, the U.S Army continued trying to make explosives to disperse radioactive tantalum (Zhang, 2015).

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There have been some other attempts to build dirty bombs. In 2002, Jose Padilla was taken into custody for being suspicious of constructing an RDD in Chicago. In 2004, Dhiren Barot, a Briton member of al-Qaeda, was arrested for planning radiological armed group attacks in the United Kingdom and the United States. Still, there are no records of any successful attacks.

WMD Terrorism. As time goes by, the use of WMD by radical groups is becoming more frequent due to the incrementation in the production of these weapons' materials around the globe. The first violent extremist group attack that included a WMD took place in 1984, when the Rajneesh cult carried out the first bioterror incident in Obregon, United States, to reduce the number of participants in the county elections and commit a massive voter-fraud campaign. They infected 10 restaurant salad bars and public areas with Salmonella Typhimurium, poisoning a total of 751 people. Although 45 of them were hospitalized, no deaths were reported. It is considered the largest bioterrorist attack in American history (Keyes, 2014).

The first chemical armed group plot happened in 1985, when the white supremacist group The Covenant, the Sword, and the Arm of the Lord (CSA) planned to use nearly 30 gallons of potassium cyanide to contaminate the water supplies of New York, Chicago, and Washington, D.C. (Foster, 2013). On April 19, 1985, federal agents discovered the plan and dismantled the operation (Egan, 2016). It wasn't until June 1990 that the first successful chemical armed group attack was carried out. The Liberation Tigers of Tamil Eelam (LTTE) bombarded Sri Lankan Armed Forces in eastern Sri Lanka with chlorine gas, causing the death of 144 soldiers (Center for International Security and Cooperation, n.d.).

Regarding nuclear warfare, there is no evidence of any armed group that has a nuclear weapon in its possession, although there are some groups, like the AL

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Qaeda, who are trying to obtain such WMD. According to the final report of the 9/11 Commission (2004), "Al Qaeda has tried to acquire or make nuclear weapons for at least 10 years . . . and continues to pursue its strategic goal of obtaining a nuclear capability". Another report made four months before September 11, 2001, by the United Nations Terrorism Prevention Branch, established that at least 130 radical groups could develop a homemade atomic bomb if they acquired highly enriched uranium or plutonium (BULLETIN OF THE ATOMIC SCIENTISTS, 2006).

Treaty on the Non-Proliferation of Nuclear Weapons. Since the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) came into force in 1970, a conference has been held every five years to review the treaty's operation. Each meeting has looked to agree on a final declaration assessing the implementation of the treaty provisions and making recommendations on further strengthening its performance. The consensus was reached on the last statement in 1975, 1985, 2000, and 2010. The disputes centered particularly on whether the nuclear-weapon States had sufficiently complied with the provisions of Article VI (nuclear disarmament), the qualitative 6 of the treaty, and to decide on its extension. Although they were unable to reach a consensus on the review of the treaty's implementation, the States parties adopted a set of decisions without voting. Countries that are not party States in the Non-Proliferation Treaty include Israel, India, Pakistan, and North Korea.

Iran. This nation has the largest and most powerful missile force in the Middle East region, having developed a 2,000 km range ballistic missile. In 2002, Iran was investigated by the International Energy Agency (IAEA) for being suspected of undeclared nuclear activity in the facilities of Natanz and Arak. A year later it was confirmed that projects that involved clandestine nuclear-related activities had been carried out, some of which were about the development of nuclear weapons, violating a previously signed treaty with the

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IAEA. During that time, a ballistic missile program believed to deliver nuclear, chemical, or biological attacks was created (Wisconsin Project on Nuclear Arms Control, 2020). As a result, the United Nations Security Council adopted resolutions to impose sanctions and banned any activity related to Iran's nuclear and missile programs between 2006 and 2010.

India. Although it is not a State-party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the Comprehensive Nuclear Test Ban Treaty (CTBT), India has managed to develop a peaceful nuclear program. In October 2009, it placed its nuclear facilities under the control of the IAEA; since then, Indian's non-proliferation posture and support of nuclear disarmament have put it as an example of how a responsible nuclear power nation program should work (Nuclear Threat Initiative, 2019).

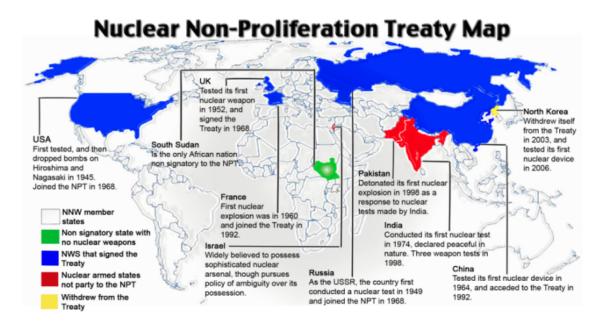
Current Relevance

The proliferation of mass destruction weapons poses a severe threat to international peace and security. Some countries are developing or trying to obtain the means to deliver these weapons, such as ballistic missiles, cruise missiles, and crewless aerial vehicles (UAVs). It is this way that proliferation, or the spread of weapons of mass destruction, not only implies the development or purchase of these weapons and their means of delivery as such, but also buying or otherwise obtaining the goods and knowledge for WMD development since nowadays, the technology that carries out this procedure is very accessible. Much of this technology can be used for both military and civilian purposes. Given the high technological level of products and knowledge in the Netherlands, for example, States and armed groups looking to own WMD may also see this country as an exciting procurement area.

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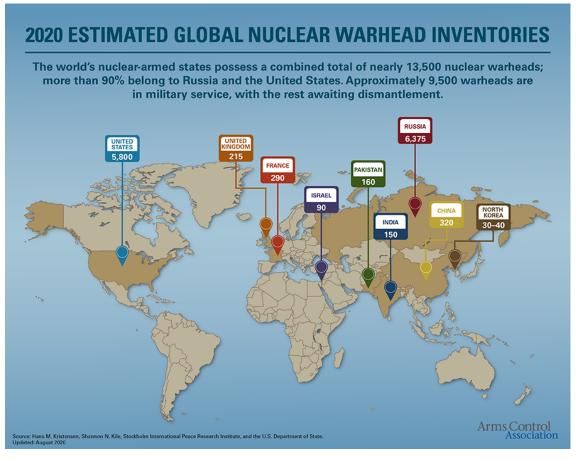
For this reason, scientific institutions must be aware of the proliferation risks involved in their contacts with organizations and bodies in countries that are suspected of developing these kinds of weapons. It is also essential that companies and institutions realize that proliferation-related procurement does not always concern direct transactions but also agents, front organizations, and any other indirect way. Research by the Arms Control Association (2020) found that the United States, France, Russia, Pakistan, India, China, North Korea, Israel, and the United Kingdom possess a combined total of 13,500 warheads, from which 9,500 are in military service and the others awaiting dismantlement. More information on the Treaty on the Non-Proliferation of Nuclear Weapons can be found in the Historical Background section of this document.



(International Press Agency, 2015)

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(Arms Control Association, 2020)

A careful assessment of each part of the threat of proliferation of nuclear, biological, and chemical weapons suggests that the multiple proliferation threats facing the United States in the first decade of the 21st century are finite and much smaller in scope and complexity.

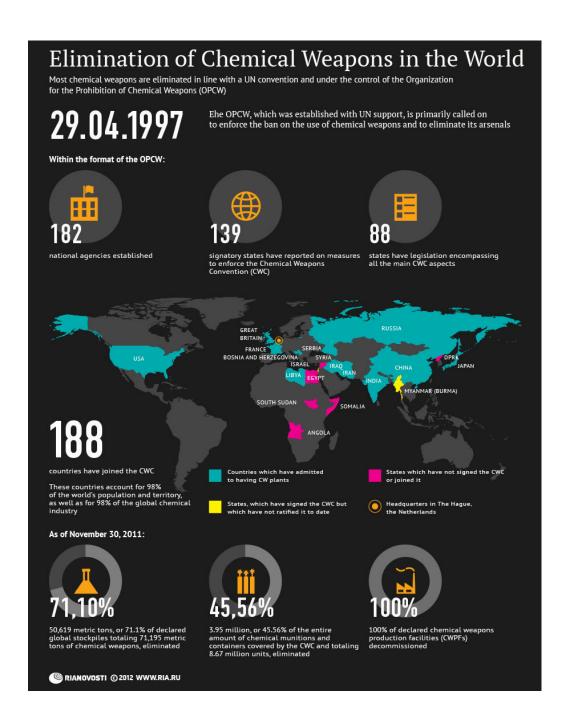
Most of the evidence suggests that contemporary proliferation threats are shrinking in terms of the number of countries involved. Various proliferation threats are changing, not growing. The changing nature of contemporary

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proliferation is severe and will stress current national security, intelligence, and foreign policy systems in the United States in conceptual, organizational, and financial ways. Neither existing multilateral arms control regimes nor unilateral defense programs, by itself, will serve the national security interests precisely in the decades to come.





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(Ria Novosti, 2012)

As of 2012, 71% of the world's chemical weapons stockpiles have been destroyed, 46% of the total amount of chemical munitions has been disposed of, and 100% of chemical plants that produce chemical weapons have been dismantled. However, some governments have been improving their arsenals. The Chinese People's Liberation Army (PLA) has been modernizing its nuclear missile force by adding more survivable mobile road systems and improving its silo-based systems. This new generation of missiles is intended to ensure the viability of China's strategic deterrence by providing a second-strike capability. At the same time, this nation has also tested a hypersonic glider vehicle. Besides, the PLA Navy continues to develop the JL-2 submarine-launched ballistic missile (SLBM) and could produce additional JIN-class nuclear-powered ballistic missile submarines.

Simultaneously, Russia has developed a land-launched cruise missile (GLCM) that the United States has declared a violation of the Intermediate-Range Nuclear Forces (INF) Treaty. This treaty is of great importance to the United Nations because it seeks to control nuclear weapons; the United States and the Soviet Union in this agreement reached a deal to eliminate their stocks of medium and short-range or "medium-range" ground missiles, which could carry nuclear warheads. It was the first arms control treaty to abolish an entire category of weapons systems. In addition, two treaty protocols established unprecedented procedures for observers from both nations to verify first-hand the elimination of their missiles by the other country. The United States, in February 2019, announced that it was suspending compliance with the treaty.

Despite Russia's continued development of other Treaty-compliant intermediate-range missiles, Moscow believes that the new advances provide

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enough military advantages to make it worth risking the political repercussions of violating the INF Treaty.

Notwithstanding the efforts to reduce and control the proliferation of WMD, the international community has not been able to stop attacks that involve this kind of weapon. In 2017, the exiled half-brother of North Korean supreme leader Kim Jong Un, Kim Jong Nam, was assassinated by two female assailants at Kuala Lumpur International Airport. Later, Malaysian officials announced that toxicologists found a VX nerve agent on his face, one of the most lethal and important chemical weapons containing nerve agents that affect the transmission of impulses through the nervous system. A single drop on the skin or inhaled into the lungs can cause the brain centers that control breathing to shut down, and the muscles, including the heart and diaphragm, become paralyzed. An internationally illegalized compound under the Chemical Weapons Convention was involved in the crime. VX is a yellowish, odorless, and tasteless liquid that alters the body's nervous system with a lethal effect which can murder a person with only 10 milligrams in contact with skin, although it can also kill by inhalation.

Since 2012, the Syrian Civil War has served as a chemical armed conflict front for the constant use of deadly toxic chemicals, such as sarin and chlorine gas, against civilians. In 2013, government and the opposition's business allegations of a gas attack resulted in 26 casualties, including more than a dozen soldiers in the northern Syrian city of Khan al-Assal. In August of the same year, the most lethal attack happened, with a death toll of 837 people. In 2017, more than 90 people were killed in a suspected nerve gas attack in Khan SheikHoun, part of the rebel-held province of Idlib. Victims showed signs of suffocation, seizures, extreme anger, and constriction of the pupils. Witnesses say the attack was carried out by Russian or Syrian Sukhoi planes. Nevertheless, Moscow, and Damascus denied their responsibility (Kane, 2019).

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As it was previously established, WMD are evolving. Proof of this was the attempted murder of the retired Russian intelligence officer, Sergei Skripal, and his daughter, Yulia Skripal on March 4, 2018. They were poisoned with a Novichok agent created during a classified Russian program and although they were critically injured, both survived. In spite of all the non-proliferation treaties, there are still some countries searching for the possession of WMD. The main States of concern are Iran, Libya, Syria, Pakistan, India, and North Korea.

Iran. On July 14, 2015, Iran signed the Joint Comprehensive Plan of Action (JCPOA) as an endorsement of the UN Security Council Resolution 2231 (UNSCR 2231), which calls upon Iran "not to undertake any activity related to ballistic missiles designed to be capable of delivering nuclear weapons" and permits member States to sell missiles and missile systems to Iran on a case-by-case basis if approved by the Security Council (Wisconsin Project on Nuclear Arms Control, 2020). Nevertheless, there is evidence that Iran has continued testing ballistic missiles, thus violating the UNSCR 2231.

Libya. Although this country did sign the NPT, after their former leader's death and the Civil War of 2011, the country has raised suspicions regarding the re-opening of a civilian nuclear energy program. In October 2011, the Organization for the Prohibition of Chemical Weapons confirmed an undeclared stockpile of mustard gas and other chemical weapons. Since then, the IAEA has been monitoring all Libya's remaining WMD-related stockpiles (Nuclear Threat Initiative, 2015b).

Syria. Syria is the leading proliferator of WMD in the Middle East due to the constant use of biological and chemical weapons during the Syrian Civil War and the military confrontation with Israel. Since the beginning of the conflict,

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more than 300 incidents have attacked civilians all over the region, mostly carried out by the regime of President Bashar al-Assad.

It has been of international knowledge that Syria possesses chemical and biological weapons, so on September 10, 2013, the Syria Arab Republic accepted under pressure to join the Chemical Weapons Convention (CWC) and summit its chemical armament under international control, giving a declaration of its chemical weapon program to the Organization for the Prohibition of Chemical Weapons (OPCW). But even so, the WMD programs and production of the chemicals continue; also, Syria constantly delayed inspections or hid information to the international community, making it impossible to fully disclose and destruction of its chemical weapons program (Nuclear Threat Initiative, 2018a).

Regarding biological warfare, there is no proof that Syria has successfully developed a weapon of this kind, still, as DIA Director Lt General Michael Maples (2009) established, "Syria is not known to have successfully weaponized biological agents in an effective delivery system, but it possesses a number of conventional and chemical weapon systems that could easily be modified for biological agent delivery".

Pakistan. This country continues to develop new nuclear weapons and continues to produce such weapons, including short-range tactical weapons, air-launched cruise missiles, and longer-range ballistic missiles. These new types of atomic weapons will introduce unknown risks to the region's dynamics of escalation and security.

India. Because of the conflict with Pakistan (mainly), India has one of the biggest and most diverse nuclear arsenals, and is generating concern by implying during an observation nuclear trial that it might not always use a

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nuclear doctrine of no first use and rather be moving in the foreseeable future to a "counterforce-capable posture" (Caves, Jr & Seth Carus, 2021). In research from Toon (2019) if a nuclear confrontation between India and Pakistan begins, fatalities could reach up to 125 million people.

North Korea. North Korea has a growing nuclear arsenal, just in 2020, it is estimated that it grew from 10 weapons to more than 50. Additionally, it has a diverse and modern missile force and is under suspicion of having chemical and biological armament. Nowadays, it has nearly the same number of ballistic missiles as the U.S., regardless of the economic sanctions the international community has imposed (Nuclear Threat Initiative, 2018b).

In January 2021, North Korea presented a new submarine-launched ballistic missile, which is described to be "the world's most powerful weapon", still the capabilities of this weapon remain unknown (BBC News, 2021).

COVID-19. Weapons of mass destruction are a serious threat to humankind regardless of the type of weapon used. Taking as an example, biological weapons were not commonly used by armed groups; however, counterterrorism experts believe that COVID-19 has demonstrated the society's vulnerability to the widespread of infectious disease, making bioterrorism attacks possibly more frequent and dangerous.

International actions

It is important to fight the proliferation of WMD and ensure the correct use of them for the prevention of further catastrophic attacks from both hostile States, and non-State actors, including extreme violent groups. Because of that, multiple international conventions and organizations watch over the proliferation of WMD; some of which are listed below.

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EU Non-Proliferation and Disarmament Consortium. Founded by the European Union in 2010, the EU Non-Proliferation Consortium (EUNPC) is a network of more than 50 independent non-proliferation experts who discuss and analyze the implementation of the European Union strategy against the proliferation of weapons of mass destruction and disarmament. It encourages party members to address security measures related to WMD and raise awareness through educational activities and outreach projects. One of its latest works is regarding the new biosecurity challenges the pandemic brought that could have an impact on the Biological and Toxin Weapons Convention (BTWC), highlighting the importance of international cooperation and assistance for peaceful purposes (EU Non-Proliferation and Disarmament Consortium, n.d.).

Center for Nonproliferation Studies. James Martin Center for Nonproliferation Studies (CNS) is a U.S nongovernmental organization (NGO) dedicated to the research and training of future nonproliferation specialists located at the Middlebury Institute of International Studies at Monterey. It is the largest NGO in the world committed to stopping the spread of WMD through education (James Martin Center for Nonproliferation Studies, n.d.).

Nuclear Threat Initiative. In 2001, the CNN founder, Ted Turner, and the ex-senator Sam Nunn, launched the Nuclear Threat Initiative (NTI), a non-profit and non-partisan global organization to reduce nuclear, cyber, radiological, biological, and chemical attacks and WMD threats. They collaborate with leaders and citizens to develop policies that could help to reduce the proliferation and development of nuclear weapons and raise awareness. As the "NTI Nuclear Threat Initiative (n.d.-b) explains designs innovative threat-reduction projects that show governments the way and build momentum and support for action".

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Middle Powers Initiative. The Middle Powers Initiative (MPI) serves as a bridge between "middle power" nuclear-weapon States and non-nuclear States to discuss these weapons' roles and advocate their disarmament. It was created in 1998, under the leading of seven international NGOs: the Global Security Institute, the International Association of Lawyers against Nuclear Arms, the International Network of Engineers and Scientists for Global Responsibility, the International Peace Bureau, the International Physicians for the Prevention of Nuclear War, the Nuclear Age Peace Foundation, and the Women's International League for Peace and Freedom. The MPI established the Framework Forum, a multilateral international forum between key governments to achieve a nuclear-free-weapon world (Basel Peace Office, n.d.).

Parliamentarians for Nuclear Non-proliferation and Disarmament. Parliamentarians for Nuclear Non-proliferation and Disarmament (PNND) is an international forum focused on providing updated data and resources regarding the nuclear weapon situation around the world, including nuclear disarmament issues. It aids parliamentarians and countries in the elaboration of policies and initiatives that ensure the safety of the civilians and prepares a space for them to share ideas and information (Parliamentarians for Nuclear Non-proliferation and Disarmament, n.d.).

Women's Action for New Directions. Formerly known as Women's Action for Nuclear Disarmament, Women's Action for New Directions (WAND) was started by Helen Caldicott in 1982 as a small NGO managed by volunteers. Eventually, they grew up and changed their name, acquiring the mission of ending armed conflicts, ensuring nuclear disarmament, raising women's voices in peacebuilding agendas, and awareness of the environmental needs through

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political advocacy and justice. Also, they train legislators and educate women regarding nuclear topics.

Nowadays, they have partnerships with other organizations that have the struggle to end the war in Iraq (Women's Action for New Directions, 2018).

The Australia Group. In 1985, the Australia Group (AG) emerged from the lack of export control protocols to identify chemicals helpful for the development of chemical weapons (CW). It is an informal forum that searches for the harmonization of export controls, so that they do not help the further development of chemical or biological weapons. Member States share information and procedures to identify potential CW threats and disruptive technologies (Nuclear Threat Initiative, 2020).

UN Actions

As the United Nations has stated, one of its primary purposes is maintaining international peace and security. To achieve this, the control, regulation, and reduction of weapons of mass destruction are fully necessary. Since the end of the II World War, the United Nations has encouraged nations to sign international treaties to outlaw several classes of WMD.

United Nations Security Council Resolution 1450 (UNSCR 1450). The Security Council has taken several actions under this issue, such as this resolution adopted on April 28, 2004, which seeks to stop the increase of the creation and production of Weapons of Mass Destruction and regulates their delivery systems by non-State actors.

It imposes that all States must refrain from supporting by any means non-State actors from developing, acquiring, manufacturing, possessing, transporting,

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transferring, or using nuclear, chemical, or biological weapons and their delivery systems (UNRCPD, 2016). However, as Rehman and Qazi (2019) establish, the issue has not been tackled to the core, hence, the UNSCR 1540 needs to be improved constantly according to the evolving challenges.

Nuclear Non-Proliferation Treaty (NPT). Since July 1, 1968, the Committee of the Eighteen-Nation Disarmament created the Nuclear Non-Proliferation Treaty (NPT), which later in 1970 was signed by 43 delegations, being three of them part of the five nuclear-weapon States: the Soviet Union, the United Kingdom, and the United States (UNODA, n.d.).

This treaty is an essential pillar of international peace and security since it was the first international document whose purpose is nuclear disarmament. The treaty has limited the number of States which possess nuclear weapons to only nine.

Treaty on the Prohibition of Nuclear Weapons. Later, the Humanitarian Initiative made an appearance, having an important impact and creating the first international humanitarian agreement that prohibits nuclear weapons. This was a group of non-nuclear weapons States that sought the approval of nuclear disarmament by focusing on the humanitarian consequences of nuclear armed conflicts. On July 7, 2017, the General Assembly adopted the Treaty on the Prohibition of Nuclear Weapons (TPNW), which entered into force on January 22, 2021. The treaty bans State Members to possess, produce, test, acquire, or stockpile any kind of nuclear weapons (Nuclear Threat Initiative, 2021).

Chemical Weapons Convention. In 1993, the Chemical Weapons Convention (CWC) took place. It looked forward to eliminating an entire Weapons of Mass Destruction category by prohibiting the development, production, acquisition,

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stockpiling, retention, transfer, or use of these weapons by the delegations. This convention was achieved in order to make nations agree to eliminate all chemical weapons that each government possessed and dismantle where they were produced. The Biological Weapons Convention, which went into force on March 26, 1975, prohibits the development, production, acquisition, transfer, stockpiling, and use of biological and toxin weapons. This was the first disarmament treaty of firearms categorized as WMD.

Organization for the Prohibition of Chemical Weapons. The Organization for the Prohibition of Chemical Weapons (OPCW), created in 1997 in The Hague, Netherlands, with the support of the United Nations (UN), has the goal to eliminate existing chemical weapons, being this way that their main objective is the prevention of these weapons. One of the purposes is to have better control over the industry of chemical production.

The OPCW has 188 member States, signatories to the Chemical Weapons Convention (CWC). Nations that did not sign the CWC include Syria, Egypt, South Sudan, Somalia, Angola, and North Korea. Myanmar has signed it but has not ratified it to date (UNODA, n.d.).

Nuclear-Weapon-Free Zones. Established in the framework of the NPT, a Nuclear-Weapon-Free Zone (NWFZ) is a "geographical area in which nuclear weapons may not legally be built, possessed, transferred, deployed, or tested" (Nuclear Threat Initiative, n.d.-a). Five regional treaties are establishing weapon-free zones to ensure the total absence of nuclear weapons on the territories of the treaty state-parties:

- Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco, 1967)
- South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga, 1985)

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- Treaty on the Southeast Asia Nuclear-Weapon-Free Zone (Treaty of Bangkok, 1995)
- African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba, 1996)
- Treaty on a Nuclear-Weapon-Free Zone in Central Asia (Treaty of Semipalatinsk, 2006)

Points to Discuss

1. Context

- a. Arms races
- b. Possible development of armed conflicts
- c. Increased risk from political fragmentation
- d. Modernization, evolution, and expansion of weapons of mass destruction
 - i. Biotechnology
 - ii. Drone Swarms
 - iii. Bioterrorism
 - iv. Hypersonic missiles
 - v. Artificial Intelligence

2. Development

- a. If more nations do acquire nuclear, chemical, or biological weapons, what will be the effect on international security?
- b. What are the key factors affecting risk levels of mass destruction weapons?
- c. How have emerging technologies contributed to the development of new weapons of mass destruction?
- d. Are the UN weapons inspections effective in the uncovering of weapons of mass destruction?
 - i. If not, how can they be improved?
- e. What are the potential effects of WMD terrorism?



- f. Is the global community prepared to tackle the challenges posed by WMD warfare?
- g. Implementation of nonproliferation policies
 - i. Direct assistance aid to implement the policy requirement

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