

P5 Process and its Role in International Efforts Toward the Total Elimination of
Nuclear Weapons

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Abstract

Nine countries possess nuclear weapons: the United States, Russia, China, the United Kingdom, and France. These countries are recognized as the Nuclear Weapon States under the Non-Proliferation Treaty (NPT). However, India, Pakistan, and North Korea are not the NPT signatories. Israel neither confirms nor denies possessing nuclear weapons. Yet it is widely acknowledged that Israel possesses nuclear weapons and remains outside the NPT regime.

The research focuses on approaches to eliminate nuclear weapons, including the step-by-step approach, pressure approach, and P5 process. The P5 process has the potential for nuclear disarmament. However, this approach has yet to receive much attention in academic discussions. The research question of this paper is “How does the P5 process contribute to achieving the complete abolition of nuclear weapons?” The research emphasizes the development of the P5 process and investigates its objectives and potential to contribute to the complete elimination of nuclear weapons. The research also included joint statements by the leaders of the five nuclear-weapon states and their impact on international conferences related to nuclear disarmament. The research concluded that the P5 process can overcome the challenges of a step-by-step approach and pressure approach. This process ensures a comprehensive and cooperative approach to disarmament by fostering and engaging in ongoing dialogue. It emphasizes the importance of sustained dialogue, transparency and cooperation among the five nuclear-weapon states.

This research will contribute to further exploration and continuous research on the potential of the P5 process in eliminating nuclear weapons. Further research is needed to enhance the practical effectiveness of the P5 process in nuclear disarmament. It is essential to pay attention to facts such as agreements among the five Nuclear Weapon States and actual achievements.

List of Abbreviations

1MSP	First Meeting of States Parties
CTBT	Comprehensive Nuclear-Test-Ban Treaty
ELN	European Leadership Network
FMCT	Fissile Material Cutoff Treaty
HOPe	Hiroshima Organization for Global Peace
ICAN	International Campaign to Abolish Nuclear Weapons
KCL	King's College London
NATO	North Atlantic Treaty Organization
NFU	No First Use
NGOs	Non-governmental Organizations
NPT	Treaty on the Non-proliferation of Nuclear Weapons
RECNA	Research Center for Nuclear Weapons Abolition
SIPRI	Stockholm International Peace Research Institute
START	Strategic Arms Reduction Treaty
TPMW	Treaty on the Prohibition of Nuclear Weapons
UK	United Kingdom
UN	United Nations
US	United States

1. Introduction

Currently, nine countries have nuclear weapons: the United States, Russia, China, the United Kingdom, France, India, Pakistan, Israel, and North Korea. Among these countries, the United States, Russia, China, the United Kingdom and France are recognized as Nuclear Weapon States stipulated in Article IX of the Non-Proliferation Treaty (NPT). India and Pakistan are not state parties to the NPT; North Korea declared its withdrawal from the NPT and acquired a nuclear weapon in 2006. Israel has never confirmed or denied possessing nuclear weapons. However, it is universally acknowledged that Israel has nuclear weapons, and it remains outside the NPT. According to the estimates by the Research Center for Nuclear Weapons Abolition (RECNA), 12,520 nuclear weapons still exist on Earth as of June 2023 (RECNA, 2023). The nuclear weapons possessed by the United States and Russia alone constitute approximately 90 percent of the total number of nuclear weapons in the world.

From 1945-1989, the number of global nuclear weapons reached about 70,000 and has started to decrease significantly since the 1980s when the Cold War came to an end in 1989.

According to the Stockholm International Peace Research Institute (SIPRI, 2023), China had 17 percent more nuclear warheads in January 2023 than the year before (SIPRI, 2023). Following China's attitude, the United Kingdom announced its nuclear policies to increase the limit on the number of overall nuclear weapons stockpiles it possesses to no more than 260. The United States stopped sharing nuclear weapons data with Russia under the Strategic Arms Reduction Treaty (START) due to the invasion of Ukraine, which started in 2022. The Odessa Journal (2023) reports that Russia continues to relocate components of tactical nuclear weapons to the territory of Belarus (The Odessa Journal, 2023).

1.1.Literature Review

Various efforts to eliminate nuclear weapons have been conducted. There are mainly two approaches to counter these issues.

The first approach is the Step-by-step approach. This approach is to support a gradual process for the total elimination of nuclear weapons. It does not mean the elimination of all

nuclear weapons at once. It represents promoting disarmament step by step and ultimately realizing a world without nuclear weapons. This approach also has a unique feature of strengthening national military security and strategic stability between the superpowers. The central element is to reduce the role of nuclear weapons in national security policy. This approach also criticizes the central role of "nuclear deterrence" currently accorded to nuclear weapons and believes that nuclear weapons should be reduced and eliminated gradually and progressively. This has been widely discussed, especially in the 2000s (Kurosawa, 2019).

The second approach is the Pressure approach. The frustration with the step-by-step approach led to an approach called the pressure approach. According to Kurosawa (2019), it aims for the total elimination of nuclear weapons by a method such as stigmatization. Nuclear weapons are not beneficial at all; on the contrary, they promote the destruction of the human race. For this reason, it is based on the humanitarian view that nuclear weapons should be destroyed. This approach is also based on the current need for more progress in nuclear disarmament by the nuclear weapon states.

Moreover, this approach has been widely discussed since 2010 by Non-nuclear Weapons States not directly involved with nuclear weapons (Kurosawa, 2019). A typical example is The Treaty on the Prohibition of Nuclear Weapons (TPNW). Hiroshima (2023) explains that the TPNW was adopted after gaining approval from 122 countries in July 2017 due to conferences to negotiate a treaty held at the United Nations aiming to establish a legal norm banning nuclear weapons. The TPNW marks the first time in the history of nuclear disarmament that Non-Nuclear Weapon States and civil society have actively led the process of adopting a treaty. The TPNW legally prohibits the development, testing, manufacturing, acquisition, possession, and use or threat of use of nuclear weapons by state parties (Hiroshima, 2023).

Non-nuclear weapon States and international non-government organizations promote this Treaty. They have a view that the "step-by-step approach" makes it difficult to realize the abolishment of nuclear weapons and the need to prohibit nuclear weapons immediately. They

believe that this Treaty would put pressure on Nuclear Weapon States to abandon their nuclear arsenals. The TPNW is a treaty whose development process was preceded by Non-Nuclear Weapon States and civil society.

However, no Nuclear Weapon possessing States signed the TPNW¹. This group includes Japan. The participation by Nuclear Weapon States and allied nations is necessary to consider specific measures for nuclear disarmament in the future. Increasing signatory countries are becoming the issue to be a widely diffused the TPNW and promote the abolition of nuclear weapons.

There are some pros and cons to each approach. For the pro's opinion with a step-by-step approach, Berry, K, P., Lewis, B. Pelopidas, N. Sokov, and W. Wil (2010) emphasize that delegitimizing nuclear weapons is fundamental to preventing their use and achieving nuclear disarmament. Delegitimization is a process of devaluation, diminishing and destroying all claims to legitimacy, prestige, and authority. Delegitimization gets to the heart of the nuclear deterrence debate, and the evidence for nuclear deterrence has been found wanting. We are at a point in history when, whatever the rights and wrongs of nuclear weapons, whatever the debates that have been rehearsed and repeated for the last 65 years, the fact is that nuclear weapons are not particularly useful in today's world and may even have increased pre-existing dangers in the form of international terrorism and old and decaying weapons still in storage. Nuclear weapons have no inherent legitimacy as weapons of war in that they are inhumane, indiscriminate, and cause unacceptable harm. What deterrent legitimacy they possess has been conferred on them through the mind games of the Cold War, a period that is now over. Delegitimization will be a self-reinforcing endeavor, affecting the credibility of deterrent threats and allowing the restatement of the immorality of

¹ The NPT defines a *Nuclear Weapon State* as a state that manufactured and exploded a nuclear weapon or other nuclear device prior to 1 January, 1967. All other states are non-nuclear-weapon states under the Treaty.

both the use and threat of use of nuclear weapons (Berry, K, P. Lewis, B. Pelopidas, N. Sokov and W. Wil, 2010).

On the other hand, there are also cons with the step-by-step approach. According to the United Nations Meetings Coverage and Press Releases (2023), the representative of Austria is concerned about the resolution's step-by-step approach to nuclear disarmament, which has not led to progress for nearly two decades (The United Nations Meetings Coverage and Press Releases, 2023).

There is a pros to the pressure approach. Tannenwald (2005) analyzes the stigmatization of nuclear weapons in the context of the taboo of nuclear weapons. Tannenwald (2005) states that the antinuclear weapons movement contributed to the formation of a taboo in three ways: by shifting the discourse on nuclear weapons, by engaging in moral consciousness-raising, and by mobilizing public support in favor of nuclear restraint (Tannenwald, 2005).

On the other hand, there is a con to the pressure approach. Trezza (2021) criticizes that the provisions of the TPNW also prevented the so-called "umbrella states," mainly NATO members, from joining the new treaty. Although they have renounced possessing nuclear weapons, these countries rely on the US nuclear deterrent to counter Russia's nuclear capabilities. Some of them host a limited number of US nuclear weapons on their territory, which is not forbidden by the NPT but is explicitly prohibited by the new treaty. None of these countries have either ratified or signed the new agreement; in many cases, they have openly opposed it and even declined the invitation to participate in its negotiation despite their obligation to do so under article VI of the NPT (Trezza, 2021).

Moreover, Trezza (2021) mentions that the main weakness of the Treaty does not lie in the low number of its signatures and ratifications compared to those of the NPT. It mainly rests on the fact that not only all nuclear-weapon states and their allies but also many states technically capable of producing nuclear weapons have yet to join the Treaty. Only South

Africa and Mexico have ratified the twenty most industrialized countries (G20), and Brazil and Indonesia have signed but not ratified it (Trezza, 2021).

Finally is the P5 process; the Nuclear Weapon States have taken this approach to the total elimination of nuclear weapons. This process convenes the five Nuclear Weapon States recognized by the NPT in a unique forum to deliberate on their distinct obligations under the Treaty. These states are the United States, Russia, China, France, and the United Kingdom. Berger & Chalmers (2014) state that it was established as a result of an initiative from the United Kingdom, which was eager to reverse the stagnation it sensed in the nuclear-weapon states' progress toward meeting their disarmament commitments under the nuclear Nonproliferation Treaty (NPT) (Berger & Chalmers, 2014). Beckett (2007) also mentions that In June 2007, UK Foreign Secretary Margaret Beckett argued for the need to “engage with other members of the P5 on transparency and confidence-building measures,” as well as to involve them in the testing of future verification regimes (Beckett, 2007).

Any discussion about the P5 process has yet to be discussed well in society. Hikawa (2022) mentions that this process has yet to be discussed. This process has received little attention (Hikawa, 2022). On the other hand, this approach can eliminate nuclear weapons. Hikawa (2022) also mentions about the probability of this process. Significantly, this process has continued, even if no concrete agreements have been reached, and the security environment has changed in various ways (Hikawa, 2022).

1.2. Research Question

The research question of this thesis is, "How does the P5 process contribute to achieving the total elimination of nuclear weapons?". The reason for discussing the P5 process in this thesis, as mentioned above, is that it needs more attention in academic circles and thus warrants careful examination. While discussions about the total elimination of nuclear weapons are common, the P5 process specifically focuses on Nuclear Weapon States (the United States, Russia, China, France, and the United Kingdom), detailing the roles these countries should play in achieving nuclear disarmament.

To answer this question, this thesis first reviews the current status of the world's nuclear arsenals and international efforts, including the specific approaches toward eliminating nuclear weapons. Then, it discusses the role of the P5 process, which has been paid limited attention in the academic world and thus needs significant examination. Then, it will explore the possibility and role of the P5 process and examine the positions of the five Nuclear Weapons States on nuclear disarmament.

As a significant part of this research, this thesis attempts to give fresh insights and ideas to promote and systematically conduct nuclear disarmament to abolish nuclear weapons in international discussions.

1.3. Methodology

This thesis adopts qualitative research methods, such as document analysis and interviews with peace and disarmament experts, conducted in person or online. The process involves evaluating electronic and physical documents to interpret their meaning and extract valuable information.

2. The step-by-step approach

The step-by-step approach is to reduce weapons little by little and to progress gradually and carefully from one stage to the next. Nuclear Weapons States have been supporting this approach. Nuclear weapon states and most allied countries with them maintain the step-by-step approach. This approach is a traditional and fundamental approach for the total elimination of nuclear weapons. Moreover, this approach takes a method that involves eliminating nuclear weapons in incremental steps. This approach prioritizes maintaining international security by aiming to reduce and eliminate them. Generally, this approach emphasizes that the step-by-step approach is necessary for international negotiation and cooperation. This approach aims to eliminate nuclear weapons by maintaining security and reducing the amount of such weapons by nuclear weapons.

2.1. Theoretical Framework of the Step-By-Step Approach

The basic principles of the step-by-step approach refer to the gradual and planned method toward eliminating nuclear weapons. The general overview of these principles includes gradual progress, mutually trustworthy dialogue, promotion of international cooperation, transparency and verification, ensuring security, consistency with international law, and domestic consensus building.

The reasons why begin with efforts step-by-step; the large-scale reduction or abolition of nuclear weapons is intricate, requiring consideration of the strategic balance in national security. Therefore, rapid nuclear disarmament poses the potential risk of mutual distrust among nations and destabilization of security. Khlopkov (2018) mentions that Nuclear weapons are deeply integrated into complex, multi-tier, and multi-component national security systems of the Nuclear Weapon States and their allies. One must mechanically snatch one of the crucial blocks from the foundation of that multi-tier pyramid by risking the whole construct teetering and perhaps falling over. What we can do, however, is use a phased, step-by-step approach to reduce the reliance of the construct on that particular block. In the long term, we should try to re-design the construct, which is just as steady as the one we have now but which

does not rely on nuclear weapons as one of its key blocks – a construct in which the nuclear weapons block is replaced by something else (Khlopkov, 2018).

There are also some advantages from the perspectives of security and international cooperation. Incremental nuclear disarmament reduces the operational and management risks associated with nuclear weapons, preventing accidents and misunderstandings. Incremental reductions alleviate tensions between nations, fostering strategic trust. Finally, The step-by-step approach, facilitated through international cooperation, proves more effective than unilateral actions in promoting sustainable disarmament. Agreement formation and technological cooperation at each step contribute to international stability, ensuring the success of nuclear disarmament. Kane (2013) argues that the best step-by-step approach is one that is explicitly tied to disarmament and backed by regular reviews of how the steps are being implemented (Kane, 2013).

2.2. Analysis of Historical Success Cases

As the early attempts at nuclear weapons reduction, the United States and the Soviet Union engaged in substantial mutual nuclear disarmament efforts after the end of the Cold War. Some examples include the Strategic Arms Reduction Treaty (START) and the New START Treaty, which successfully reduced the number of nuclear warheads by thousands. Schumann (2023) mentions that the treaty is considered one of the most successful arms control agreements because, by its full implementation in 2001, 80 percent of all the world's strategic nuclear weapons were dismantled (Schumann, 2023). However, technical complexities and challenges in verification revealed limitations, preventing complete disarmament.

The step-by-step approach also leads to de-escalation and confidence building. The easing of tensions between the United States and the Soviet Union during the Cold War paved the way for a reduction in the number of nuclear weapons. De-escalation fostered international cooperation and generated strategic stability. Finally, the historical cases demonstrate that weapon reduction contributed to international stability, preventing new arms races. Increased trust in the international community and nuclear disarmament played a role in constructing a

more peaceful world.

2.3.Current International Framework

The coordination with the NPT is one of the significant elements of the step-by-step approach. The step-by-step approach contributes to preventing nuclear proliferation and promoting disarmament while maintaining coherence with the NPT. Within the framework of the NPT, the step-by-step nuclear disarmament fosters international cooperation.

For the practical considerations of the step-by-step approach, setting concrete and achievable reduction targets with well-defined timeframes is highlighted as critical. Setting specific and realistic reduction targets while clearly defining timeframes is crucial in the step-by-step approach. Ranging from short-term to long-term goals, demonstrating incremental progress is essential. The importance of verification, ensuring each reduction step is verifiable, transparent, and accountable, is also emphasized.

Collaborating with international organizations and experts is crucial to establishing reliable verification mechanisms that enhance the global community's confidence in nuclear disarmament progress. Verification is indispensable for each reduction step, and ensuring transparency to the international community is paramount. Collaborating with international organizations and experts and establishing transparent and robust verification mechanisms are imperative.

2.4.Challenges and Opportunities for Overcoming

The step-by-step approach encounters significant challenges when dealing with international tensions and conflicts. Several factors contribute to some intricate situations in the realm of nuclear disarmament. The complexities of geopolitical relationships often present stumbling blocks for the step-by-step approach. Nations may have conflicting political interests, making it difficult to reach a consensus on the incremental reduction of nuclear weapons. Political considerations, such as alliances, historical disputes, and shifting power dynamics, can impede the smooth progress of disarmament efforts.

Political issues and conflicting national interests may hinder incremental progress.

Countries may pursue divergent national interests regarding security concerns, regional stability, or strategic advantages. These conflicting interests can lead to a reluctance to take the step-by-step approach, as nations prioritize their security agendas over collaborative disarmament efforts. The struggle to balance national interests and international cooperation poses a substantial challenge.

The total elimination of nuclear weapons by the step-by-step approach has some technical issues. As nations progress through the stages of nuclear disarmament, new technologies may be needed to replace or enhance existing systems. The advancement of disarmament technologies, including methods for safely dismantling nuclear warheads and managing nuclear materials, demands significant research and development efforts. Innovations in verification technologies also become essential to ensure the transparency and credibility of disarmament processes. The step-by-step reduction of nuclear weapons involves technical challenges.

Developing new technologies and verifying existing ones during reduction requires considerable time and resources. Ensuring compliance with disarmament agreements requires robust verification mechanisms. The verification of reductions in nuclear arsenals and the dismantling of weapons demand a high level of technical expertise. Verification processes must be capable of confirming the irreversible nature of disarmament steps while addressing concerns related to trust and transparency among nations.

Domestic politics and public opinion may influence the step-by-step approach, leading to potential domestic resistance. In some countries, domestic concerns and opposition could serve as constraining factors affecting progress.

3. Pressure approach

The pressure approach considers the total elimination of nuclear weapons from the humanitarian impact on each person provided by nuclear weapons. This group includes Japan. Kurosawa (2019) explains that this approach is to pursue the abolition of nuclear weapons through a process of delegitimization of nuclear weapons. A typical example is the TPNW. This approach prioritizes the safety and welfare of humans all over the country. In particular, this approach makes an effort to strengthen the protection of humans by reducing the human and environmental influence of nuclear weapons.

Moreover, this approach widely uses “total elimination” to include various measurements for nuclear weapons and tries to prohibit nuclear weapons at once. Generally, civil society promotes this approach with some countries and international organizations. However, there are concerns that it will generate resentment from the countries that have nuclear weapons. Nishida (2021) argues that since it is necessary to deal with security concerns and technical issues to abolish nuclear weapons, it is doubtful that a coercive normative approach alone can achieve the objective. Instead, it could provoke a backlash from states that rely on nuclear weapons for their security and make it more difficult to abolish nuclear weapons in a cooperative manner (Nishida, 2021).

3.1. Humanitarian Risks Associated with the Use of Nuclear Weapons

The use of Nuclear Weapons will destroy the natural environment on a global scale and cause health damage to human beings. In addition, the International Committee of the Red Cross (2023) warns that climate change increases the risk of the use of nuclear weapons. Once they occur, both have an “irreversible impact” on human life and dignity (International Committee of the Red Cross, 2023).

Many researchers research the catastrophic humanitarian consequences of nuclear weapons. Bagshaw (2014) argues that a nuclear weapon detonation in or near a populated area would - as a result of the blast wave, intense heat, radiation, and radioactive fallout – cause massive death and destruction, triggering large-scale displacement (Bagshaw, 2014).

According to Mills et al. (2014), modern environmental modeling techniques demonstrate that even a “small-scale” use of some 100 nuclear weapons against urban targets would, in addition to spreading radiation around the world, lead to a cooling of the atmosphere, shorter growing seasons, food shortages and a global famine (Mills et al., 2014).

The use of nuclear weapons influences the victims’ health. According to Normile (2020), radiation most increased the risk of leukemia among survivors, followed by cancer of the stomach, lung, liver, and breast. There was little impact on cancers of the rectum, prostate, and kidney. Exposure also heightened the risk of heart failure and stroke, asthma, bronchitis, and gastrointestinal conditions, but less so; for those with a 2-gray exposure, 16% of noncancer deaths were deemed attributable to radiation (Normile, 2020).

For those reasons, the humanitarian perspective is the call for the total elimination of nuclear weapons. International efforts and cooperation are essential, and as part of this, the international community is urged to work toward nuclear disarmament and the eventual elimination of nuclear weapons.

3.2. The TPNW and the Pressure Approach

The background to the establishment of the TPNW was a new trend focusing on the inhumanity of nuclear weapons by Nuclear Weapon States and civil society that felt threatened by the stagnation of nuclear disarmament. Appeals to ban and abolish weapons have led to an international movement, and treaties have banned biological weapons, chemical weapons, and anti-personnel landmines.

However, no treaty on nuclear weapons was made for a long time. National Council of Japan Nuclear Free Local Authorities (2019) states that this is because the nuclear powers and their allies hold the view of "nuclear deterrence" that threatening an opponent with nuclear weapons can prevent an attack from that opponent (National Council of Japan Nuclear Free Local Authorities, 2019). Around 2010, the International Committee of the Red Cross and non-nuclear weapon states rose, feeling enormously urgent. Focusing on the inhumanity of nuclear weapons, a new trend was born to ban nuclear weapons and accelerate the movement

toward their abolition.

The NGO movement to support this has also accelerated. NGOs and experts from around the world demonstrated scientifically how nuclear weapons are an imminent threat to humanity. Moreover, the appeals by Hibakusha and victims of nuclear tests around the world moved people to discuss the risks of using nuclear weapons from multiple perspectives. As a result of these efforts, the inhumanity of nuclear weapons was widely recognized, leading countries to formulate a Nuclear Weapons Convention.

The TPNW is a typical example of the pressure approach to eliminating nuclear weapons. The TPNW includes a comprehensive set of prohibitions on participating in any nuclear weapon activities. These include undertakings not to develop, test, produce, acquire, possess, stockpile, use or threaten to use nuclear weapons. The Treaty also prohibits the deployment of nuclear weapons on national territory and the provision of assistance to any State in the conduct of prohibited activities.

There are four main fundamental points of the TPNW: Referring to Hibakusha (Preamble), Prohibiting such activities as developing, testing, using or threatening to use nuclear weapons (Article 1), Stipulating measures for Nuclear Weapon States to join the Treaty (Article 4), and Holding meetings to discuss the Treaty (Article 8).

The Treaty refers to the suffering and harm caused to the Hibakusha and the efforts made towards nuclear disarmament. The Treaty also prohibits under any circumstances such activities as developing, testing, manufacturing, acquiring, possessing, stockpiling, transferring, using or threatening to use nuclear weapons.

The Treaty also stipulates that the Nuclear Weapon States can become their signatories based on the premise that they shall complete their commitment to eliminate nuclear weapons by a set deadline with verification conducted by a component international authority. Finally, the Treaty institutes the holding of meetings of States Parties as well as review conferences to discuss its operation, to which non-state parties and NGOs, among others, shall be invited.

The effects of the TPNW reflecting a pressure approach have five aspects. There are

the comprehensive prohibition of nuclear weapons, recognition of humanitarian impacts, support for victims, emphasis on the non-humanitarian nature of nuclear weapons, and international cooperation and education. First is the comprehensive prohibition of nuclear weapons. The TPNW establishes a comprehensive ban on nuclear weapons, legally prohibiting their possession, development, production, use and any threatening acts. This represents a significant advancement in regulations based on humanitarian reasons. Kawai (2022) mentions that it provides for a strict prohibition of these activities in all cases.

An example is prohibition (Article 1). Such a strict prohibition intends to demonstrate (stigmatize) the evil of nuclear weapons and to promote their elimination (Kawai, 2022). Second is the recognition of humanitarian impacts. The Treaty emphasizes the humanitarian impacts of the use of nuclear weapons, including widespread and long-term destructive effects and health consequences. This increased awareness internationally contributes to a better understanding of the gravity of these impacts.

The Treaty influences the moral barriers to using nuclear weapons. Sugitou (2022) writes that The Nuclear Ban Treaty has dramatically raised the moral barriers to using nuclear weapons. There is a growing international recognition that no one should use them at any time or place (Sugitou, 2022).

Third is the support for victims. TPNW prioritizes support and compensation for victims of nuclear weapons, emphasizing international responsibility towards those affected. This focus aims to improve the health and well-being of survivors. Fourth is an emphasis on the non-humanitarian nature of nuclear weapons. The Treaty highlights the non-humanitarian nature of nuclear weapons, asserting that their use goes against international humanitarian law. This clarifies the illegality of nuclear weapons and provides a shared foundation within the international community.

Finally, there is international cooperation and education. TPNW encourages international cooperation towards a world without nuclear weapons and outlines provisions for education and awareness-raising efforts. This has led to an expansion of the concept of

nuclear disarmament and strengthened international collaboration. However, it is essential to note that TPNW has yet to be ratified by central nuclear-armed states, which limits its global impact. The participation of these states is crucial for the Treaty to reach its full potential.

3.3. International NGOs and the Pressure Approach

The NGOs that emphasize a pressure approach play a crucial role in opposing nuclear weapons and promoting total elimination. These NGOs focus on the extensive and severe humanitarian impacts of nuclear weapons, raising awareness among citizens and governments about their destructive power and human consequences. By providing this information, they aim to garner support for abolishing nuclear weapons.

These NGOs strive to promote international cooperation and advance negotiations toward nuclear disarmament. Collaborating with governments and international organizations, they advocate for the non-humanitarian nature of nuclear weapons and support negotiations for disarmament. In addition, NGOs with a humanitarian focus provide information to the public and conduct awareness campaigns globally. By doing so, they raise awareness and understanding of the humanitarian perspective on nuclear weapons.

Finally, NGOs organize various campaigns nationally and internationally. These campaigns generate public pressure on governments and international organizations.

3.4. The First Meeting of States Parties (1MSP) to the Treaty on the Prohibition of Nuclear Weapons (TPNW)

The first Meeting of States Parties (1MSP) to the Treaty on the Prohibition of Nuclear Weapons (TPNW) opened in Vienna, Austria, on 21-23 June 2022. This meeting was a conference to discuss the future posture with the threat of nuclear weapons under a ground swell of tension over nuclear weapons. In Viennese, the civil society forum by The International Campaign to Abolish Nuclear Weapons (ICAN) and the international conference about the inhumanness of nuclear weapons by the Austrian government was also conducted in time with 1MSP.

Recently, more people have been interested in nuclear weapons issues through current world affairs. In particular, many participating countries raised the criticism for nuclear deterrence throughout the whole meeting. This criticism is a significant point of view under the invasion of Ukraine. The 1MSP emphasized that TPNW complements NPT to promote the participation of nuclear-capable countries and the total elimination of nuclear weapons at the NPT Review Conference.

The Draft Vienna Declaration of the 1MSP and the Draft Vienna Action Plan were adopted by consensus. According to the Hiroshima Organization for Global Peace (HOPe), the Draft Vienna Declaration mentioned a motive to follow up the total prohibition of nuclear weapons under the TPNW, including aspects. In the first draft, this declaration shows the criticism of the Russian Federation, which repeatedly intimidated about nuclear weapons during the invasion of Ukraine. However, such criticism descriptions are deleted because some states with positive relationships disagree with Russia, such as South Africa, Venezuela, and Cuba.

The Draft Vienna Action Plan was also adopted. This plan describes the 50 actions about essential matters to achieve some purposes. For example, this Treaty's universality, total elimination of nuclear weapons, victim assistance, environmental treatment, the institutionalization of Science and Technology Advisory, the relationship between the total elimination and framework of nonproliferation, and the purposes of the Treaty. This action plan also mentions the universality of this Treaty.

The countries supporting TPNW stated the significance of TPNW and its complementary relationship with the NPT. The signatory countries with TPNW released a joint statement. This joint statement also reconfirms the complementary relationship with the NPT.

Austria promotes participation in this Treaty for any country. Austria, the president of 1the MSP, states that any attempt to distinguish between "irresponsible" and "responsible" nuclear threats is highly questionable and logically inconsistent from our point of view... This

crucial evidence also underpins our firm commitment to the TPNW. The TPNW is not only entirely complementary to the NPT but brings a crucial and urgently needed re-enforcement of the norms for nuclear disarmament and against the proliferation of nuclear weapons.

Austria calls on states to join the TPNW and to engage actively and constructively with the profound arguments on which it is based...the complementarity between the TPNW and NPT (Austria, 2022).

Thirty-four countries not signatory with TPNW also participated in the 1MSP as the observed countries. Observed countries filled the role in 1MSP. In particular, Norway, Germany, the Kingdom of the Netherlands, Belgium, and Australia are countries under the United States nuclear umbrella. The statements by these countries attracted attention. Germany, Oranda, Norway, and the North Atlantic Treaty Organization (NATO) allies spoke about the significance of NPT in eliminating nuclear weapons. These countries also define their view that we have no intention to join the TPNW because the TPNW does not match the obligations of NATO.

These countries stated that constructive dialogue and discussion with the world without nuclear weapons try to proceed with the countries that support TPNW. Sweden, which decided accession with NATO after the invasion of Ukraine by Russia, stated that the Treaty does not include any of the countries that possess nuclear weapons, which we do not see as a realistic or practical way forward (Sweden, 2022).

Norway has shown an attitude that will not change the decision not to sign the TPNW. Switzerland, which agreed with the adoption of the TPNW in 2017, showed the view that Open questions regarding the relationship between the NPT and the TPNW and about the latter's effective contribution to nuclear disarmament were the main reasons why Switzerland did not ratify the TPNW in the aftermath of this process.

4. The Possibility of the P5 Process

The leaders of the five Nuclear Weapon States (the United States, Russia, the United Kingdom, China, and France) are recognized as the five permanent members of the UN Security Council, often collectively known as the P5. The P5 Process is established to cooperate for the total elimination of nuclear weapons by these countries. These countries are signatory states to NPT and promote international efforts for denuclearization and total elimination. As mentioned above, any discussion about this process has yet to be discussed well in society. Therefore, it is significant to consider this process as one approach to eliminating nuclear weapons.

4.1. Appearance of the P5 Process

The P5 process began with the Initiative by the United Kingdom. Berger & Chalmers (2014) argues that the P5 process was established as a result of an initiative from the United Kingdom, which was eager to reverse the stagnation it sensed in the nuclear-weapon states' progress toward meeting their disarmament commitments under the NPT (Berger & Chalmers, 2014). Beckett (2007) also writes that in June 2007, UK Foreign Secretary Margaret Beckett argued for the need to “engage with other members of the P5 on transparency and confidence-building measures,” as well as to involve them in the testing of future verification regimes (Beckett, 2007). Shultz et al. (2007) argue that first and foremost is intensive work with leaders of the countries possessing nuclear weapons to turn the goal of a world without nuclear weapons into a joint enterprise (Shultz et al., 2007).

The fact that the first high-level P5 meeting was held in the United Kingdom is also recognized as of great value. Berger and Chalmers (2014) also mention that the P5 process was launched at approximately the same time, and its first high-level conference took place in London in September 2009. Its value in the broader strategic context was clear: a forum for multilateral confidence-building measures among the nuclear-weapon states about their nuclear forces could support other bilateral and multilateral nuclear initiatives with fresh interest. Proponents of the process hoped that nuclear-weapon-state cooperation could gradually

generate sustainable momentum toward further disarmament (Berger & Chalmers, 2014).

4.2. Transition of the purposes for the P5 Conferences

The purposes of this process have been changed through meetings. Hikawa (2022) summary about the transition of the purposes by the joint statement from five Nuclear Weapon States such as below:

【The purposes of.Past ten times meetings】

The 1st P5 Conference on September 2009 in London, United Kingdom:

- Confidence Building Measures towards disarmament and non-proliferation issues.

The 2nd P5 Conference on June 2011 in Paris, France:

- Confidence Building Measures towards Nuclear Disarmament.

The 3rd P5 Conference in June 2012 in Washington, United States:

- Review progress towards fulfilling the commitments made at the 2010 NPT Review Conference.
- Continue discussion on issues related to all three pillars of the NPT - nonproliferation, the peaceful uses of nuclear energy and disarmament, including confidence-building, transparency, and verification experiences.

The 4th P5 Conference on April 2013 in Geneva, Switzerland:

- Review progress towards fulfilling the commitments made at the 2010 NPT Review Conference.
- Continue discussion on issues related to all three pillars of the NPT - nonproliferation, the peaceful uses of nuclear energy and disarmament, including confidence-building, transparency, and verification experiences.

The 5th P5 Conference in April 2014 in Beijing, China:

- Review progress towards fulfilling the commitments made at the 2010 NPT Review Conference.
- Continue discussion on issues related to all three pillars of the NPT - nonproliferation, the peaceful uses of nuclear energy and disarmament, including confidence-building,

transparency, and verification experiences.

The 6th P5 Conference in February 2015 in London, United Kingdom:

- Review progress towards fulfilling the commitments made at the 2010 NPT Review Conference.
- Discussion about the next steps for the P5 Process.

The 7th P5 Conference in September 2016 in Washington, United States:

- Demonstration continued commitment to the NPT.
- Review progress made on nuclear disarmament, nonproliferation, and peaceful uses of nuclear energy, including fulfilling commitments made at the 2010 NPT Review Conference.

The 8th P5 Conference in January 2019 in Beijing, China:

- Strengthening the P5 Coordination.
- Safeguarding the NPT Regime.

The 9th P5 Conference in February 2020 in London, United Kingdom:

- Preparations for the Nuclear Nonproliferation Treaty (NPT) Review Conference.

The 10th P5 Conference on December 2021 in Paris, France:

- Preparations for the Nuclear Nonproliferation Treaty (NPT) Review Conference.
- Discussion about related activities.

According to Hikawa (2022), the purposes of these conferences change from the confidence building and transparency of policy for nuclear weapons to the follow-up of the Review progress towards fulfilling the commitments made at the 2010 NPT Review Conference and all three pillars of the NPT. Finally, the conference's purpose has changed to prepare for the NPT Review Conferences (Hikawa, 2022). It is deleted from the primary purposes of the P5 conferences after the fifth conference for transparency and confidence building. Hikawa (2022) analyzes that finding the background from publicly available documents takes work. However, it is clear that, at least as a matter of fact, trust-building and transparency are no longer considered valuable objectives of the meetings (Hikawa, 2022).

Many parts of the final document for the 8th NPT Review Conference mention transparency. Following these mentions, it is difficult to say that the recognition of the significance of transparency in international society decreased. There may have been reactions to the emphasis on transparency. After 2016, the purposes of P5 conferences have focused on the commitment to NPT and strengthening the NPT Regimes. However, the conflict between the TPNW-promoting countries and the P5 became more acute after the moves toward the formulation and adoption of the TPNW is not irrelevant.

4.3. Joint Statement of the Leaders of the Five Nuclear Weapon States on Preventing Nuclear War and Avoiding Arms Races

On January 3, leaders of the Five Nuclear Weapon States issued a joint statement on “Preventing nuclear war and avoiding arms races” (Noor, 2022). One of the remarkable points is the phrase that “a nuclear war cannot be won and must never be fought.” This phrase was first included in the joint statement of the United States–Soviet meeting at a summit in 1985 and has become a symbol phrase with the era to develop the total elimination of nuclear weapons. This joint statement is a view and vision about the total elimination of nuclear weapons by five Nuclear Weapons States, and have significance. This joint statement, released on a precious day, scheduled the 10th NPT Review Conferences with an awareness of fulfilling obligations under article VI of the NPT. This joint statement also can be said to be released with a view to The First Meeting of States Parties (1MSP) to TPNW, scheduled to be held in March of the same year.

The contents of duties have significance in considering any commitment toward the total elimination of nuclear weapons. These duties are the prevention of nuclear war, the avoidance of arms race and war between Nuclear Weapon States, and the reduction of strategic risks. These purposes are considered significant measurements to maintain and strengthen peace and security. However, Kurosawa (2022) focuses on these purposes, mainly focusing on preventing getting worse in current situations, which are generally based on maintaining the current situation. Therefore, the goal is not necessarily to improve the status quo, to actively diminish

the role of nuclear weapons, or to reduce or eliminate nuclear weapons (Kurosawa, 2022). Five Nuclear Weapon States are approved to possess nuclear weapons by the NPT.

On five Nuclear weapons States, nuclear weapons are considered that nuclear weapons should be maintained as the center of peace and security of each country. Kurosawa (2022) mentions the attitudes of five Nuclear Weapons as a background to such a situation. All nuclear-weapon states deeply involved in the nuclear arms race that is pushing for a quantitative and qualitative buildup of their nuclear arsenals, the United States and Russia, and the United States and China, are creating a sharp confrontational relationship. This is because of the attitude of the five nuclear-weapon states, which seek to prevent the deterioration of the status quo through technical means, possess nuclear weapons, and maintain the status quo while making the most of their privileges without addressing these fundamentally essential issues (Kurosawa, 2022).

This joint statement by five Nuclear Weapon States has some pros and cons. Cronberg et al. (2022) criticize that if nuclear weapons were for defensive purposes only, all nuclear-weapon states should be able to declare a No-First-Use (NFU) policy...Suppose nuclear weapons were unconditionally for defensive purposes. In that case, legal negative security assurances should be issued (at minimum) to states in nuclear-weapon-free zones...With the current statement, the P5 only confirms the gap between their words and policies (Cronberg et al., 2022).

On the other hand, Noor (2022) says with admiration that nuclear force modernization plans of all five nuclear weapon states are moving forward unabated...The joint statement by the five nuclear weapon states also did not give any signs that essential steps towards nuclear disarmament may be taken shortly...The nuclear weapon states' lack of appetite for disarmament had already come into sharp focus when the TPNW, which seeks a comprehensive and unambiguous ban on the development and possession of nuclear weapons, entered into force in January 2021...In this context, the January 3 statement may be seen as a tiny but significant step in the right direction. There is no indication of any significant changes in the status quo shortly. However, with this statement, five of the world's most powerful nations

came together for the first time in a pledge to avoid nuclear, and this should still be celebrated (Noor, 2022).

4.4. The Significance of the P5 Process

As mentioned above, the P5 process has yet to be discussed well in society. The existence of this process has received little attention. Hikawa (2022) mentions the lack of attention to this process that if it has been addressed at all, it has only been in the context of nuclear disarmament, particularly in the context of the implementation by the five nuclear weapons states of the action plans adopted at the 2010 NPT Review Conference and after that. There needs to be more discussion of the significance of this process in the context of nuclear policy, not only in civil society but also at the governmental level (Hikawa, 2022).

The United Kingdom initially advocated this process and is interested in the P5 process. The European Leadership Network (ELN) and King's College London (KCL) have taken the research project about the P5 process by receiving funding from the British Ministry of Foreign Affairs. Primarily, this project is conducted under the global security program of ELN. In Japan, the P5 process only refers to the context of the NPT and the total elimination of nuclear weapons. The context of the policy for nuclear weapons in peace and security is rarely referred to. Therefore, more recognition and attention should be given to this process between the United Kingdom and Japan.

Furthermore, the ELN project aims to anticipate opportunities and challenges for the P5 process through Track 1.5 and Track 2 workshops. It was prior to the February 2020 P5 meeting in London and the 2020 NPT RevCon to promote transparency on nuclear policy between the P5 states and civil society actors. KCL and ELN hosted two workshops in October and November 2019 with experts and government officials from each of the P5 countries to test proposals for the P5 Process (European et al., 2019).

Depending on the Nuclear Weapon States, the role or significance of the P5 process is different. Hikawa's (2022) idea is that the P5 process is to improve the environment for measurement of transparency, confidence building, and peace and security related to the

United Kingdom's nuclear weapons (Hikawa, 2022). For the United States, the P5 may have a role in coordinating between the five nuclear weapon states and oppose the TPNW. The P5 may also be significant in promoting joining the discussion about the nuclear policy for China (Ford, 2020).

France finds the significance of the P5 process. Some significance of the P5 process is that it intends to focus the agenda as coordinator of the group on achievements that can be sustained well beyond the NPT meeting. For instance, work within the P5 process to increase transparency about one another's nuclear doctrines can contribute to long-term risk reduction that will significantly support the group's future work (Arms Control Association, 2021).

Russia shows the ideas for a way to facilitate the strengthening of peace. Russia (2022) also mentions that nuclear disarmament is a highly complex process that can be implemented only in stages and in such a way as to facilitate the strengthening of peace and stability based on the principle of enhancing the security of all States without exception, including, of course, States that possess nuclear weapons by the Treaty. Throughout the process, the collective contribution of all States parties to the Treaty is required (Russia, 2022).

China shows a view for cooperation in this process. China has also shown its willingness to cooperate in this process as China is willing to work with all parties to strengthen the universality, authority and effectiveness of NPT and to address the complex and intertwined challenges of international security and development with a win-win mindset in order to pass on the torch of peace from generation to generation, sustain development and make civilization flourish, and inject more stability and certainty into the turbulent and changing times (Ministry of Foreign Affairs of the People's Republic of China, 2023).

The United Kingdom mentions the significance of this approach. According to the Parliament of the United Kingdom (2019), for such as the P5 process, the Conference on Disarmament, United Kingdom bilateral dialogues with a wide range of countries, the Preparatory Committees and Review Conferences of the NPT provide opportunities to engage with all nuclear weapon possessor states on non-proliferation and disarmament issues,

including transparency and risk reduction issues... There is also a regular exchange between all Nuclear Weapon States on nuclear issues within the P5 process... The P5 process allows a regular frank exchange of views on a range of nuclear disarmament and non-proliferation issues, which includes our respective nuclear doctrines, to increase mutual understanding... The P5 also reports on their NPT implementation, aligning with the 2010 Action Plan. Joint products such as the P5 glossary of nuclear terms also help increase mutual understanding's views... The P5 is an essential initiative in nuclear diplomacy. It could positively coordinate the implementation by the five Nuclear Weapon States of their Nuclear Non-Proliferation Treaty commitments... Assuming the chair of the P5 process from May 2019 presents a significant opportunity for the United Kingdom... The P5 process provides a forum to increase transparency and build confidence amongst the Nuclear Weapon States to help create the conditions for frank, open, and honest discussions on nuclear disarmament-related issues (Parliament of the United Kingdom, 2019).

The United States has mentioned the NPT and the possibility of promoting dialogue between Non-Nuclear Weapon States. According to the United States of America (2022), the United States welcomes the engagement to expand and intensify dialogues among Nuclear Weapon States on strategic stability, setting up a dedicated work stream on strategic risk reduction in the context of the P5 dialogue (The United States of America, 2022).

4.5. The Mentions for The 1MSP from the Five Nuclear Weapon States

Nuclear Weapon States do not change positions that disagree with the TPNW. China reiterated the traditional argument that as far as the ultimate goal of the total and complete destruction of nuclear weapons is concerned, China shares the objective of this treaty. However, the nuclear disarmament process must be balanced with the reality of international security. In this regard, a step-by-step approach must be taken and the principles of "maintaining global strategic stability" and "undiminished security for all" should be followed. The TPNW does not reflect or constitute customary international law. It is not binding on countries, not Member States, of the Treaty (China, 2022).

France shows an attitude that does not agree with the TPNW. France said it opposes the TPNW because it is dangerous to separate the issue of nuclear disarmament from the context of security, such as rising global and regional tensions, and because the TPNW has the potential to replace the international NPT with an incompatible and incomplete norm. France also shows opposition to the TPNW from weakening the NPT.

In the development process of the final documents, some Western countries, such as the United States and France, argued that TPNW should be limited to factual references. These countries disagree with the description of the complementarity between the NPT and TPNW.

Finally, Russia criticized the response by the support countries with the TPNW such as it seems that some countries have come to believe that their supreme historical mission is to convert the nuclear powers to the "correct," as they see it, understanding of disarmament priorities, make them feel "guilty" before the international community, and force them to swiftly reduce their arsenals and, eventually, give them up altogether. (Russia, 2022).

4.6. The Effects of the Review Conference of the Parties to the NPT Treaty or the Changes in the Five Nuclear Weapon States's attitude

The five Nuclear Weapon States show their position and attitude toward the total elimination of nuclear weapons. Each Nuclear Weapon State's attitude and views on nuclear disarmament are mentioned in the working paper of the 2020 Review Conference of the Parties to the NPT.

China shows some purposes that under the current circumstance, it is more pertinent than ever for the international community to practice genuine multilateralism, firmly resist the Cold War mentality and zero-sum game, uphold the vision of common, comprehensive, cooperative and sustainable security, and maintain and strengthen the authority and effectiveness of the multilateral disarmament and non-proliferation regime, including the Treaty on the Non-Proliferation of Nuclear Weapons, jointly address the significant security challenges, eliminate potential security threats and build a world that enjoys lasting peace and universal security (China, 2022).

China also shows five proposals for this process for some purposes. According to the Nuclear disarmament working paper submitted by China (2022), China also shows five proposes for those purposes: A fair and reasonable process with gradual and balanced reduction of nuclear weapons, Maintaining and strengthening of the international nuclear non-proliferation and disarmament regime, The reduction of the role of nuclear weapons, Effective implementation and preservation of article VI of the NPT, and Maintaining constructive communication and promotion the nuclear disarmament process (China, 2022).

The United Kingdom has an idea that international support for nuclear disarmament verification research is significant for the total elimination of nuclear weapons. The United Kingdom (2022) shows such a view in the working paper of the 2020 NPT Conference that all nuclear weapon possessor states need to establish government programs dedicated to nuclear disarmament verification research and support such research internationally. Achieving a world without nuclear weapons will require a verification regime on the territory of all possessor states, so all possessor states must understand how this could be facilitated while accounting for national sensitives (The United Kingdom, 2022a).

The United Kingdom also mentions the dangerous destabilization by reducing and eliminating nuclear weapons without addressing the balance of power in other respects. Therefore, the United Kingdom shows the view in the working paper of the 2020 NPT conference that a world without nuclear weapons will require an extremely robust multilateral framework or set of agreements and arrangements (The United Kingdom, 2022b).

Russia overall mentions any efforts to eliminate nuclear weapons by the non-nuclear Weapon States in the working paper of the 2020 NPT Conference. Russia mentions the necessity to make the atmosphere that it is necessary to create an atmosphere in which the broad spectrum of often opposed views and differentiated approaches do not ultimately prevent agreement on a common denominator or stand in the way of a respectful and substantive discussion in the interests of the review process and of achieving the Treaty's objectives (Russia, 2022).

France, the United Kingdom, and the United States submitted working whole. In the working, paper called *The Principles and Responsible Practices for Nuclear Weapon States*, three Nuclear Weapon States show their role in achieving the total elimination of nuclear weapons as we recognize our special charge to be responsible custodians of nuclear weapons and to work persistently to achieve conditions that would allow for their ultimate elimination (France et al., 2022). France et al. (2022) also propose some meaningful and achievable measures;

1. We seek to control and limit nuclear arms competition through formal arms control treaties that are reciprocal and verifiable and through less formal confidence-building, risk reduction, and related conflict prevention measures. We recognize that a fundamental purpose of nuclear arms control is to reduce the likelihood of nuclear employment by promoting strategic stability, improving mutual security, and enhancing trust and transparency;
2. We support the CTBT and are committed to achieving its entry into force. We continue to maintain our zero-yield moratoria on nuclear explosive testing, consistent with the CTBT, and call on all relevant states to declare and maintain such moratoria;
3. We call on all relevant states to join us in establishing voluntary moratoria on the production of fissile material for use in nuclear weapons and to support the immediate launch of negotiations at the Conference on Disarmament of an FMCT to cap the amount of material for use in nuclear weapons;

We continue to explore the main complex political, military, and technical issues that will need to be resolved if the States that possess nuclear weapons are to reduce and ultimately eliminate their arsenals verifiably and prevent nuclear weapons from ever re-emerging (France et al., 2022).

4.7. The Utilization of the P5 Process

There are things the P5 process can do to help eliminate nuclear weapons by taking advantage of its position as a five Nuclear Weapon State from seven aspects. Some examples

are a platform for dialogue among the five Nuclear Weapon States, transparency, and confidence-building measures. This process can also help through joint initiatives and cooperation, influence nonproliferation efforts, leadership, and global impact. Finally, the consensus building for comprehensive disarmament is effective for nuclear disarmament.

First, this process provides a structured platform for continuous dialogue and engagement among the five Nuclear Weapon States. This sustained dialogue is crucial for binding trust, promoting mutual understanding, and addressing concerns related to nuclear disarmament. According to the European Leadership Network and Centre for Science and Security Studies at King's College London (2020), the P5 process remains vital for Nuclear Weapon States better to understand each other's strategic intentions and capabilities. It has unique value in fostering dialogue on risk reduction, transparency and strategic stability (European Leadership Network & Centre for Science and Security Studies at King's College London, 2020). The United Kingdom has established the P5 process and made adjustments between the five Nuclear Weapon States. The United Kingdom has also focused on building confidence in nuclear policy and improving transparency as one of the Nuclear Weapon States.

United States, Russia, and China have positive attitudes toward sustained dialogue. According to Ritchie (2013), the United States and Russia have institutionalized a strategic dialogue through the START/New START process and associated tracks, such as the Gore-Chernomyrdin Commission under Clinton and the NATO-Russia Council. The United States and China have attempted to institutionalize a similar process in fits and starts, for example, through the 1994 US-China Lab-to-Lab Technical Exchange Program, Clinton's 1997 Strategic Partnership, Bush's 2003 Strategic Dialogue and 2008 Nuclear Dialogue, Obama's 2009 Strategic and Economic Dialogue, and the resumption of the Strategic Dialogue in June 2012 following proposals in 2011 by then-Secretary of Defense Bob Gates after a four-year hiatus (Ritchie, 2013).

Second, the five Nuclear Weapon States can promote transparency regarding their nuclear arsenals, doctrines, and disarmament efforts. Increased transparency builds confidence among the parties, reducing the risk of miscalculation or misunderstanding, which is essential for effective disarmament negotiations. The P5 process is a structured platform for the five Nuclear Weapon States to exchange detailed information about their nuclear arsenals. European Leadership Network & Centre for Science and Security Studies at King's College London (2020) mentions that the P5 process is a valuable forum for generating ideas, scoping "rules of the road," and maintaining dialogue amidst growing tensions and misconceptions between the P5 states (European Leadership Network & Centre for Science and Security Studies at King's College London, 2020). This includes the number of nuclear weapons, their deployment, and the overall strategic posture. This transparent information sharing is crucial for building mutual understanding and fostering trust.

Within this process, states can clarify their nuclear doctrines and strategic policies. By openly discussing their approaches to nuclear deterrence and disarmament, participating nations can alleviate concerns and dispel misconceptions. European Leadership Network & Centre for Science and Security Studies at King's College London (2020) argues that dialogue on the changing strategic environment should be continued in the P5 format to reduce mistrust. As this would also help to develop a shared understanding of terminology, the P5 could usefully refer to the Glossary of Key Nuclear Terms in this discussion (European Leadership Network & Centre for Science and Security Studies at King's College London, 2020). Therefore, this clarification can contribute to a shared understanding of each other's intentions, reducing the likelihood of misinterpretation.

Third, this process can be used to establish robust verification mechanisms for building confidence. Participating states can agree on verification protocols that allow for mutual inspections, monitoring, and reporting of nuclear capabilities. This creates a tangible framework for ensuring compliance with disarmament commitments, enhancing confidence that each state is adhering to agreed-upon measures. According to the Berger & Chalmers

(2014), the P5 process has been a useful addition to the broader system of interrelated international nuclear arrangements. It continues to provide an important mechanism through which the Nuclear Weapon States are expected to demonstrate their shared commitments to fulfilling their NPT obligations. It already has yielded some modest results. More are in the pipeline for the period leading up to and including the 2015 NPT Review Conference, not least the common glossary of nuclear terms (Berger & Chalmers, 2014).

This process gives the substantive outcome contributing to the total elimination of nuclear weapons. Substantive outcomes from the P5 process would contribute to positive atmospherics and progress at the RevCon and help foster greater trust among P5 states at a crucial time in the NPT's history. Although this does not guarantee a successful outcome at the RevCon, substantive efforts and progress by the P5 would be received favorably by the wider NPT community. They may lay the groundwork for a constructive conference (European Leadership Network & Centre for Science and Security Studies at King's College London, 2020).

The P5 can actively work towards minimizing the chances of accidental nuclear escalation. This could involve communication channels to prevent misunderstandings, protocols for handling crises, and joint efforts to reduce the risk of unauthorized use of nuclear weapons. Such measures enhance confidence and contribute to a stable nuclear environment. This process can provide a dedicated forum for discussing crisis communication strategies.

Establishing direct lines of communication between the nuclear-armed states helps prevent miscommunication during tense situations. European Leadership Network & Centre for Science and Security Studies at King's College London (2020) state that the closed nature of the P5 process allows states to be relatively comfortable disclosing sensitive information on nuclear policy, posture, and doctrine. This is valuable and necessary (European Leadership Network & Centre for Science and Security Studies at King's College London, 2020).

Therefore, this approach reduces the risk of unintended nuclear conflict and contributes to an environment conducive to disarmament negotiations.

Fourth, this process enables the pooling of technical and diplomatic resources, enhancing the effectiveness of joint initiatives for nuclear disarmament. Through the P5 process, participating states can combine their resources regarding technical expertise and diplomatic capabilities. This collaborative approach allows for developing and implementing joint initiatives that leverage each state's strengths. By sharing resources, the P5 can make more effective efforts for challenges associated with nuclear disarmament. These efforts facilitate the creation of comprehensive and well-informed initiatives.

According to Ford (2020), the five Nuclear Weapon States endorse diplomatic efforts to find a future for nuclear arms control that averts a potential three-way arms race between Russia, China, and the United States. They could, moreover, endorse such engagement as an excellent way to help meet Article VI's requirement to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament" (Ford, 2020b).

Fifth, the progress within the P5 process can positively ripple effect on broader non-proliferation efforts. Vienna Center for Disarmament and Non-Proliferation (2023) mentions the perspectives of non-nuclear weapon states, stressing the importance of revitalized discussions in the P5 process and between possessor and non-possessor states. The Nuclear Weapon States had committed to an "unequivocal undertaking" to eliminate nuclear weapons (Vienna Center for Disarmament and Non-Proliferation, 2023).

By demonstrating commitment and progress towards disarmament, the P5 can strengthen the credibility of the NPT regime. This process also encourages non-nuclear-weapon states to uphold their non-proliferation obligations. European Leadership Network (2020) argues that the P5 continued their previous discussions on the issues of transparency and confidence, including nuclear doctrine and capabilities, and of verification, recognizing such measures are essential for establishing a firm foundation for further disarmament efforts

(European Leadership Network, 2020). Therefore, the agreements and commitments made within the P5 process can create a foundation for a shared understanding of the necessity and feasibility of nuclear abolition.

Sixth, the P5 possesses significant influence and leadership capabilities. According to Gottemoeller (2012), more than just the United States and the Russian Federation must show leadership on these issues. The United Kingdom, France and China must join us. The NPT accords these P5 nations special status. They hold among them the overwhelming majority of nuclear weapons in the world, and progress on nuclear disarmament can only be achieved with their active participation. However, they must do more than participate; they must lead collectively. There are certainly more bilateral steps for the U.S. and Russia, but there is much the P5 can do to build the foundation for future multilateral steps (Gottemoeller, 2012).

The Nuclear Weapon States can take strong leadership by utilizing their collective political will. As a result, it will set an example for the international community. The P5's leadership role contributes to creating a conducive international environment that fosters cooperation and consensus on achieving comprehensive nuclear disarmament.

Finally, the P5 process can be logically applied to eliminating nuclear weapons. Ichimasa (2019) mentions that it will become ever more important to consider the essential issues around nuclear deterrence and disarmament to facilitate constructive consensus-building among all concerned parties (Ichimasa, 2019). In particular, this process holds significant potential for contributing to efforts to facilitate an agreement between the involved parties toward eliminating nuclear weapons. The significance and role of this process are various. It is up to the five Nuclear Weapon States to decide how to use this process.

In conclusion, the P5 process holds immense significance for nuclear disarmament efforts by providing the efforts. Such is a platform for sustained dialogue, transparency, joint initiatives, and consensus-building among the significant nuclear-armed states. The P5 can contribute significantly to advancing the ultimate goal of nuclear abolition based on their

collective influence and commitments. Therefore, this process is invaluable in pursuing global peace and security.

5. Conclusion

The step-by-step approach encounters some challenges. These challenges mean politically and technically complex backgrounds in total elimination. This process has to take a long time to achieve nuclear disarmament. These drawbacks highlight the difficulty of implementing a gradual approach to nuclear disarmament in the face of multifaceted and interconnected challenges.

The politically and technically complex backgrounds in total elimination become the significant obstacle to the step-by-step approach. Countries often pursue divergent national interests regarding security concerns, regional stability, and strategic advantages with each other. In the case of the step-by-step approach, each country tends to put its security agenda before its own. Therefore, the possibility that they may be reluctant to adopt collaborative disarmament efforts. Balancing national interests with the goal of international cooperation also becomes a substantial challenge.

The total elimination of nuclear weapons through the step-by-step approach faces technical and verification challenges. As nations progress through a phase of disarmament, research and development efforts are necessary for innovations in disarmament technologies. Moreover, the verification technologies must also advance to ensure transparency and credibility. It demands considerable time and resources. Therefore, the reductions in nuclear weapons through the step-by-step approach force it to take a complex process and a very long time to finish.

The pressure approach to nuclear disarmament faces challenges that require more participation by Nuclear Weapon States and their allies. A more inclusive and cooperative approach is needed to achieve meaningful progress in disarmament. This involves all relevant states to achieve nuclear disarmament.

Typical challenge is that nuclear Weapon States need to sign the TPNW. The lack of participation of the Nuclear Weapon States offers the ineffectiveness of the pressure approach. In the case of these nuclear weapon states involved, the possibilities for achieving

meaningful disarmament are unlimited. The cooperation among Nuclear Weapon States and their allies is crucial for meaningful progress in nuclear disarmament. The participation of nuclear weapon states is considered necessary to develop specific measures for nuclear disarmament in the future.

These states also need to be included in the TPNW discussions to ensure the development of comprehensive and practical strategies for achieving disarmament. The pressure approach has to be inclusive to involve all relevant states. The TPNW may yet directly impact the policies and behaviors of nuclear-armed states that still need to sign the treaty. The absence of engagement from these states limits the potential influence of this approach on their nuclear disarmament decisions and actions.

On the other hand, the P5 process can overcome these challenges as a third way to achieve total elimination of nuclear weapons. The P5 process involves the Nuclear Weapon States. This process allows for joint initiatives and cooperation in addressing the challenges related to nuclear disarmament. By sharing resources and expertise, these countries can collectively work on developing and improving technologies for the safe elimination of nuclear weapons.

This collaborative effort minimizes the burden on individual states and technically promotes advancements in nuclear disarmament. The P5 process also emphasizes a more inclusive environment than the step-by-step approach. This inclusively provides the platform to participate in the constructive dialogue between Nuclear Weapon States and Non-Nuclear Weapon States. Therefore, the involvement of such states enhances the legitimacy of the disarmament process.

This process also can address the challenges of the pressure approach. This process can involve discussions with allied nations and facilitating a more comprehensive and cooperative approach. This inclusivity is crucial for addressing alliance dynamics. This process ensures that the Nuclear Weapon States and their allies actively engage in disarmament efforts. This continuous engagement allows for developing specific and

practical strategies. It will be tailored to the unique circumstances and concerns of the P5 states.

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